Pantheon Report

Generated at 2019-12-11 17:38:10 (UTC).

Data path: Colombia on p4p1 (*remote*) →AWS Brazil 2 on ens5 (*local*).

Repeated the test of 24 congestion control schemes 5 times.

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

NTP offsets were measured against gps.ntp.br and have been applied to correct the timestamps in logs.
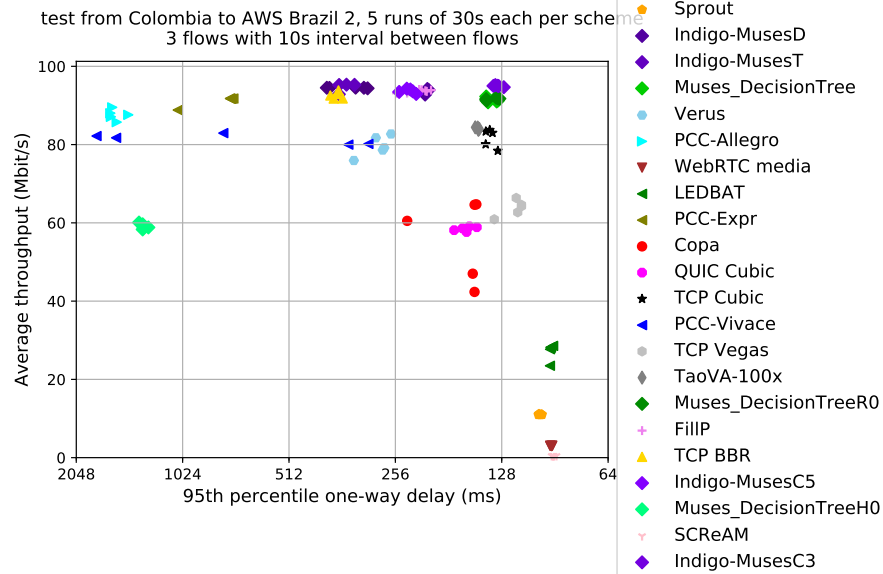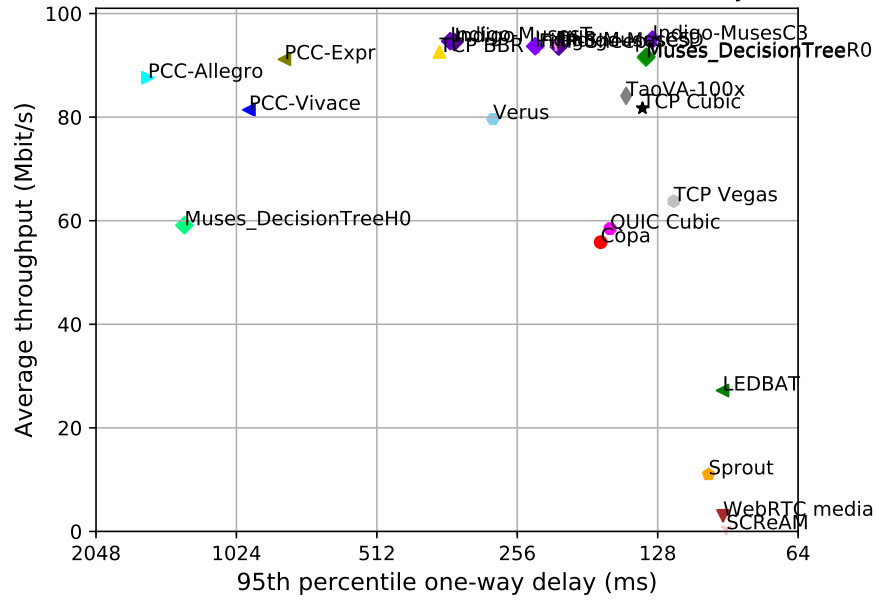
```
System info:
Linux 4.15.0-1054-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
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-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
```

```
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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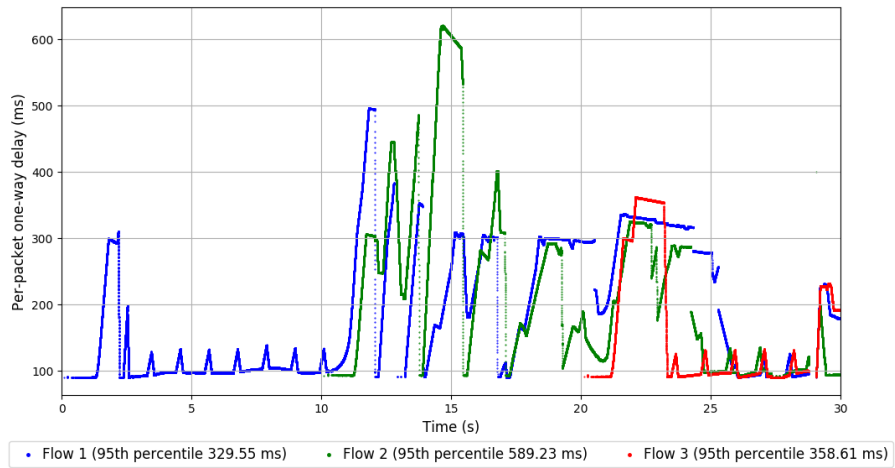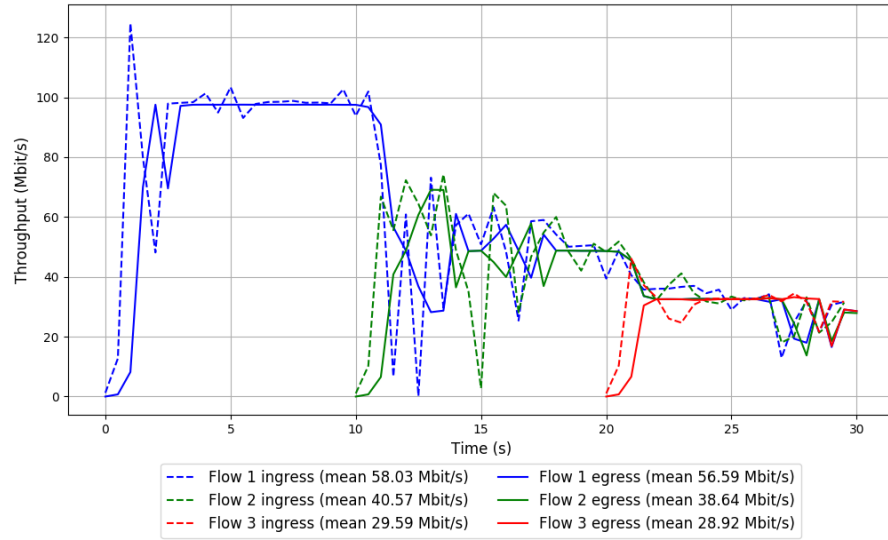3 flows with 10s interval between flows (mean of all runs by scheme)

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

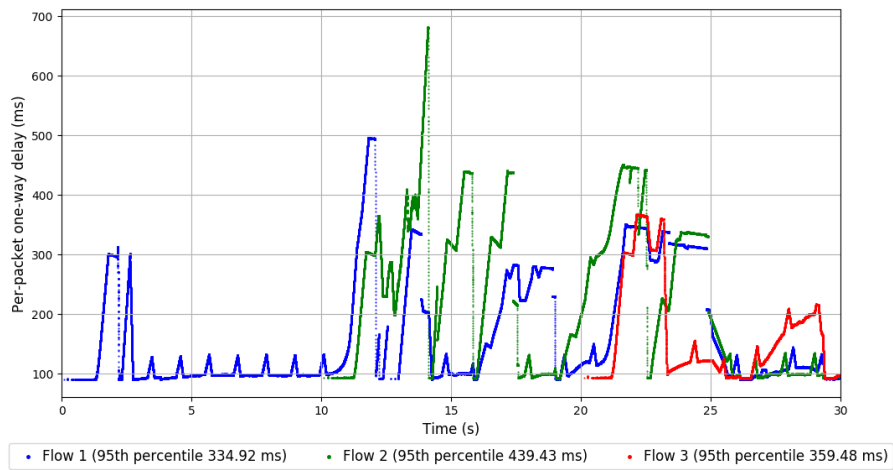| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	56.76	38.80	30.48	343.94	459.58	355.57	2.61	4.49	5.74
Copa	5	11.23	47.97	43.90	169.11	155.97	130.06	0.38	0.29	1.25
TCP Cubic	5	49.41	33.96	29.60	147.71	129.79	147.14	0.37	0.64	1.91
FillP	5	57.74	39.39	30.23	217.66	208.72	233.02	1.10	2.28	3.52
FillP-Sheep	5	57.15	39.36	30.71	224.51	225.21	234.72	0.66	1.75	2.67
Indigo	5	58.74	39.25	29.86	355.60	135.72	121.10	4.27	0.94	1.86
Indigo-MusesC3	5	60.84	40.07	30.35	126.83	123.49	143.84	1.73	3.69	2.83
Indigo-MusesC5	5	58.66	41.24	30.11	226.02	248.86	267.47	2.53	4.08	7.61
Indigo-MusesD	5	61.55	37.12	29.73	213.30	138.82	174.77	5.58	2.09	5.69
Indigo-MusesT	4	60.22	40.08	31.40	301.85	353.92	411.89	6.42	6.45	9.14
LEDBAT	5	17.36	11.99	5.75	92.65	92.52	92.53	0.84	1.40	2.78
Muses_DecisionTree	5	55.92	38.99	30.64	130.01	137.74	171.17	0.48	0.89	1.95
Muses_DecisionTreeH0	5	33.21	25.30	28.61	1272.48	1410.24	1302.05	15.20	26.30	22.76
Muses_DecisionTreeR0	5	55.93	39.01	30.34	130.59	130.76	191.34	0.48	0.84	1.83
PCC-Allegro	5	54.86	34.61	29.81	1503.05	959.32	1529.73	26.00	11.83	17.68
PCC-Expr	5	56.76	38.55	26.89	827.23	711.96	334.56	34.21	17.59	7.22
QUIC Cubic	5	35.14	23.14	24.35	131.80	193.62	204.42	0.43	1.32	2.05
SCReAM	5	0.22	0.22	0.22	90.00	90.80	90.44	0.46	0.82	1.31
Sprout	5	5.72	5.50	5.08	98.90	99.60	101.08	0.47	0.70	1.83
TaoVA-100x	5	44.41	25.67	74.06	148.51	158.95	117.49	0.03	0.06	1.70
TCP Vegas	5	37.50	30.44	18.32	109.38	109.65	215.67	0.39	0.84	1.64
Verus	5	50.54	30.63	26.63	264.72	388.77	291.34	0.50	1.45	2.04
PCC-Vivace	5	51.82	32.63	24.21	1007.50	276.60	253.27	3.14	2.53	2.43
WebRTC media	5	1.67	0.97	0.40	92.07	91.28	92.16	0.34	0.51	1.07

```
Run 1: Statistics of TCP BBR

Start at: 2019-12-11 15:09:18
End at: 2019-12-11 15:09:48
Local clock offset: -7.512 ms
Remote clock offset: -8.599 ms


# Below is generated by plot.py at 2019-12-11 17:24:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.78 Mbit/s
95th percentile per-packet one-way delay: 360.828 ms
Loss rate: 3.71%
-- Flow 1:
Average throughput: 56.59 Mbit/s
95th percentile per-packet one-way delay: 329.548 ms
Loss rate: 2.92%
-- Flow 2:
Average throughput: 38.64 Mbit/s
95th percentile per-packet one-way delay: 589.233 ms
Loss rate: 5.43%
-- Flow 3:
Average throughput: 28.92 Mbit/s
95th percentile per-packet one-way delay: 358.607 ms
Loss rate: 3.62%
```
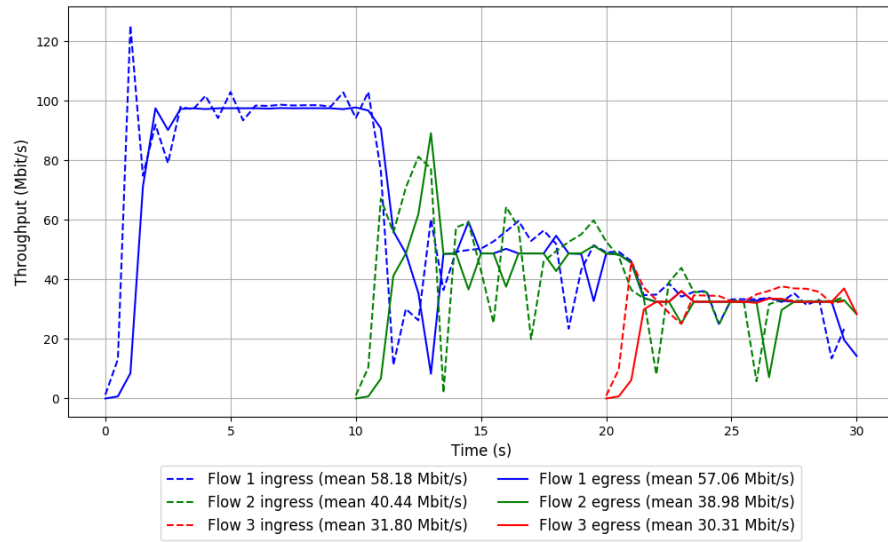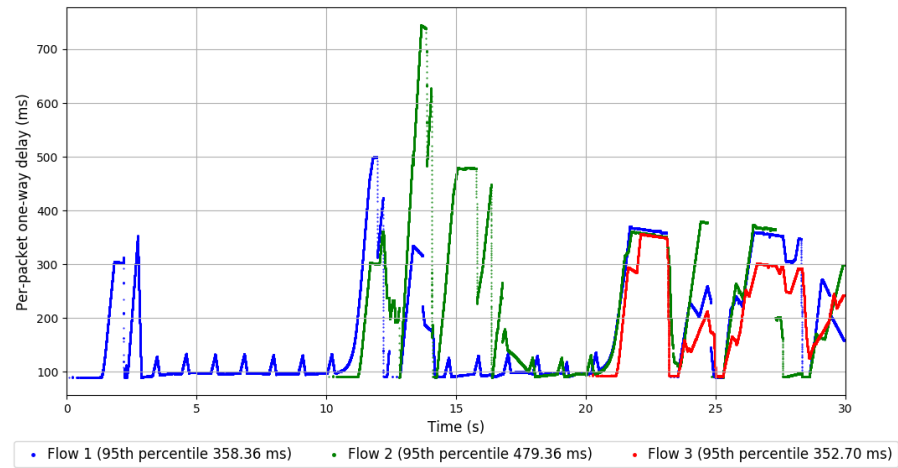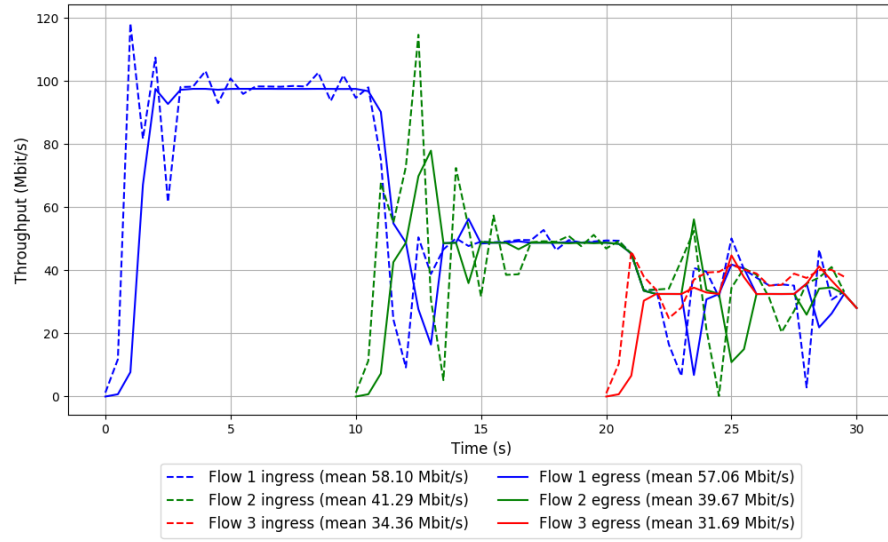
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 58.03 Mbit/s) — Flow 1 egress (mean 56.59 Mbit/s)
Flow 2 ingress (mean 40.57 Mbit/s) — Flow 2 egress (mean 38.64 Mbit/s)
Flow 3 ingress (mean 29.59 Mbit/s) — Flow 3 egress (mean 28.92 Mbit/s)

Flow 1 (95th percentile 329.55 ms)   Flow 2 (95th percentile 589.23 ms)   Flow 3 (95th percentile 358.61 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-12-11 15:39:32
End at: 2019-12-11 15:40:02
Local clock offset: -7.498 ms
Remote clock offset: -9.758 ms


# Below is generated by plot.py at 2019-12-11 17:24:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.93 Mbit/s
95th percentile per-packet one-way delay: 374.227 ms
Loss rate: 3.31%
-- Flow 1:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 334.922 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 439.429 ms
Loss rate: 4.29%
-- Flow 3:
Average throughput: 30.31 Mbit/s
95th percentile per-packet one-way delay: 359.475 ms
Loss rate: 6.04%
```
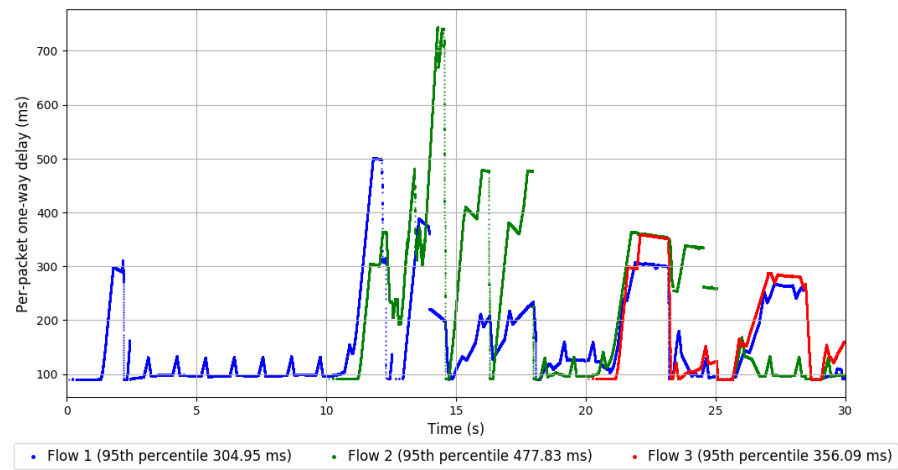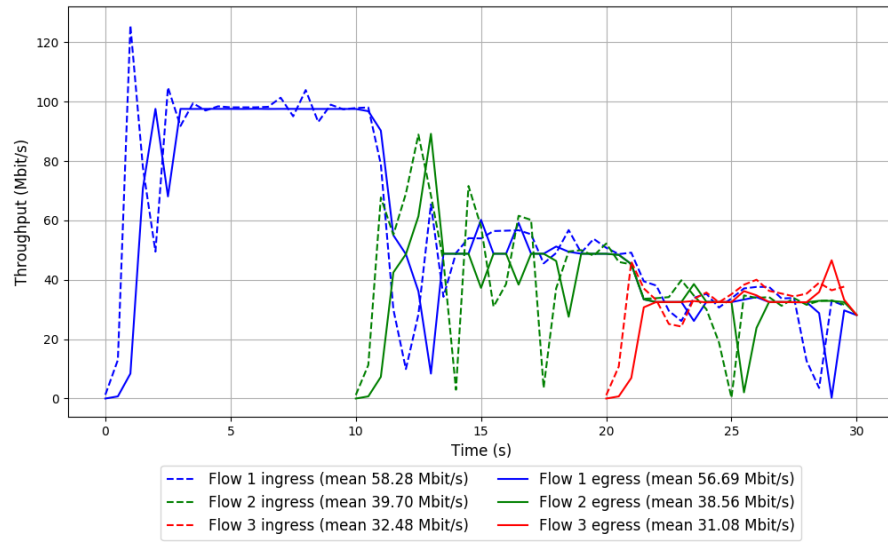
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 58.18 Mbit/s) --- Flow 1 egress (mean 57.06 Mbit/s)
Flow 2 ingress (mean 40.44 Mbit/s) --- Flow 2 egress (mean 38.98 Mbit/s)
Flow 3 ingress (mean 31.80 Mbit/s) --- Flow 3 egress (mean 30.31 Mbit/s)

Flow 1 (95th percentile 334.92 ms)   Flow 2 (95th percentile 439.43 ms)   Flow 3 (95th percentile 359.48 ms)

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```
Run 3: Statistics of TCP BBR

Start at: 2019-12-11 16:09:50
End at: 2019-12-11 16:10:20
Local clock offset: -7.623 ms
Remote clock offset: -8.804 ms


# Below is generated by plot.py at 2019-12-11 17:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.85 Mbit/s
95th percentile per-packet one-way delay: 370.909 ms
Loss rate: 3.72%
-- Flow 1:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 358.362 ms
Loss rate: 2.24%
-- Flow 2:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 479.355 ms
Loss rate: 4.61%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 352.704 ms
Loss rate: 9.09%
```
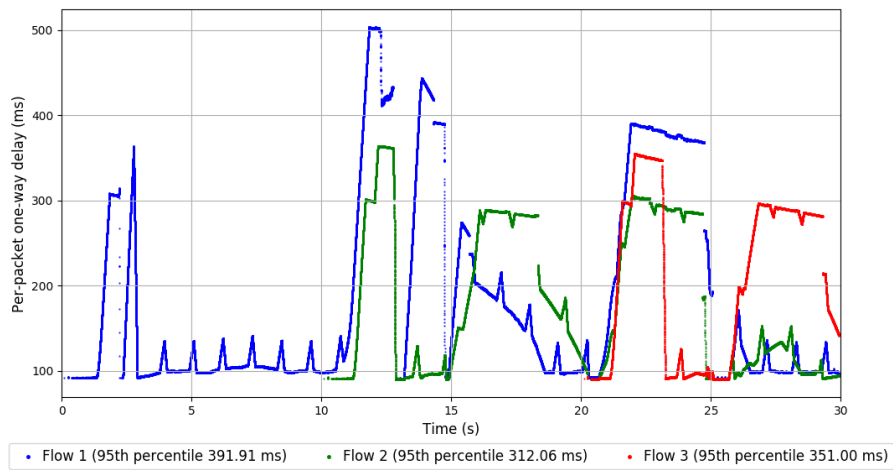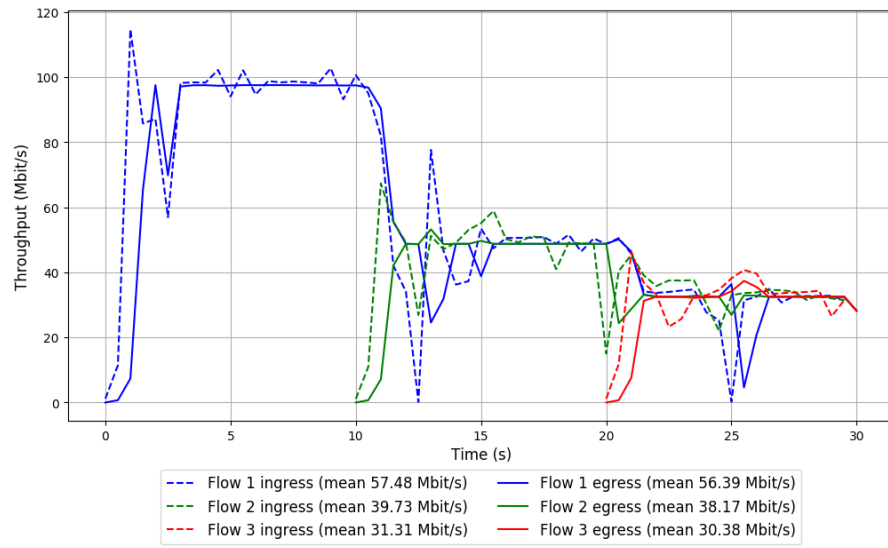
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2019-12-11 16:40:08
End at: 2019-12-11 16:40:38
Local clock offset: -5.871 ms
Remote clock offset: -9.277 ms


# Below is generated by plot.py at 2019-12-11 17:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.55 Mbit/s
95th percentile per-packet one-way delay: 391.148 ms
Loss rate: 3.56%
-- Flow 1:
Average throughput: 56.69 Mbit/s
95th percentile per-packet one-way delay: 304.955 ms
Loss rate: 3.18%
-- Flow 2:
Average throughput: 38.56 Mbit/s
95th percentile per-packet one-way delay: 477.827 ms
Loss rate: 3.53%
-- Flow 3:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 356.089 ms
Loss rate: 5.65%
```
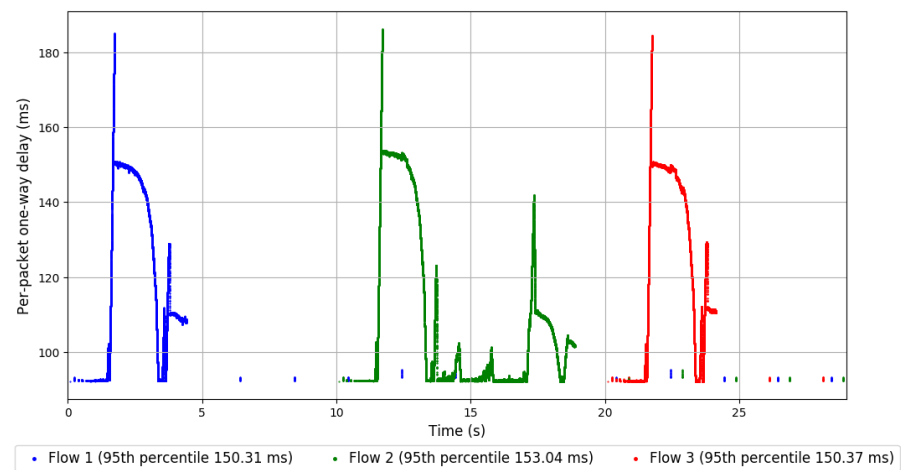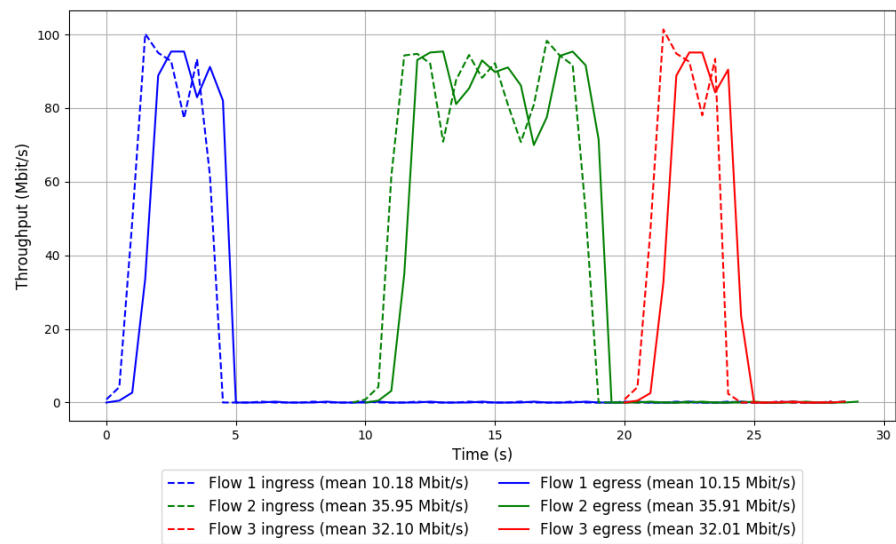
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 58.28 Mbit/s) — Flow 1 egress (mean 56.69 Mbit/s)
Flow 2 ingress (mean 39.70 Mbit/s) — Flow 2 egress (mean 38.56 Mbit/s)
Flow 3 ingress (mean 32.48 Mbit/s) — Flow 3 egress (mean 31.08 Mbit/s)

Flow 1 (95th percentile 304.95 ms) · Flow 2 (95th percentile 477.83 ms) · Flow 3 (95th percentile 356.09 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-12-11 17:10:26
End at: 2019-12-11 17:10:56
Local clock offset: -6.537 ms
Remote clock offset: -9.051 ms


# Below is generated by plot.py at 2019-12-11 17:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.76 Mbit/s
95th percentile per-packet one-way delay: 382.688 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 56.39 Mbit/s
95th percentile per-packet one-way delay: 391.909 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 38.17 Mbit/s
95th percentile per-packet one-way delay: 312.061 ms
Loss rate: 4.59%
-- Flow 3:
Average throughput: 30.38 Mbit/s
95th percentile per-packet one-way delay: 350.995 ms
Loss rate: 4.32%
```
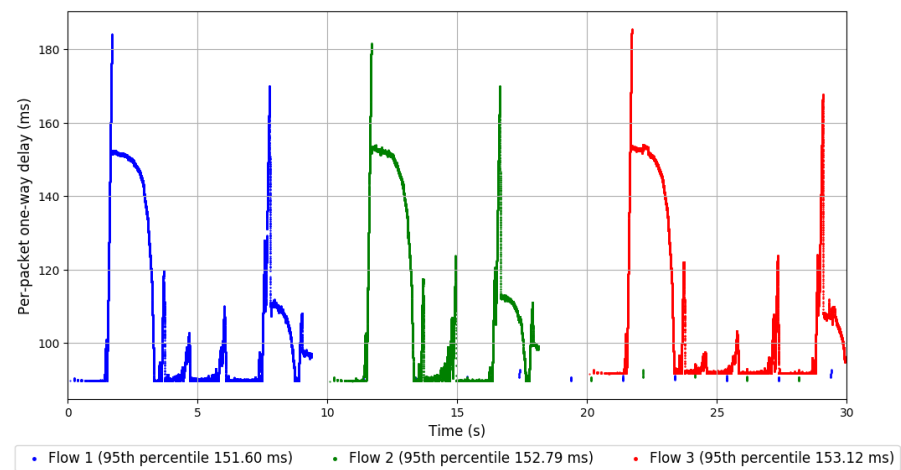
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 57.48 Mbit/s)   Flow 1 egress (mean 56.39 Mbit/s)
Flow 2 ingress (mean 39.73 Mbit/s)   Flow 2 egress (mean 38.17 Mbit/s)
Flow 3 ingress (mean 31.31 Mbit/s)   Flow 3 egress (mean 30.38 Mbit/s)

Flow 1 (95th percentile 391.91 ms)   Flow 2 (95th percentile 312.06 ms)   Flow 3 (95th percentile 351.00 ms)
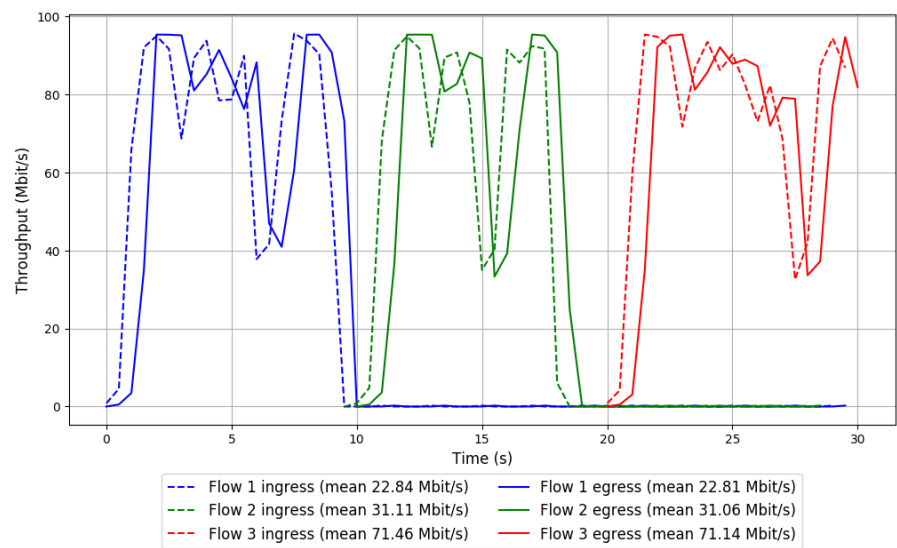
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```
Run 1: Statistics of Copa

Start at: 2019-12-11 15:15:35
End at: 2019-12-11 15:16:05
Local clock offset: -6.647 ms
Remote clock offset: -8.857 ms


# Below is generated by plot.py at 2019-12-11 17:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.35 Mbit/s
95th percentile per-packet one-way delay: 152.838 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 150.312 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 35.91 Mbit/s
95th percentile per-packet one-way delay: 153.044 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 150.368 ms
Loss rate: 0.28%
```
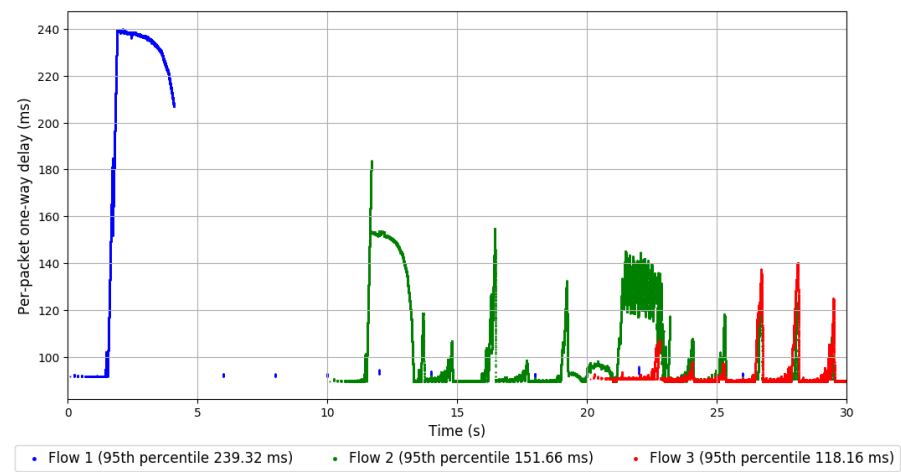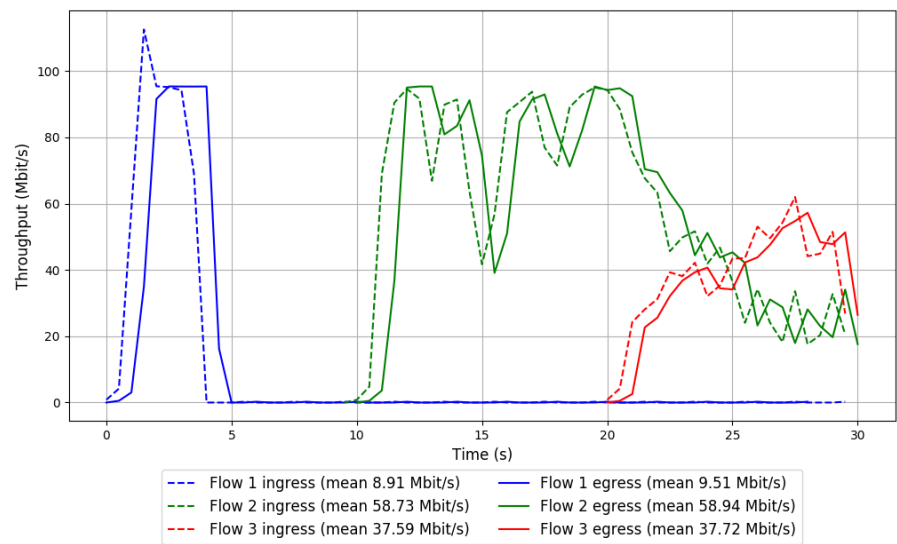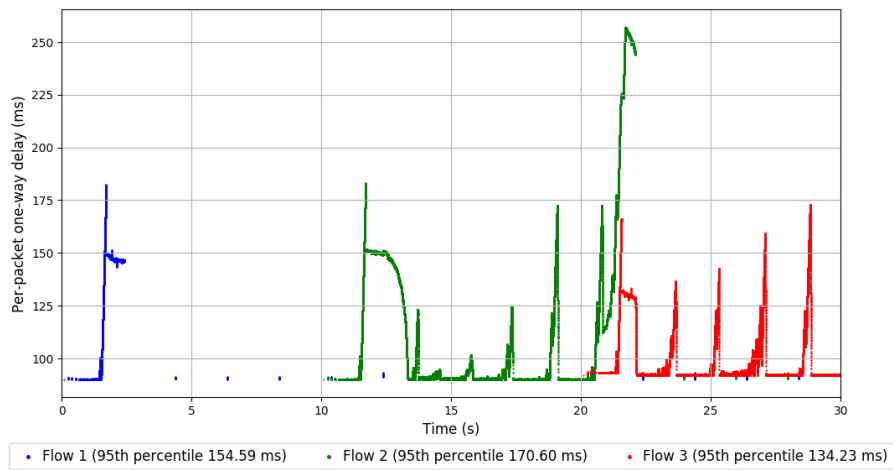
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-12-11 15:45:49
End at: 2019-12-11 15:46:19
Local clock offset: -7.695 ms
Remote clock offset: -9.728 ms


# Below is generated by plot.py at 2019-12-11 17:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.62 Mbit/s
95th percentile per-packet one-way delay: 152.767 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 22.81 Mbit/s
95th percentile per-packet one-way delay: 151.598 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 152.786 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 71.14 Mbit/s
95th percentile per-packet one-way delay: 153.121 ms
Loss rate: 1.85%
```

Run 2: Report of Copa — Data Link

- Flow 1 ingress (mean 22.84 Mbit/s)
- Flow 1 egress (mean 22.81 Mbit/s)
- Flow 2 ingress (mean 31.11 Mbit/s)
- Flow 2 egress (mean 31.06 Mbit/s)
- Flow 3 ingress (mean 71.46 Mbit/s)
- Flow 3 egress (mean 71.14 Mbit/s)

- Flow 1 (95th percentile 151.60 ms)
- Flow 2 (95th percentile 152.79 ms)
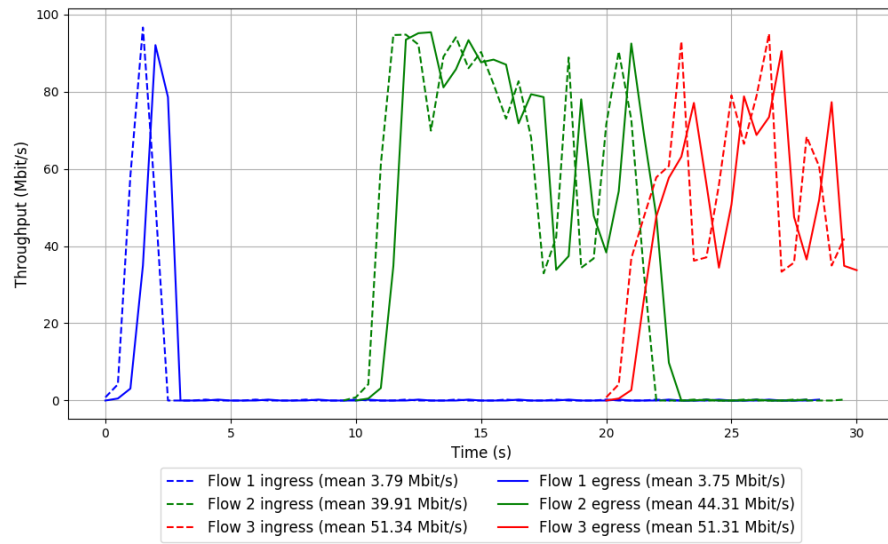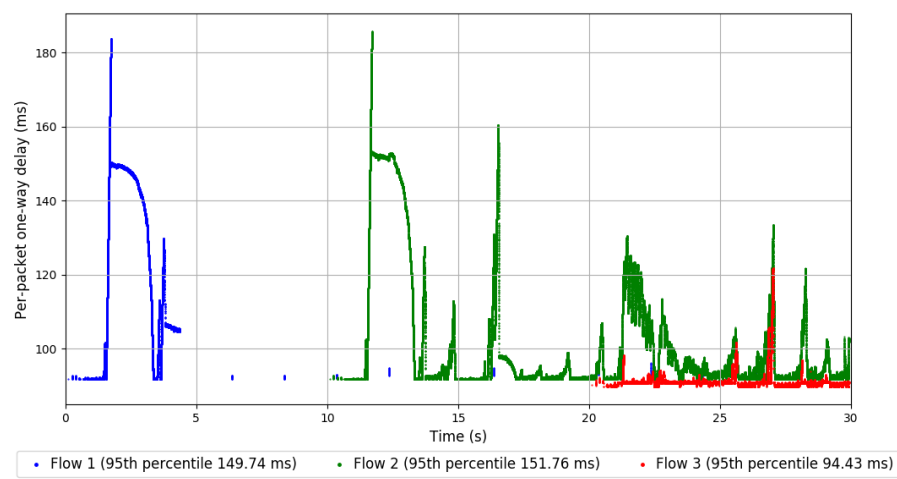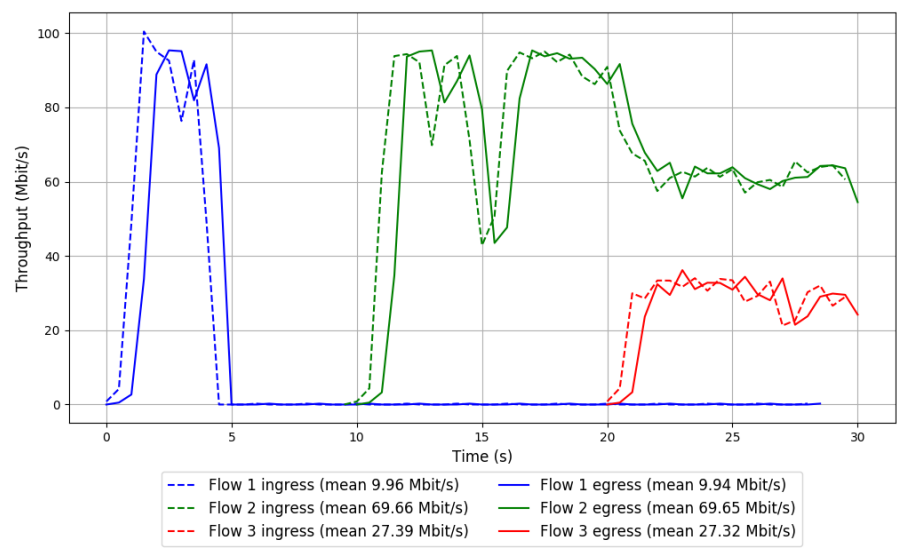- Flow 3 (95th percentile 153.12 ms)

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```
Run 3: Statistics of Copa

Start at: 2019-12-11 16:16:08
End at: 2019-12-11 16:16:38
Local clock offset: -7.354 ms
Remote clock offset: -9.527 ms


# Below is generated by plot.py at 2019-12-11 17:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.51 Mbit/s
95th percentile per-packet one-way delay: 237.006 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 239.317 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 151.660 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 118.160 ms
Loss rate: 1.05%
```

Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 8.91 Mbit/s) — Flow 1 egress (mean 9.51 Mbit/s)
Flow 2 ingress (mean 58.73 Mbit/s) — Flow 2 egress (mean 58.94 Mbit/s)
Flow 3 ingress (mean 37.59 Mbit/s) — Flow 3 egress (mean 37.72 Mbit/s)

Flow 1 (95th percentile 239.32 ms)   Flow 2 (95th percentile 151.66 ms)   Flow 3 (95th percentile 118.16 ms)

```
Run 4: Statistics of Copa

Start at: 2019-12-11 16:46:25
End at: 2019-12-11 16:46:55
Local clock offset: -5.695 ms
Remote clock offset: -9.288 ms


# Below is generated by plot.py at 2019-12-11 17:25:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.01 Mbit/s
95th percentile per-packet one-way delay: 154.601 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 3.75 Mbit/s
95th percentile per-packet one-way delay: 154.589 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 44.31 Mbit/s
95th percentile per-packet one-way delay: 170.603 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 51.31 Mbit/s
95th percentile per-packet one-way delay: 134.229 ms
Loss rate: 1.45%
```
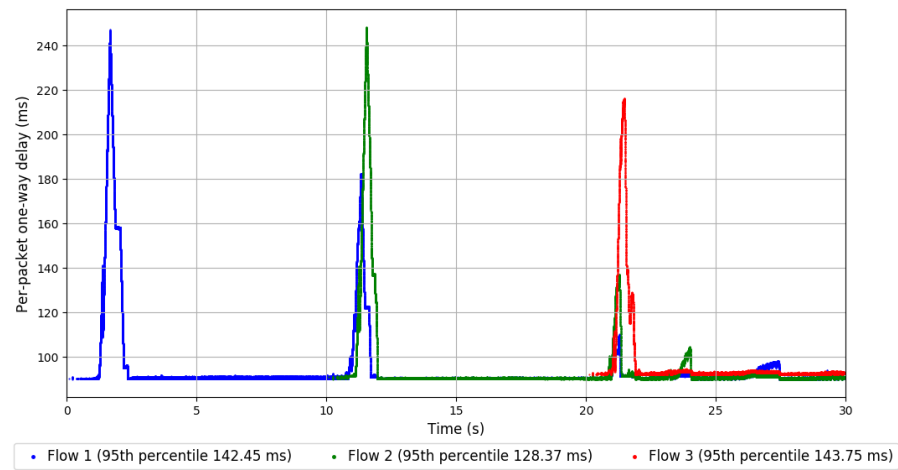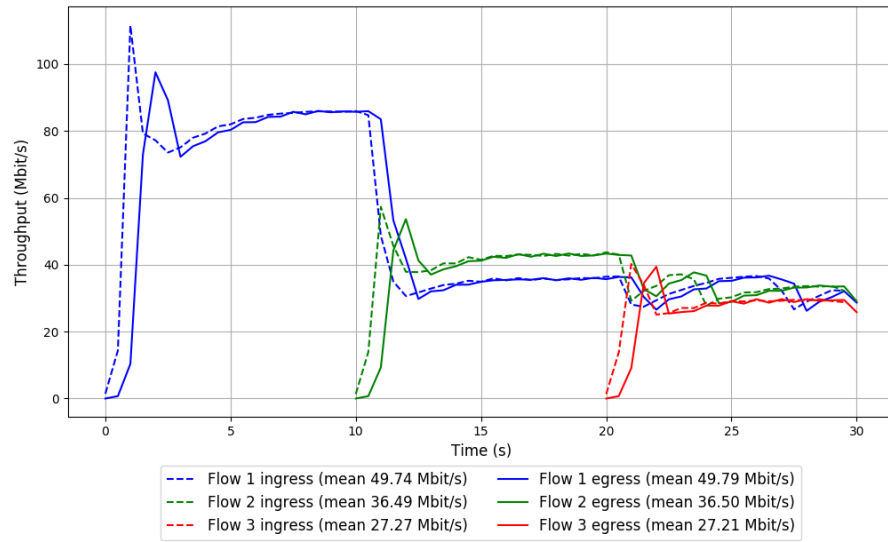
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 3.79 Mbit/s) Flow 1 egress (mean 3.75 Mbit/s)
Flow 2 ingress (mean 39.91 Mbit/s) Flow 2 egress (mean 44.31 Mbit/s)
Flow 3 ingress (mean 51.34 Mbit/s) Flow 3 egress (mean 51.31 Mbit/s)

Flow 1 (95th percentile 154.59 ms) Flow 2 (95th percentile 170.60 ms) Flow 3 (95th percentile 134.23 ms)

```
Run 5: Statistics of Copa

Start at: 2019-12-11 17:16:44
End at: 2019-12-11 17:17:14
Local clock offset: -6.213 ms
Remote clock offset: -8.209 ms


# Below is generated by plot.py at 2019-12-11 17:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.73 Mbit/s
95th percentile per-packet one-way delay: 151.026 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 149.742 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 69.65 Mbit/s
95th percentile per-packet one-way delay: 151.760 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 27.32 Mbit/s
95th percentile per-packet one-way delay: 94.428 ms
Loss rate: 1.61%
```
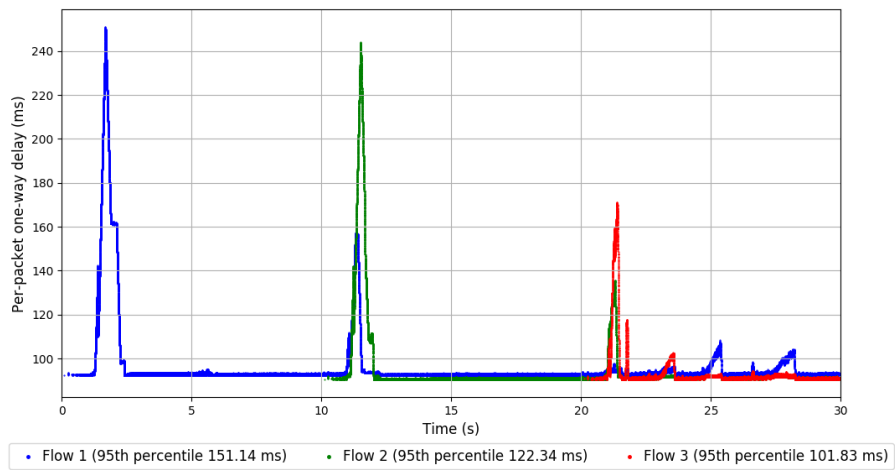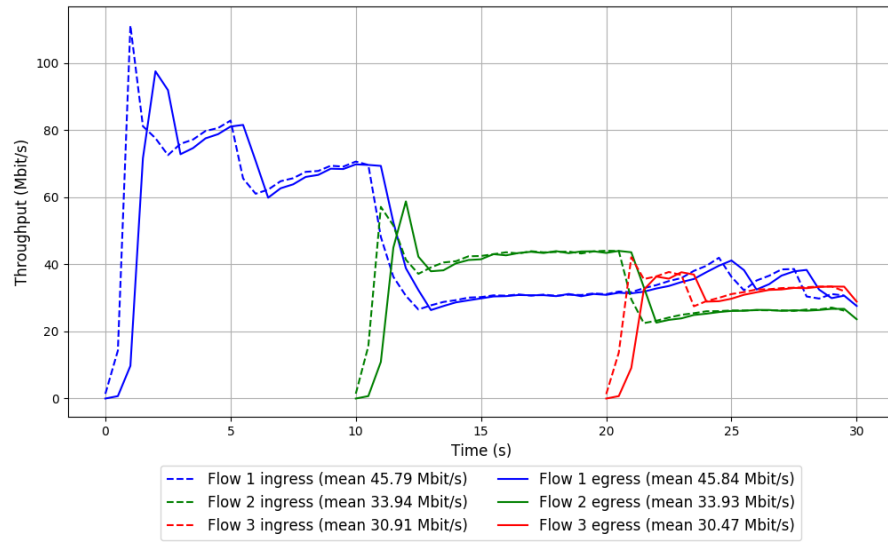
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-12-11 15:08:02
End at: 2019-12-11 15:08:32
Local clock offset: -8.406 ms
Remote clock offset: -9.227 ms


# Below is generated by plot.py at 2019-12-11 17:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 135.976 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 49.79 Mbit/s
95th percentile per-packet one-way delay: 142.454 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 36.50 Mbit/s
95th percentile per-packet one-way delay: 128.366 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 27.21 Mbit/s
95th percentile per-packet one-way delay: 143.750 ms
Loss rate: 1.61%
```

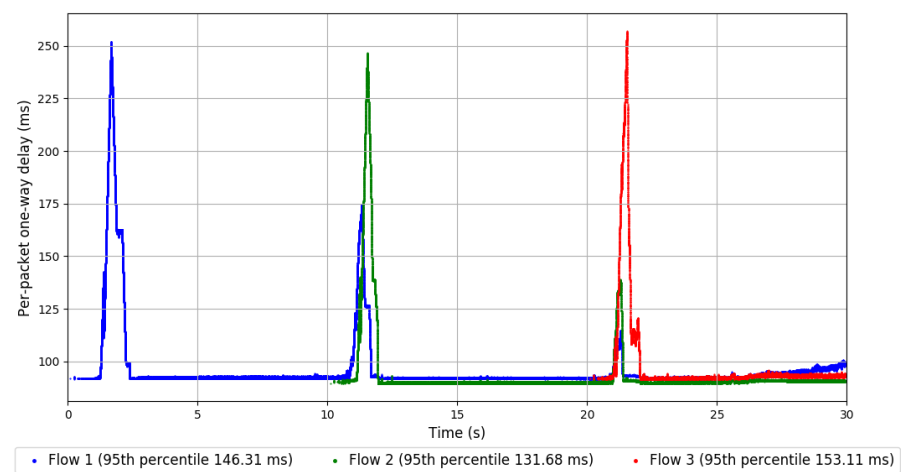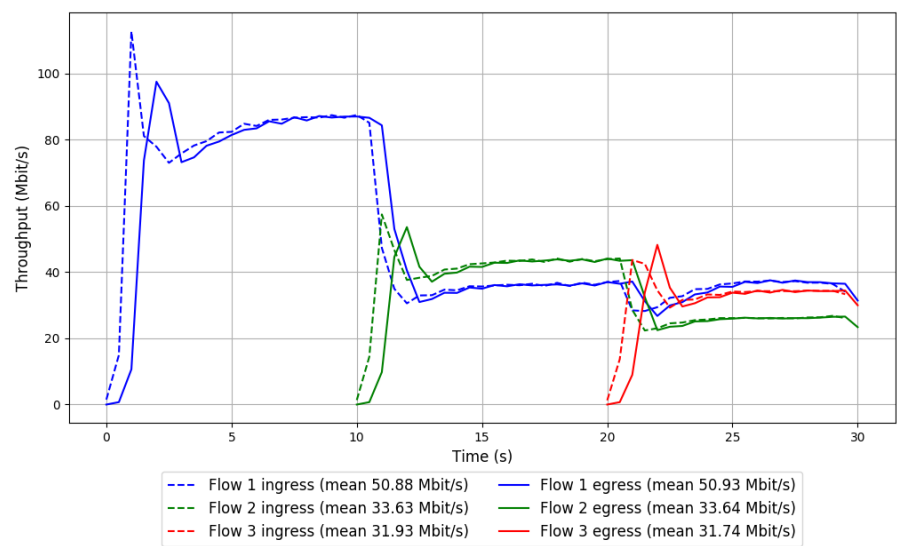Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-12-11 15:38:17
End at: 2019-12-11 15:38:47
Local clock offset: -6.752 ms
Remote clock offset: -9.721 ms


# Below is generated by plot.py at 2019-12-11 17:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.42 Mbit/s
95th percentile per-packet one-way delay: 131.291 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 45.84 Mbit/s
95th percentile per-packet one-way delay: 151.144 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 33.93 Mbit/s
95th percentile per-packet one-way delay: 122.340 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 101.826 ms
Loss rate: 2.80%
```
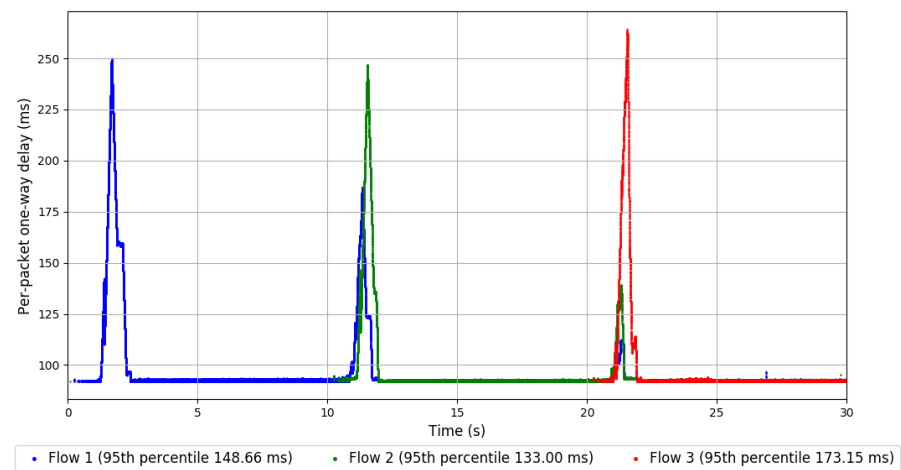
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 45.79 Mbit/s)   Flow 1 egress (mean 45.84 Mbit/s)
Flow 2 ingress (mean 33.94 Mbit/s)   Flow 2 egress (mean 33.93 Mbit/s)
Flow 3 ingress (mean 30.91 Mbit/s)   Flow 3 egress (mean 30.47 Mbit/s)

Flow 1 (95th percentile 151.14 ms)   Flow 2 (95th percentile 122.34 ms)   Flow 3 (95th percentile 101.83 ms)
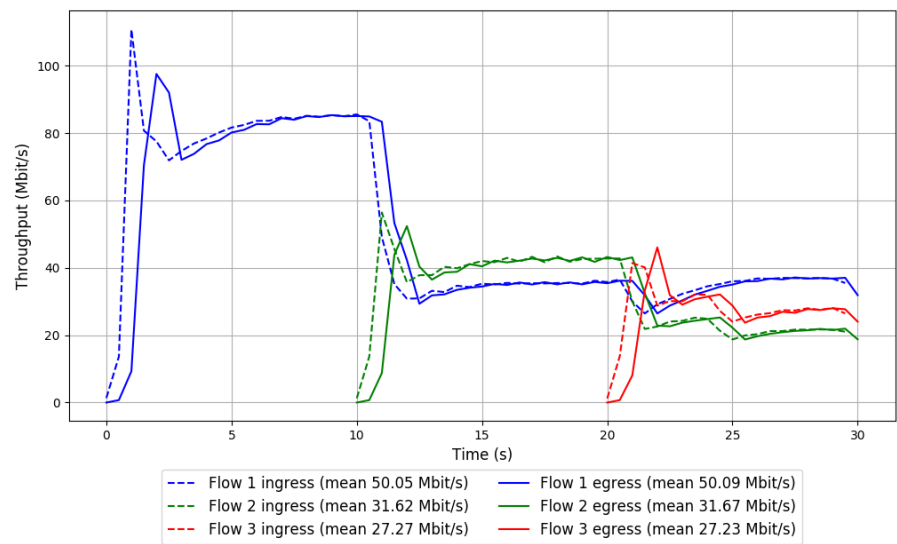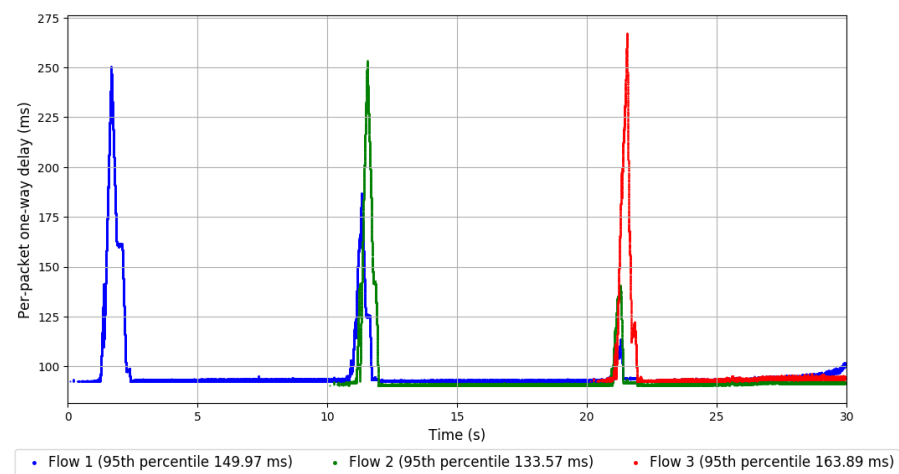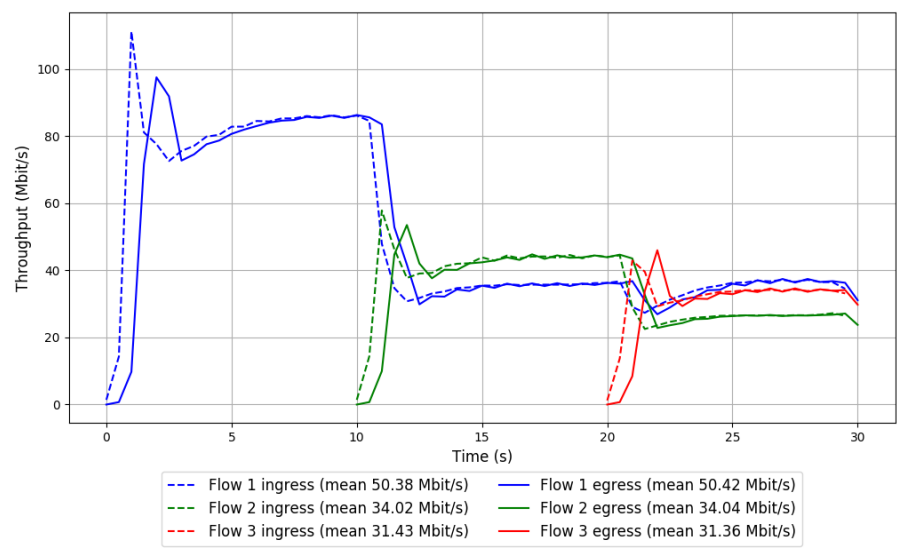
```
Run 3: Statistics of TCP Cubic

Start at: 2019-12-11 16:08:34
End at: 2019-12-11 16:09:04
Local clock offset: -7.897 ms
Remote clock offset: -8.783 ms


# Below is generated by plot.py at 2019-12-11 17:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.73 Mbit/s
95th percentile per-packet one-way delay: 138.431 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 50.93 Mbit/s
95th percentile per-packet one-way delay: 146.313 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 33.64 Mbit/s
95th percentile per-packet one-way delay: 131.680 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 153.109 ms
Loss rate: 2.00%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 50.88 Mbit/s) — — — Flow 1 egress (mean 50.93 Mbit/s)
Flow 2 ingress (mean 33.63 Mbit/s) — — — Flow 2 egress (mean 33.64 Mbit/s)
Flow 3 ingress (mean 31.93 Mbit/s) — — — Flow 3 egress (mean 31.74 Mbit/s)

Flow 1 (95th percentile 146.31 ms)   Flow 2 (95th percentile 131.68 ms)   Flow 3 (95th percentile 153.11 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-12-11 16:38:52
End at: 2019-12-11 16:39:22
Local clock offset: -5.899 ms
Remote clock offset: -9.145 ms


# Below is generated by plot.py at 2019-12-11 17:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.08 Mbit/s
95th percentile per-packet one-way delay: 142.118 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 50.09 Mbit/s
95th percentile per-packet one-way delay: 148.662 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 133.005 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 27.23 Mbit/s
95th percentile per-packet one-way delay: 173.148 ms
Loss rate: 1.52%
```
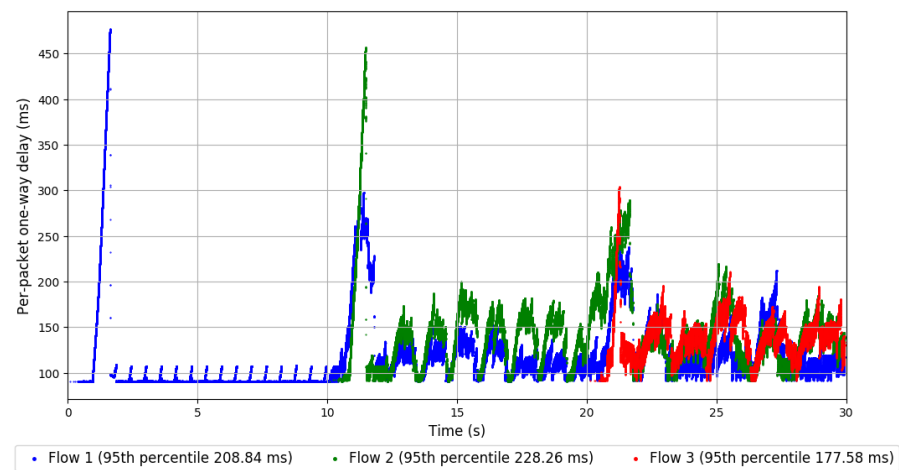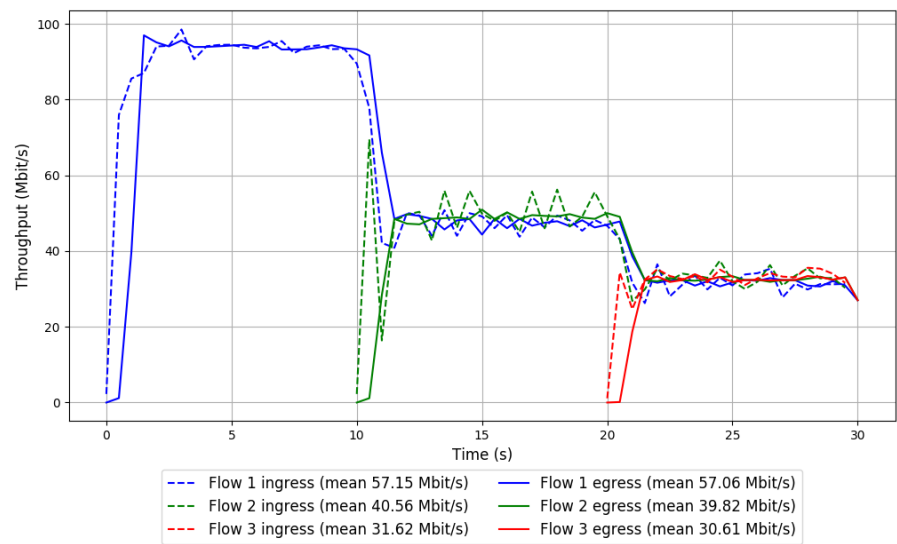
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 50.05 Mbit/s) — Flow 1 egress (mean 50.09 Mbit/s)
Flow 2 ingress (mean 31.62 Mbit/s) — Flow 2 egress (mean 31.67 Mbit/s)
Flow 3 ingress (mean 27.27 Mbit/s) — Flow 3 egress (mean 27.23 Mbit/s)

Flow 1 (95th percentile 148.66 ms)   •   Flow 2 (95th percentile 133.00 ms)   •   Flow 3 (95th percentile 173.15 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-12-11 17:09:09
End at: 2019-12-11 17:09:39
Local clock offset: -5.689 ms
Remote clock offset: -8.994 ms


# Below is generated by plot.py at 2019-12-11 17:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.36 Mbit/s
95th percentile per-packet one-way delay: 141.988 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 50.42 Mbit/s
95th percentile per-packet one-way delay: 149.973 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 34.04 Mbit/s
95th percentile per-packet one-way delay: 133.571 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 163.892 ms
Loss rate: 1.63%
```
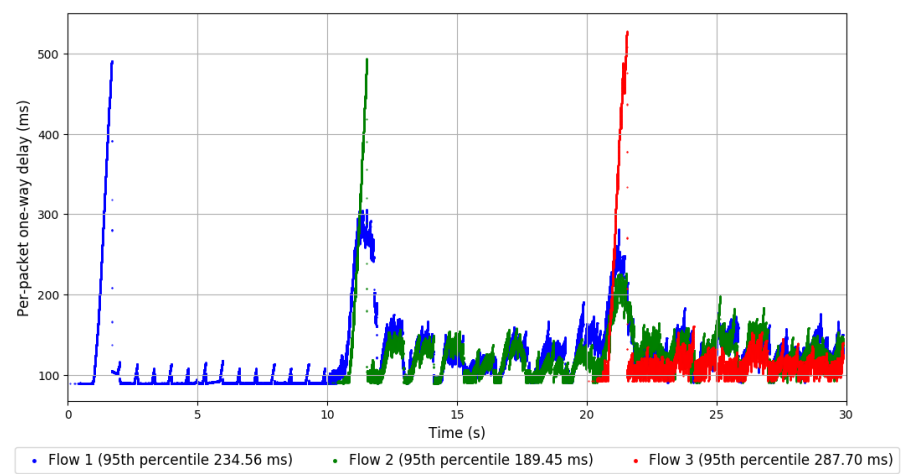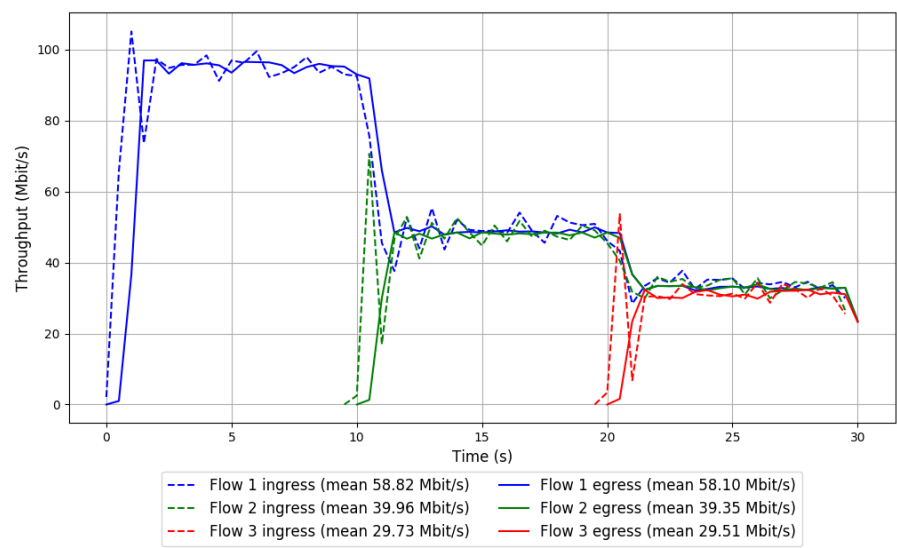
Run 5: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 50.38 Mbit/s)   —— Flow 1 egress (mean 50.42 Mbit/s)
- - - Flow 2 ingress (mean 34.02 Mbit/s)   —— Flow 2 egress (mean 34.04 Mbit/s)
- - - Flow 3 ingress (mean 31.43 Mbit/s)   —— Flow 3 egress (mean 31.36 Mbit/s)

• Flow 1 (95th percentile 149.97 ms)   • Flow 2 (95th percentile 133.57 ms)   • Flow 3 (95th percentile 163.89 ms)
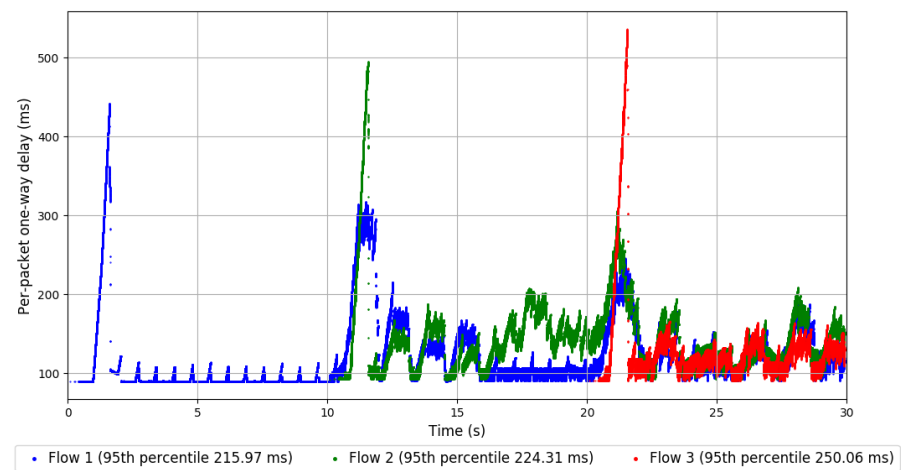
```
Run 1: Statistics of FillP

Start at: 2019-12-11 14:57:57
End at: 2019-12-11 14:58:27
Local clock offset: -6.312 ms
Remote clock offset: -9.454 ms

# Below is generated by plot.py at 2019-12-11 17:26:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.59 Mbit/s
95th percentile per-packet one-way delay: 208.725 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 208.845 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 39.82 Mbit/s
95th percentile per-packet one-way delay: 228.259 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 177.576 ms
Loss rate: 4.39%
```
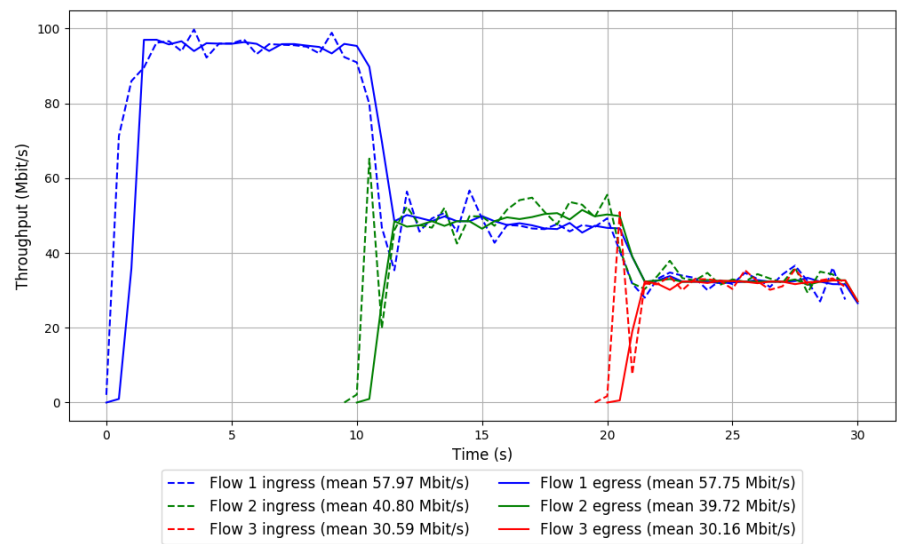
Run 1: Report of FillP — Data Link

- - - Flow 1 ingress (mean 57.15 Mbit/s)   —— Flow 1 egress (mean 57.06 Mbit/s)
- - - Flow 2 ingress (mean 40.56 Mbit/s)   —— Flow 2 egress (mean 39.82 Mbit/s)
- - - Flow 3 ingress (mean 31.62 Mbit/s)   —— Flow 3 egress (mean 30.61 Mbit/s)

• Flow 1 (95th percentile 208.84 ms)   • Flow 2 (95th percentile 228.26 ms)   • Flow 3 (95th percentile 177.58 ms)

36

```
Run 2: Statistics of FillP

Start at: 2019-12-11 15:28:12
End at: 2019-12-11 15:28:42
Local clock offset: -6.449 ms
Remote clock offset: -8.918 ms


# Below is generated by plot.py at 2019-12-11 17:26:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.01 Mbit/s
95th percentile per-packet one-way delay: 215.766 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 58.10 Mbit/s
95th percentile per-packet one-way delay: 234.555 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 39.35 Mbit/s
95th percentile per-packet one-way delay: 189.448 ms
Loss rate: 2.18%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 287.698 ms
Loss rate: 1.93%
```
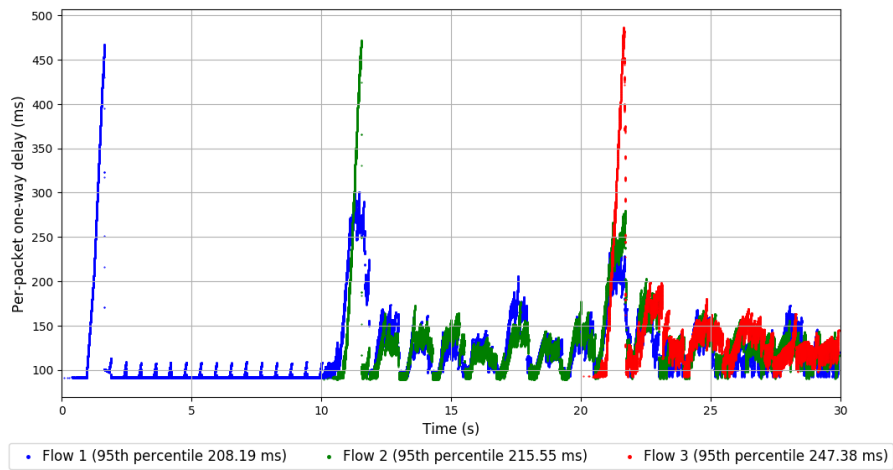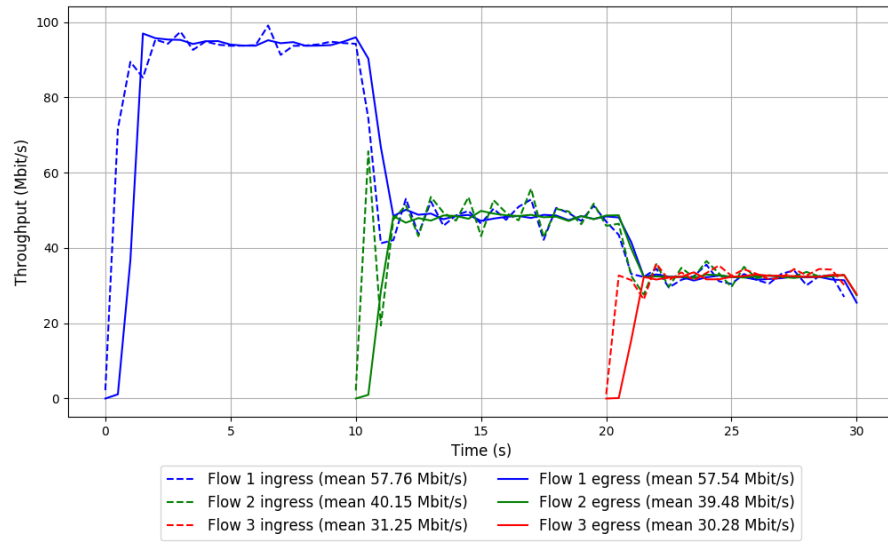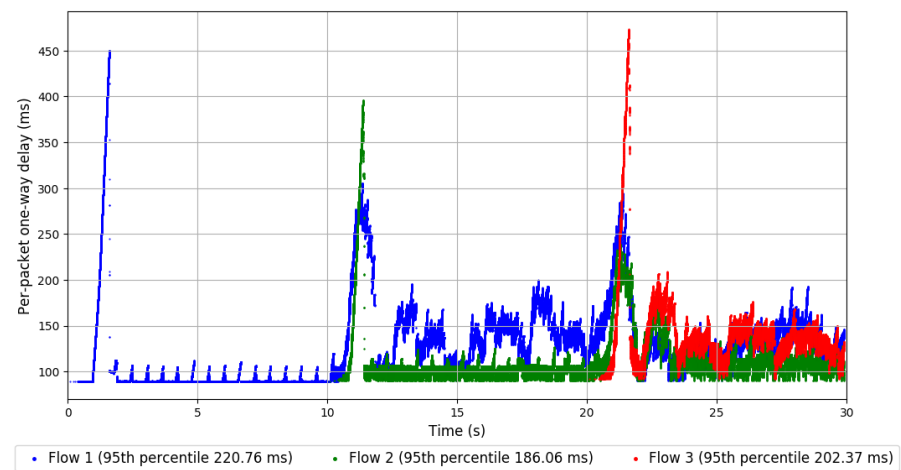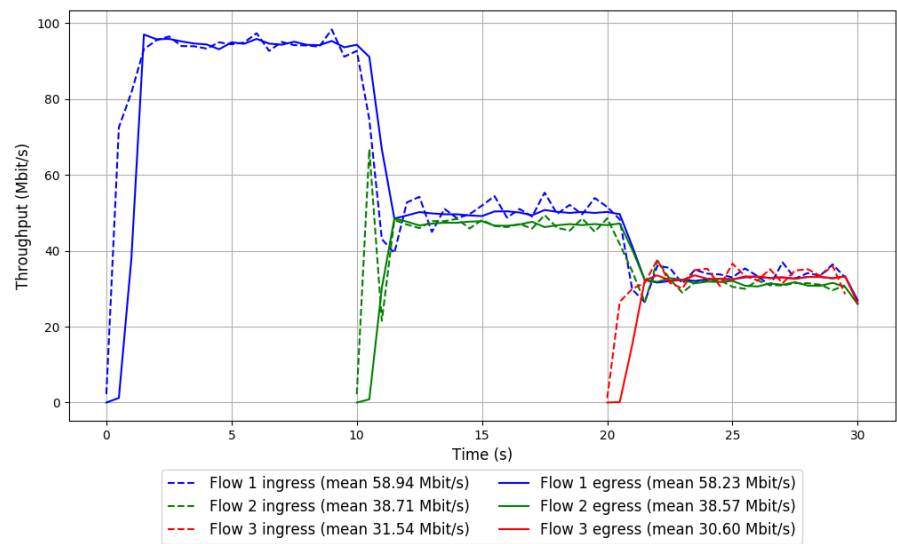
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 58.82 Mbit/s)   Flow 1 egress (mean 58.10 Mbit/s)
Flow 2 ingress (mean 39.96 Mbit/s)   Flow 2 egress (mean 39.35 Mbit/s)
Flow 3 ingress (mean 29.73 Mbit/s)   Flow 3 egress (mean 29.51 Mbit/s)

Flow 1 (95th percentile 234.56 ms)   Flow 2 (95th percentile 189.45 ms)   Flow 3 (95th percentile 287.70 ms)

```
Run 3: Statistics of FillP

Start at: 2019-12-11 15:58:29
End at: 2019-12-11 15:58:59
Local clock offset: -7.56 ms
Remote clock offset: -8.878 ms


# Below is generated by plot.py at 2019-12-11 17:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.09 Mbit/s
95th percentile per-packet one-way delay: 219.316 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 57.75 Mbit/s
95th percentile per-packet one-way delay: 215.969 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 224.310 ms
Loss rate: 3.33%
-- Flow 3:
Average throughput: 30.16 Mbit/s
95th percentile per-packet one-way delay: 250.061 ms
Loss rate: 2.70%
```
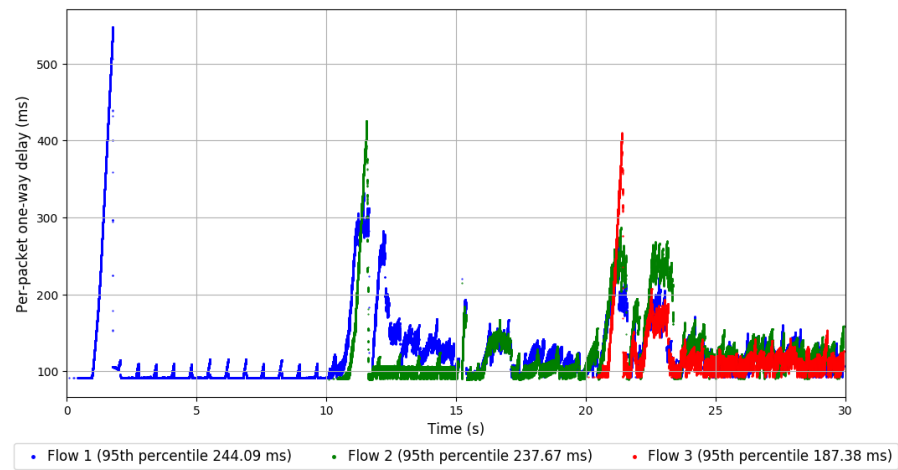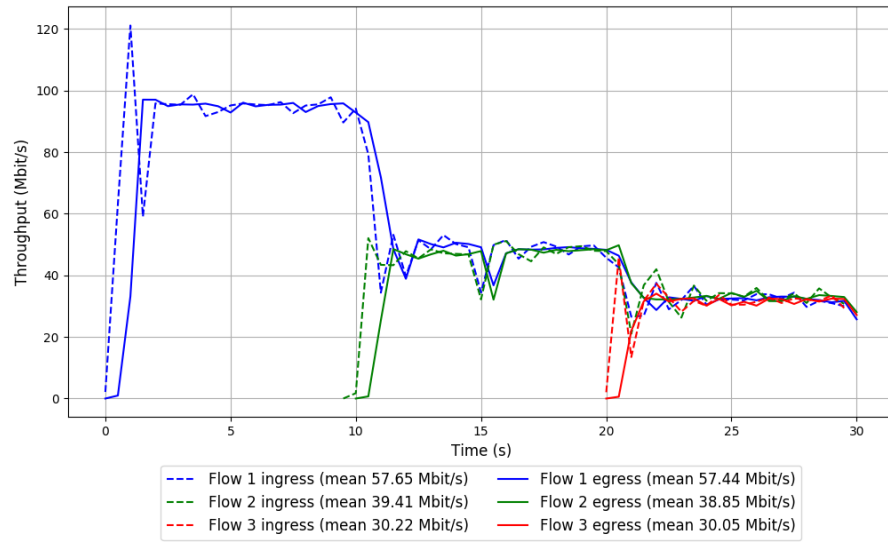
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 57.97 Mbit/s)   Flow 1 egress (mean 57.75 Mbit/s)
Flow 2 ingress (mean 40.80 Mbit/s)   Flow 2 egress (mean 39.72 Mbit/s)
Flow 3 ingress (mean 30.59 Mbit/s)   Flow 3 egress (mean 30.16 Mbit/s)

Flow 1 (95th percentile 215.97 ms)   Flow 2 (95th percentile 224.31 ms)   Flow 3 (95th percentile 250.06 ms)

40

```
Run 4: Statistics of FillP

Start at: 2019-12-11 16:28:48
End at: 2019-12-11 16:29:18
Local clock offset: -6.65 ms
Remote clock offset: -9.22 ms

# Below is generated by plot.py at 2019-12-11 17:26:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.75 Mbit/s
95th percentile per-packet one-way delay: 210.553 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 57.54 Mbit/s
95th percentile per-packet one-way delay: 208.189 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 215.546 ms
Loss rate: 2.35%
-- Flow 3:
Average throughput: 30.28 Mbit/s
95th percentile per-packet one-way delay: 247.380 ms
Loss rate: 4.45%
```
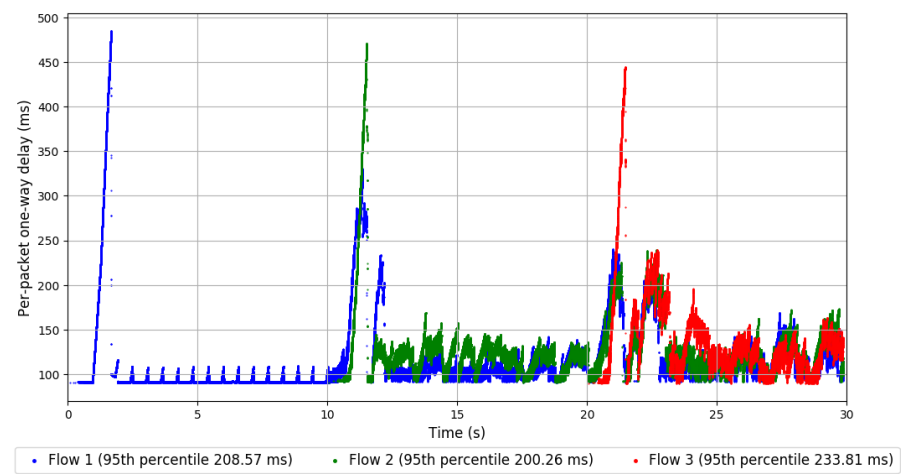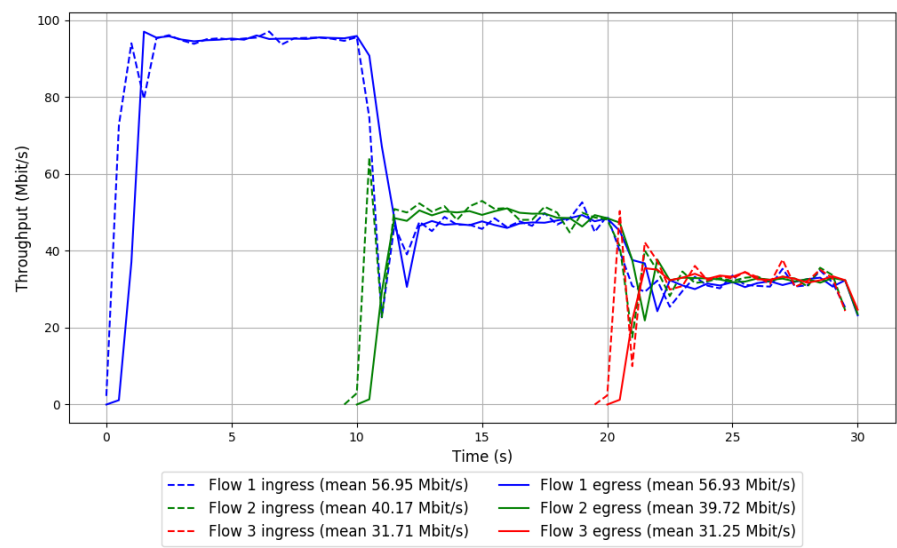
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 57.76 Mbit/s)   Flow 1 egress (mean 57.54 Mbit/s)
Flow 2 ingress (mean 40.15 Mbit/s)   Flow 2 egress (mean 39.48 Mbit/s)
Flow 3 ingress (mean 31.25 Mbit/s)   Flow 3 egress (mean 30.28 Mbit/s)

Flow 1 (95th percentile 208.19 ms)   Flow 2 (95th percentile 215.55 ms)   Flow 3 (95th percentile 247.38 ms)

```
Run 5: Statistics of FillP

Start at: 2019-12-11 16:59:03
End at: 2019-12-11 16:59:33
Local clock offset: -6.296 ms
Remote clock offset: -8.969 ms


# Below is generated by plot.py at 2019-12-11 17:26:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 202.868 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 58.23 Mbit/s
95th percentile per-packet one-way delay: 220.762 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 186.058 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 30.60 Mbit/s
95th percentile per-packet one-way delay: 202.369 ms
Loss rate: 4.15%
```
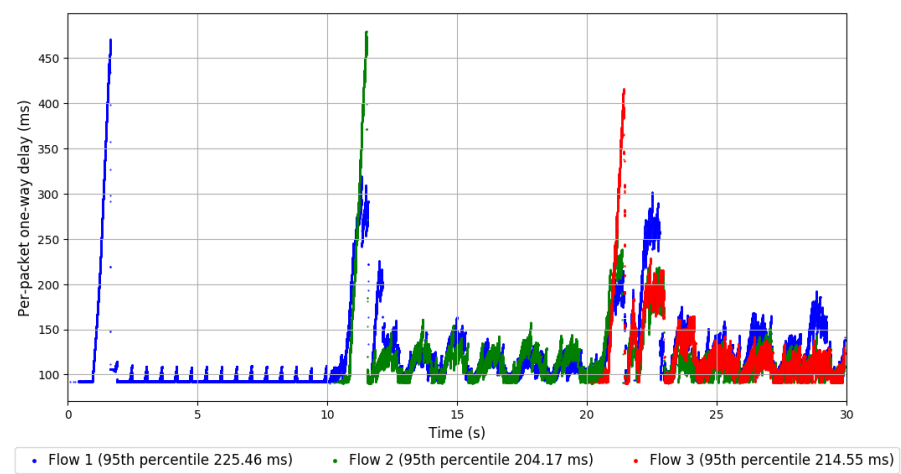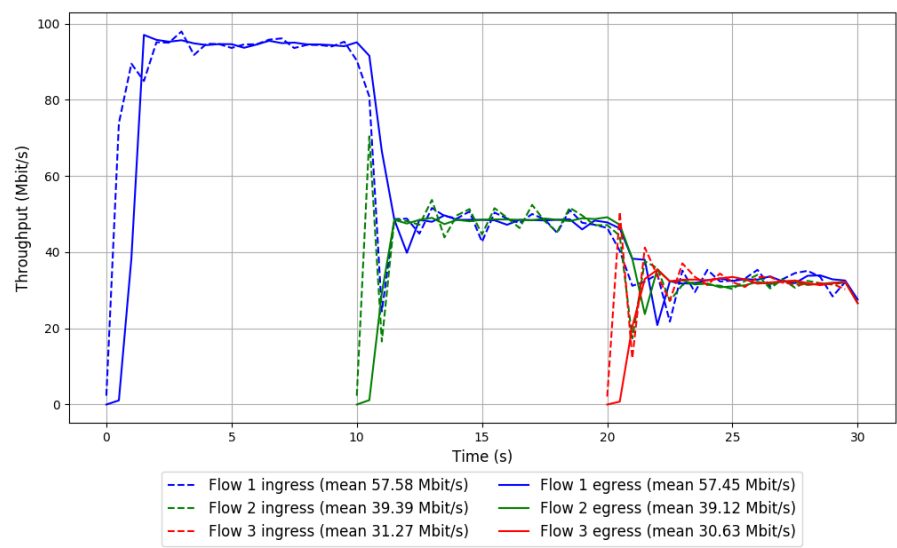
Run 5: Report of FillP — Data Link

- - - Flow 1 ingress (mean 58.94 Mbit/s) —— Flow 1 egress (mean 58.23 Mbit/s)
- - - Flow 2 ingress (mean 38.71 Mbit/s) —— Flow 2 egress (mean 38.57 Mbit/s)
- - - Flow 3 ingress (mean 31.54 Mbit/s) —— Flow 3 egress (mean 30.60 Mbit/s)

• Flow 1 (95th percentile 220.76 ms)   • Flow 2 (95th percentile 186.06 ms)   • Flow 3 (95th percentile 202.37 ms)

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-12-11 14:56:41
End at: 2019-12-11 14:57:11
Local clock offset: -6.79 ms
Remote clock offset: -8.879 ms

# Below is generated by plot.py at 2019-12-11 17:26:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.16 Mbit/s
95th percentile per-packet one-way delay: 237.226 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 57.44 Mbit/s
95th percentile per-packet one-way delay: 244.086 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 38.85 Mbit/s
95th percentile per-packet one-way delay: 237.666 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 30.05 Mbit/s
95th percentile per-packet one-way delay: 187.381 ms
Loss rate: 1.99%
```

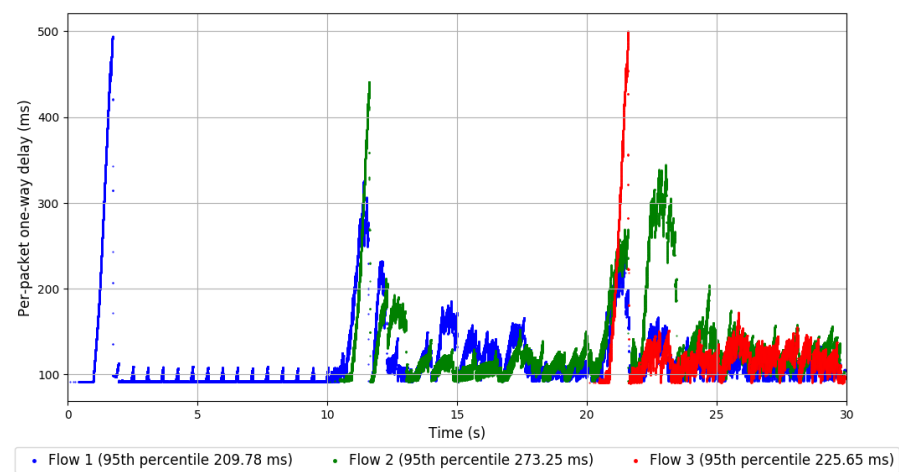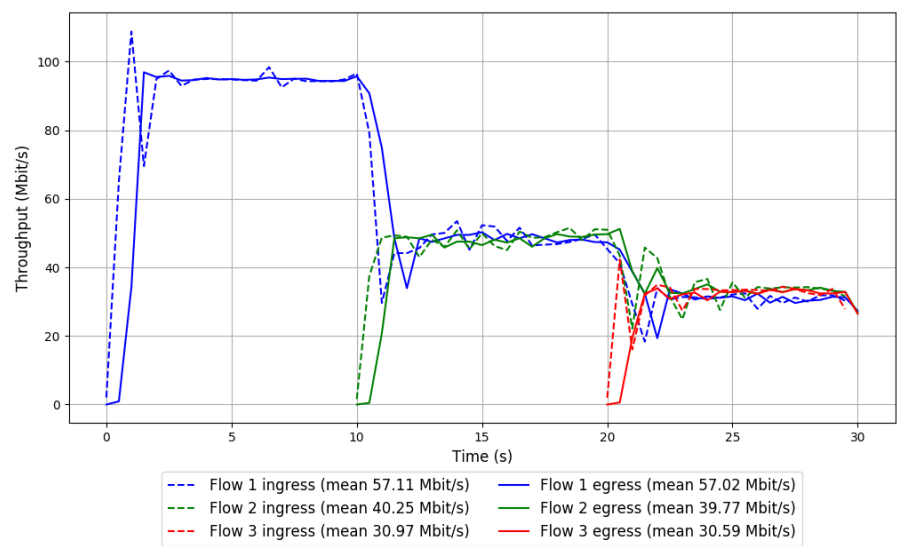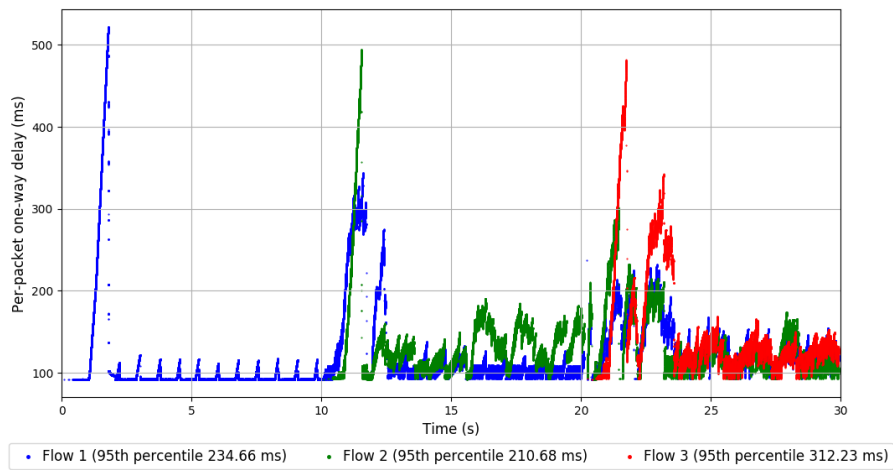Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.65 Mbit/s) --- Flow 1 egress (mean 57.44 Mbit/s)
Flow 2 ingress (mean 39.41 Mbit/s) --- Flow 2 egress (mean 38.85 Mbit/s)
Flow 3 ingress (mean 30.22 Mbit/s) --- Flow 3 egress (mean 30.05 Mbit/s)

Flow 1 (95th percentile 244.09 ms) Flow 2 (95th percentile 237.67 ms) Flow 3 (95th percentile 187.38 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-12-11 15:26:56
End at: 2019-12-11 15:27:26
Local clock offset: -7.113 ms
Remote clock offset: -8.809 ms


# Below is generated by plot.py at 2019-12-11 17:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 208.673 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 208.567 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 200.264 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 233.805 ms
Loss rate: 2.69%
```

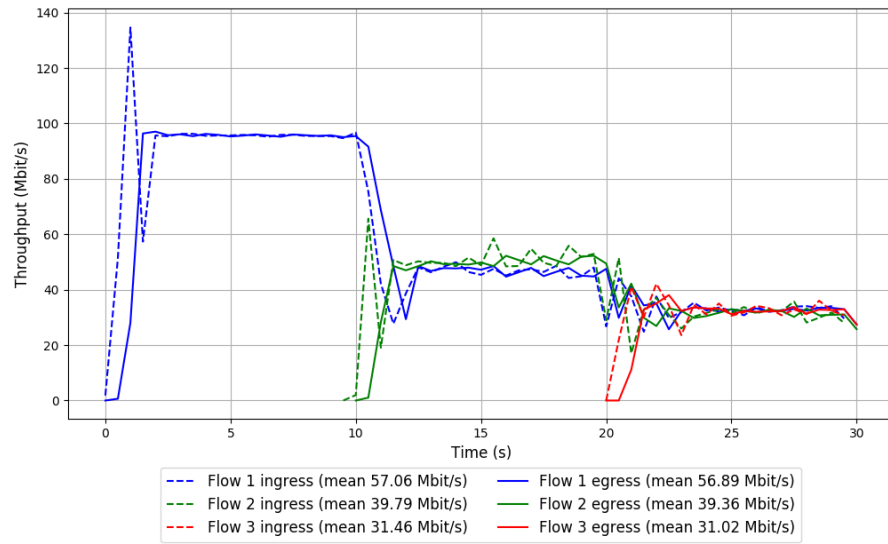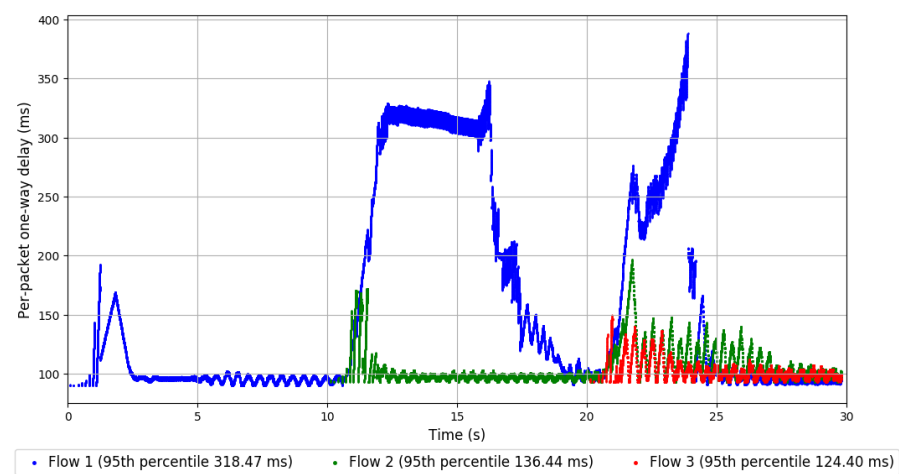Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-12-11 15:57:14
End at: 2019-12-11 15:57:44
Local clock offset: -7.519 ms
Remote clock offset: -9.627 ms


# Below is generated by plot.py at 2019-12-11 17:27:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.55 Mbit/s
95th percentile per-packet one-way delay: 215.215 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 57.45 Mbit/s
95th percentile per-packet one-way delay: 225.457 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 204.168 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 30.63 Mbit/s
95th percentile per-packet one-way delay: 214.551 ms
Loss rate: 3.25%
```

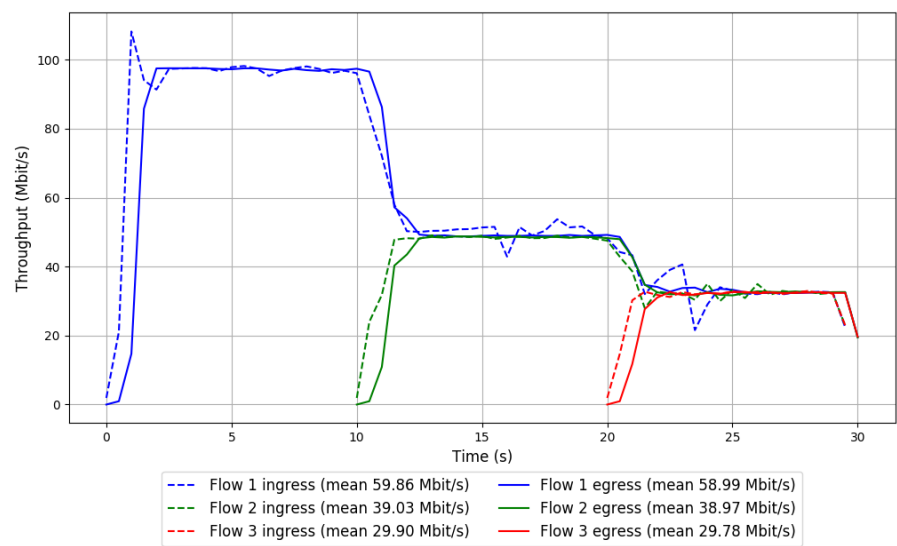Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.58 Mbit/s)   Flow 1 egress (mean 57.45 Mbit/s)
Flow 2 ingress (mean 39.39 Mbit/s)   Flow 2 egress (mean 39.12 Mbit/s)
Flow 3 ingress (mean 31.27 Mbit/s)   Flow 3 egress (mean 30.63 Mbit/s)

Flow 1 (95th percentile 225.46 ms)   Flow 2 (95th percentile 204.17 ms)   Flow 3 (95th percentile 214.55 ms)
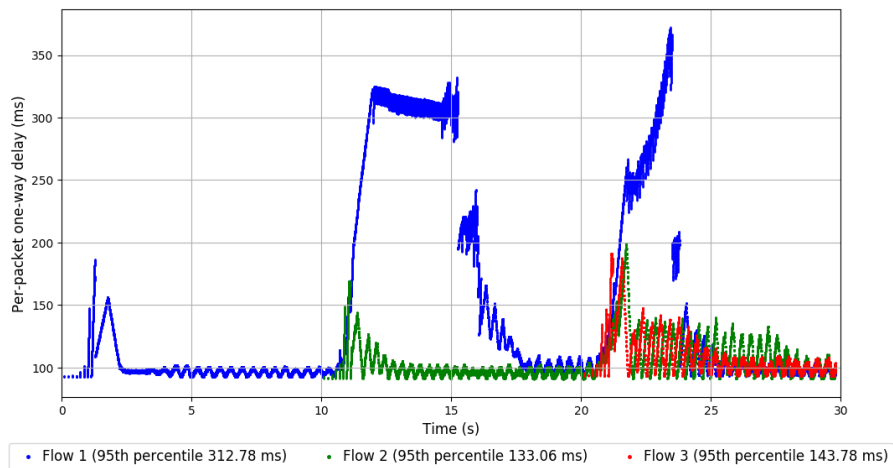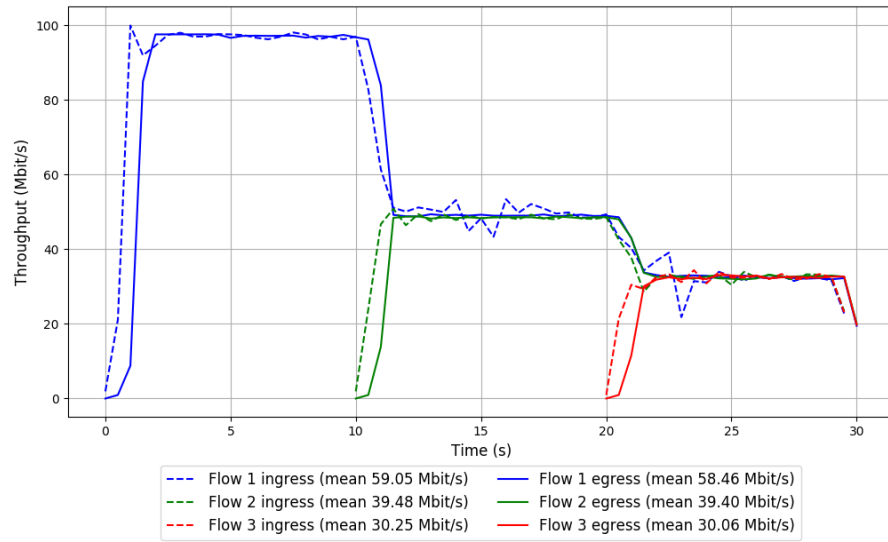
```
Run 4: Statistics of FillP-Sheep

Start at: 2019-12-11 16:27:32
End at: 2019-12-11 16:28:02
Local clock offset: -6.747 ms
Remote clock offset: -9.239 ms


# Below is generated by plot.py at 2019-12-11 17:27:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.51 Mbit/s
95th percentile per-packet one-way delay: 236.104 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 57.02 Mbit/s
95th percentile per-packet one-way delay: 209.777 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 39.77 Mbit/s
95th percentile per-packet one-way delay: 273.249 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 225.648 ms
Loss rate: 2.61%
```
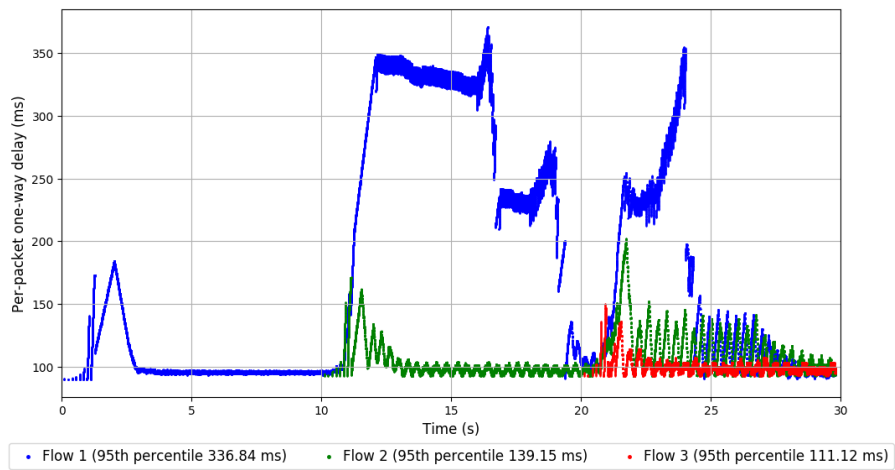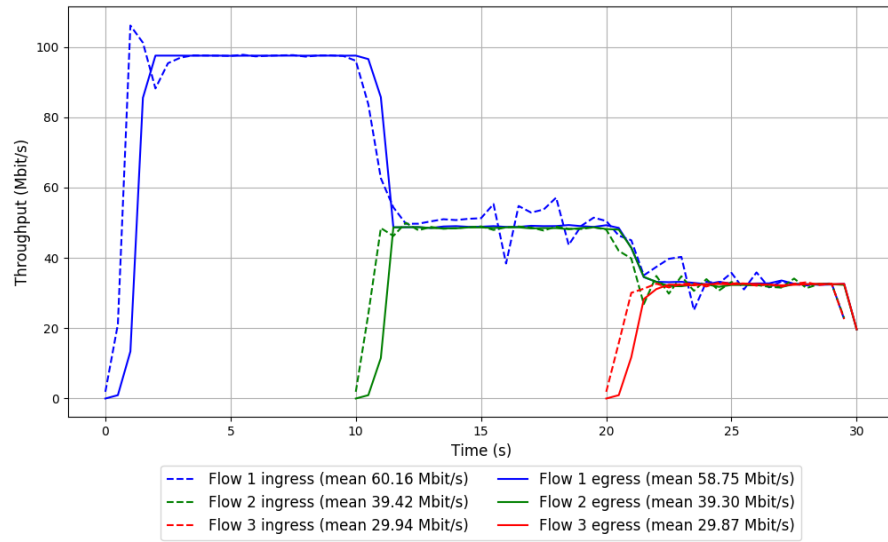
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.11 Mbit/s) --- Flow 1 egress (mean 57.02 Mbit/s)
Flow 2 ingress (mean 40.25 Mbit/s) --- Flow 2 egress (mean 39.77 Mbit/s)
Flow 3 ingress (mean 30.97 Mbit/s) --- Flow 3 egress (mean 30.59 Mbit/s)

Flow 1 (95th percentile 209.78 ms)   Flow 2 (95th percentile 273.25 ms)   Flow 3 (95th percentile 225.65 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-12-11 16:57:48
End at: 2019-12-11 16:58:18
Local clock offset: -5.613 ms
Remote clock offset: -9.048 ms


# Below is generated by plot.py at 2019-12-11 17:28:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.12 Mbit/s
95th percentile per-packet one-way delay: 253.962 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 234.656 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 39.36 Mbit/s
95th percentile per-packet one-way delay: 210.683 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 312.229 ms
Loss rate: 2.80%
```

Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.06 Mbit/s)   Flow 1 egress (mean 56.89 Mbit/s)
Flow 2 ingress (mean 39.79 Mbit/s)   Flow 2 egress (mean 39.36 Mbit/s)
Flow 3 ingress (mean 31.46 Mbit/s)   Flow 3 egress (mean 31.02 Mbit/s)

Flow 1 (95th percentile 234.66 ms)   Flow 2 (95th percentile 210.68 ms)   Flow 3 (95th percentile 312.23 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-12-11 14:55:23
End at: 2019-12-11 14:55:53
Local clock offset: -5.864 ms
Remote clock offset: -8.801 ms


# Below is generated by plot.py at 2019-12-11 17:28:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.52 Mbit/s
95th percentile per-packet one-way delay: 314.297 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 58.99 Mbit/s
95th percentile per-packet one-way delay: 318.467 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 38.97 Mbit/s
95th percentile per-packet one-way delay: 136.441 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 29.78 Mbit/s
95th percentile per-packet one-way delay: 124.396 ms
Loss rate: 1.82%
```
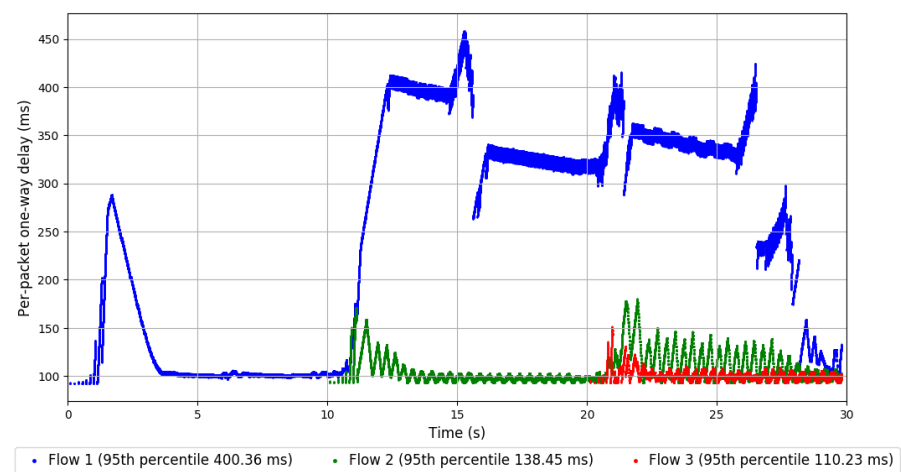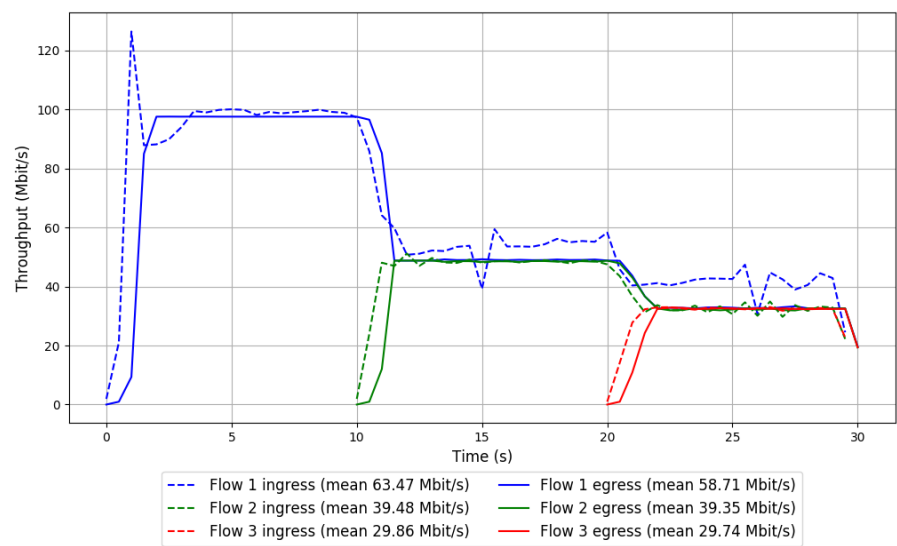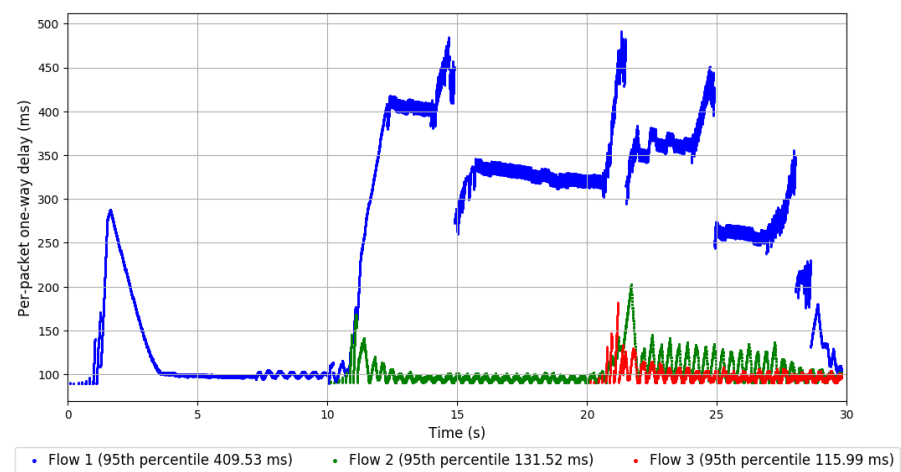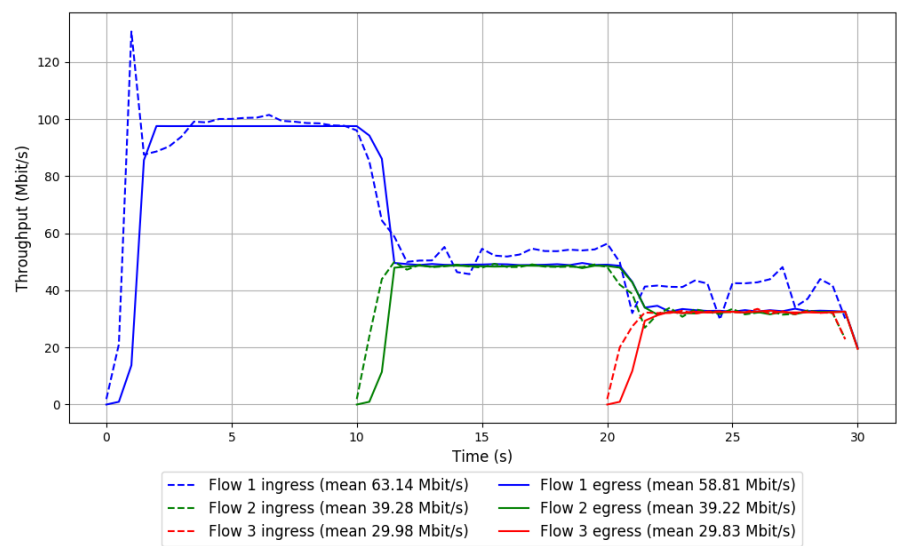
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-12-11 15:25:39
End at: 2019-12-11 15:26:09
Local clock offset: -6.455 ms
Remote clock offset: -9.521 ms


# Below is generated by plot.py at 2019-12-11 17:28:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.38 Mbit/s
95th percentile per-packet one-way delay: 306.771 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 58.46 Mbit/s
95th percentile per-packet one-way delay: 312.781 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 133.061 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 143.780 ms
Loss rate: 2.07%
```

Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 59.05 Mbit/s)   Flow 1 egress (mean 58.46 Mbit/s)
Flow 2 ingress (mean 39.48 Mbit/s)   Flow 2 egress (mean 39.40 Mbit/s)
Flow 3 ingress (mean 30.25 Mbit/s)   Flow 3 egress (mean 30.06 Mbit/s)

Flow 1 (95th percentile 312.78 ms)   Flow 2 (95th percentile 133.06 ms)   Flow 3 (95th percentile 143.78 ms)

```
Run 3: Statistics of Indigo

Start at: 2019-12-11 15:55:56
End at: 2019-12-11 15:56:26
Local clock offset: -8.163 ms
Remote clock offset: -9.577 ms


# Below is generated by plot.py at 2019-12-11 17:28:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.55 Mbit/s
95th percentile per-packet one-way delay: 331.728 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 58.75 Mbit/s
95th percentile per-packet one-way delay: 336.841 ms
Loss rate: 2.79%
-- Flow 2:
Average throughput: 39.30 Mbit/s
95th percentile per-packet one-way delay: 139.145 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 29.87 Mbit/s
95th percentile per-packet one-way delay: 111.118 ms
Loss rate: 1.68%
```
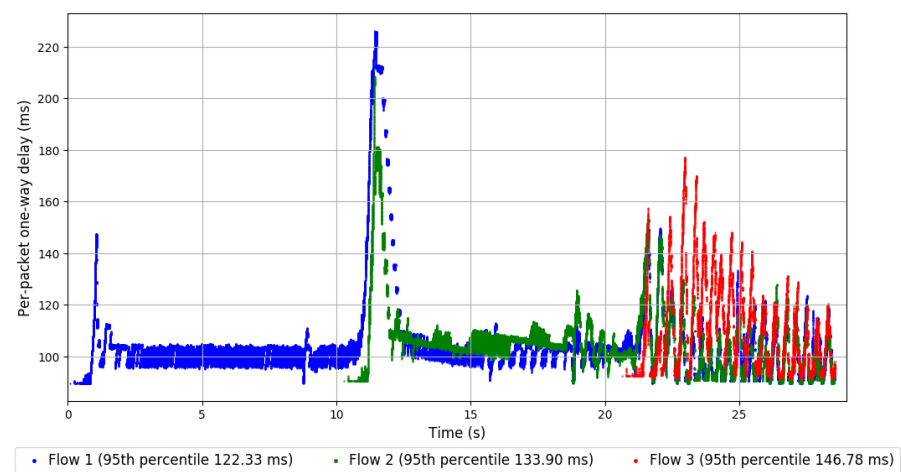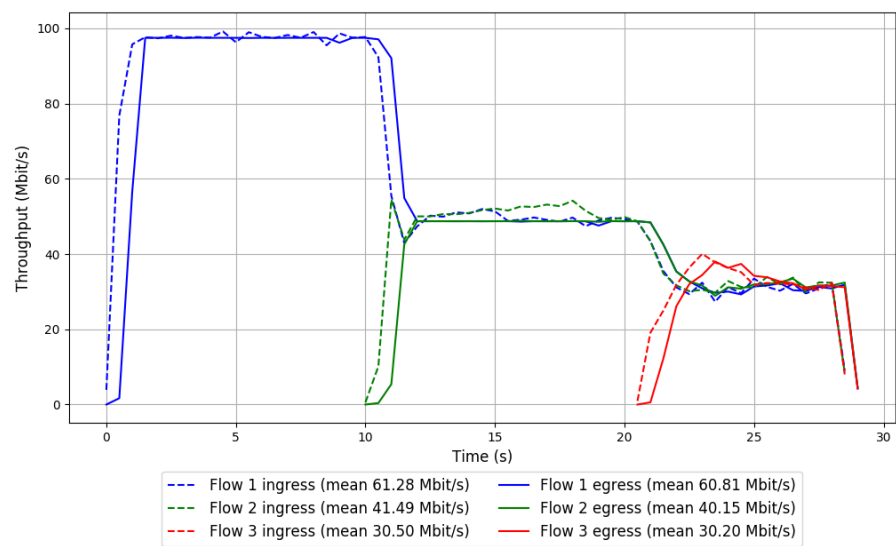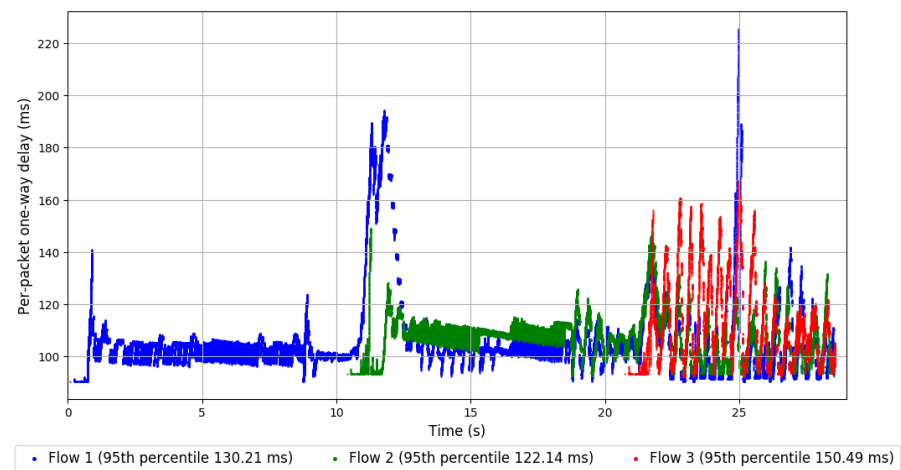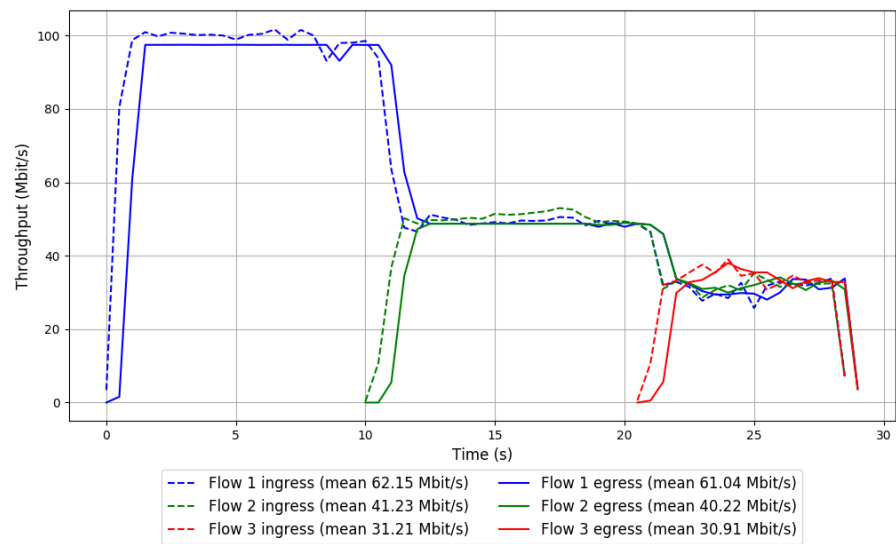
Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 60.16 Mbit/s) --- Flow 1 egress (mean 58.75 Mbit/s)
Flow 2 ingress (mean 39.42 Mbit/s) --- Flow 2 egress (mean 39.30 Mbit/s)
Flow 3 ingress (mean 29.94 Mbit/s) --- Flow 3 egress (mean 29.87 Mbit/s)

Flow 1 (95th percentile 336.84 ms)   Flow 2 (95th percentile 139.15 ms)   Flow 3 (95th percentile 111.12 ms)

```
Run 4: Statistics of Indigo

Start at: 2019-12-11 16:26:14
End at: 2019-12-11 16:26:44
Local clock offset: -6.018 ms
Remote clock offset: -9.137 ms

# Below is generated by plot.py at 2019-12-11 17:28:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.49 Mbit/s
95th percentile per-packet one-way delay: 393.365 ms
Loss rate: 5.51%
-- Flow 1:
Average throughput: 58.71 Mbit/s
95th percentile per-packet one-way delay: 400.363 ms
Loss rate: 7.94%
-- Flow 2:
Average throughput: 39.35 Mbit/s
95th percentile per-packet one-way delay: 138.447 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 29.74 Mbit/s
95th percentile per-packet one-way delay: 110.230 ms
Loss rate: 1.83%
```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-12-11 16:56:30
End at: 2019-12-11 16:57:00
Local clock offset: -6.296 ms
Remote clock offset: -9.165 ms


# Below is generated by plot.py at 2019-12-11 17:28:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.52 Mbit/s
95th percentile per-packet one-way delay: 400.220 ms
Loss rate: 5.06%
-- Flow 1:
Average throughput: 58.81 Mbit/s
95th percentile per-packet one-way delay: 409.528 ms
Loss rate: 7.29%
-- Flow 2:
Average throughput: 39.22 Mbit/s
95th percentile per-packet one-way delay: 131.518 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 29.83 Mbit/s
95th percentile per-packet one-way delay: 115.994 ms
Loss rate: 1.89%
```
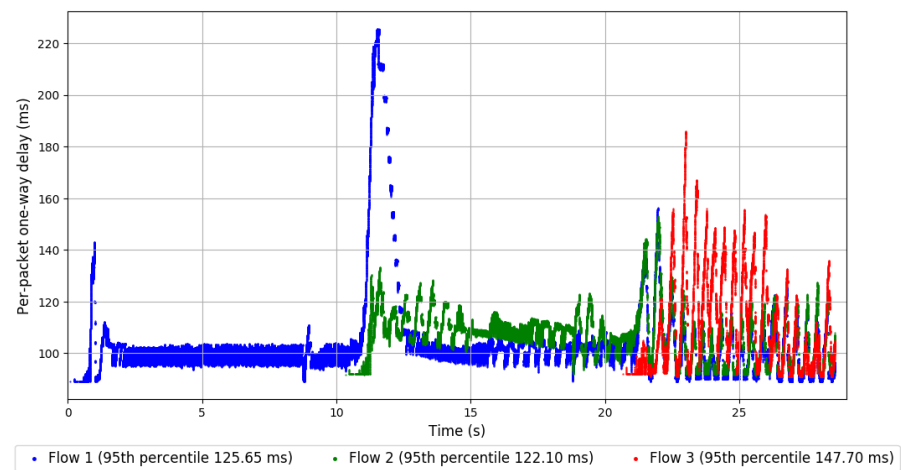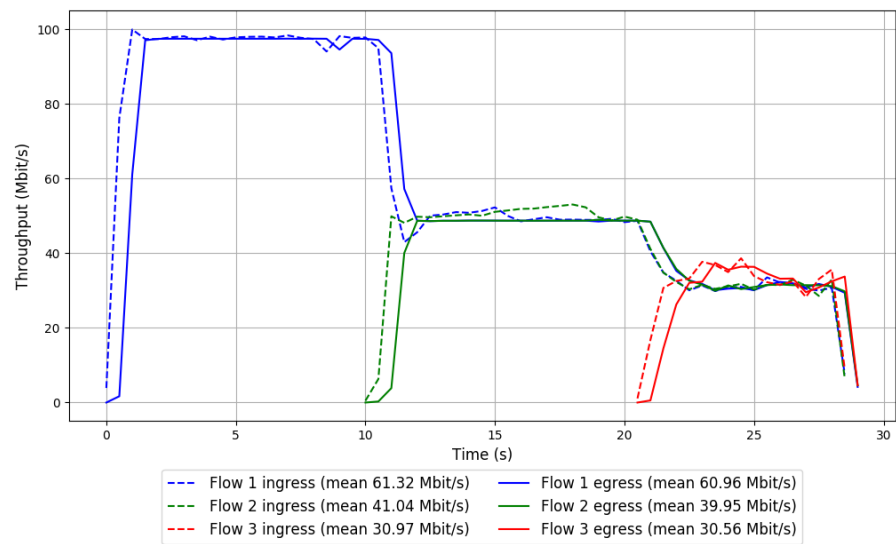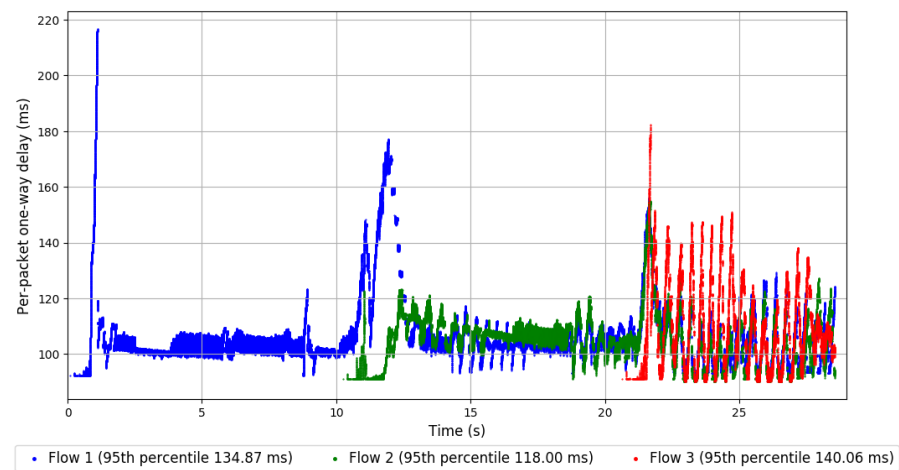
Run 5: Report of Indigo — Data Link

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```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-12-11 15:16:51
End at: 2019-12-11 15:17:21
Local clock offset: -7.236 ms
Remote clock offset: -8.993 ms


# Below is generated by plot.py at 2019-12-11 17:28:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 135.113 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 60.81 Mbit/s
95th percentile per-packet one-way delay: 122.328 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 133.895 ms
Loss rate: 3.95%
-- Flow 3:
Average throughput: 30.20 Mbit/s
95th percentile per-packet one-way delay: 146.780 ms
Loss rate: 2.69%
```

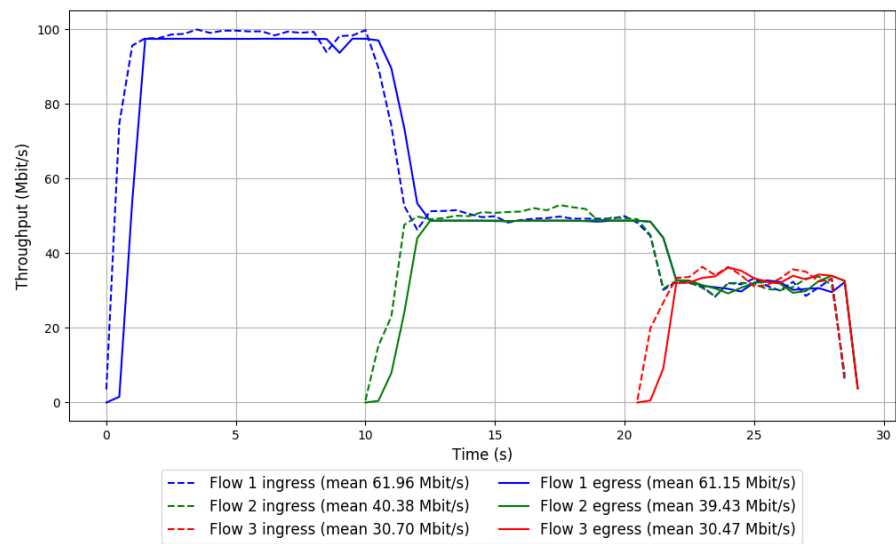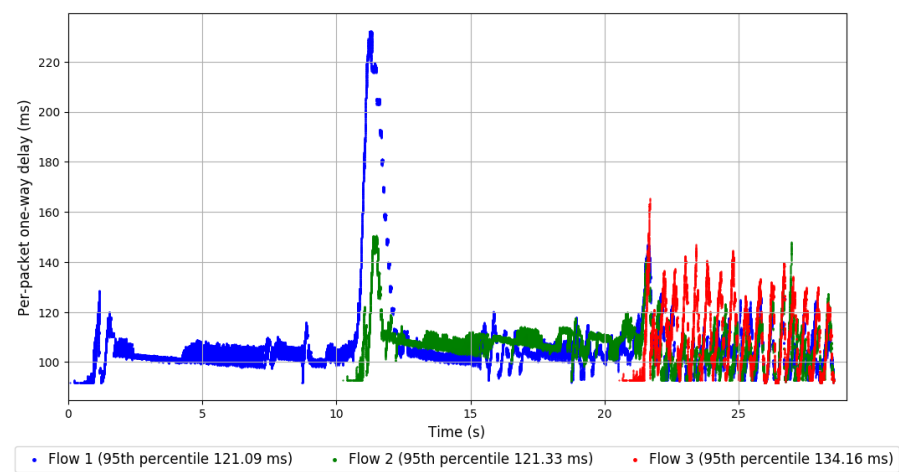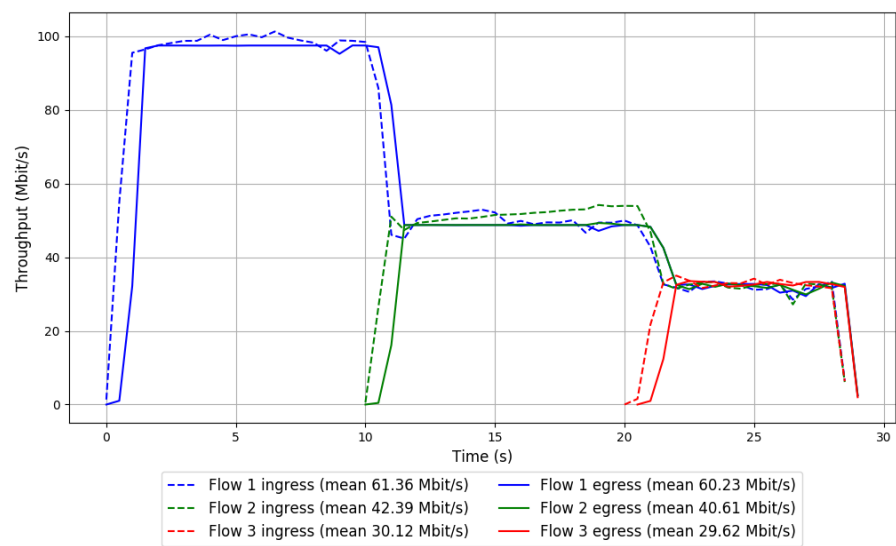Run 1: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 61.28 Mbit/s) —— Flow 1 egress (mean 60.81 Mbit/s)
Flow 2 ingress (mean 41.49 Mbit/s) —— Flow 2 egress (mean 40.15 Mbit/s)
Flow 3 ingress (mean 30.50 Mbit/s) —— Flow 3 egress (mean 30.20 Mbit/s)

Flow 1 (95th percentile 122.33 ms)   Flow 2 (95th percentile 133.90 ms)   Flow 3 (95th percentile 146.78 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-12-11 15:47:07
End at: 2019-12-11 15:47:37
Local clock offset: -7.038 ms
Remote clock offset: -9.778 ms


# Below is generated by plot.py at 2019-12-11 17:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.21 Mbit/s
95th percentile per-packet one-way delay: 133.435 ms
Loss rate: 2.54%
-- Flow 1:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 130.207 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 40.22 Mbit/s
95th percentile per-packet one-way delay: 122.141 ms
Loss rate: 3.14%
-- Flow 3:
Average throughput: 30.91 Mbit/s
95th percentile per-packet one-way delay: 150.488 ms
Loss rate: 2.68%
```

Run 2: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 62.15 Mbit/s) —— Flow 1 egress (mean 61.04 Mbit/s)
- - - Flow 2 ingress (mean 41.23 Mbit/s) —— Flow 2 egress (mean 40.22 Mbit/s)
- - - Flow 3 ingress (mean 31.21 Mbit/s) —— Flow 3 egress (mean 30.91 Mbit/s)

- Flow 1 (95th percentile 130.21 ms)   • Flow 2 (95th percentile 122.14 ms)   • Flow 3 (95th percentile 150.49 ms)
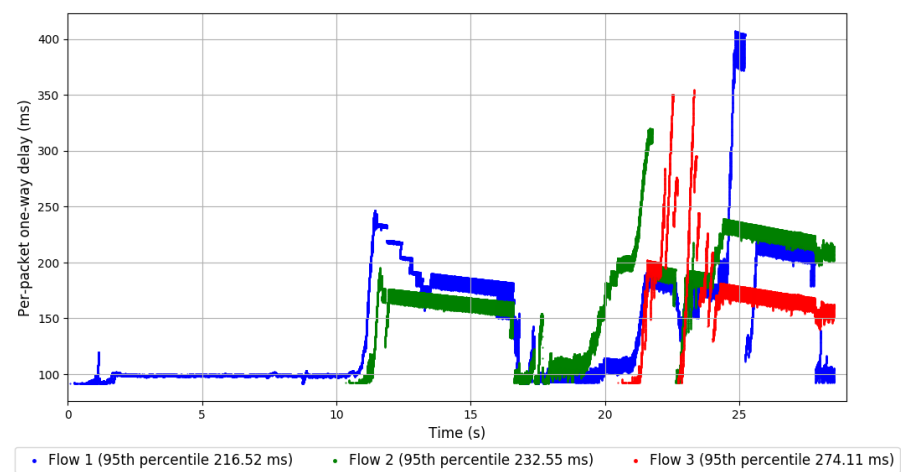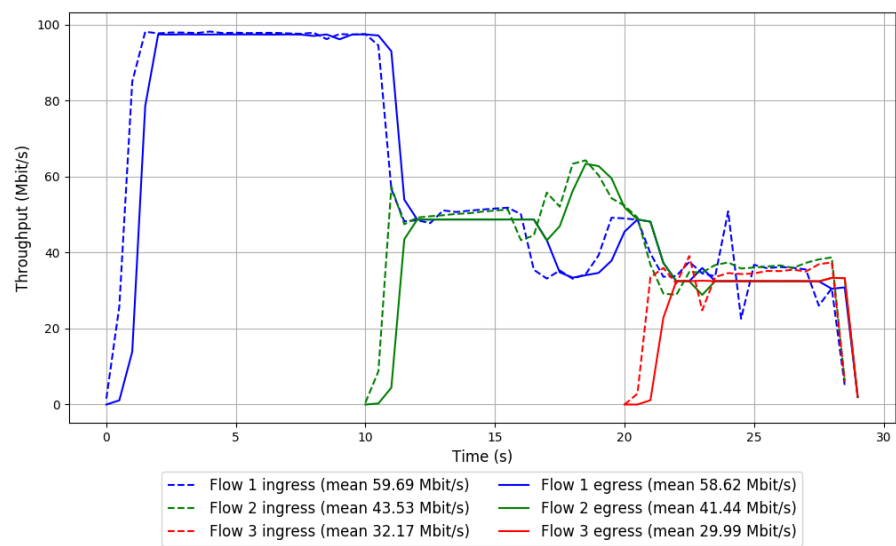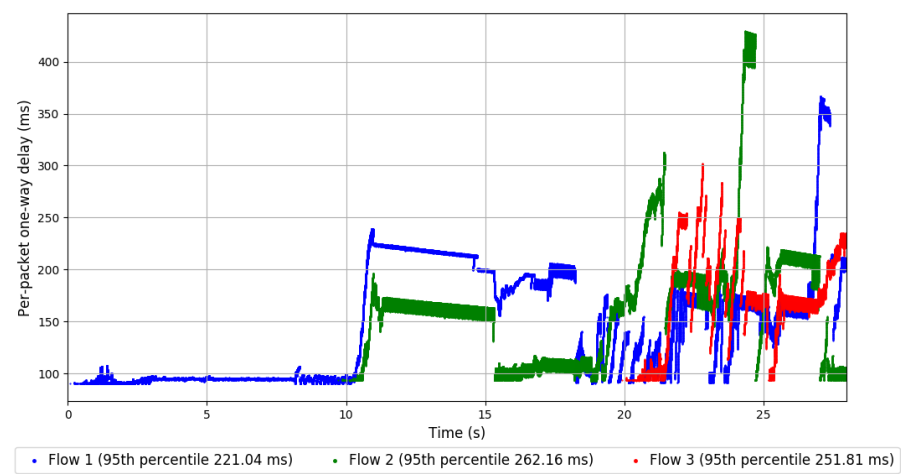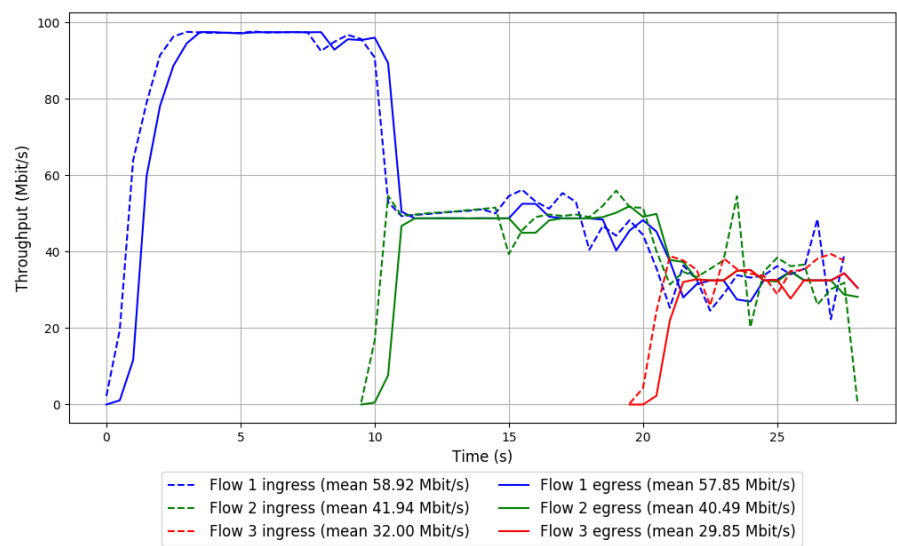
```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-12-11 16:17:25
End at: 2019-12-11 16:17:55
Local clock offset: -7.249 ms
Remote clock offset: -8.804 ms


# Below is generated by plot.py at 2019-12-11 17:28:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.03 Mbit/s
95th percentile per-packet one-way delay: 131.360 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 60.96 Mbit/s
95th percentile per-packet one-way delay: 125.646 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 122.100 ms
Loss rate: 3.37%
-- Flow 3:
Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 147.696 ms
Loss rate: 2.99%
```

Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 61.32 Mbit/s) — — — Flow 1 egress (mean 60.96 Mbit/s)
Flow 2 ingress (mean 41.04 Mbit/s) — — — Flow 2 egress (mean 39.95 Mbit/s)
Flow 3 ingress (mean 30.97 Mbit/s) — — — Flow 3 egress (mean 30.56 Mbit/s)

Flow 1 (95th percentile 125.65 ms)   Flow 2 (95th percentile 122.10 ms)   Flow 3 (95th percentile 147.70 ms)

70

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-12-11 16:47:41
End at: 2019-12-11 16:48:11
Local clock offset: -5.675 ms
Remote clock offset: -9.272 ms


# Below is generated by plot.py at 2019-12-11 17:28:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.96 Mbit/s
95th percentile per-packet one-way delay: 130.645 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 61.15 Mbit/s
95th percentile per-packet one-way delay: 134.873 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 39.43 Mbit/s
95th percentile per-packet one-way delay: 117.997 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 140.059 ms
Loss rate: 2.45%
```
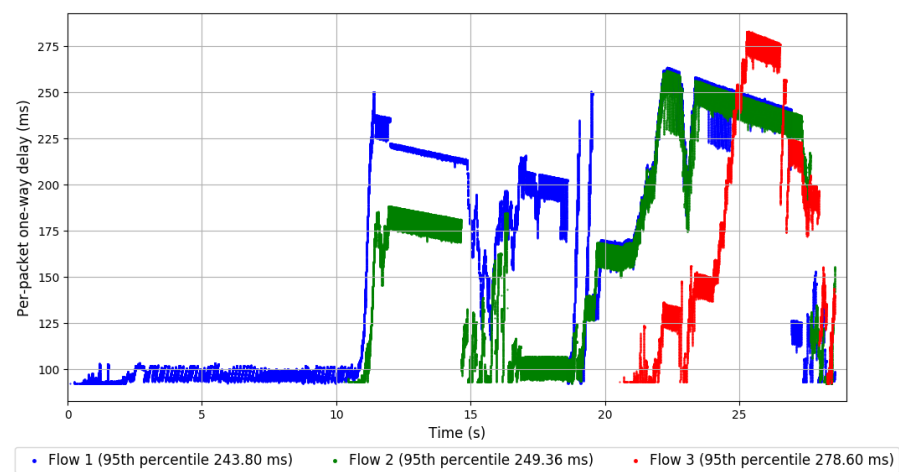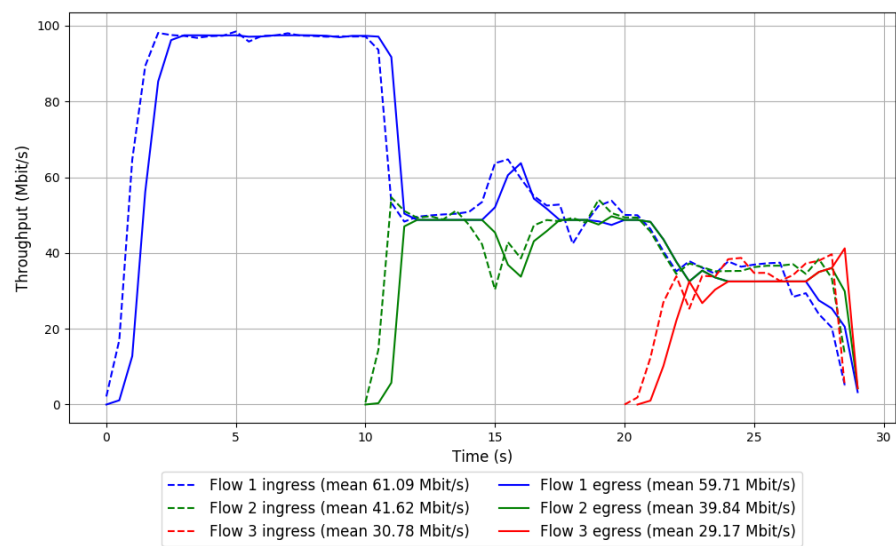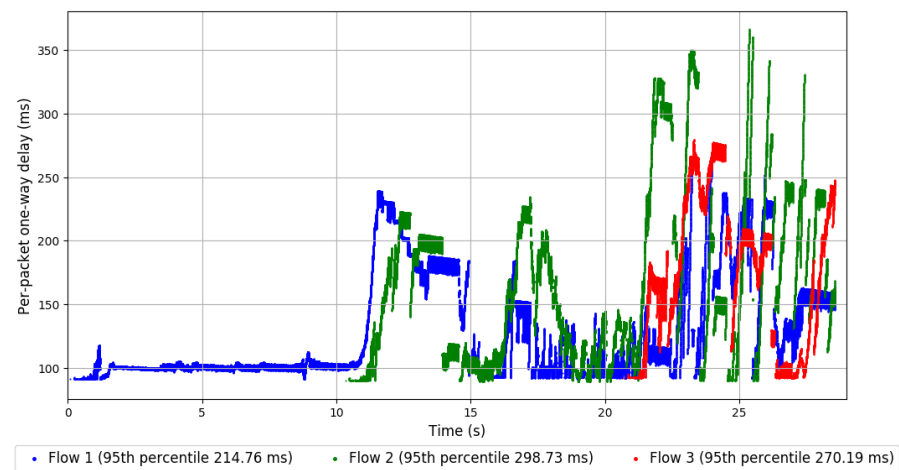
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-12-11 17:18:02
End at: 2019-12-11 17:18:32
Local clock offset: -6.945 ms
Remote clock offset: -8.889 ms


# Below is generated by plot.py at 2019-12-11 17:28:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.66 Mbit/s
95th percentile per-packet one-way delay: 126.289 ms
Loss rate: 3.14%
-- Flow 1:
Average throughput: 60.23 Mbit/s
95th percentile per-packet one-way delay: 121.093 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 121.333 ms
Loss rate: 4.92%
-- Flow 3:
Average throughput: 29.62 Mbit/s
95th percentile per-packet one-way delay: 134.155 ms
Loss rate: 3.36%
```

Run 5: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 61.36 Mbit/s)   —— Flow 1 egress (mean 60.23 Mbit/s)
- - - Flow 2 ingress (mean 42.39 Mbit/s)   —— Flow 2 egress (mean 40.61 Mbit/s)
- - - Flow 3 ingress (mean 30.12 Mbit/s)   —— Flow 3 egress (mean 29.62 Mbit/s)

• Flow 1 (95th percentile 121.09 ms)   • Flow 2 (95th percentile 121.33 ms)   • Flow 3 (95th percentile 134.16 ms)
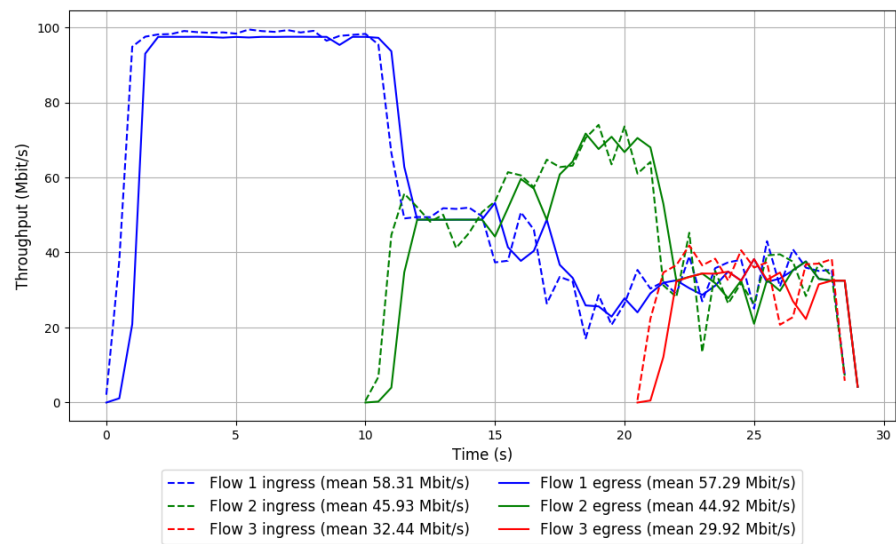
74

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-12-11 15:00:30
End at: 2019-12-11 15:01:00
Local clock offset: -7.457 ms
Remote clock offset: -8.839 ms


# Below is generated by plot.py at 2019-12-11 17:28:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 228.589 ms
Loss rate: 3.77%
-- Flow 1:
Average throughput: 58.62 Mbit/s
95th percentile per-packet one-way delay: 216.518 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 41.44 Mbit/s
95th percentile per-packet one-way delay: 232.550 ms
Loss rate: 5.50%
-- Flow 3:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 274.111 ms
Loss rate: 8.35%
```

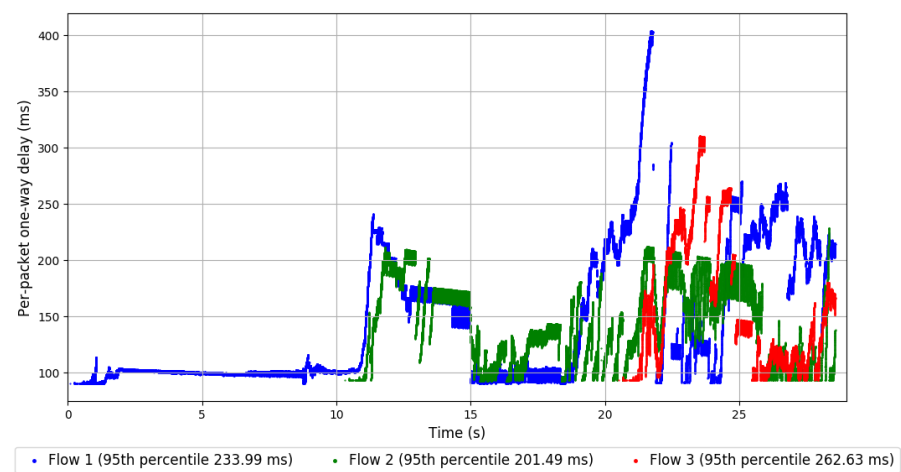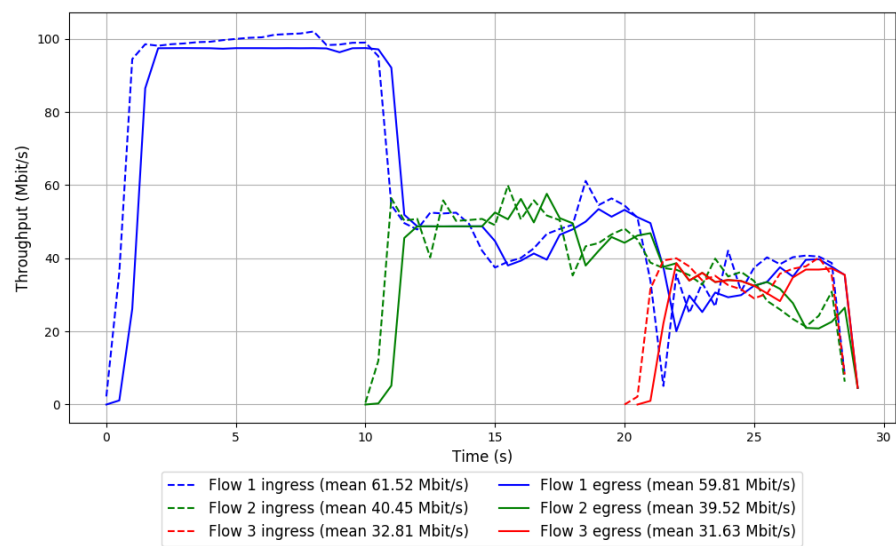Run 1: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 59.69 Mbit/s) ——— Flow 1 egress (mean 58.62 Mbit/s)
- - - - Flow 2 ingress (mean 43.53 Mbit/s) ——— Flow 2 egress (mean 41.44 Mbit/s)
- - - - Flow 3 ingress (mean 32.17 Mbit/s) ——— Flow 3 egress (mean 29.99 Mbit/s)

• Flow 1 (95th percentile 216.52 ms)   • Flow 2 (95th percentile 232.55 ms)   • Flow 3 (95th percentile 274.11 ms)
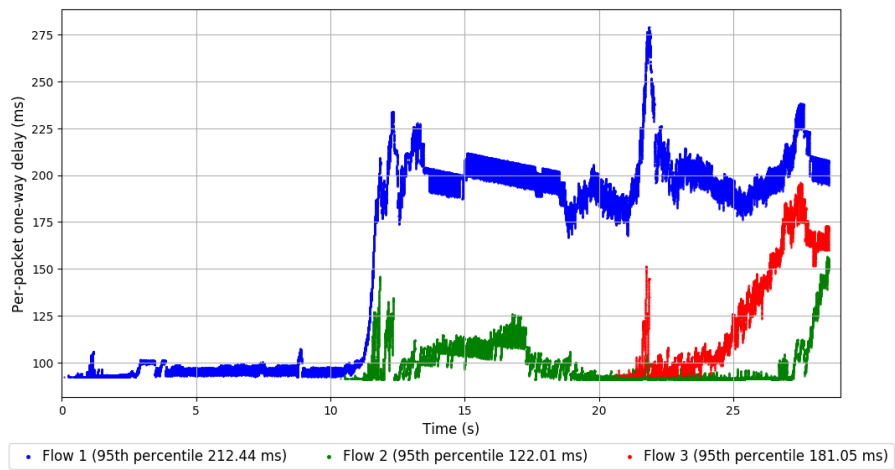
```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-12-11 15:30:45
End at: 2019-12-11 15:31:15
Local clock offset: -6.507 ms
Remote clock offset: -9.634 ms


# Below is generated by plot.py at 2019-12-11 17:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.94 Mbit/s
95th percentile per-packet one-way delay: 223.517 ms
Loss rate: 3.40%
-- Flow 1:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 221.040 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 40.49 Mbit/s
95th percentile per-packet one-way delay: 262.163 ms
Loss rate: 4.18%
-- Flow 3:
Average throughput: 29.85 Mbit/s
95th percentile per-packet one-way delay: 251.812 ms
Loss rate: 8.26%
```
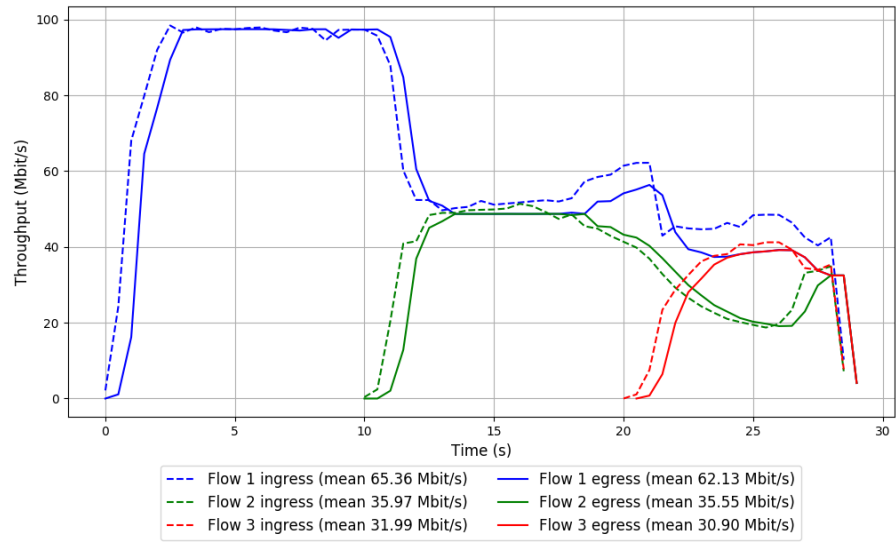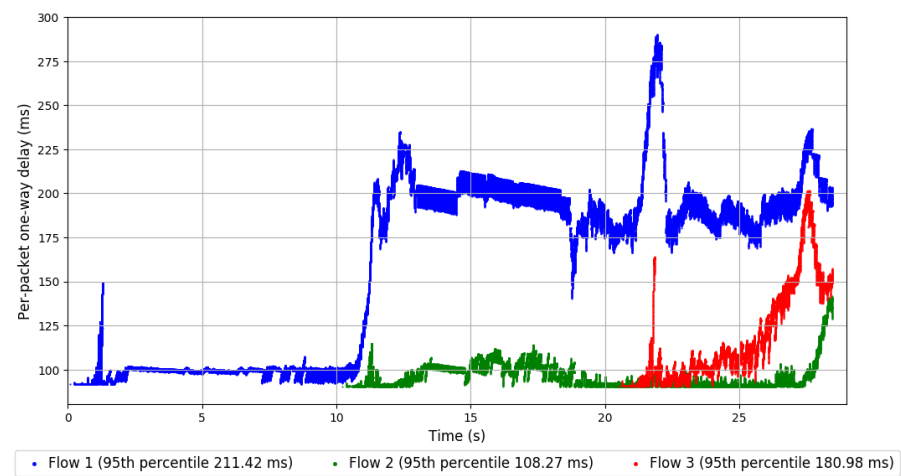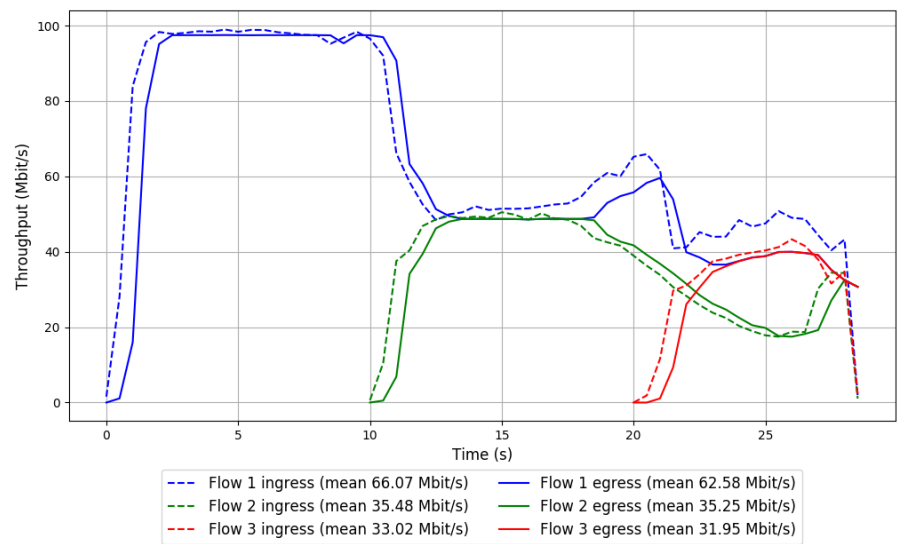
Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-12-11 16:01:02
End at: 2019-12-11 16:01:32
Local clock offset: -7.62 ms
Remote clock offset: -9.506 ms


# Below is generated by plot.py at 2019-12-11 17:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.46 Mbit/s
95th percentile per-packet one-way delay: 249.729 ms
Loss rate: 3.74%
-- Flow 1:
Average throughput: 59.71 Mbit/s
95th percentile per-packet one-way delay: 243.804 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 249.359 ms
Loss rate: 5.02%
-- Flow 3:
Average throughput: 29.17 Mbit/s
95th percentile per-packet one-way delay: 278.598 ms
Loss rate: 6.87%
```

Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 61.09 Mbit/s) --- Flow 1 egress (mean 59.71 Mbit/s)
Flow 2 ingress (mean 41.62 Mbit/s) --- Flow 2 egress (mean 39.84 Mbit/s)
Flow 3 ingress (mean 30.78 Mbit/s) --- Flow 3 egress (mean 29.17 Mbit/s)

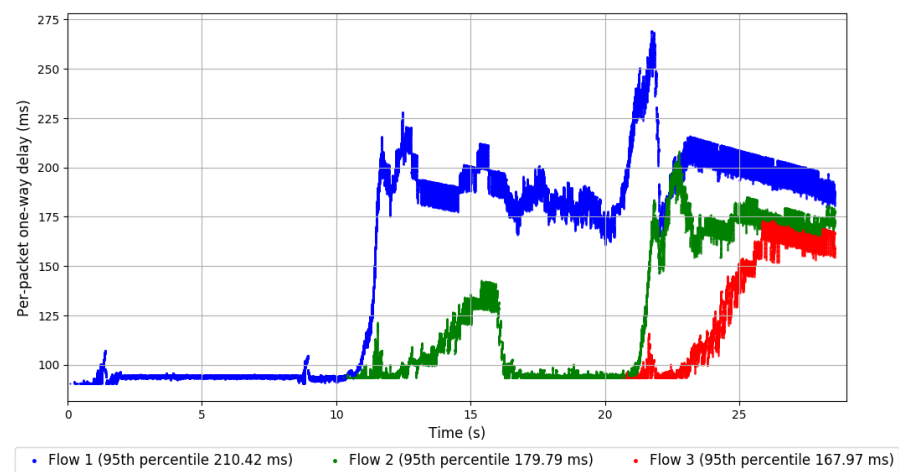Flow 1 (95th percentile 243.80 ms)   Flow 2 (95th percentile 249.36 ms)   Flow 3 (95th percentile 278.60 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-12-11 16:31:20
End at: 2019-12-11 16:31:50
Local clock offset: -6.627 ms
Remote clock offset: -9.177 ms


# Below is generated by plot.py at 2019-12-11 17:29:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.29 Mbit/s
95th percentile per-packet one-way delay: 237.619 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 57.29 Mbit/s
95th percentile per-packet one-way delay: 214.758 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 44.92 Mbit/s
95th percentile per-packet one-way delay: 298.733 ms
Loss rate: 2.88%
-- Flow 3:
Average throughput: 29.92 Mbit/s
95th percentile per-packet one-way delay: 270.190 ms
Loss rate: 9.39%
```
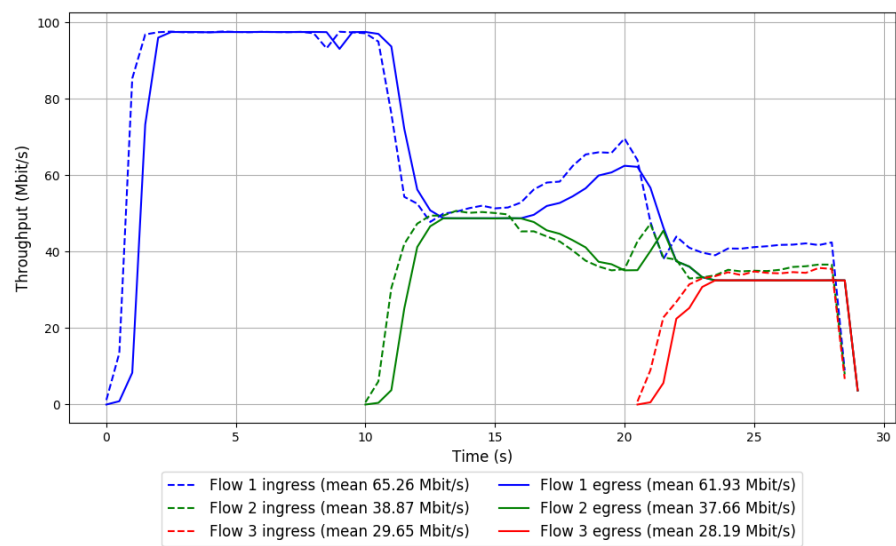
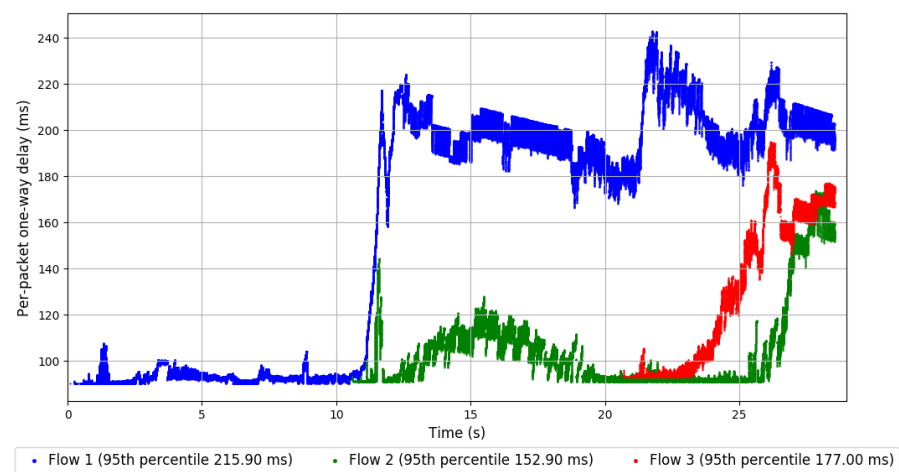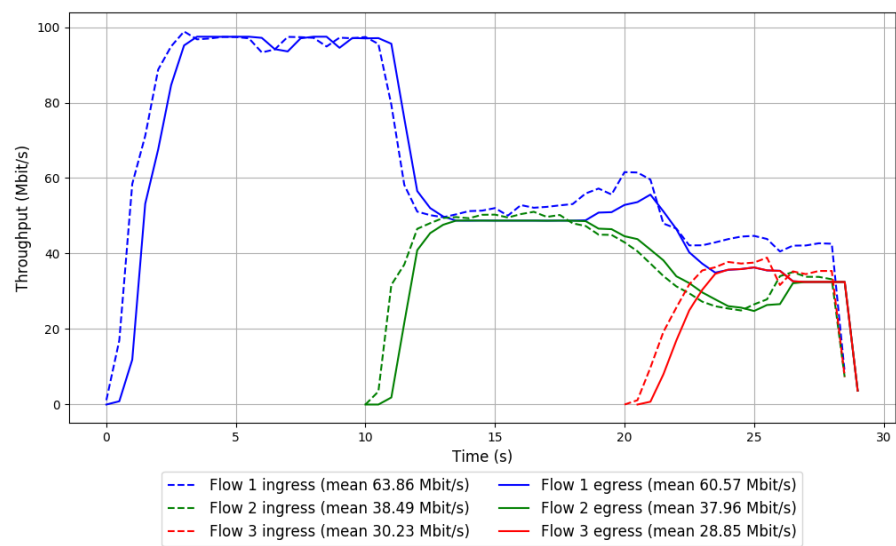Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-12-11 17:01:36
End at: 2019-12-11 17:02:06
Local clock offset: -6.379 ms
Remote clock offset: -9.631 ms


# Below is generated by plot.py at 2019-12-11 17:29:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.09 Mbit/s
95th percentile per-packet one-way delay: 232.143 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 59.81 Mbit/s
95th percentile per-packet one-way delay: 233.993 ms
Loss rate: 3.20%
-- Flow 2:
Average throughput: 39.52 Mbit/s
95th percentile per-packet one-way delay: 201.491 ms
Loss rate: 2.83%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 262.627 ms
Loss rate: 5.20%
```

Run 5: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 61.52 Mbit/s) —— Flow 1 egress (mean 59.81 Mbit/s)
- - - Flow 2 ingress (mean 40.45 Mbit/s) —— Flow 2 egress (mean 39.52 Mbit/s)
- - - Flow 3 ingress (mean 32.81 Mbit/s) —— Flow 3 egress (mean 31.63 Mbit/s)

• Flow 1 (95th percentile 233.99 ms)   • Flow 2 (95th percentile 201.49 ms)   • Flow 3 (95th percentile 262.63 ms)
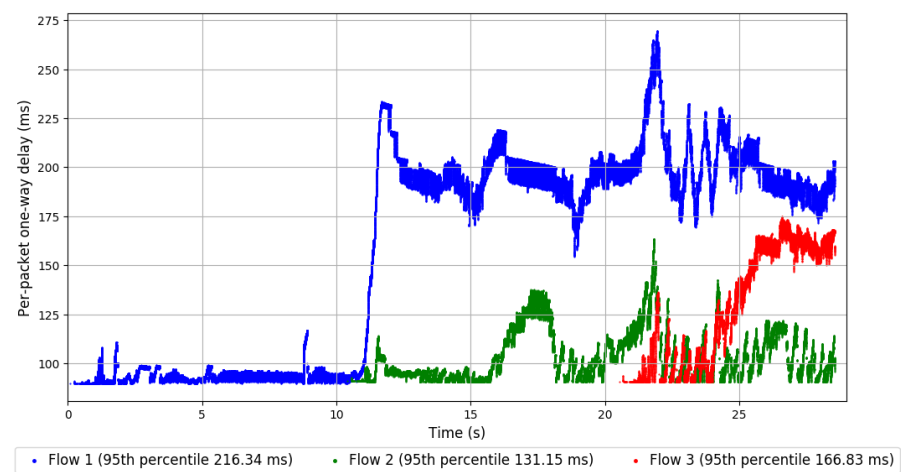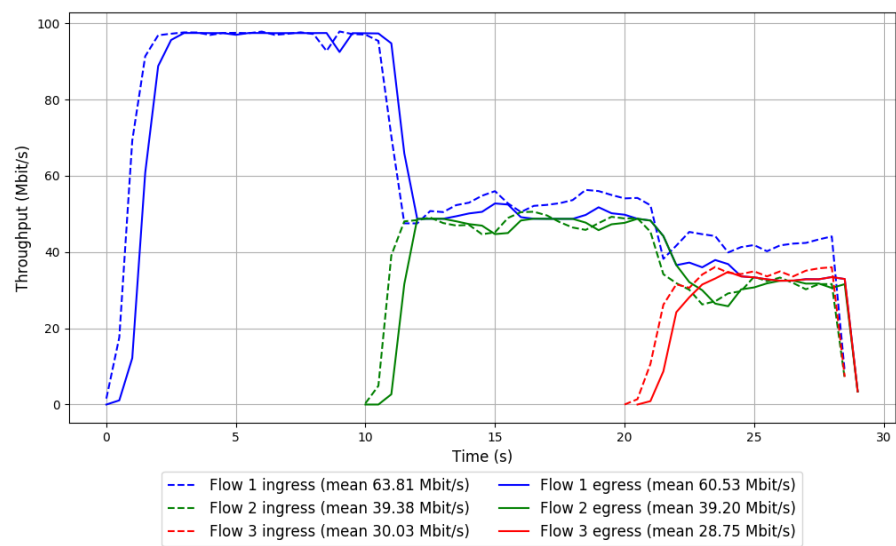
84

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-12-11 15:05:32
End at: 2019-12-11 15:06:02
Local clock offset: -8.097 ms
Remote clock offset: -9.261 ms


# Below is generated by plot.py at 2019-12-11 17:29:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.49 Mbit/s
95th percentile per-packet one-way delay: 209.153 ms
Loss rate: 4.53%
-- Flow 1:
Average throughput: 62.13 Mbit/s
95th percentile per-packet one-way delay: 212.440 ms
Loss rate: 5.40%
-- Flow 2:
Average throughput: 35.55 Mbit/s
95th percentile per-packet one-way delay: 122.014 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 181.048 ms
Loss rate: 5.08%
```

Run 1: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 65.36 Mbit/s)   —— Flow 1 egress (mean 62.13 Mbit/s)
- - - Flow 2 ingress (mean 35.97 Mbit/s)   —— Flow 2 egress (mean 35.55 Mbit/s)
- - - Flow 3 ingress (mean 31.99 Mbit/s)   —— Flow 3 egress (mean 30.90 Mbit/s)

• Flow 1 (95th percentile 212.44 ms)   • Flow 2 (95th percentile 122.01 ms)   • Flow 3 (95th percentile 181.05 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-12-11 15:35:47
End at: 2019-12-11 15:36:17
Local clock offset: -7.379 ms
Remote clock offset: -9.691 ms


# Below is generated by plot.py at 2019-12-11 17:30:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.21 Mbit/s
95th percentile per-packet one-way delay: 207.841 ms
Loss rate: 4.66%
-- Flow 1:
Average throughput: 62.58 Mbit/s
95th percentile per-packet one-way delay: 211.420 ms
Loss rate: 5.75%
-- Flow 2:
Average throughput: 35.25 Mbit/s
95th percentile per-packet one-way delay: 108.266 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 180.982 ms
Loss rate: 4.89%
```

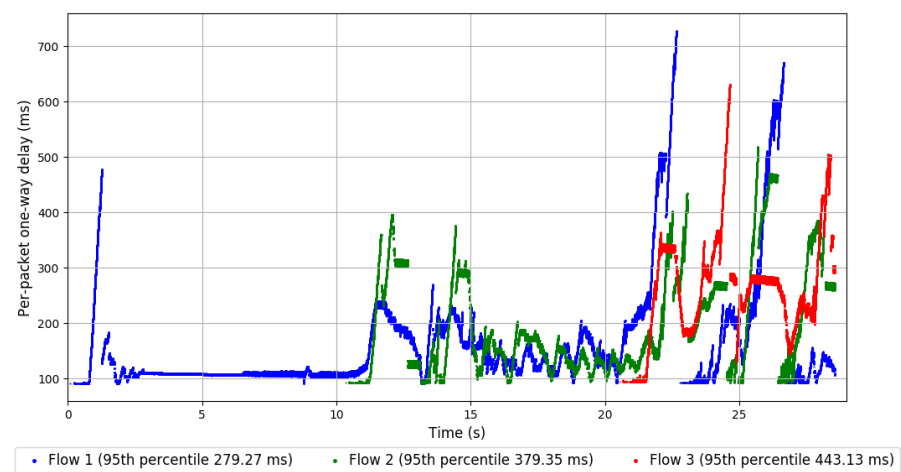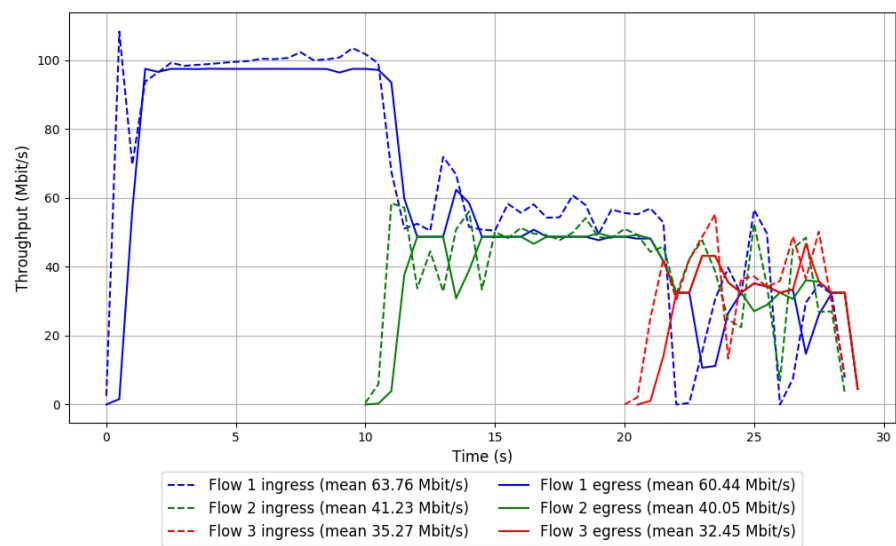Run 2: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 66.07 Mbit/s) --- Flow 1 egress (mean 62.58 Mbit/s) ——
Flow 2 ingress (mean 35.48 Mbit/s) --- Flow 2 egress (mean 35.25 Mbit/s) ——
Flow 3 ingress (mean 33.02 Mbit/s) --- Flow 3 egress (mean 31.95 Mbit/s) ——

Flow 1 (95th percentile 211.42 ms) • Flow 2 (95th percentile 108.27 ms) • Flow 3 (95th percentile 180.98 ms)

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-12-11 16:06:04
End at: 2019-12-11 16:06:34
Local clock offset: -7.835 ms
Remote clock offset: -9.482 ms


# Below is generated by plot.py at 2019-12-11 17:30:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 206.197 ms
Loss rate: 5.18%
-- Flow 1:
Average throughput: 61.93 Mbit/s
95th percentile per-packet one-way delay: 210.417 ms
Loss rate: 5.53%
-- Flow 2:
Average throughput: 37.66 Mbit/s
95th percentile per-packet one-way delay: 179.792 ms
Loss rate: 3.83%
-- Flow 3:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 167.969 ms
Loss rate: 6.47%
```

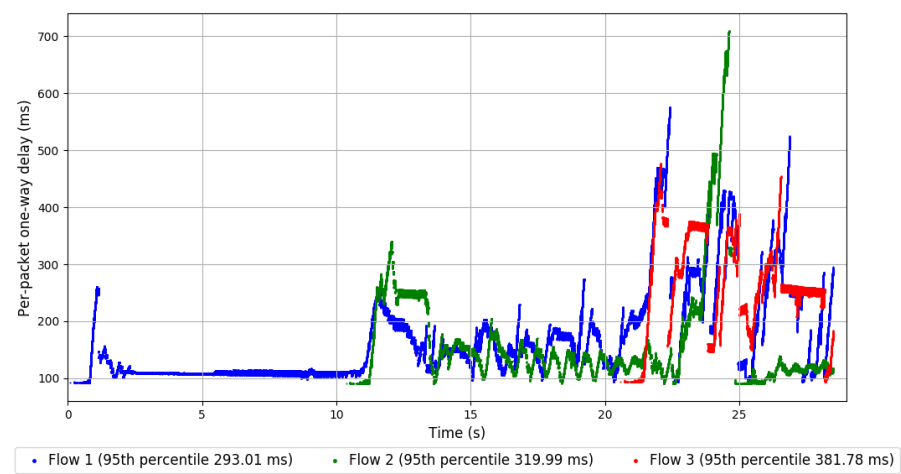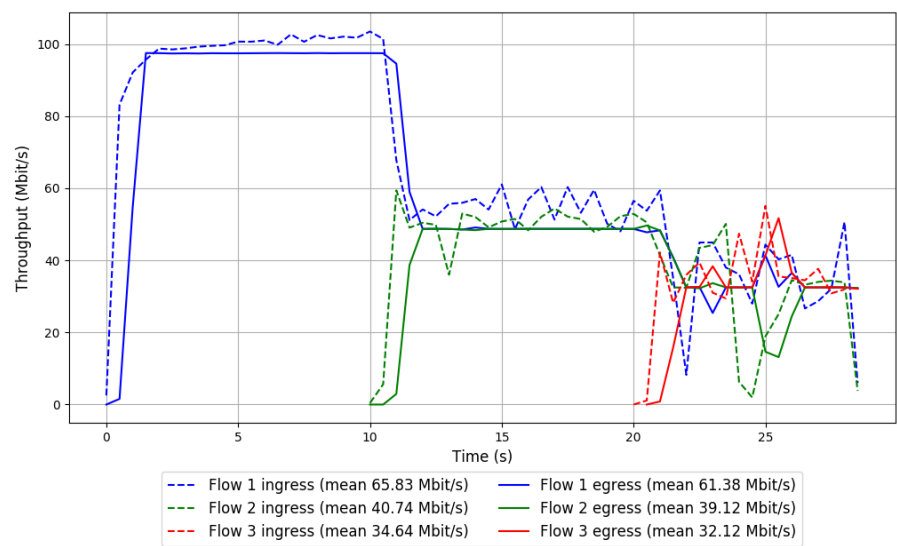# Run 3: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 65.26 Mbit/s) --- Flow 1 egress (mean 61.93 Mbit/s)
Flow 2 ingress (mean 38.87 Mbit/s) --- Flow 2 egress (mean 37.66 Mbit/s)
Flow 3 ingress (mean 29.65 Mbit/s) --- Flow 3 egress (mean 28.19 Mbit/s)

Flow 1 (95th percentile 210.42 ms) · Flow 2 (95th percentile 179.79 ms) · Flow 3 (95th percentile 167.97 ms)
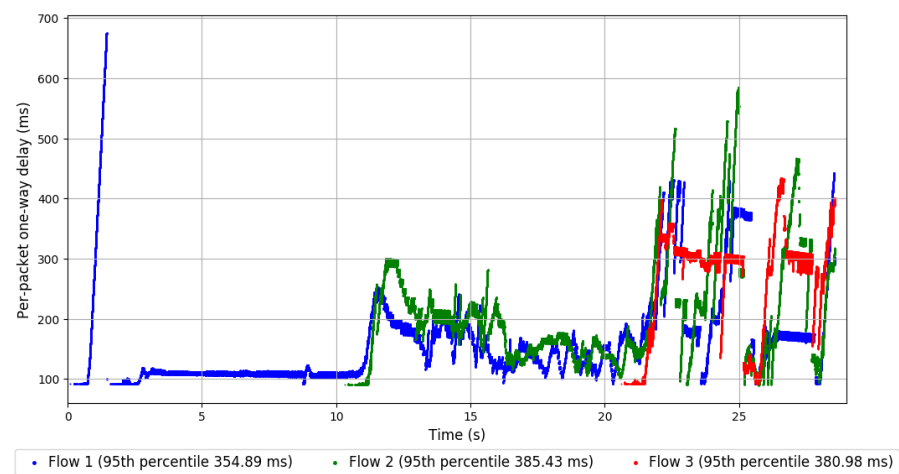
90

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-12-11 16:36:23
End at: 2019-12-11 16:36:53
Local clock offset: -5.917 ms
Remote clock offset: -9.328 ms


# Below is generated by plot.py at 2019-12-11 17:30:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.78 Mbit/s
95th percentile per-packet one-way delay: 210.849 ms
Loss rate: 4.77%
-- Flow 1:
Average throughput: 60.57 Mbit/s
95th percentile per-packet one-way delay: 215.896 ms
Loss rate: 5.60%
-- Flow 2:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 152.897 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 177.004 ms
Loss rate: 6.11%
```
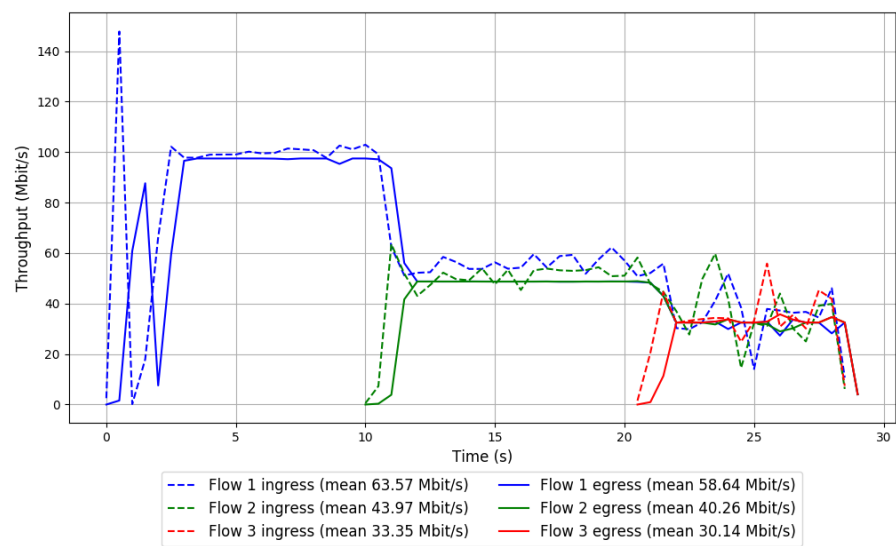
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-12-11 17:06:39
End at: 2019-12-11 17:07:09
Local clock offset: -6.301 ms
Remote clock offset: -8.952 ms


# Below is generated by plot.py at 2019-12-11 17:30:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 208.959 ms
Loss rate: 4.50%
-- Flow 1:
Average throughput: 60.53 Mbit/s
95th percentile per-packet one-way delay: 216.341 ms
Loss rate: 5.60%
-- Flow 2:
Average throughput: 39.20 Mbit/s
95th percentile per-packet one-way delay: 131.148 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 28.75 Mbit/s
95th percentile per-packet one-way delay: 166.827 ms
Loss rate: 5.91%
```
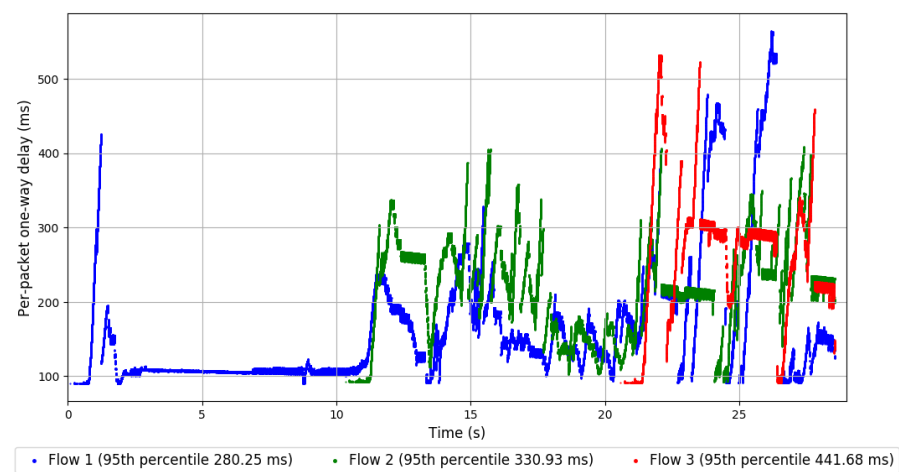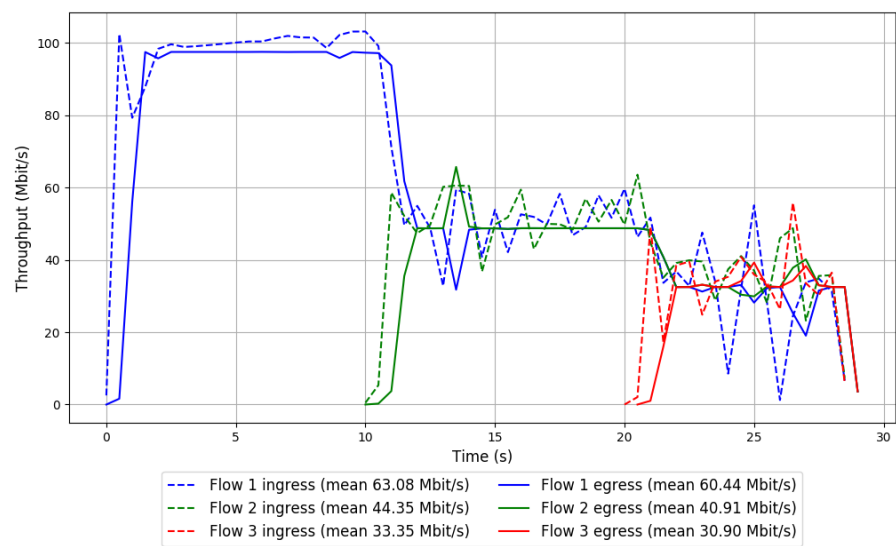
Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-12-11 14:51:40
End at: 2019-12-11 14:52:10
Local clock offset: -5.14 ms
Remote clock offset: -9.665 ms


# Below is generated by plot.py at 2019-12-11 17:30:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.24 Mbit/s
95th percentile per-packet one-way delay: 369.348 ms
Loss rate: 5.49%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 279.266 ms
Loss rate: 5.65%
-- Flow 2:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 379.347 ms
Loss rate: 3.54%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 443.126 ms
Loss rate: 9.55%
```

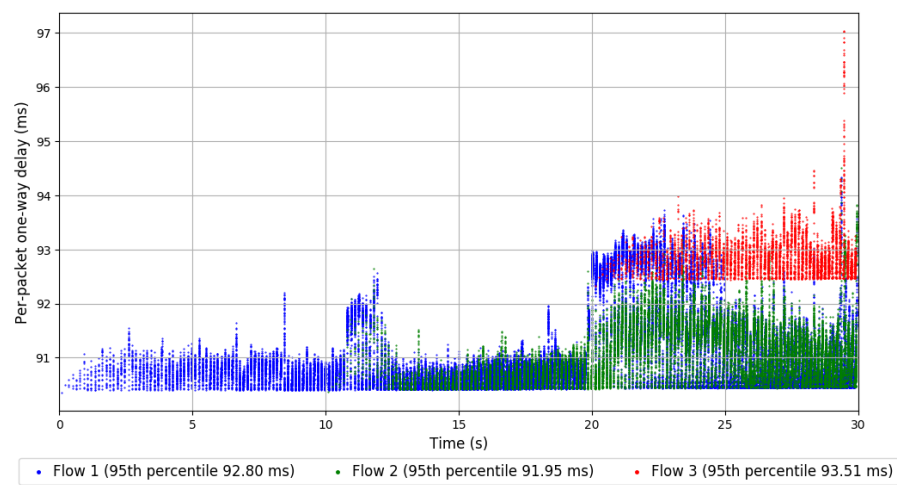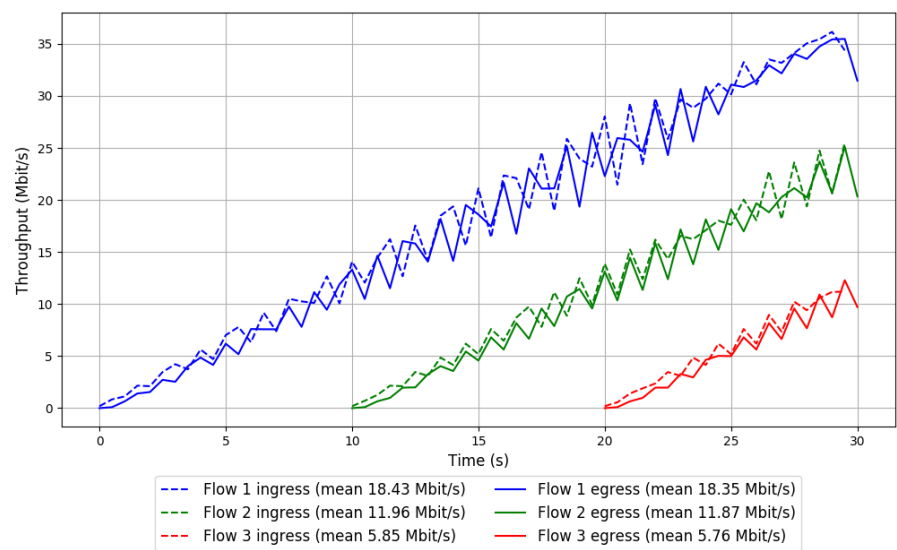Run 1: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 63.76 Mbit/s)
Flow 2 ingress (mean 41.23 Mbit/s)
Flow 3 ingress (mean 35.27 Mbit/s)
Flow 1 egress (mean 60.44 Mbit/s)
Flow 2 egress (mean 40.05 Mbit/s)
Flow 3 egress (mean 32.45 Mbit/s)

Flow 1 (95th percentile 279.27 ms)
Flow 2 (95th percentile 379.35 ms)
Flow 3 (95th percentile 443.13 ms)

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-12-11 15:21:57
End at: 2019-12-11 15:22:27
Local clock offset: -7.079 ms
Remote clock offset: -9.181 ms
```

Run 2: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 37.20 Mbit/s) — — — Flow 1 egress (mean 35.75 Mbit/s)
Flow 2 ingress (mean 42.89 Mbit/s) — — — Flow 2 egress (mean 40.29 Mbit/s)
Flow 3 ingress (mean 30.85 Mbit/s) — — — Flow 3 egress (mean 29.16 Mbit/s)

Flow 1 (95th percentile 447.17 ms)   Flow 2 (95th percentile 356.51 ms)   Flow 3 (95th percentile 549.18 ms)
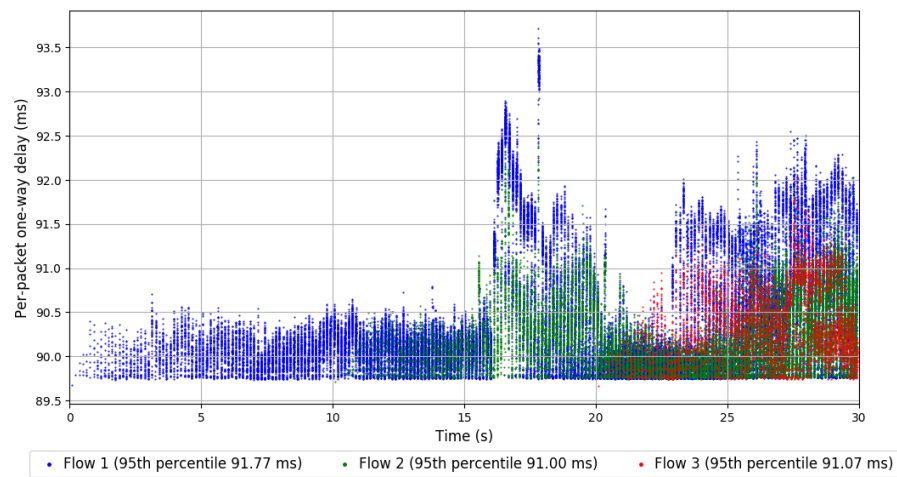
```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-12-11 15:52:13
End at: 2019-12-11 15:52:43
Local clock offset: -7.252 ms
Remote clock offset: -9.0 ms


# Below is generated by plot.py at 2019-12-11 17:31:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.31 Mbit/s
95th percentile per-packet one-way delay: 352.063 ms
Loss rate: 6.58%
-- Flow 1:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 293.009 ms
Loss rate: 7.21%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 319.994 ms
Loss rate: 4.70%
-- Flow 3:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 381.776 ms
Loss rate: 7.33%
```

Run 3: Report of Indigo-MusesT — Data Link
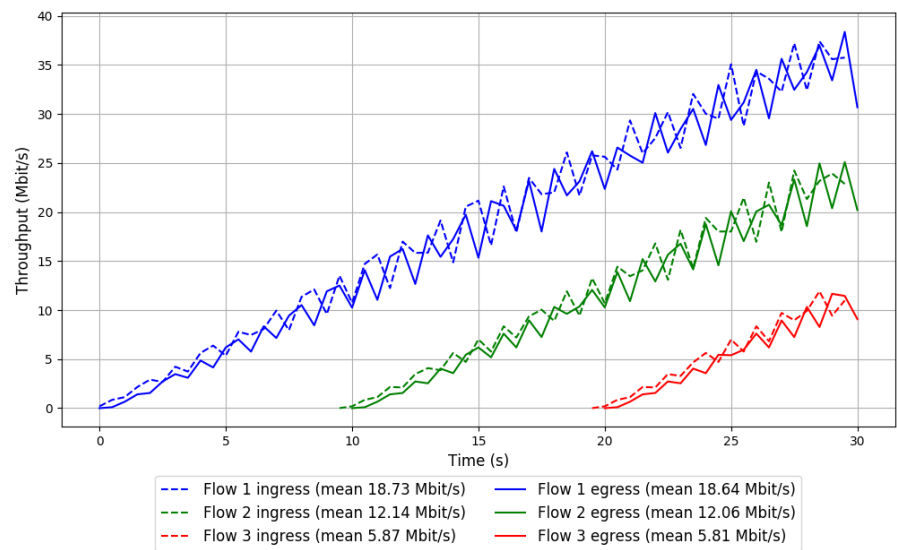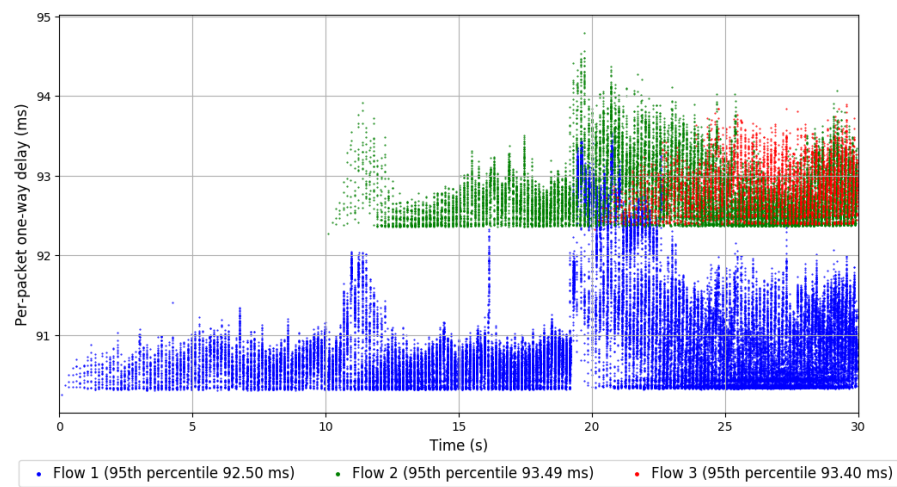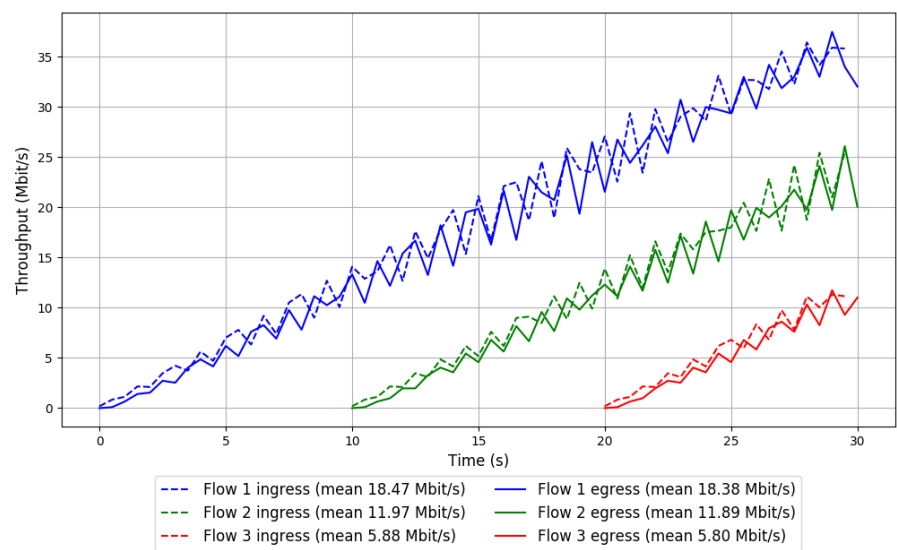

- - - Flow 1 ingress (mean 65.83 Mbit/s) — Flow 1 egress (mean 61.38 Mbit/s)
- - - Flow 2 ingress (mean 40.74 Mbit/s) — Flow 2 egress (mean 39.12 Mbit/s)
- - - Flow 3 ingress (mean 34.64 Mbit/s) — Flow 3 egress (mean 32.12 Mbit/s)

• Flow 1 (95th percentile 293.01 ms)   • Flow 2 (95th percentile 319.99 ms)   • Flow 3 (95th percentile 381.78 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-12-11 16:22:31
End at: 2019-12-11 16:23:01
Local clock offset: -6.837 ms
Remote clock offset: -9.241 ms


# Below is generated by plot.py at 2019-12-11 17:31:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 369.993 ms
Loss rate: 8.72%
-- Flow 1:
Average throughput: 58.64 Mbit/s
95th percentile per-packet one-way delay: 354.886 ms
Loss rate: 8.19%
-- Flow 2:
Average throughput: 40.26 Mbit/s
95th percentile per-packet one-way delay: 385.428 ms
Loss rate: 9.11%
-- Flow 3:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 380.976 ms
Loss rate: 11.08%
```

Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-12-11 16:52:47
End at: 2019-12-11 16:53:17
Local clock offset: -6.324 ms
Remote clock offset: -9.878 ms


# Below is generated by plot.py at 2019-12-11 17:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 334.068 ms
Loss rate: 6.07%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 280.245 ms
Loss rate: 4.62%
-- Flow 2:
Average throughput: 40.91 Mbit/s
95th percentile per-packet one-way delay: 330.925 ms
Loss rate: 8.44%
-- Flow 3:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 441.678 ms
Loss rate: 8.60%
```

Run 5: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 63.08 Mbit/s) --- Flow 1 egress (mean 60.44 Mbit/s)
Flow 2 ingress (mean 44.35 Mbit/s) --- Flow 2 egress (mean 40.91 Mbit/s)
Flow 3 ingress (mean 33.35 Mbit/s) --- Flow 3 egress (mean 30.90 Mbit/s)

Flow 1 (95th percentile 280.25 ms) Flow 2 (95th percentile 330.93 ms) Flow 3 (95th percentile 441.68 ms)
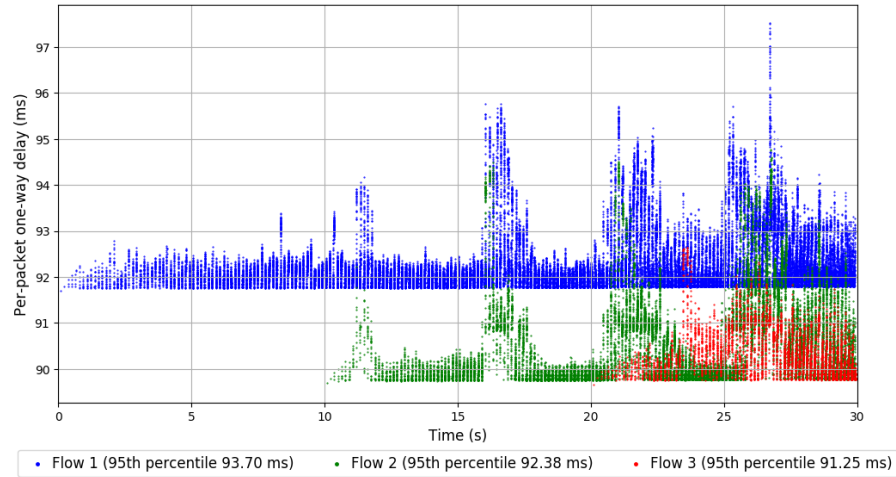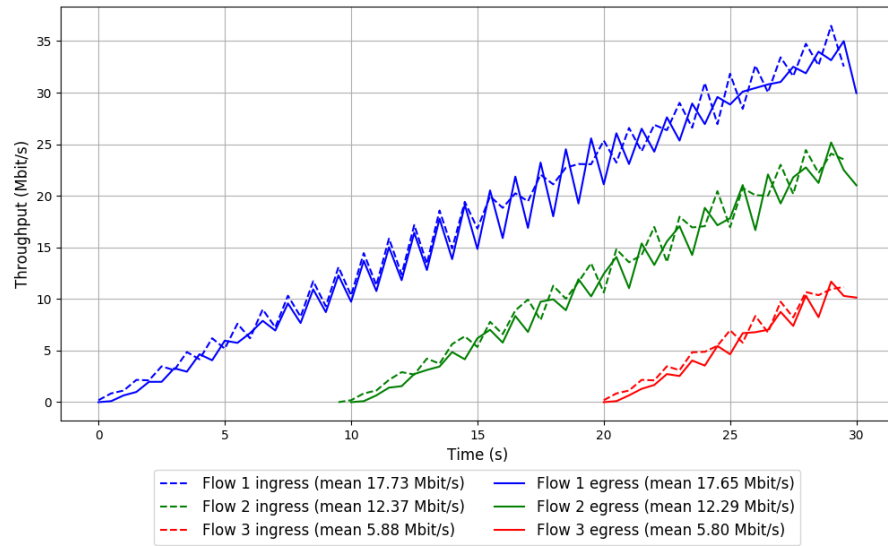
```
Run 1: Statistics of LEDBAT

Start at: 2019-12-11 15:06:49
End at: 2019-12-11 15:07:19
Local clock offset: -7.488 ms
Remote clock offset: -8.71 ms


# Below is generated by plot.py at 2019-12-11 17:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.13 Mbit/s
95th percentile per-packet one-way delay: 92.898 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 92.803 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 91.947 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 5.76 Mbit/s
95th percentile per-packet one-way delay: 93.513 ms
Loss rate: 2.89%
```
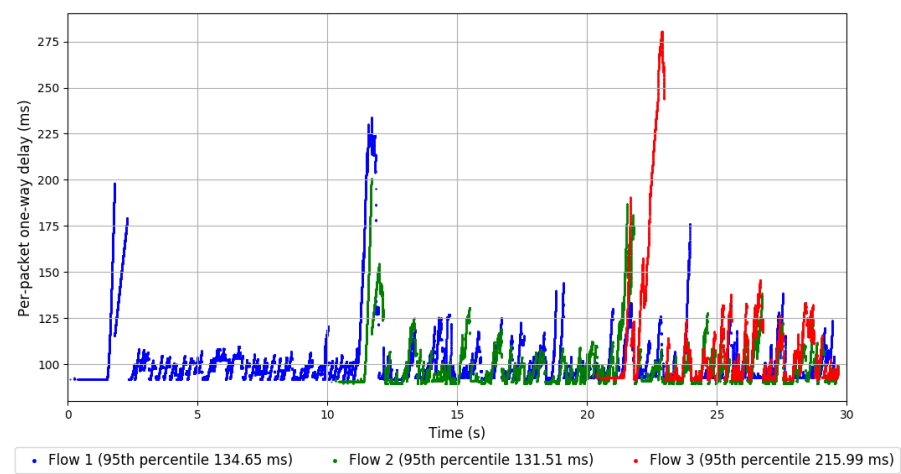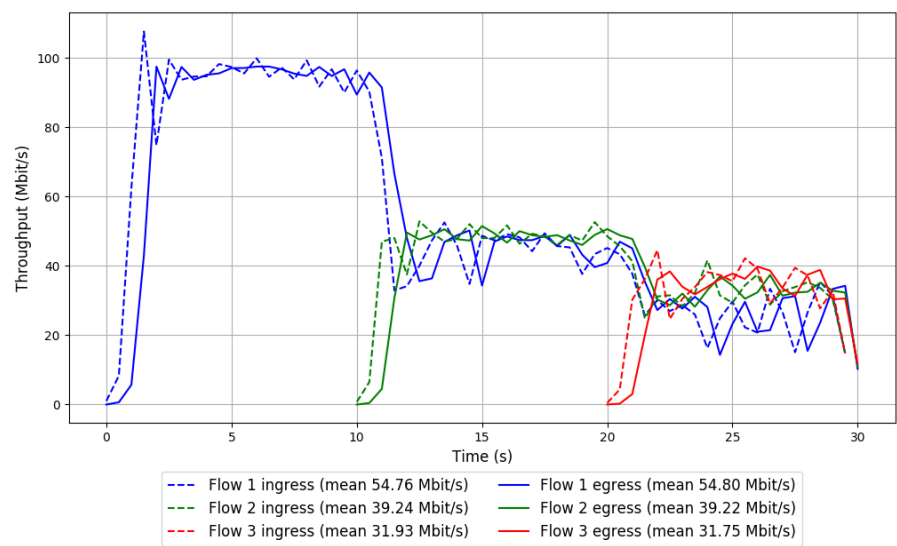
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-12-11 15:37:03
End at: 2019-12-11 15:37:33
Local clock offset: -7.417 ms
Remote clock offset: -9.689 ms


# Below is generated by plot.py at 2019-12-11 17:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.56 Mbit/s
95th percentile per-packet one-way delay: 91.585 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 18.64 Mbit/s
95th percentile per-packet one-way delay: 91.767 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 12.06 Mbit/s
95th percentile per-packet one-way delay: 90.995 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 5.81 Mbit/s
95th percentile per-packet one-way delay: 91.070 ms
Loss rate: 2.50%
```
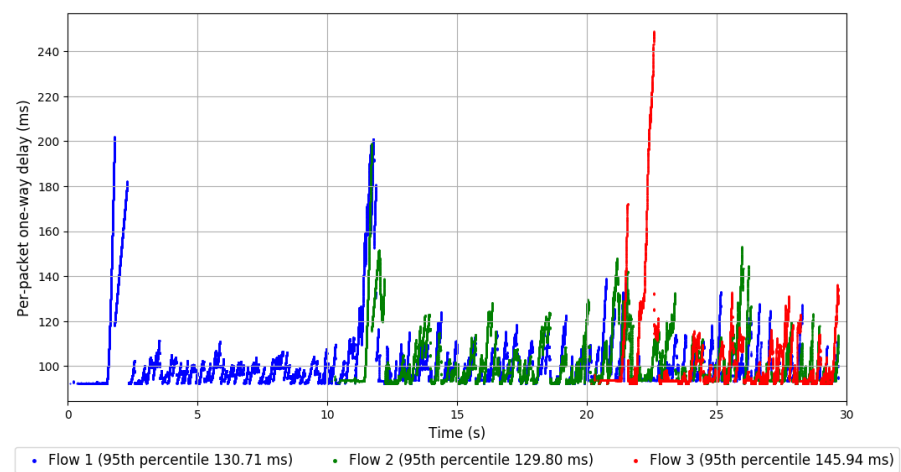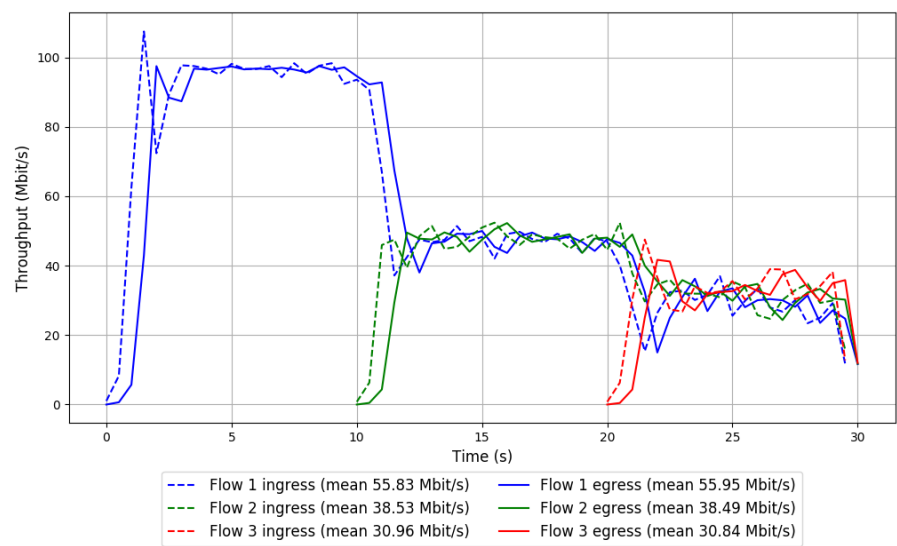
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-12-11 16:07:21
End at: 2019-12-11 16:07:51
Local clock offset: -8.588 ms
Remote clock offset: -10.043 ms


# Below is generated by plot.py at 2019-12-11 17:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 93.210 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 18.38 Mbit/s
95th percentile per-packet one-way delay: 92.503 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 93.491 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 5.80 Mbit/s
95th percentile per-packet one-way delay: 93.403 ms
Loss rate: 2.84%
```
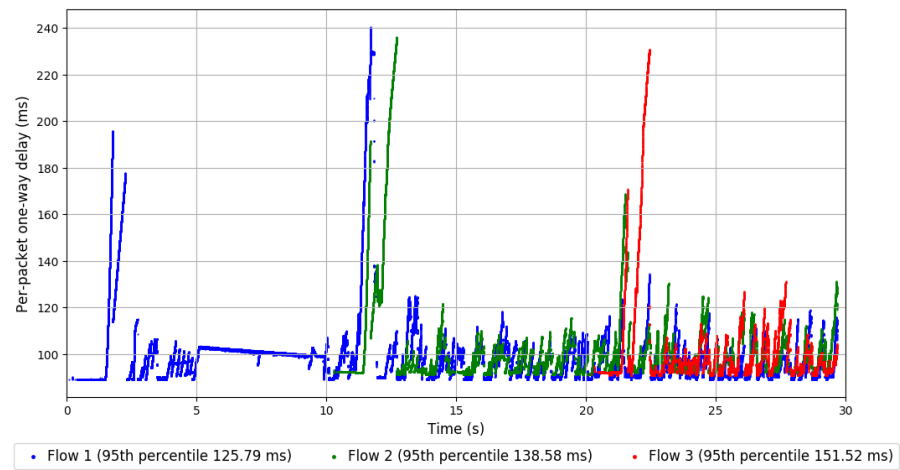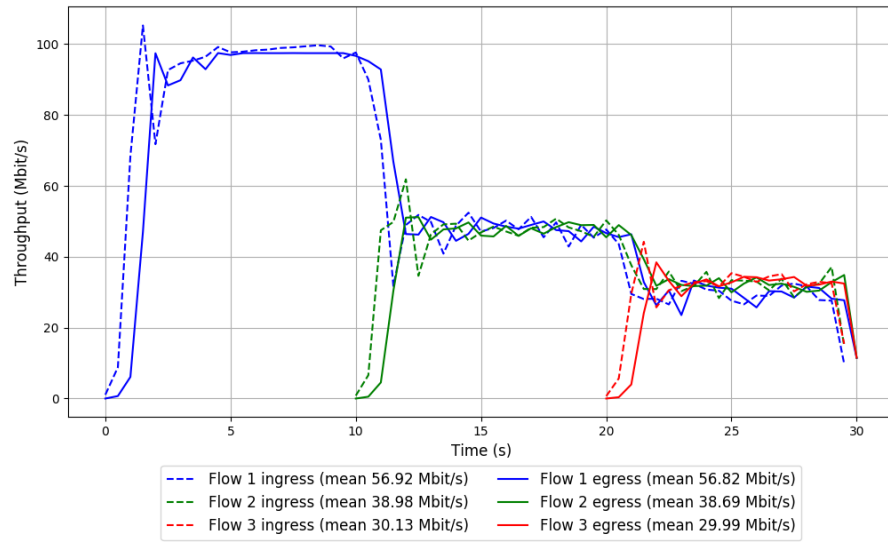
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-12-11 16:37:39
End at: 2019-12-11 16:38:09
Local clock offset: -5.918 ms
Remote clock offset: -9.334 ms


# Below is generated by plot.py at 2019-12-11 17:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.48 Mbit/s
95th percentile per-packet one-way delay: 93.510 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 13.77 Mbit/s
95th percentile per-packet one-way delay: 92.483 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 93.775 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 5.60 Mbit/s
95th percentile per-packet one-way delay: 93.439 ms
Loss rate: 2.92%
```

Run 4: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 13.78 Mbit/s)   —— Flow 1 egress (mean 13.77 Mbit/s)
- - - Flow 2 ingress (mean 11.93 Mbit/s)   —— Flow 2 egress (mean 11.85 Mbit/s)
- - - Flow 3 ingress (mean 5.69 Mbit/s)   —— Flow 3 egress (mean 5.60 Mbit/s)

• Flow 1 (95th percentile 92.48 ms)   • Flow 2 (95th percentile 93.78 ms)   • Flow 3 (95th percentile 93.44 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2019-12-11 17:07:56
End at: 2019-12-11 17:08:26
Local clock offset: -6.309 ms
Remote clock offset: -8.943 ms


# Below is generated by plot.py at 2019-12-11 17:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 93.451 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 17.65 Mbit/s
95th percentile per-packet one-way delay: 93.699 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 12.29 Mbit/s
95th percentile per-packet one-way delay: 92.380 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 5.80 Mbit/s
95th percentile per-packet one-way delay: 91.246 ms
Loss rate: 2.74%
```
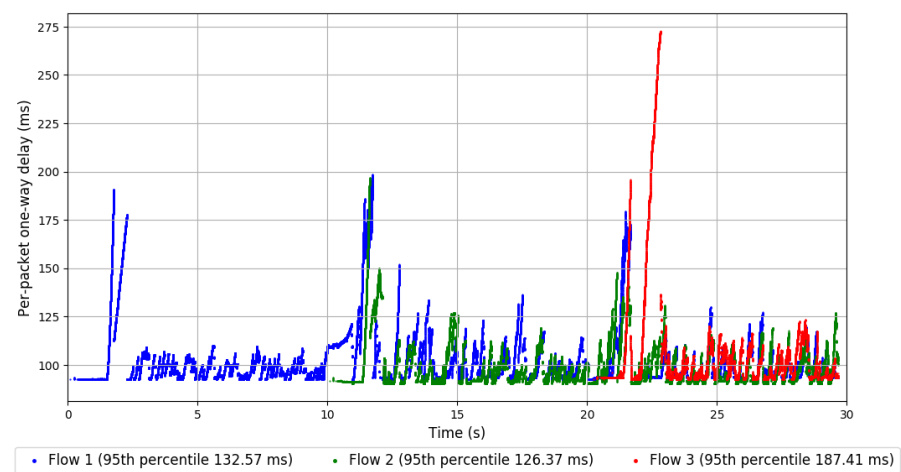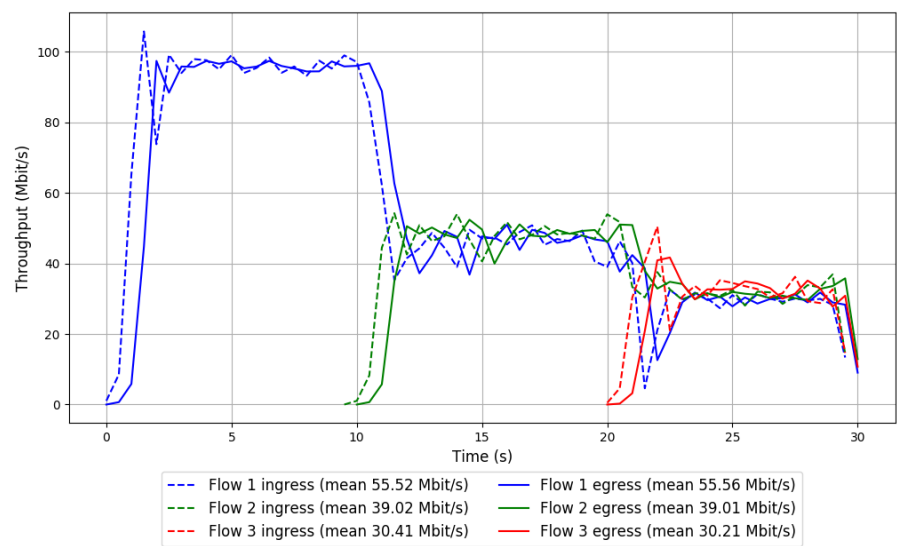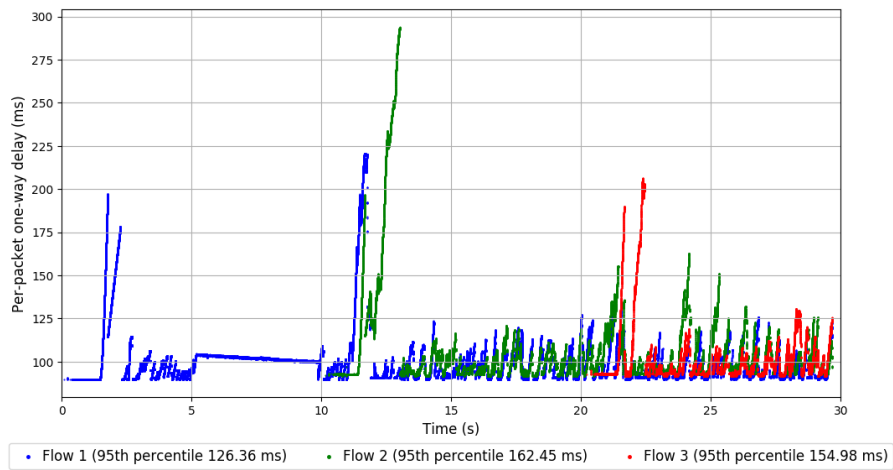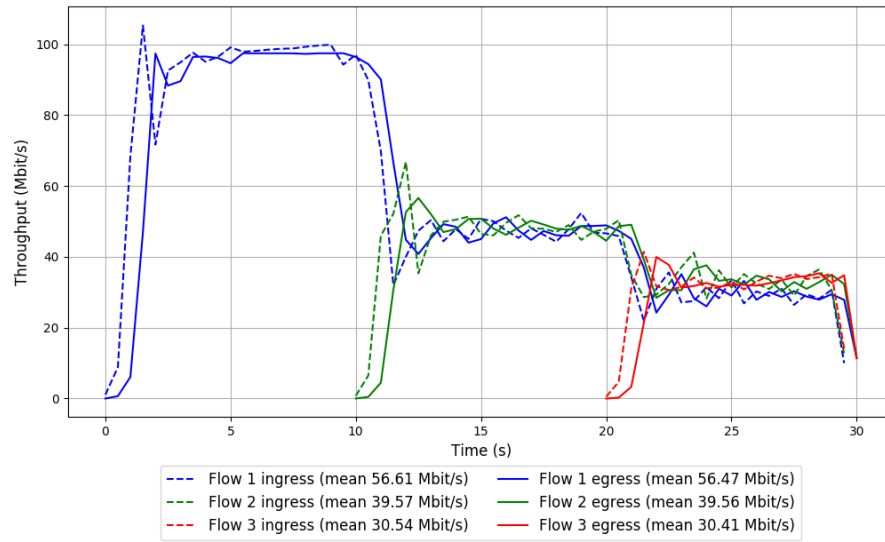
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 15:11:47
End at: 2019-12-11 15:12:17
Local clock offset: -7.053 ms
Remote clock offset: -8.168 ms


# Below is generated by plot.py at 2019-12-11 17:31:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.80 Mbit/s
95th percentile per-packet one-way delay: 139.929 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 134.650 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 39.22 Mbit/s
95th percentile per-packet one-way delay: 131.508 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 215.987 ms
Loss rate: 2.06%
```

Run 1: Report of Muses_DecisionTree — Data Link

- - - - Flow 1 ingress (mean 54.76 Mbit/s) ——— Flow 1 egress (mean 54.80 Mbit/s)
- - - - Flow 2 ingress (mean 39.24 Mbit/s) ——— Flow 2 egress (mean 39.22 Mbit/s)
- - - - Flow 3 ingress (mean 31.93 Mbit/s) ——— Flow 3 egress (mean 31.75 Mbit/s)

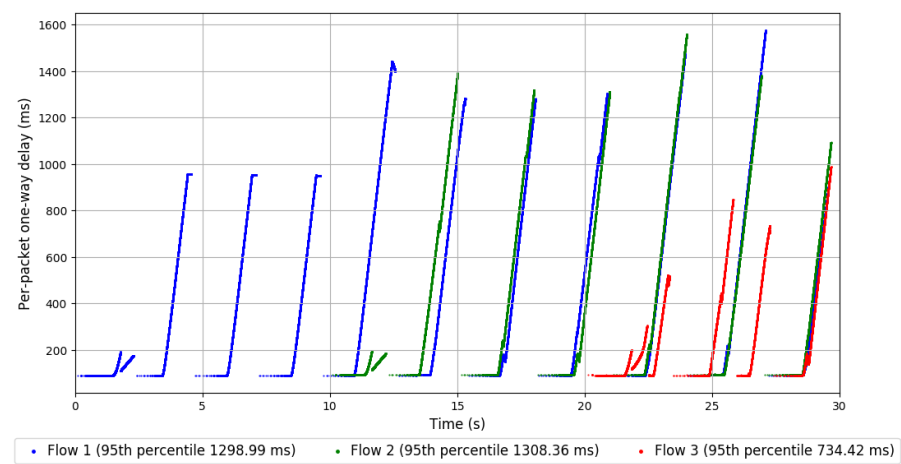- Flow 1 (95th percentile 134.65 ms)   - Flow 2 (95th percentile 131.51 ms)   - Flow 3 (95th percentile 215.99 ms)

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 15:42:01
End at: 2019-12-11 15:42:31
Local clock offset: -6.865 ms
Remote clock offset: -9.742 ms


# Below is generated by plot.py at 2019-12-11 17:31:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.29 Mbit/s
95th percentile per-packet one-way delay: 131.047 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 55.95 Mbit/s
95th percentile per-packet one-way delay: 130.705 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 38.49 Mbit/s
95th percentile per-packet one-way delay: 129.800 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 145.938 ms
Loss rate: 1.81%
```
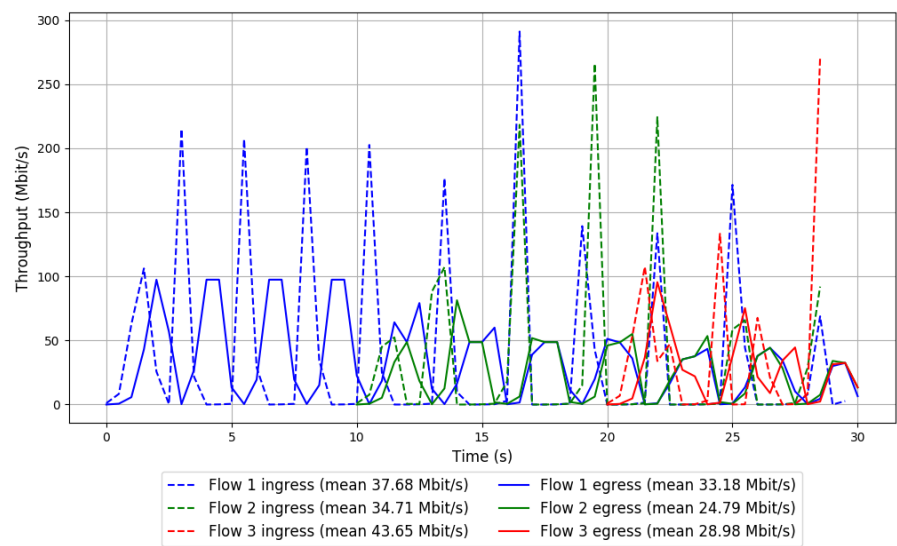
Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 16:12:20
End at: 2019-12-11 16:12:50
Local clock offset: -7.794 ms
Remote clock offset: -8.864 ms


# Below is generated by plot.py at 2019-12-11 17:31:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 133.145 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 56.82 Mbit/s
95th percentile per-packet one-way delay: 125.792 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 38.69 Mbit/s
95th percentile per-packet one-way delay: 138.576 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 151.516 ms
Loss rate: 1.90%
```
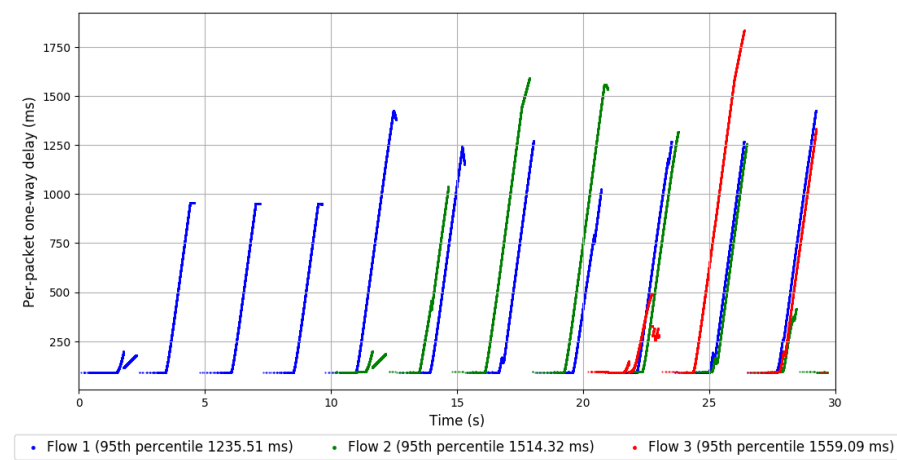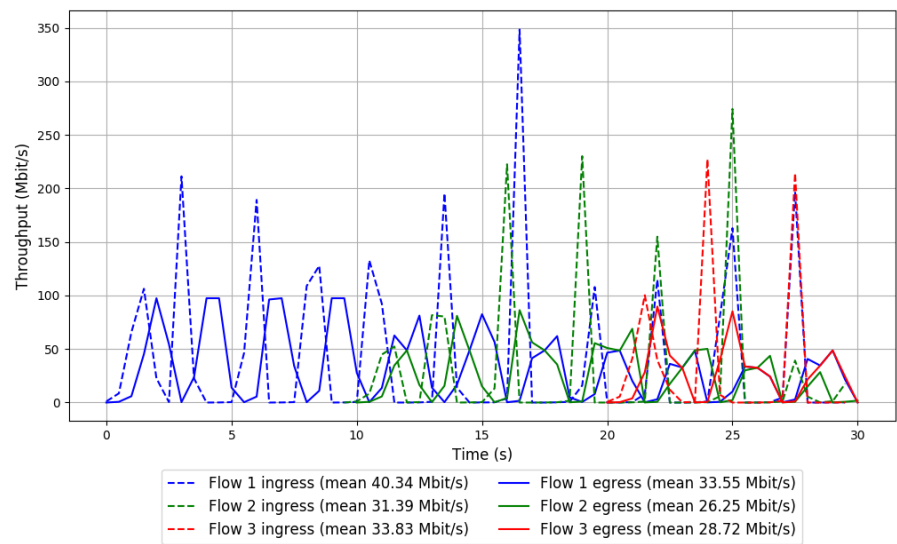
Run 3: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 56.92 Mbit/s) — — — Flow 1 egress (mean 56.82 Mbit/s)
Flow 2 ingress (mean 38.98 Mbit/s) — — — Flow 2 egress (mean 38.69 Mbit/s)
Flow 3 ingress (mean 30.13 Mbit/s) — — — Flow 3 egress (mean 29.99 Mbit/s)

Flow 1 (95th percentile 125.79 ms)   Flow 2 (95th percentile 138.58 ms)   Flow 3 (95th percentile 151.52 ms)
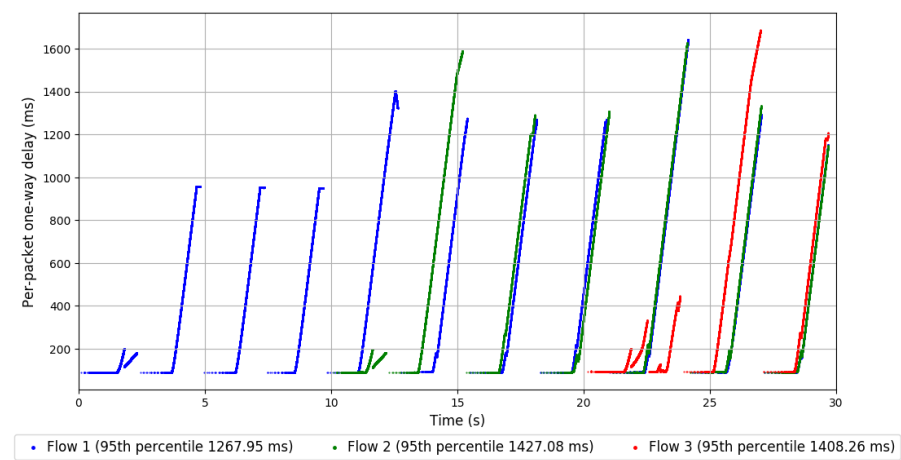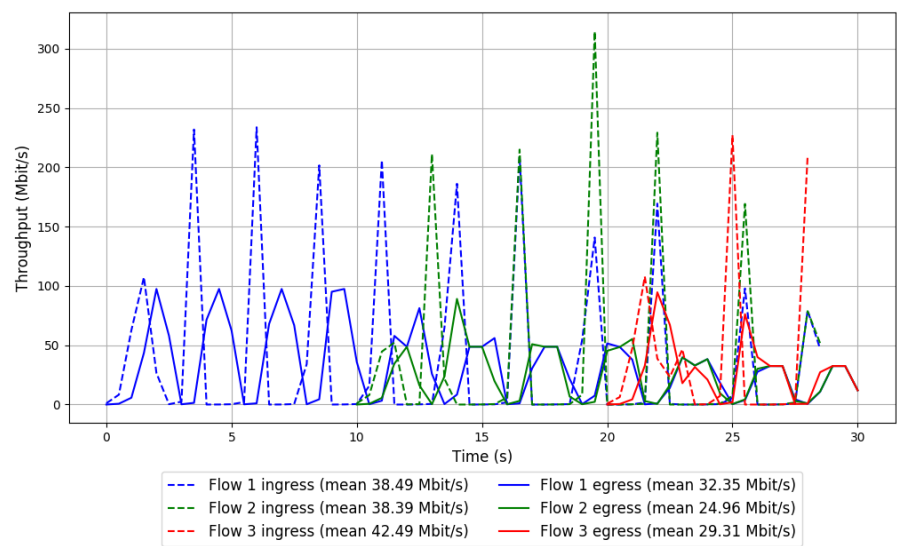
120

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 16:42:37
End at: 2019-12-11 16:43:07
Local clock offset: -5.767 ms
Remote clock offset: -9.373 ms


# Below is generated by plot.py at 2019-12-11 17:31:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.02 Mbit/s
95th percentile per-packet one-way delay: 132.296 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 132.569 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 126.373 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 30.21 Mbit/s
95th percentile per-packet one-way delay: 187.406 ms
Loss rate: 2.07%
```

Run 4: Report of Muses_DecisionTree — Data Link

- - - Flow 1 ingress (mean 55.52 Mbit/s) ——— Flow 1 egress (mean 55.56 Mbit/s)
- - - Flow 2 ingress (mean 39.02 Mbit/s) ——— Flow 2 egress (mean 39.01 Mbit/s)
- - - Flow 3 ingress (mean 30.41 Mbit/s) ——— Flow 3 egress (mean 30.21 Mbit/s)

- Flow 1 (95th percentile 132.57 ms)   - Flow 2 (95th percentile 126.37 ms)   - Flow 3 (95th percentile 187.41 ms)

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 17:12:55
End at: 2019-12-11 17:13:25
Local clock offset: -6.73 ms
Remote clock offset: -8.894 ms


# Below is generated by plot.py at 2019-12-11 17:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 141.621 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 56.47 Mbit/s
95th percentile per-packet one-way delay: 126.357 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 39.56 Mbit/s
95th percentile per-packet one-way delay: 162.448 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 30.41 Mbit/s
95th percentile per-packet one-way delay: 154.978 ms
Loss rate: 1.93%
```
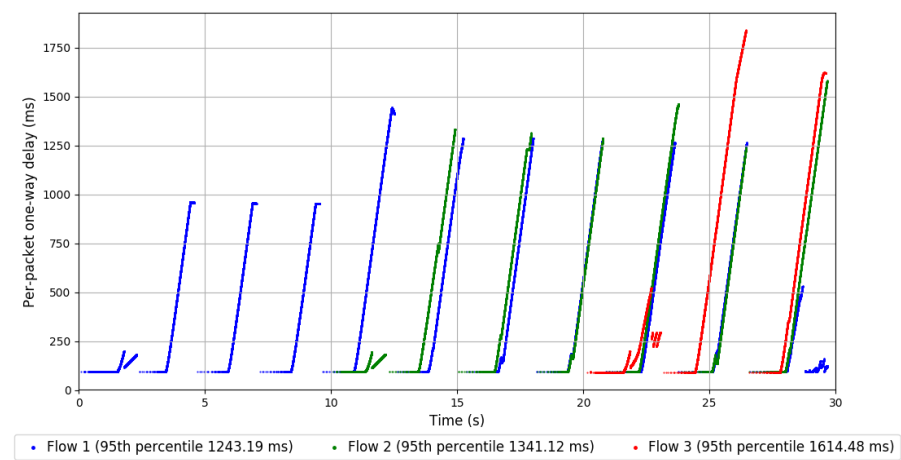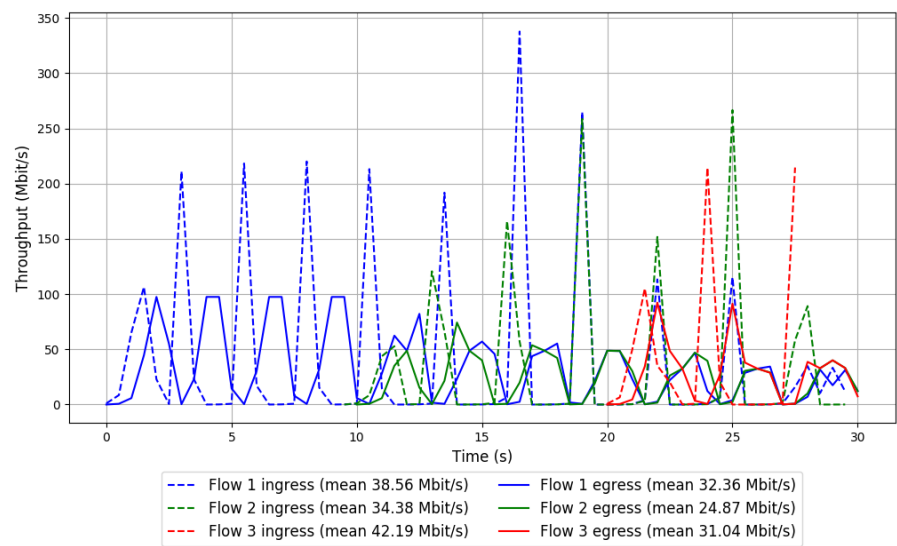
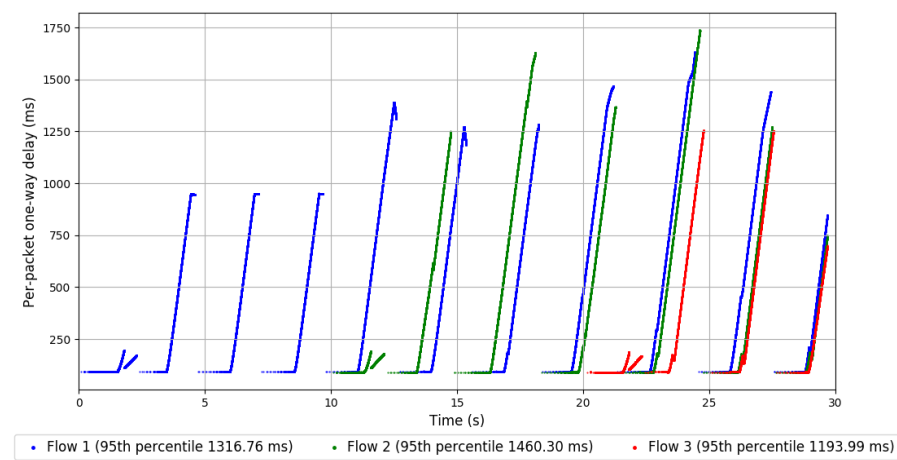Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 15:14:20
End at: 2019-12-11 15:14:50
Local clock offset: -6.756 ms
Remote clock offset: -9.356 ms


# Below is generated by plot.py at 2019-12-11 17:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.83 Mbit/s
95th percentile per-packet one-way delay: 1280.066 ms
Loss rate: 18.83%
-- Flow 1:
Average throughput: 33.18 Mbit/s
95th percentile per-packet one-way delay: 1298.991 ms
Loss rate: 12.55%
-- Flow 2:
Average throughput: 24.79 Mbit/s
95th percentile per-packet one-way delay: 1308.357 ms
Loss rate: 25.02%
-- Flow 3:
Average throughput: 28.98 Mbit/s
95th percentile per-packet one-way delay: 734.420 ms
Loss rate: 26.85%
```

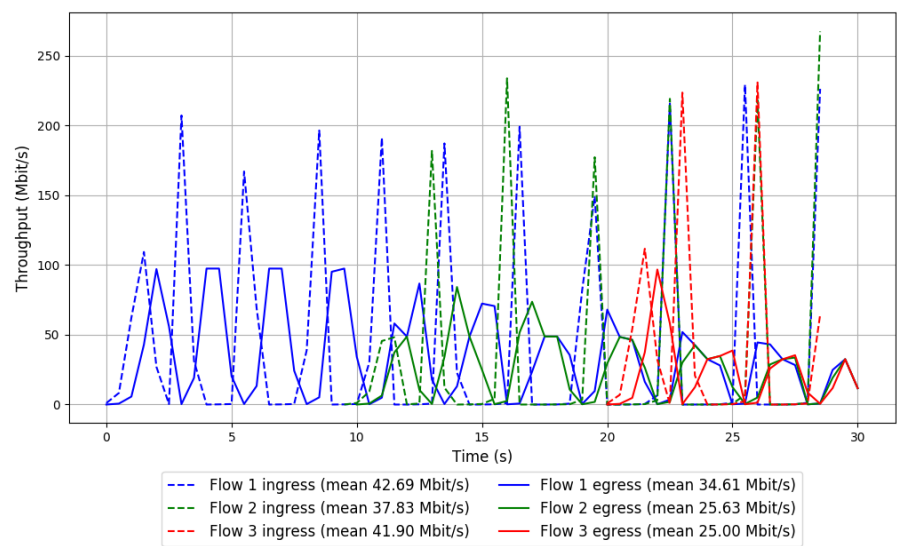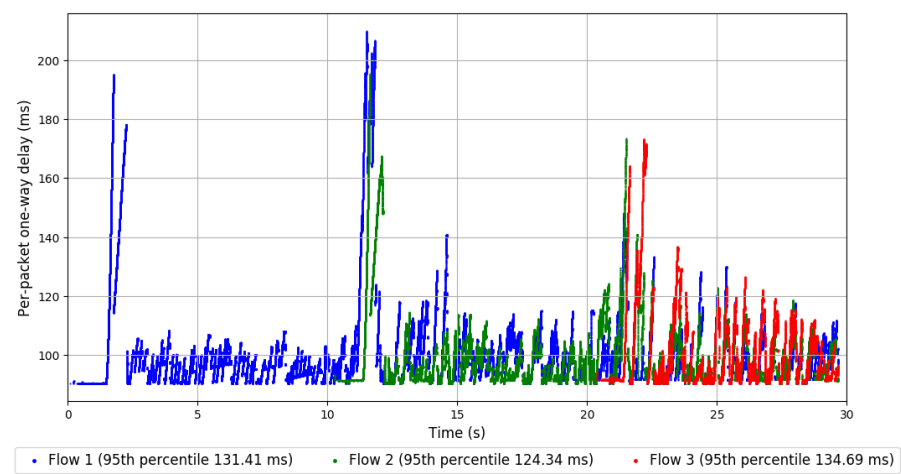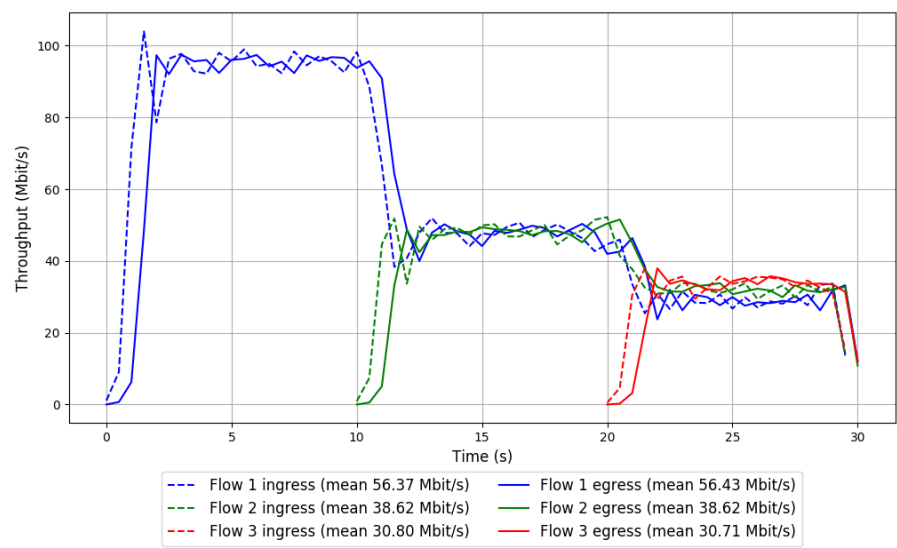Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 15:44:34
End at: 2019-12-11 15:45:04
Local clock offset: -7.011 ms
Remote clock offset: -9.74 ms


# Below is generated by plot.py at 2019-12-11 17:31:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.08 Mbit/s
95th percentile per-packet one-way delay: 1360.583 ms
Loss rate: 17.02%
-- Flow 1:
Average throughput: 33.55 Mbit/s
95th percentile per-packet one-way delay: 1235.511 ms
Loss rate: 17.23%
-- Flow 2:
Average throughput: 26.25 Mbit/s
95th percentile per-packet one-way delay: 1514.322 ms
Loss rate: 16.97%
-- Flow 3:
Average throughput: 28.72 Mbit/s
95th percentile per-packet one-way delay: 1559.092 ms
Loss rate: 16.38%
```

Run 2: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 40.34 Mbit/s) --- Flow 1 egress (mean 33.55 Mbit/s)
Flow 2 ingress (mean 31.39 Mbit/s) --- Flow 2 egress (mean 26.25 Mbit/s)
Flow 3 ingress (mean 33.83 Mbit/s) --- Flow 3 egress (mean 28.72 Mbit/s)

Flow 1 (95th percentile 1235.51 ms) Flow 2 (95th percentile 1514.32 ms) Flow 3 (95th percentile 1559.09 ms)

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 16:14:53
End at: 2019-12-11 16:15:23
Local clock offset: -6.726 ms
Remote clock offset: -9.188 ms


# Below is generated by plot.py at 2019-12-11 17:31:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.31 Mbit/s
95th percentile per-packet one-way delay: 1328.730 ms
Loss rate: 20.40%
-- Flow 1:
Average throughput: 32.35 Mbit/s
95th percentile per-packet one-way delay: 1267.949 ms
Loss rate: 12.84%
-- Flow 2:
Average throughput: 24.96 Mbit/s
95th percentile per-packet one-way delay: 1427.081 ms
Loss rate: 31.31%
-- Flow 3:
Average throughput: 29.31 Mbit/s
95th percentile per-packet one-way delay: 1408.256 ms
Loss rate: 21.92%
```

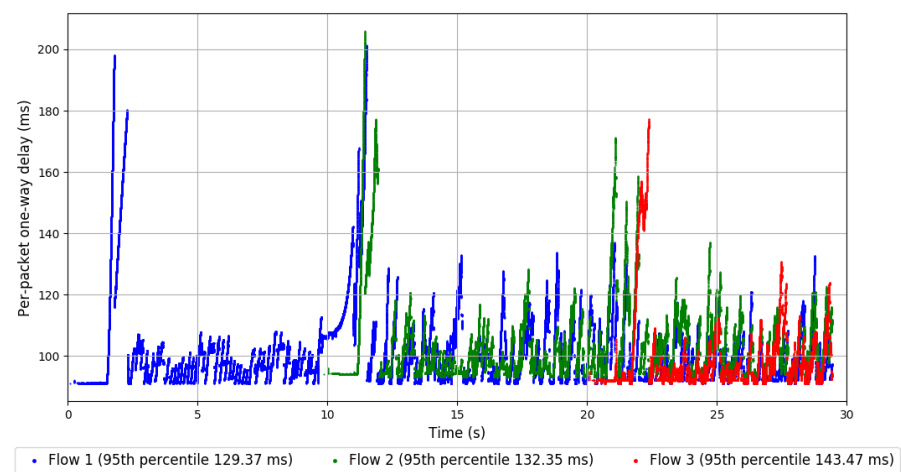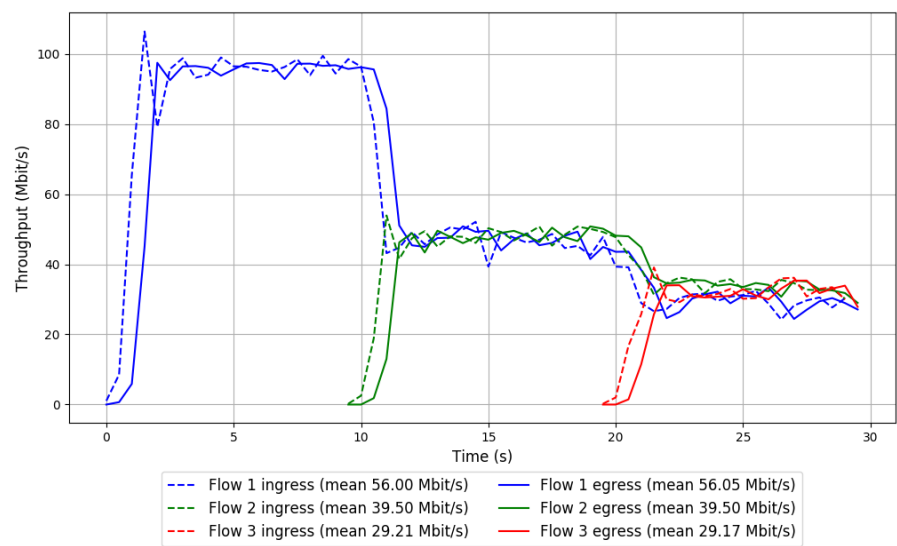Run 3: Report of Muses_DecisionTreeH0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 16:45:10
End at: 2019-12-11 16:45:40
Local clock offset: -5.715 ms
Remote clock offset: -9.306 ms


# Below is generated by plot.py at 2019-12-11 17:32:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.75 Mbit/s
95th percentile per-packet one-way delay: 1320.753 ms
Loss rate: 19.48%
-- Flow 1:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 1243.193 ms
Loss rate: 16.45%
-- Flow 2:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 1341.121 ms
Loss rate: 28.17%
-- Flow 3:
Average throughput: 31.04 Mbit/s
95th percentile per-packet one-way delay: 1614.478 ms
Loss rate: 12.25%
```

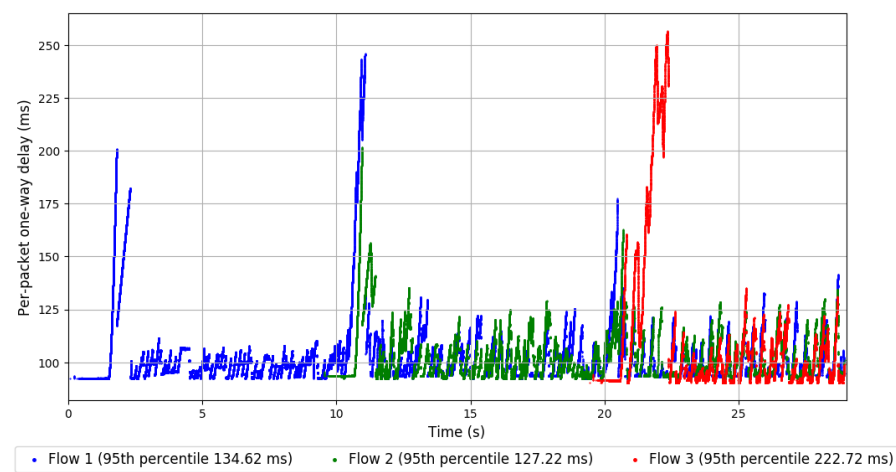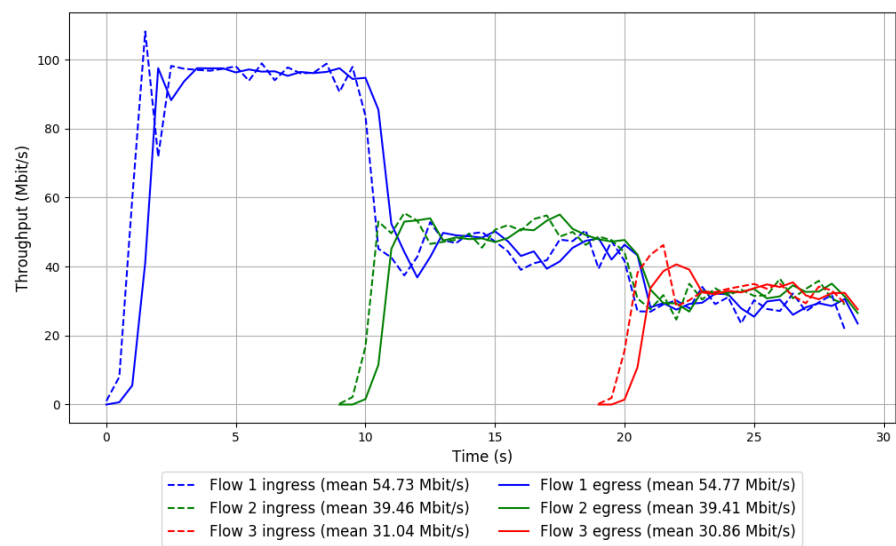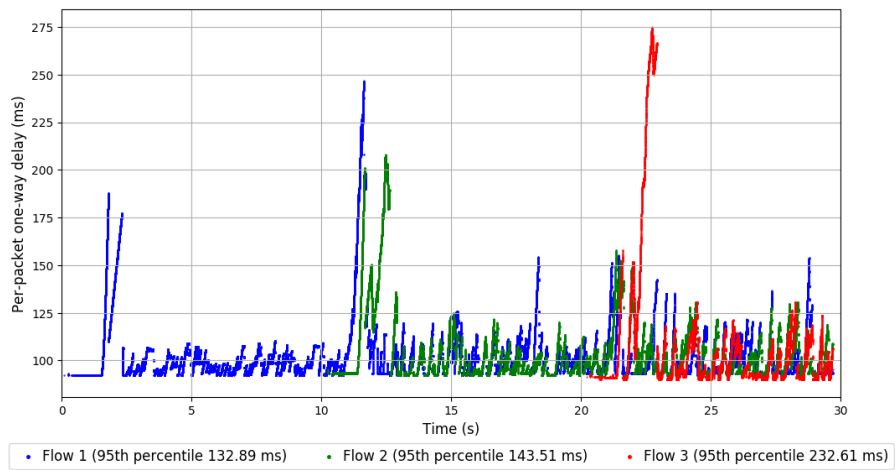Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 17:15:29
End at: 2019-12-11 17:15:59
Local clock offset: -6.191 ms
Remote clock offset: -8.277 ms


# Below is generated by plot.py at 2019-12-11 17:32:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 1328.895 ms
Loss rate: 24.10%
-- Flow 1:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 1316.762 ms
Loss rate: 16.93%
-- Flow 2:
Average throughput: 25.63 Mbit/s
95th percentile per-packet one-way delay: 1460.296 ms
Loss rate: 30.02%
-- Flow 3:
Average throughput: 25.00 Mbit/s
95th percentile per-packet one-way delay: 1193.990 ms
Loss rate: 36.38%
```

Run 5: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 42.69 Mbit/s) — — — Flow 1 egress (mean 34.61 Mbit/s)
Flow 2 ingress (mean 37.83 Mbit/s) — — — Flow 2 egress (mean 25.63 Mbit/s)
Flow 3 ingress (mean 41.90 Mbit/s) — — — Flow 3 egress (mean 25.00 Mbit/s)

Flow 1 (95th percentile 1316.76 ms)   Flow 2 (95th percentile 1460.30 ms)   Flow 3 (95th percentile 1193.99 ms)
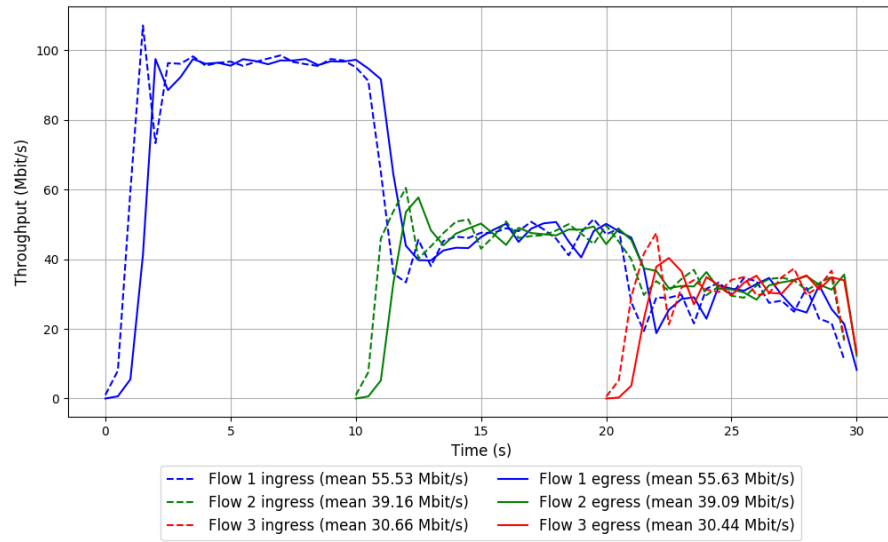
134

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 14:50:24
End at: 2019-12-11 14:50:54
Local clock offset: -4.695 ms
Remote clock offset: -8.9 ms


# Below is generated by plot.py at 2019-12-11 17:32:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.75 Mbit/s
95th percentile per-packet one-way delay: 129.956 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 56.43 Mbit/s
95th percentile per-packet one-way delay: 131.406 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 38.62 Mbit/s
95th percentile per-packet one-way delay: 124.344 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 30.71 Mbit/s
95th percentile per-packet one-way delay: 134.686 ms
Loss rate: 1.74%
```

Run 1: Report of Muses_DecisionTreeR0 — Data Link
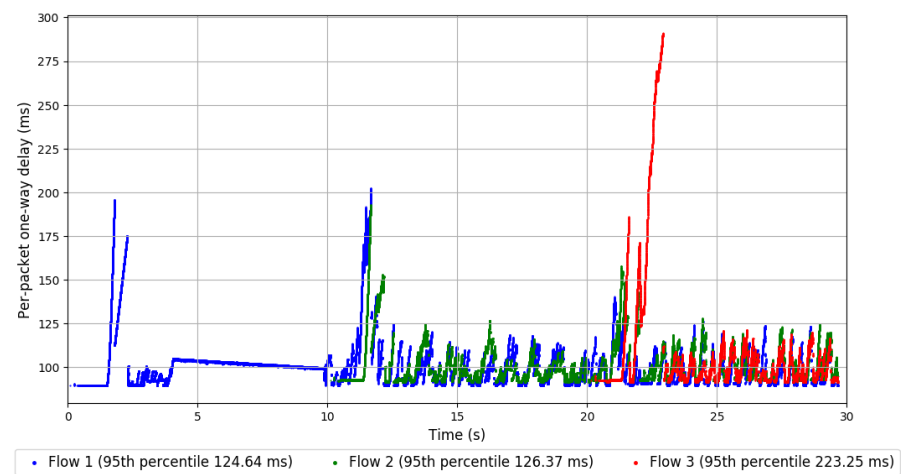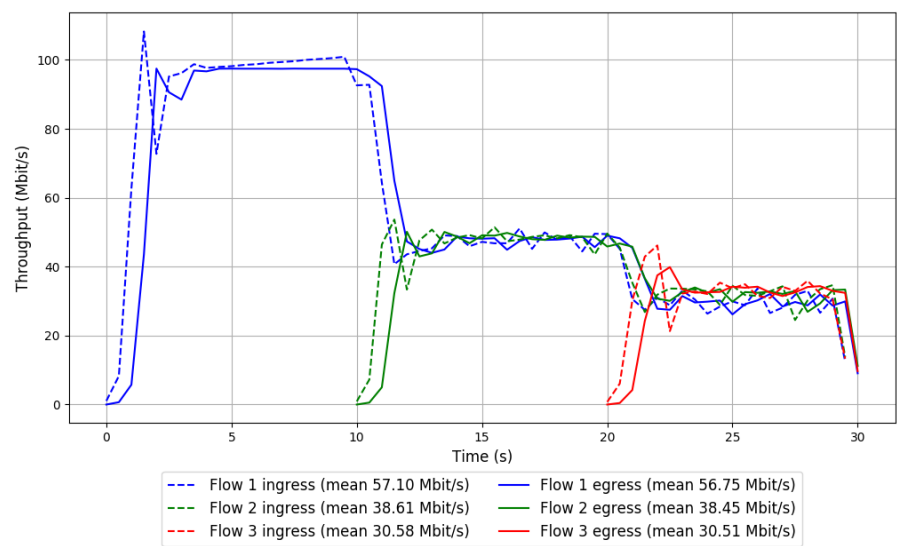

136

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 15:20:41
End at: 2019-12-11 15:21:11
Local clock offset: -6.401 ms
Remote clock offset: -9.857 ms


# Below is generated by plot.py at 2019-12-11 17:32:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.82 Mbit/s
95th percentile per-packet one-way delay: 131.062 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 56.05 Mbit/s
95th percentile per-packet one-way delay: 129.373 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 39.50 Mbit/s
95th percentile per-packet one-way delay: 132.348 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 29.17 Mbit/s
95th percentile per-packet one-way delay: 143.467 ms
Loss rate: 1.57%
```
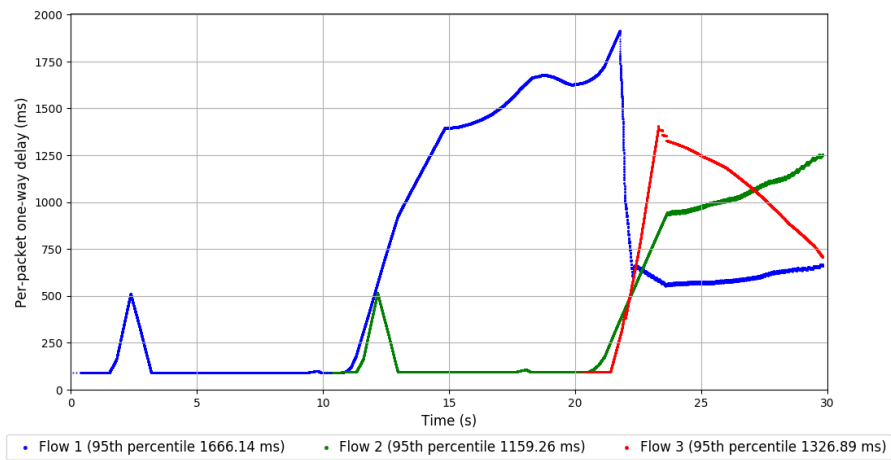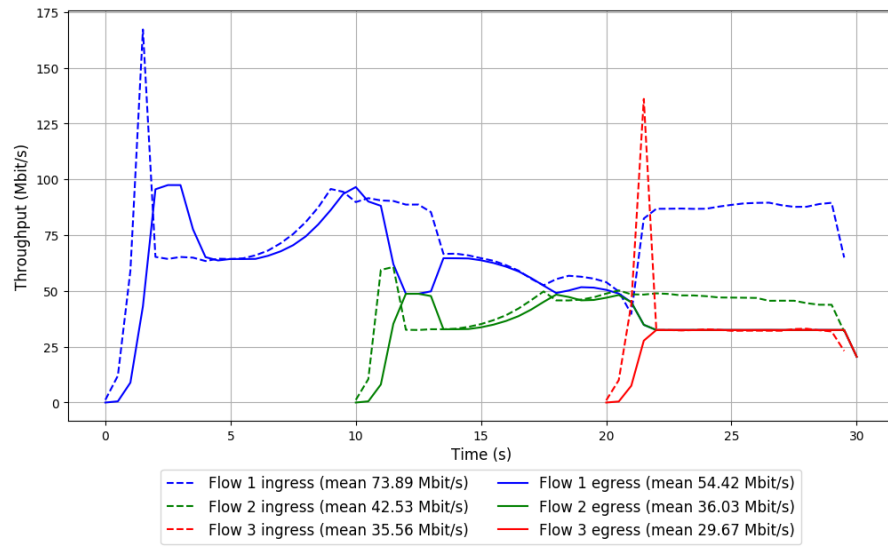
Run 2: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 56.00 Mbit/s)   Flow 1 egress (mean 56.05 Mbit/s)
Flow 2 ingress (mean 39.50 Mbit/s)   Flow 2 egress (mean 39.50 Mbit/s)
Flow 3 ingress (mean 29.21 Mbit/s)   Flow 3 egress (mean 29.17 Mbit/s)

Flow 1 (95th percentile 129.37 ms)   Flow 2 (95th percentile 132.35 ms)   Flow 3 (95th percentile 143.47 ms)

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 15:50:57
End at: 2019-12-11 15:51:27
Local clock offset: -7.197 ms
Remote clock offset: -9.637 ms


# Below is generated by plot.py at 2019-12-11 17:32:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.62 Mbit/s
95th percentile per-packet one-way delay: 141.667 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 54.77 Mbit/s
95th percentile per-packet one-way delay: 134.622 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 127.223 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 222.715 ms
Loss rate: 1.94%
```

Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 16:21:15
End at: 2019-12-11 16:21:45
Local clock offset: -6.893 ms
Remote clock offset: -9.844 ms


# Below is generated by plot.py at 2019-12-11 17:32:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.24 Mbit/s
95th percentile per-packet one-way delay: 141.325 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 132.893 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 143.514 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 30.44 Mbit/s
95th percentile per-packet one-way delay: 232.606 ms
Loss rate: 2.15%
```
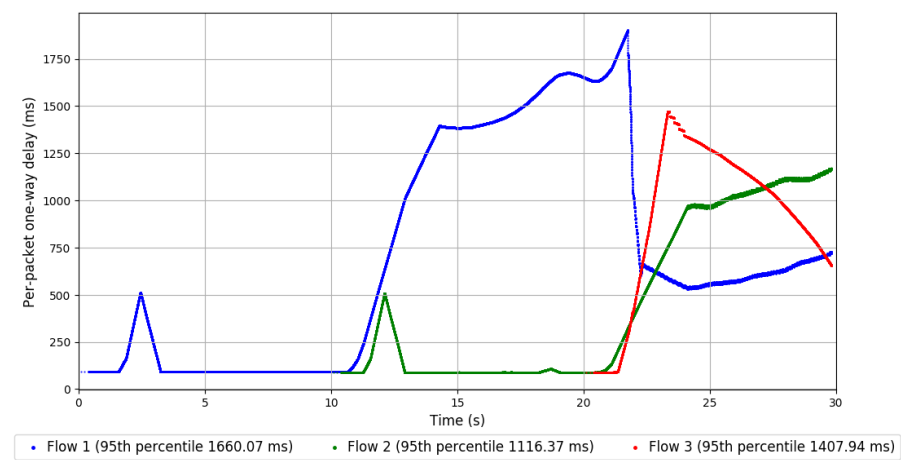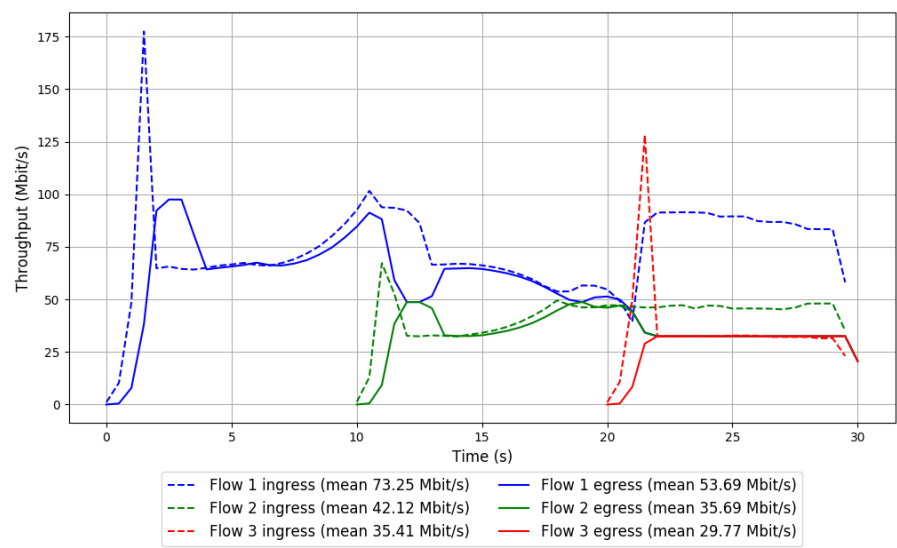
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 16:51:30
End at: 2019-12-11 16:52:00
Local clock offset: -6.351 ms
Remote clock offset: -9.176 ms


# Below is generated by plot.py at 2019-12-11 17:32:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 132.652 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 56.75 Mbit/s
95th percentile per-packet one-way delay: 124.639 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 126.371 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 223.249 ms
Loss rate: 1.73%
```
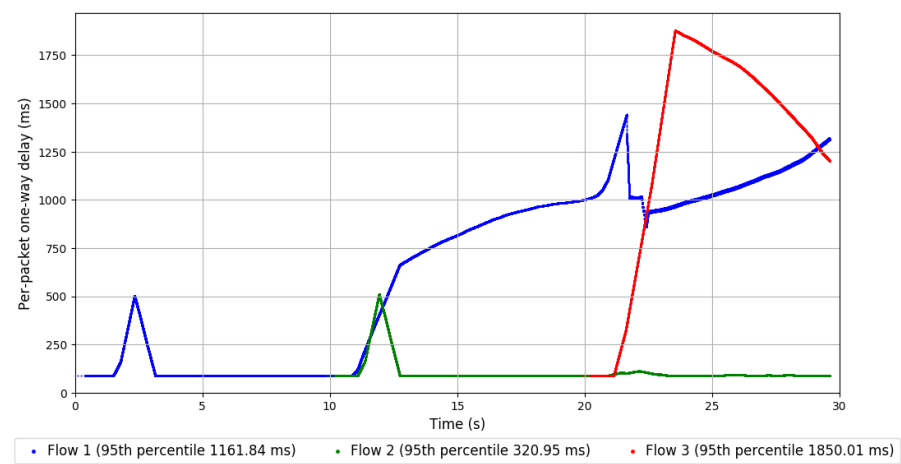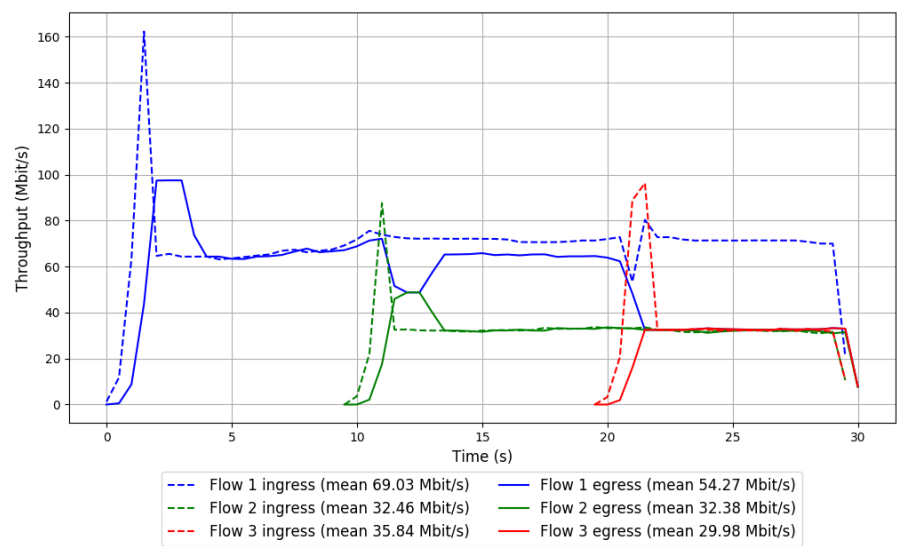
Run 5: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 57.10 Mbit/s)
Flow 1 egress (mean 56.75 Mbit/s)
Flow 2 ingress (mean 38.61 Mbit/s)
Flow 2 egress (mean 38.45 Mbit/s)
Flow 3 ingress (mean 30.58 Mbit/s)
Flow 3 egress (mean 30.51 Mbit/s)

Flow 1 (95th percentile 124.64 ms)
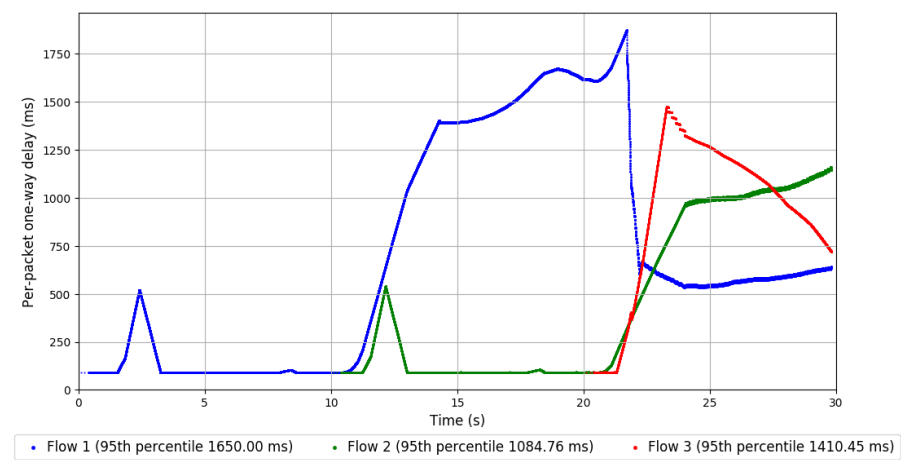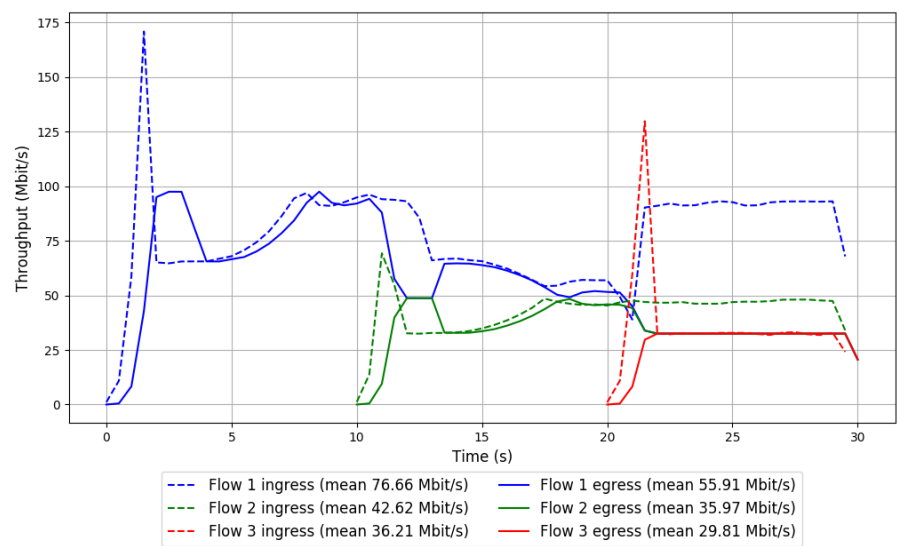Flow 2 (95th percentile 126.37 ms)
Flow 3 (95th percentile 223.25 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-12-11 15:01:46
End at: 2019-12-11 15:02:16
Local clock offset: -7.647 ms
Remote clock offset: -9.484 ms

# Below is generated by plot.py at 2019-12-11 17:33:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.01 Mbit/s
95th percentile per-packet one-way delay: 1640.000 ms
Loss rate: 23.08%
-- Flow 1:
Average throughput: 54.42 Mbit/s
95th percentile per-packet one-way delay: 1666.145 ms
Loss rate: 26.69%
-- Flow 2:
Average throughput: 36.03 Mbit/s
95th percentile per-packet one-way delay: 1159.256 ms
Loss rate: 15.87%
-- Flow 3:
Average throughput: 29.67 Mbit/s
95th percentile per-packet one-way delay: 1326.895 ms
Loss rate: 17.74%
```
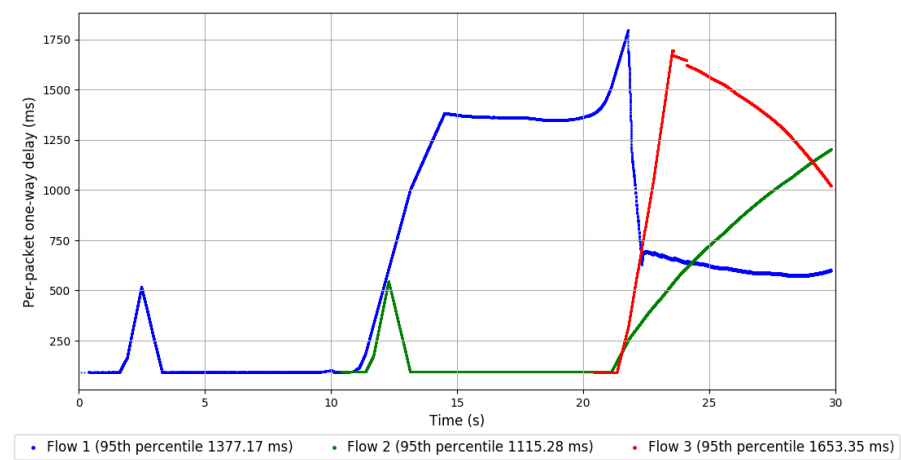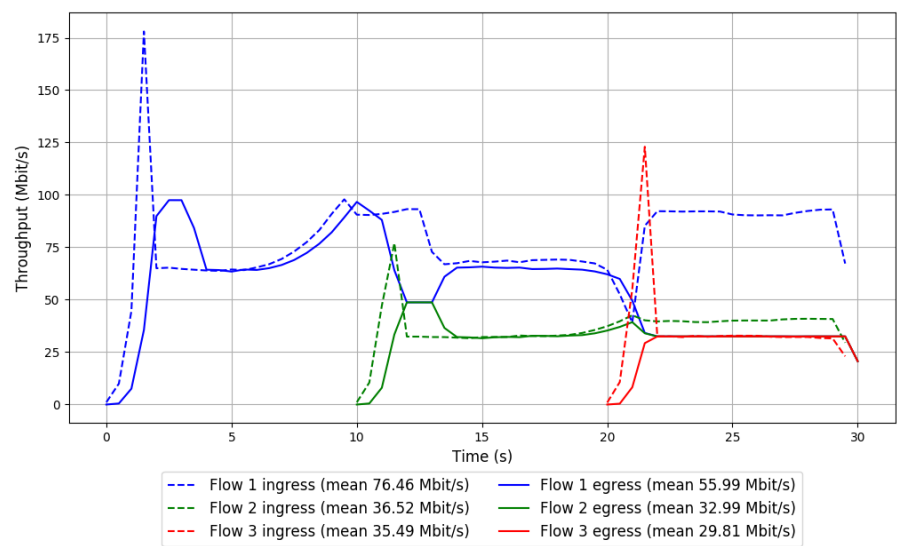
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-12-11 15:32:01
End at: 2019-12-11 15:32:31
Local clock offset: -7.231 ms
Remote clock offset: -9.07 ms


# Below is generated by plot.py at 2019-12-11 17:33:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.10 Mbit/s
95th percentile per-packet one-way delay: 1634.177 ms
Loss rate: 23.24%
-- Flow 1:
Average throughput: 53.69 Mbit/s
95th percentile per-packet one-way delay: 1660.072 ms
Loss rate: 27.05%
-- Flow 2:
Average throughput: 35.69 Mbit/s
95th percentile per-packet one-way delay: 1116.366 ms
Loss rate: 15.84%
-- Flow 3:
Average throughput: 29.77 Mbit/s
95th percentile per-packet one-way delay: 1407.945 ms
Loss rate: 17.11%
```

Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-12-11 16:02:18
End at: 2019-12-11 16:02:48
Local clock offset: -7.736 ms
Remote clock offset: -8.8 ms


# Below is generated by plot.py at 2019-12-11 17:33:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.74 Mbit/s
95th percentile per-packet one-way delay: 1573.233 ms
Loss rate: 16.85%
-- Flow 1:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 1161.840 ms
Loss rate: 21.73%
-- Flow 2:
Average throughput: 32.38 Mbit/s
95th percentile per-packet one-way delay: 320.946 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 1850.014 ms
Loss rate: 17.52%
```

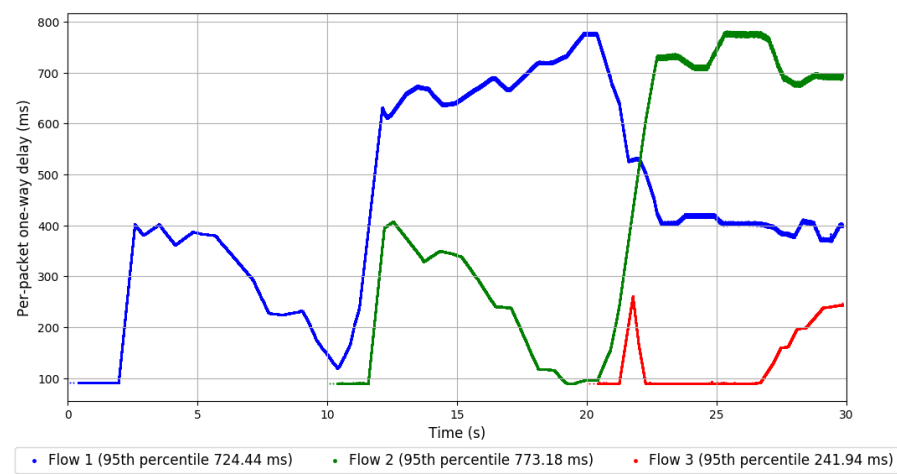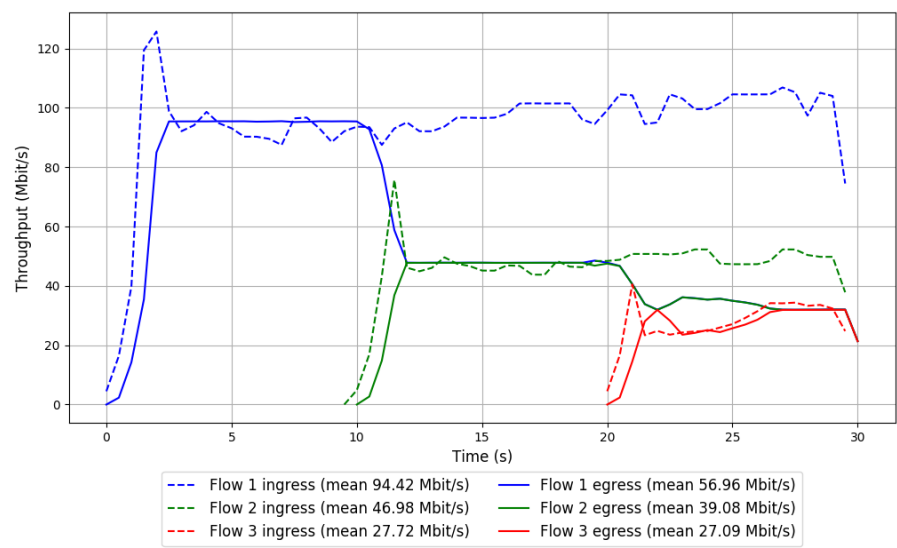Run 3: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 69.03 Mbit/s) ——— Flow 1 egress (mean 54.27 Mbit/s)
- - - Flow 2 ingress (mean 32.46 Mbit/s) ——— Flow 2 egress (mean 32.38 Mbit/s)
- - - Flow 3 ingress (mean 35.84 Mbit/s) ——— Flow 3 egress (mean 29.98 Mbit/s)

• Flow 1 (95th percentile 1161.84 ms)   • Flow 2 (95th percentile 320.95 ms)   • Flow 3 (95th percentile 1850.01 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-12-11 16:32:37
End at: 2019-12-11 16:33:07
Local clock offset: -6.692 ms
Remote clock offset: -9.902 ms


# Below is generated by plot.py at 2019-12-11 17:33:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.51 Mbit/s
95th percentile per-packet one-way delay: 1619.928 ms
Loss rate: 23.81%
-- Flow 1:
Average throughput: 55.91 Mbit/s
95th percentile per-packet one-way delay: 1650.000 ms
Loss rate: 27.41%
-- Flow 2:
Average throughput: 35.97 Mbit/s
95th percentile per-packet one-way delay: 1084.759 ms
Loss rate: 16.18%
-- Flow 3:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 1410.449 ms
Loss rate: 18.84%
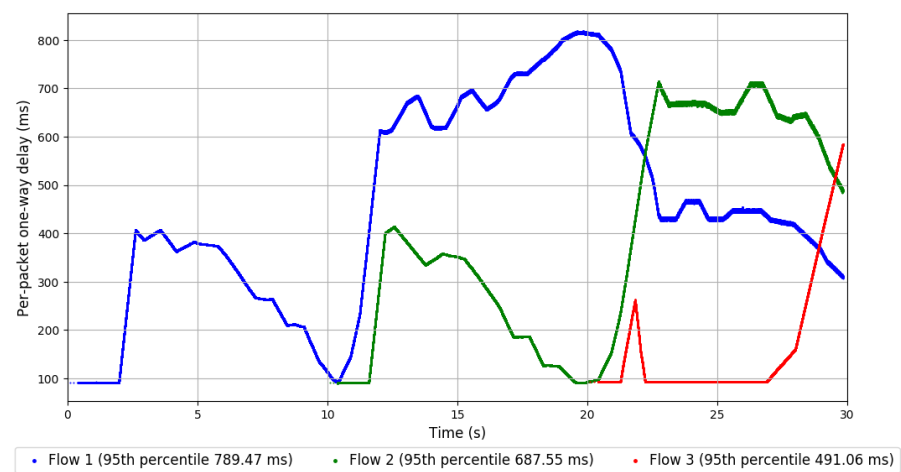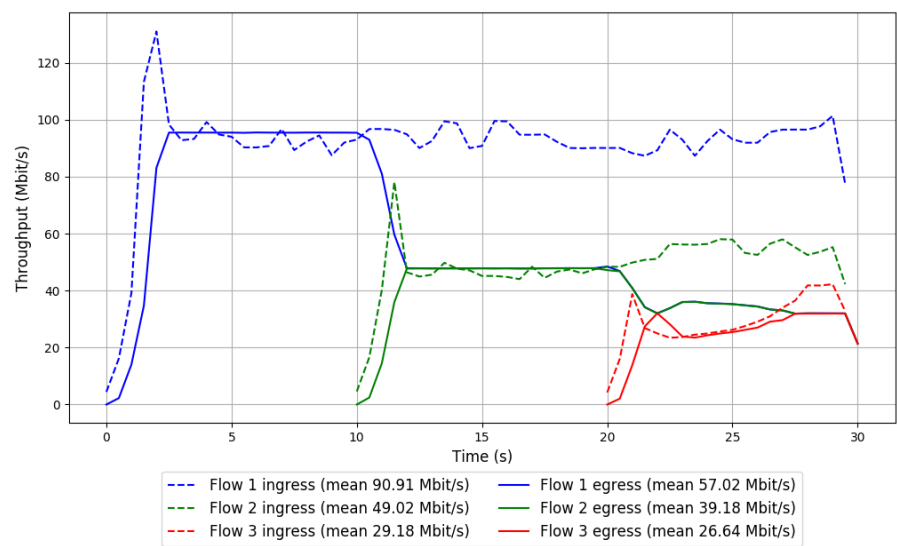```

Run 4: Report of PCC-Allegro — Data Link



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```
Run 5: Statistics of PCC-Allegro

Start at: 2019-12-11 17:02:52
End at: 2019-12-11 17:03:23
Local clock offset: -5.594 ms
Remote clock offset: -8.905 ms

Below is generated by plot.py at 2019-12-11 17:33:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 87.61 Mbit/s
95th percentile per-packet one-way delay: 1458.952 ms
Loss rate: 22.45%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 1377.173 ms
Loss rate: 27.12%
-- Flow 2:
Average throughput: 32.99 Mbit/s
95th percentile per-packet one-way delay: 1115.280 ms
Loss rate: 10.29%
-- Flow 3:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 1653.350 ms
Loss rate: 17.17%
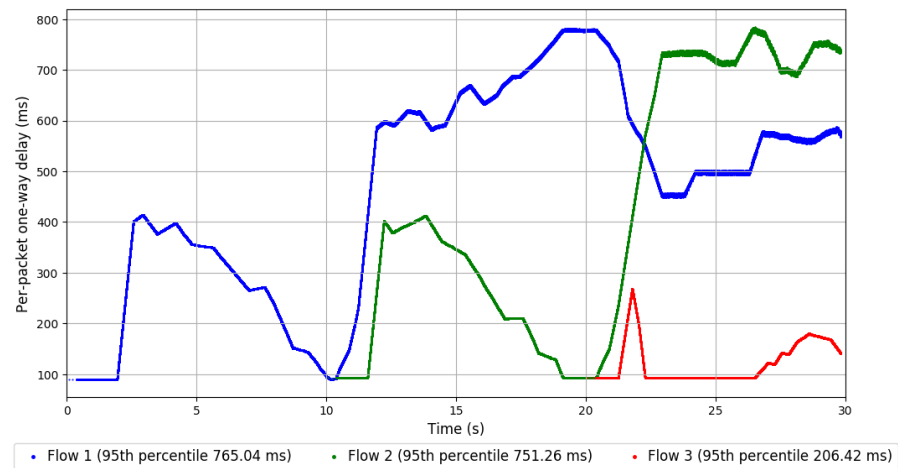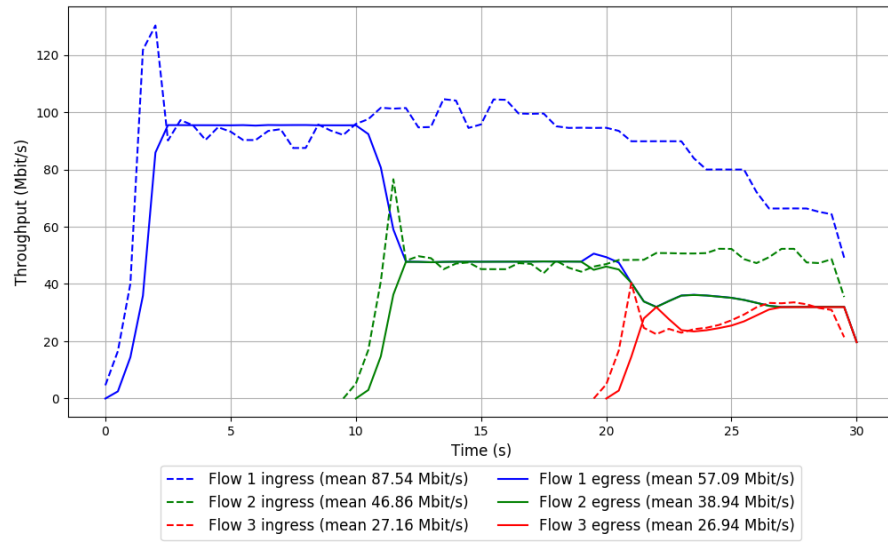```

Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 76.46 Mbit/s) — — — Flow 1 egress (mean 55.99 Mbit/s)
Flow 2 ingress (mean 36.52 Mbit/s) — — — Flow 2 egress (mean 32.99 Mbit/s)
Flow 3 ingress (mean 35.49 Mbit/s) — — — Flow 3 egress (mean 29.81 Mbit/s)

Flow 1 (95th percentile 1377.17 ms)   Flow 2 (95th percentile 1115.28 ms)   Flow 3 (95th percentile 1653.35 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2019-12-11 15:18:07
End at: 2019-12-11 15:18:37
Local clock offset: -7.18 ms
Remote clock offset: -8.84 ms


# Below is generated by plot.py at 2019-12-11 17:34:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.77 Mbit/s
95th percentile per-packet one-way delay: 735.647 ms
Loss rate: 32.26%
-- Flow 1:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 724.444 ms
Loss rate: 39.96%
-- Flow 2:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 773.185 ms
Loss rate: 17.39%
-- Flow 3:
Average throughput: 27.09 Mbit/s
95th percentile per-packet one-way delay: 241.936 ms
Loss rate: 3.64%
```
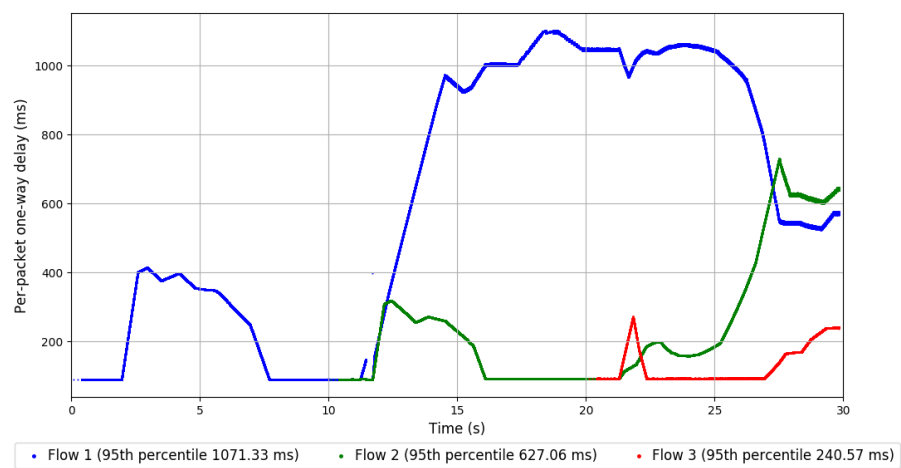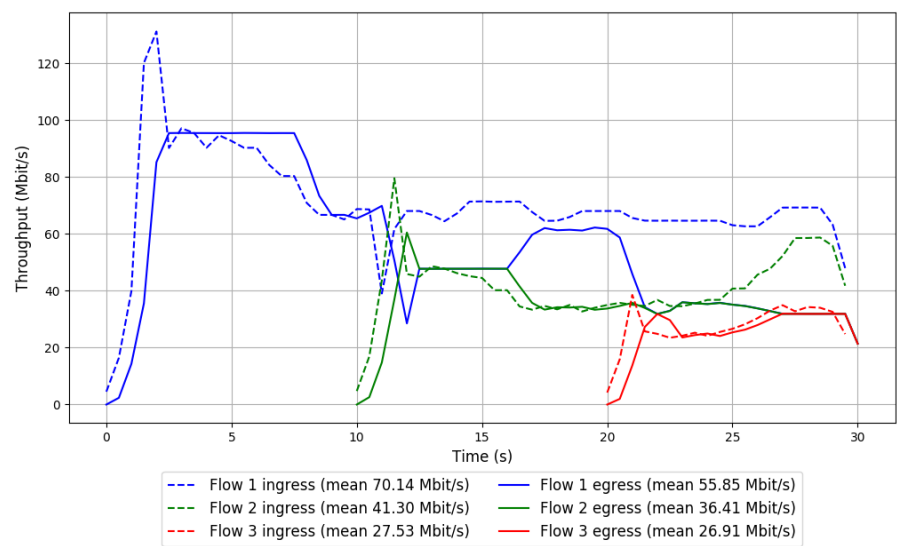
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-12-11 15:48:23
End at: 2019-12-11 15:48:53
Local clock offset: -7.784 ms
Remote clock offset: -9.821 ms


# Below is generated by plot.py at 2019-12-11 17:35:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 749.713 ms
Loss rate: 31.43%
-- Flow 1:
Average throughput: 57.02 Mbit/s
95th percentile per-packet one-way delay: 789.465 ms
Loss rate: 37.57%
-- Flow 2:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 687.554 ms
Loss rate: 20.62%
-- Flow 3:
Average throughput: 26.64 Mbit/s
95th percentile per-packet one-way delay: 491.063 ms
Loss rate: 10.01%
```
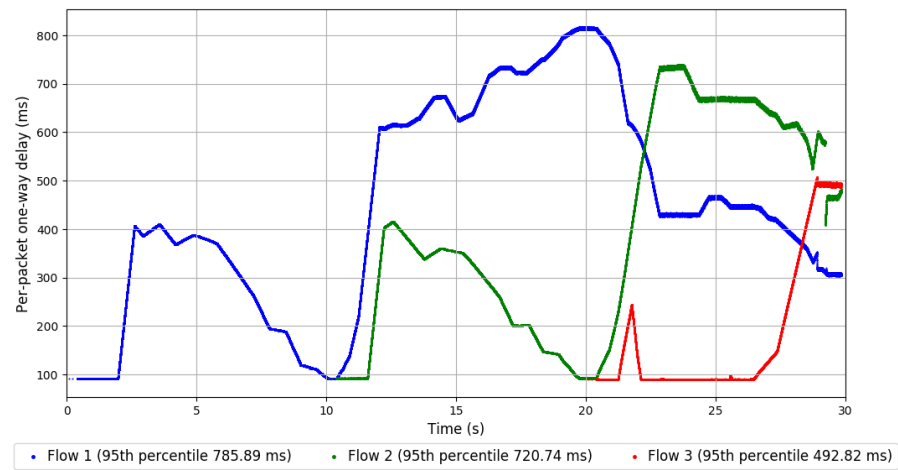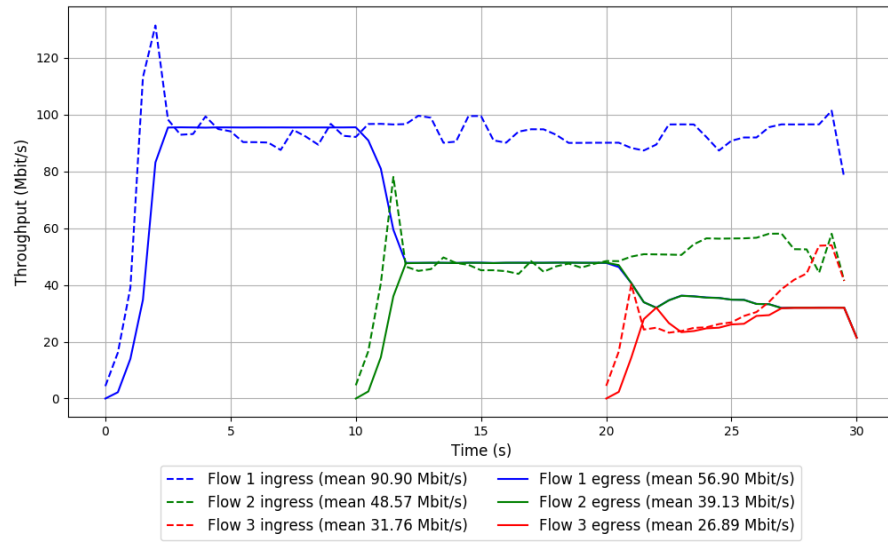
Run 2: Report of PCC-Expr — Data Link

- - - Flow 1 ingress (mean 90.91 Mbit/s) ——— Flow 1 egress (mean 57.02 Mbit/s)
- - - Flow 2 ingress (mean 49.02 Mbit/s) ——— Flow 2 egress (mean 39.18 Mbit/s)
- - - Flow 3 ingress (mean 29.18 Mbit/s) ——— Flow 3 egress (mean 26.64 Mbit/s)

• Flow 1 (95th percentile 789.47 ms)   • Flow 2 (95th percentile 687.55 ms)   • Flow 3 (95th percentile 491.06 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-12-11 16:18:41
End at: 2019-12-11 16:19:11
Local clock offset: -6.428 ms
Remote clock offset: -8.665 ms


# Below is generated by plot.py at 2019-12-11 17:35:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.78 Mbit/s
95th percentile per-packet one-way delay: 752.701 ms
Loss rate: 28.48%
-- Flow 1:
Average throughput: 57.09 Mbit/s
95th percentile per-packet one-way delay: 765.043 ms
Loss rate: 35.08%
-- Flow 2:
Average throughput: 38.94 Mbit/s
95th percentile per-packet one-way delay: 751.260 ms
Loss rate: 17.49%
-- Flow 3:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 206.417 ms
Loss rate: 2.30%
```

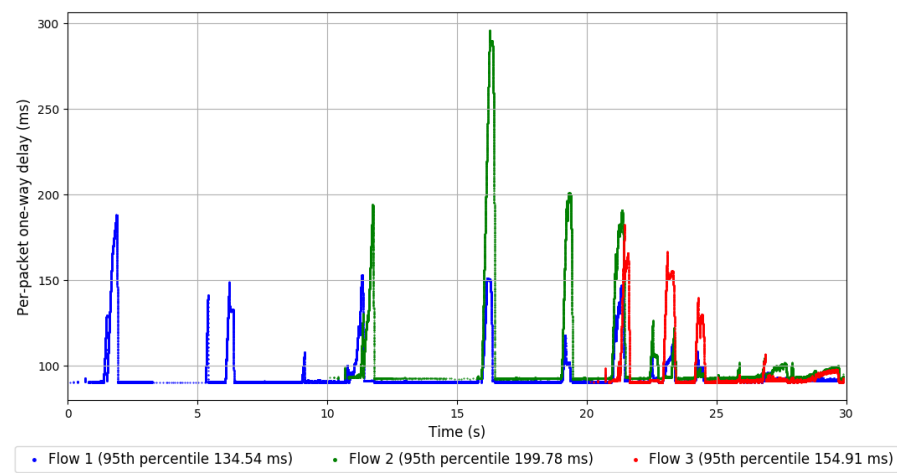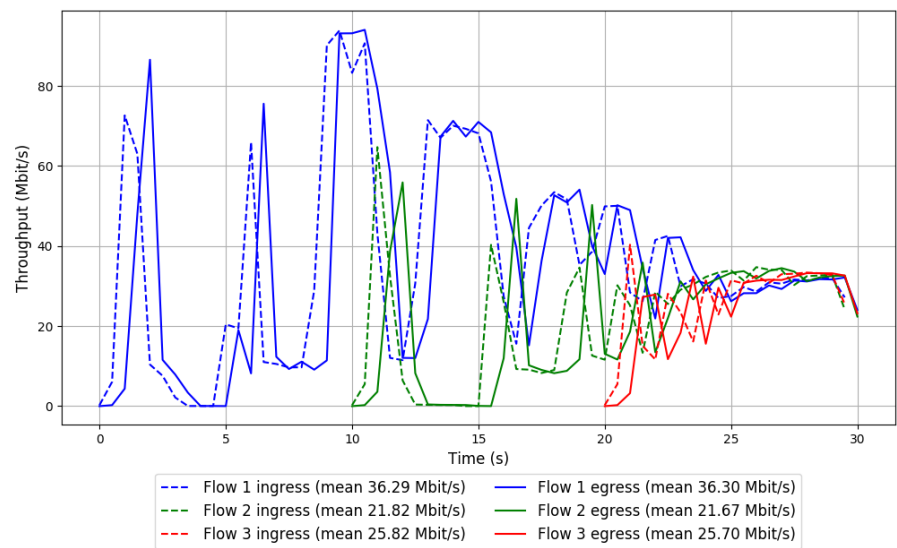# Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 87.54 Mbit/s) —— Flow 1 egress (mean 57.09 Mbit/s)
Flow 2 ingress (mean 46.86 Mbit/s) —— Flow 2 egress (mean 38.94 Mbit/s)
Flow 3 ingress (mean 27.16 Mbit/s) —— Flow 3 egress (mean 26.94 Mbit/s)

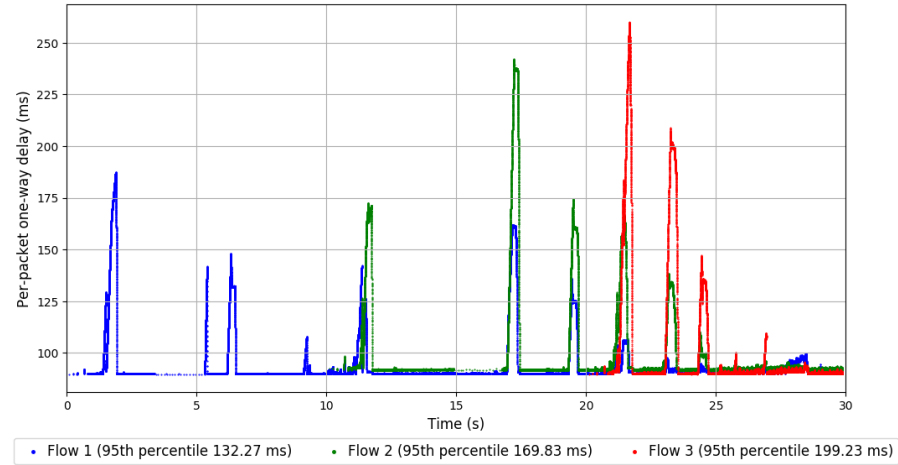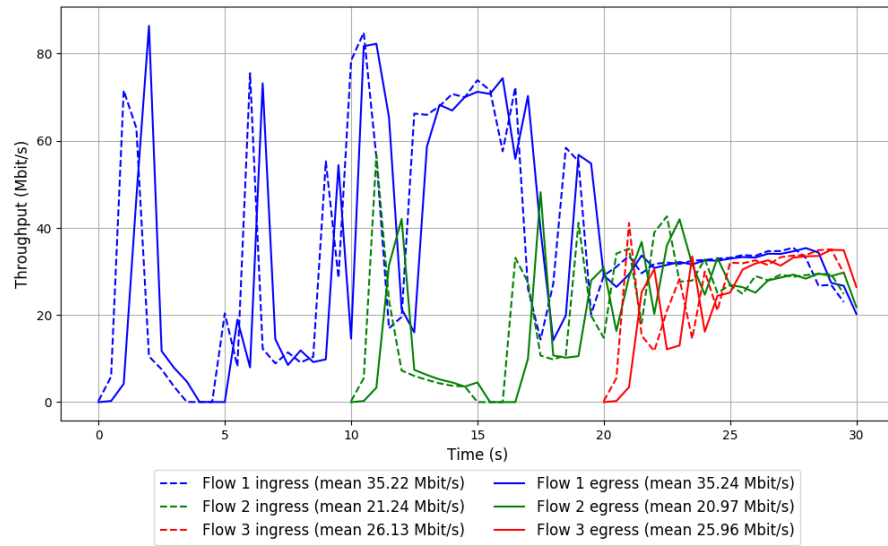Flow 1 (95th percentile 765.04 ms)   Flow 2 (95th percentile 751.26 ms)   Flow 3 (95th percentile 206.42 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-12-11 16:48:57
End at: 2019-12-11 16:49:27
Local clock offset: -5.723 ms
Remote clock offset: -9.988 ms


# Below is generated by plot.py at 2019-12-11 17:35:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.82 Mbit/s
95th percentile per-packet one-way delay: 1057.486 ms
Loss rate: 17.14%
-- Flow 1:
Average throughput: 55.85 Mbit/s
95th percentile per-packet one-way delay: 1071.330 ms
Loss rate: 20.73%
-- Flow 2:
Average throughput: 36.41 Mbit/s
95th percentile per-packet one-way delay: 627.063 ms
Loss rate: 12.44%
-- Flow 3:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 240.566 ms
Loss rate: 3.62%
```

Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 70.14 Mbit/s) — Flow 1 egress (mean 55.85 Mbit/s)
Flow 2 ingress (mean 41.30 Mbit/s) — Flow 2 egress (mean 36.41 Mbit/s)
Flow 3 ingress (mean 27.53 Mbit/s) — Flow 3 egress (mean 26.91 Mbit/s)

Flow 1 (95th percentile 1071.33 ms)   Flow 2 (95th percentile 627.06 ms)   Flow 3 (95th percentile 240.57 ms)
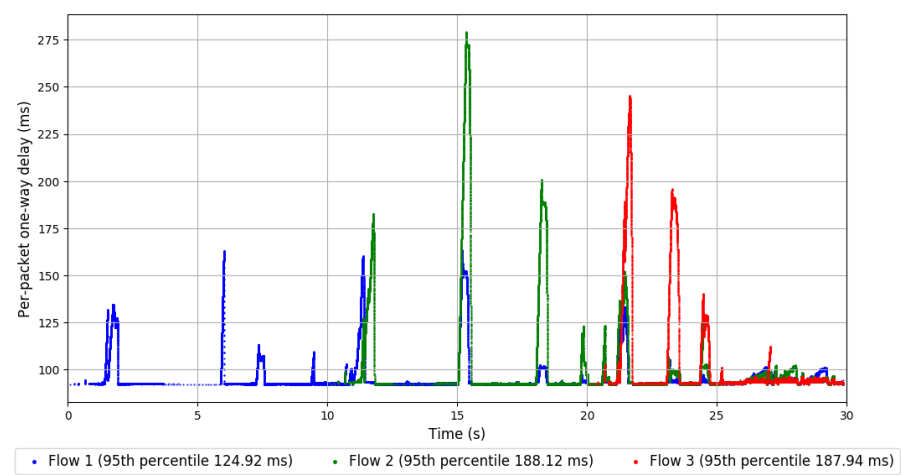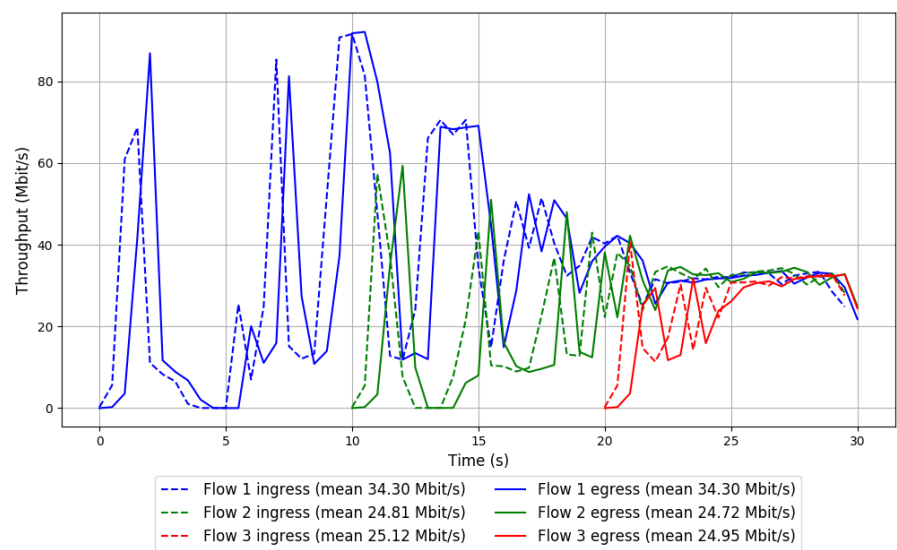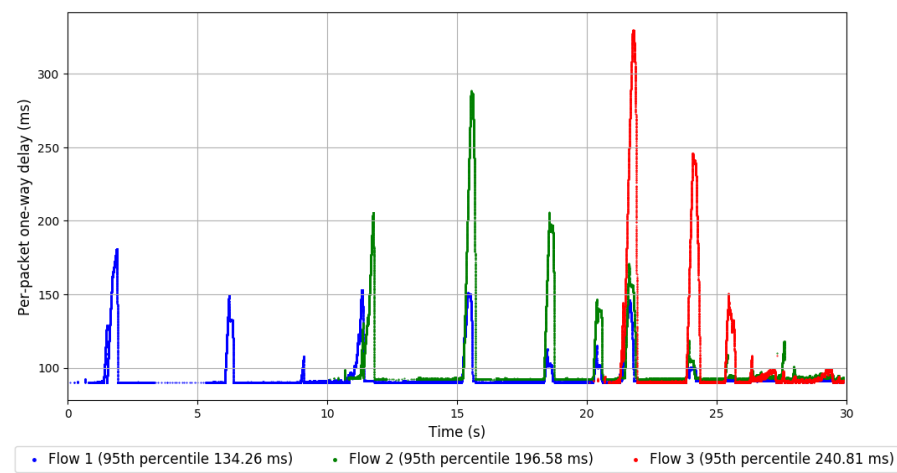
```
Run 5: Statistics of PCC-Expr

Start at: 2019-12-11 17:19:19
End at: 2019-12-11 17:19:49
Local clock offset: -6.993 ms
Remote clock offset: -8.242 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 744.073 ms
Loss rate: 31.75%
-- Flow 1:
Average throughput: 56.90 Mbit/s
95th percentile per-packet one-way delay: 785.887 ms
Loss rate: 37.69%
-- Flow 2:
Average throughput: 39.13 Mbit/s
95th percentile per-packet one-way delay: 720.740 ms
Loss rate: 20.00%
-- Flow 3:
Average throughput: 26.89 Mbit/s
95th percentile per-packet one-way delay: 492.824 ms
Loss rate: 16.52%
```

Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 90.90 Mbit/s) — Flow 1 egress (mean 56.90 Mbit/s)
Flow 2 ingress (mean 48.57 Mbit/s) — Flow 2 egress (mean 39.13 Mbit/s)
Flow 3 ingress (mean 31.76 Mbit/s) — Flow 3 egress (mean 26.89 Mbit/s)

Flow 1 (95th percentile 785.89 ms)   Flow 2 (95th percentile 720.74 ms)   Flow 3 (95th percentile 492.82 ms)
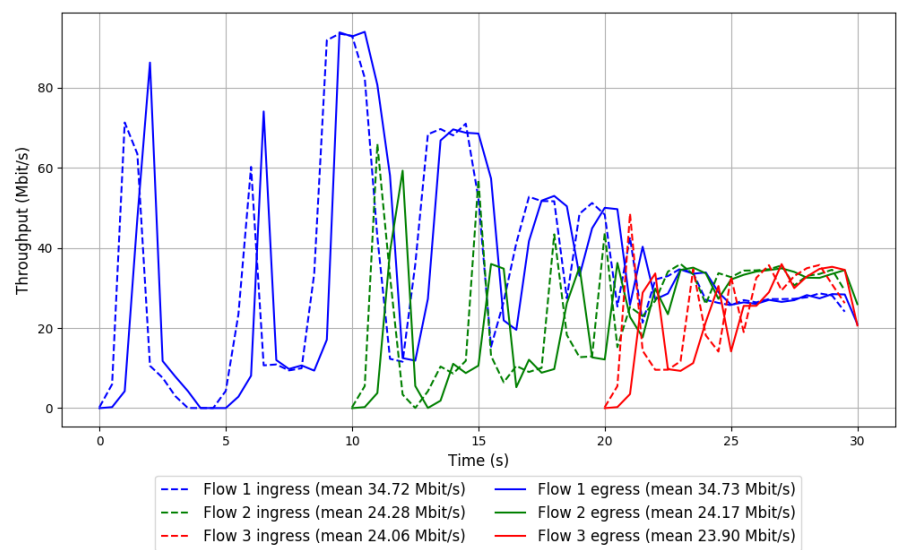
```
Run 1: Statistics of QUIC Cubic

Start at: 2019-12-11 15:19:26
End at: 2019-12-11 15:19:56
Local clock offset: -6.444 ms
Remote clock offset: -9.229 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.10 Mbit/s
95th percentile per-packet one-way delay: 158.033 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 36.30 Mbit/s
95th percentile per-packet one-way delay: 134.538 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 21.67 Mbit/s
95th percentile per-packet one-way delay: 199.778 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 25.70 Mbit/s
95th percentile per-packet one-way delay: 154.906 ms
Loss rate: 1.84%
```

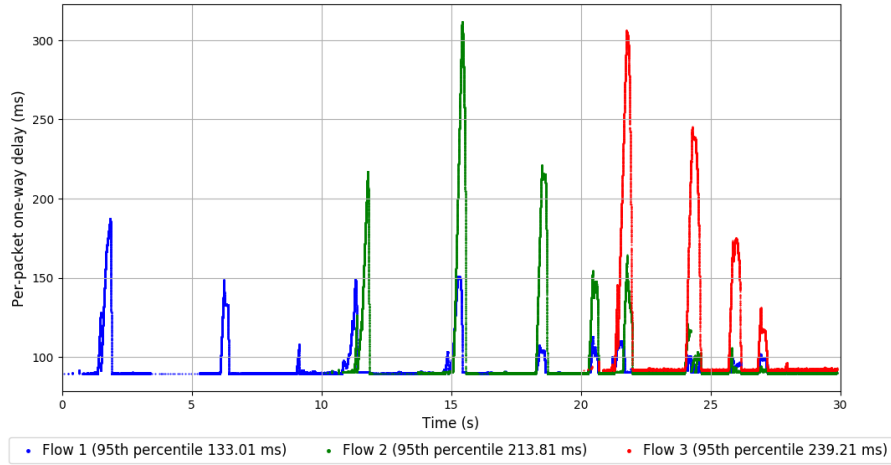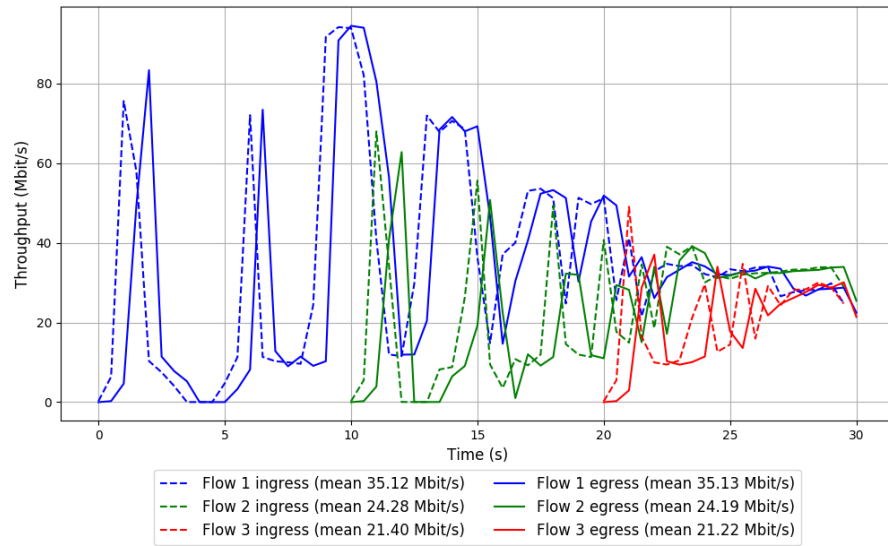Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-12-11 15:49:42
End at: 2019-12-11 15:50:12
Local clock offset: -7.152 ms
Remote clock offset: -9.039 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.66 Mbit/s
95th percentile per-packet one-way delay: 160.958 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 35.24 Mbit/s
95th percentile per-packet one-way delay: 132.270 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 20.97 Mbit/s
95th percentile per-packet one-way delay: 169.827 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 25.96 Mbit/s
95th percentile per-packet one-way delay: 199.233 ms
Loss rate: 2.04%
```
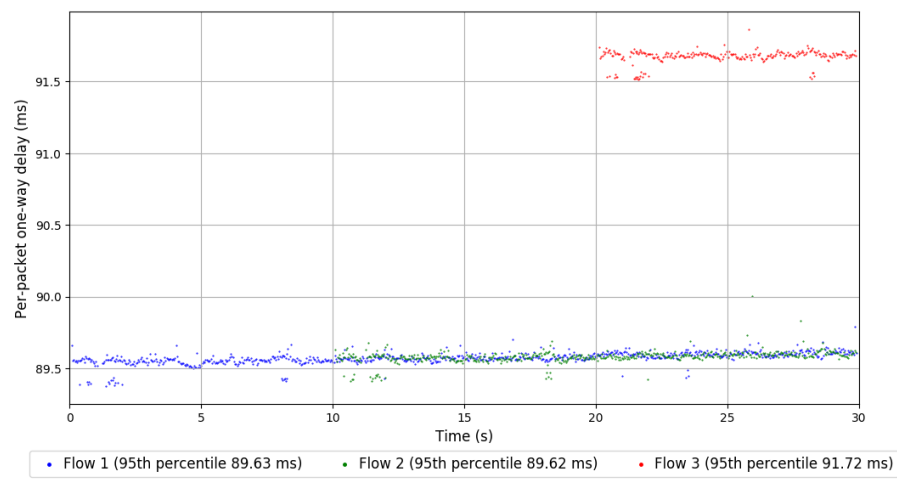
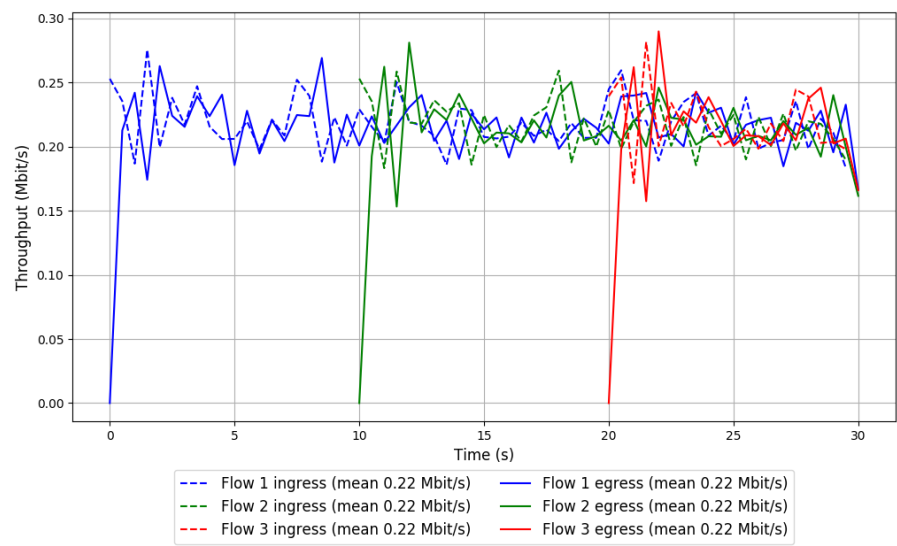Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-12-11 16:20:00
End at: 2019-12-11 16:20:30
Local clock offset: -6.296 ms
Remote clock offset: -9.426 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 150.550 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 34.30 Mbit/s
95th percentile per-packet one-way delay: 124.917 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 24.72 Mbit/s
95th percentile per-packet one-way delay: 188.119 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 24.95 Mbit/s
95th percentile per-packet one-way delay: 187.937 ms
Loss rate: 2.05%
```

Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-12-11 16:50:16
End at: 2019-12-11 16:50:46
Local clock offset: -6.356 ms
Remote clock offset: -9.887 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 165.359 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 34.73 Mbit/s
95th percentile per-packet one-way delay: 134.264 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 24.17 Mbit/s
95th percentile per-packet one-way delay: 196.577 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 23.90 Mbit/s
95th percentile per-packet one-way delay: 240.812 ms
Loss rate: 2.08%
```

Run 4: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 34.72 Mbit/s)   —— Flow 1 egress (mean 34.73 Mbit/s)
- - - Flow 2 ingress (mean 24.28 Mbit/s)   —— Flow 2 egress (mean 24.17 Mbit/s)
- - - Flow 3 ingress (mean 24.06 Mbit/s)   —— Flow 3 egress (mean 23.90 Mbit/s)

• Flow 1 (95th percentile 134.26 ms)   • Flow 2 (95th percentile 196.58 ms)   • Flow 3 (95th percentile 240.81 ms)

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```
Run 5: Statistics of QUIC Cubic

Start at: 2019-12-11 17:20:38
End at: 2019-12-11 17:21:08
Local clock offset: -7.1 ms
Remote clock offset: -8.788 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.14 Mbit/s
95th percentile per-packet one-way delay: 174.598 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 35.13 Mbit/s
95th percentile per-packet one-way delay: 133.006 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 213.806 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 21.22 Mbit/s
95th percentile per-packet one-way delay: 239.209 ms
Loss rate: 2.23%
```
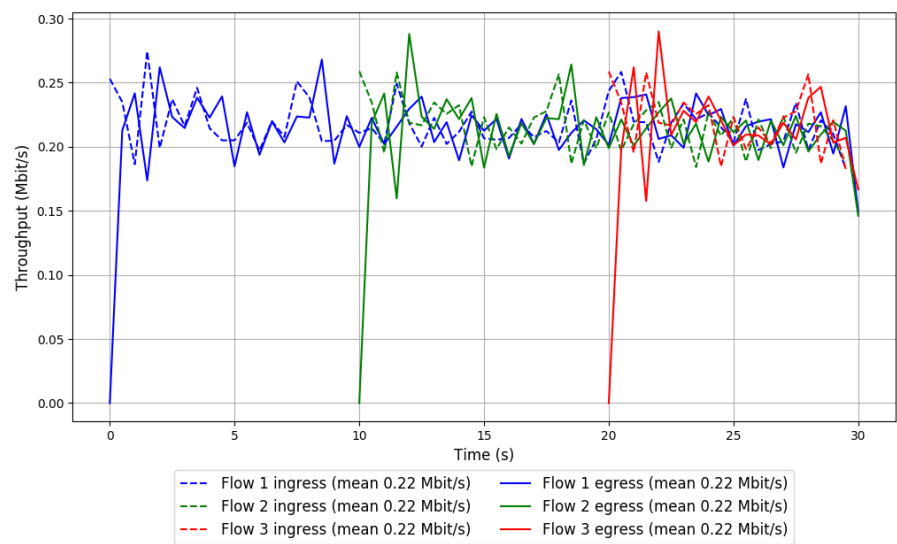
Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-12-11 15:03:02
End at: 2019-12-11 15:03:32
Local clock offset: -7.761 ms
Remote clock offset: -8.669 ms

# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 91.694 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.626 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.625 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.721 ms
Loss rate: 1.45%
```
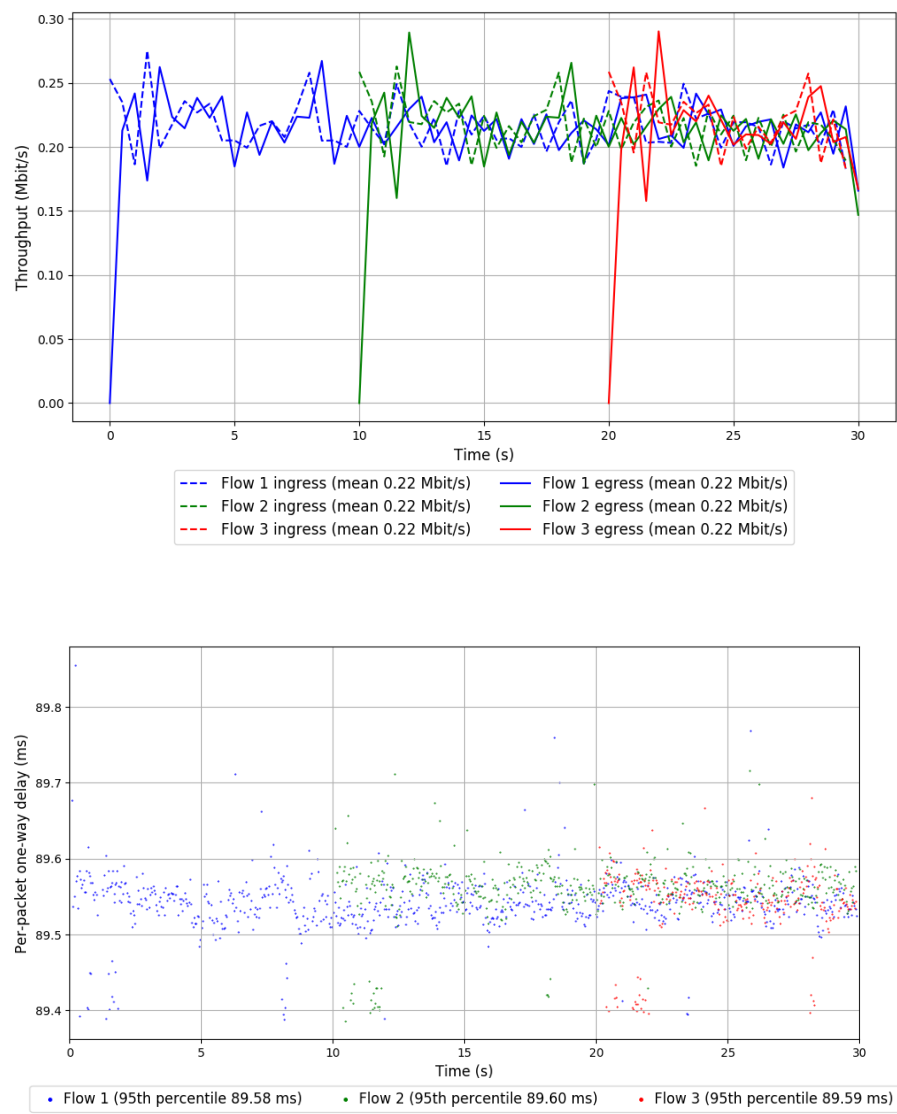
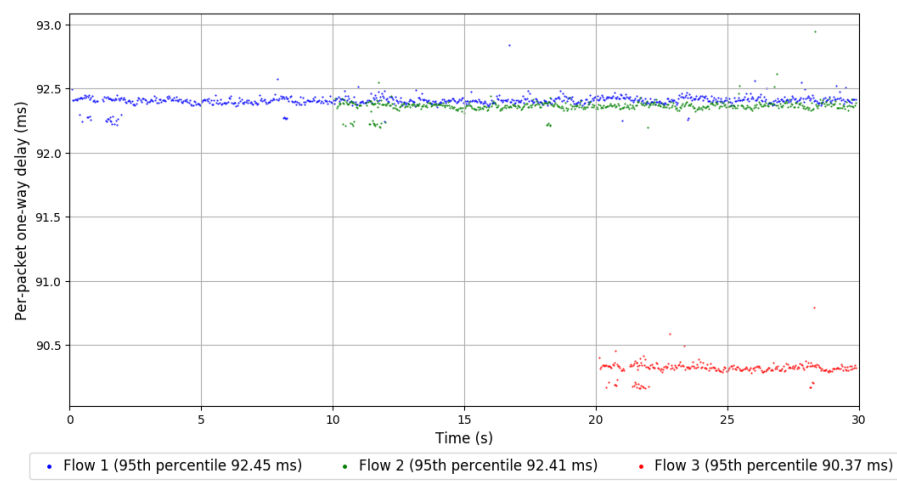# Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-12-11 15:33:16
End at: 2019-12-11 15:33:46
Local clock offset: -7.27 ms
Remote clock offset: -9.042 ms

# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 91.181 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.214 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.205 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.239 ms
Loss rate: 1.10%
```
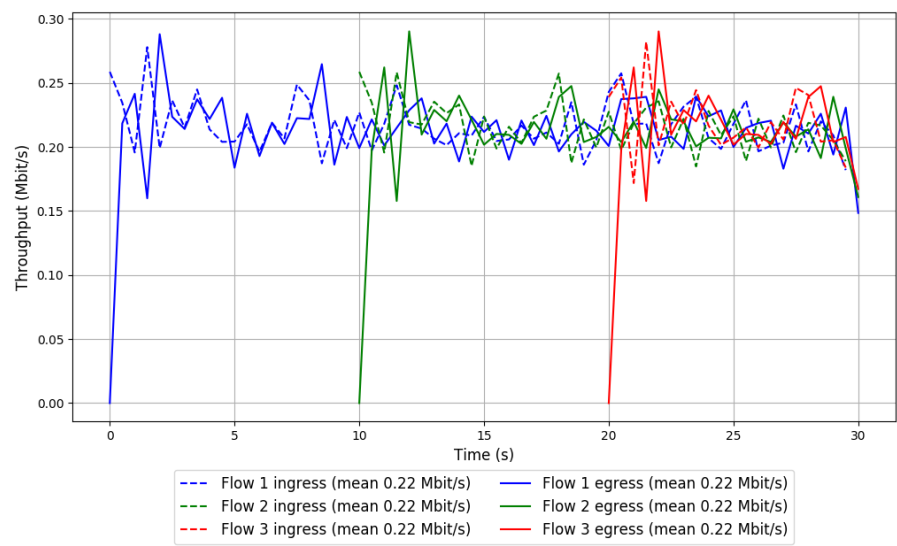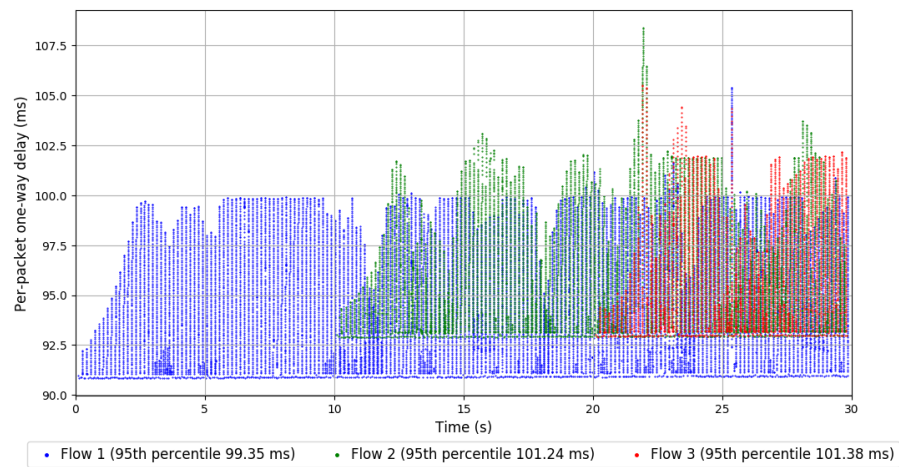
Run 2: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s)   Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)   Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)   Flow 3 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 89.21 ms)   Flow 2 (95th percentile 91.20 ms)   Flow 3 (95th percentile 89.24 ms)

```
Run 3: Statistics of SCReAM

Start at: 2019-12-11 16:03:34
End at: 2019-12-11 16:04:04
Local clock offset: -8.425 ms
Remote clock offset: -8.856 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 91.178 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.140 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.188 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.283 ms
Loss rate: 1.45%
```
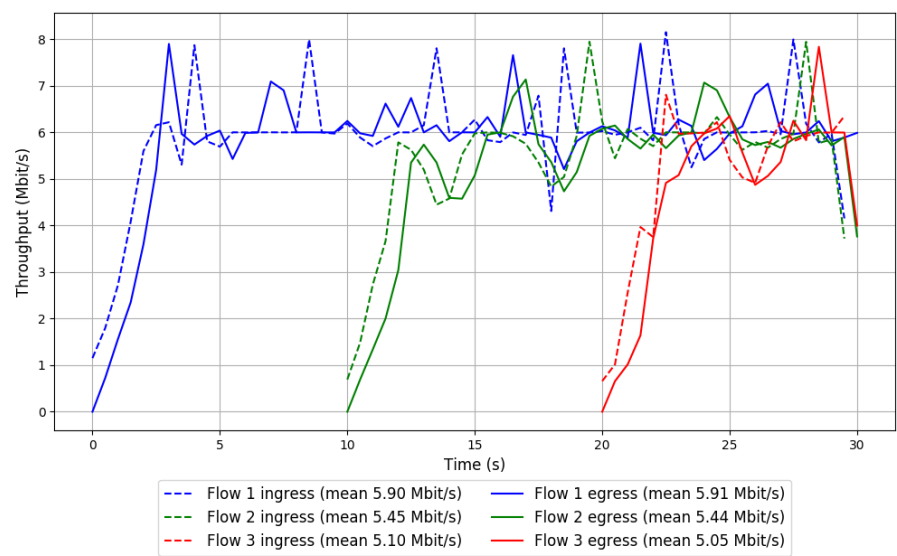
Run 3: Report of SCReAM — Data Link

- Flow 1 ingress (mean 0.22 Mbit/s)
- Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.22 Mbit/s)
- Flow 2 egress (mean 0.22 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s)
- Flow 3 egress (mean 0.22 Mbit/s)

- Flow 1 (95th percentile 89.14 ms)
- Flow 2 (95th percentile 91.19 ms)
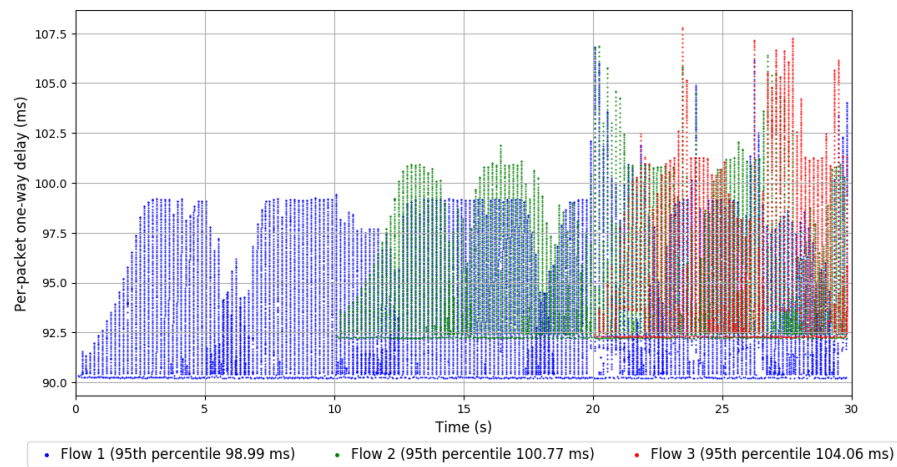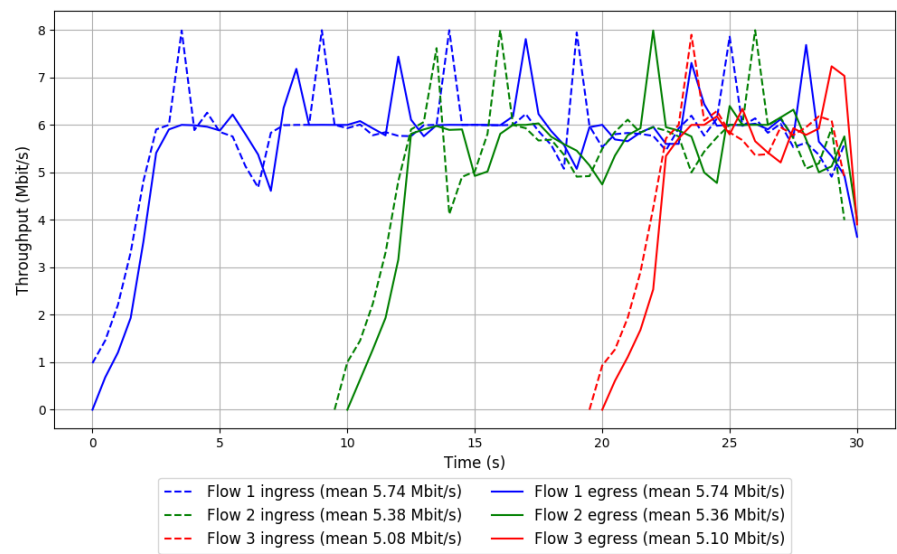- Flow 3 (95th percentile 91.28 ms)

```
Run 4: Statistics of SCReAM

Start at: 2019-12-11 16:33:52
End at: 2019-12-11 16:34:22
Local clock offset: -6.612 ms
Remote clock offset: -9.251 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 89.595 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.584 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.600 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.593 ms
Loss rate: 1.45%
```

Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-12-11 17:04:08
End at: 2019-12-11 17:04:38
Local clock offset: -5.608 ms
Remote clock offset: -8.939 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 92.439 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.450 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.405 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.367 ms
Loss rate: 1.10%
```
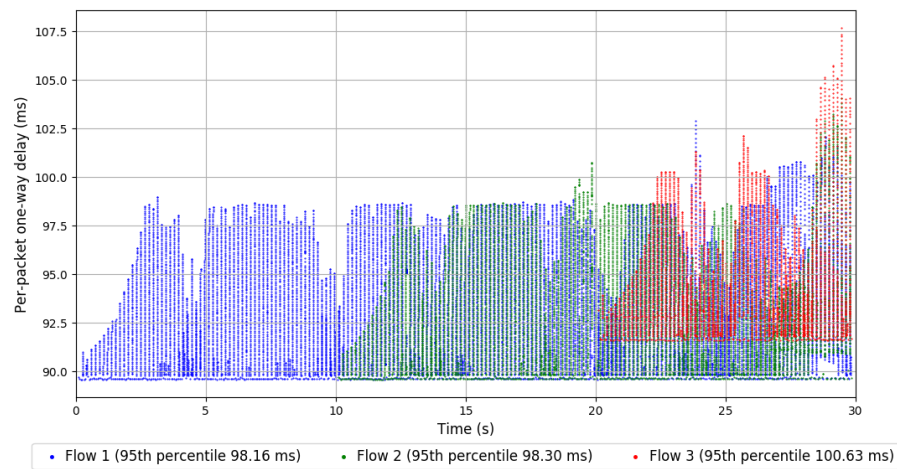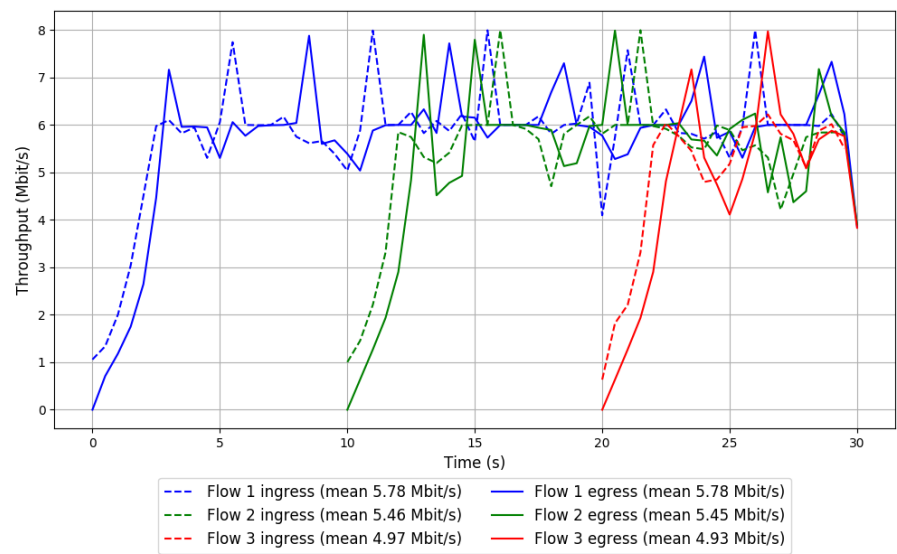
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-12-11 14:54:11
End at: 2019-12-11 14:54:41
Local clock offset: -5.659 ms
Remote clock offset: -9.57 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 100.398 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 99.349 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 5.44 Mbit/s
95th percentile per-packet one-way delay: 101.239 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 101.376 ms
Loss rate: 2.34%
```
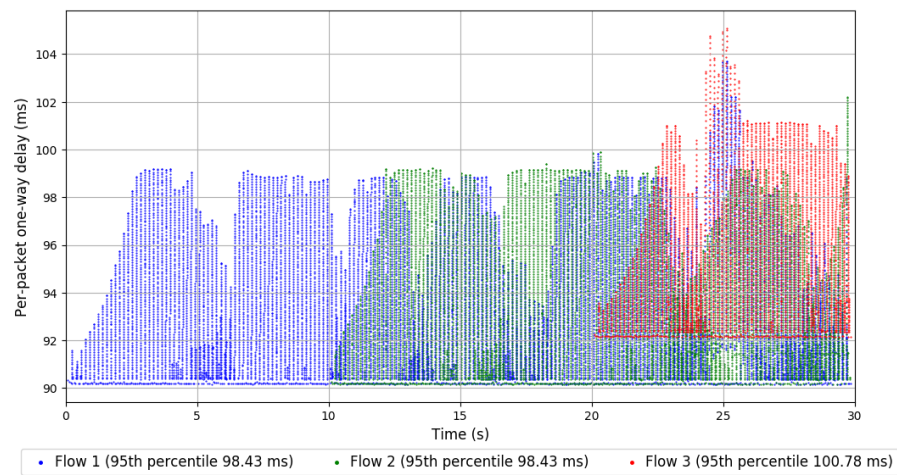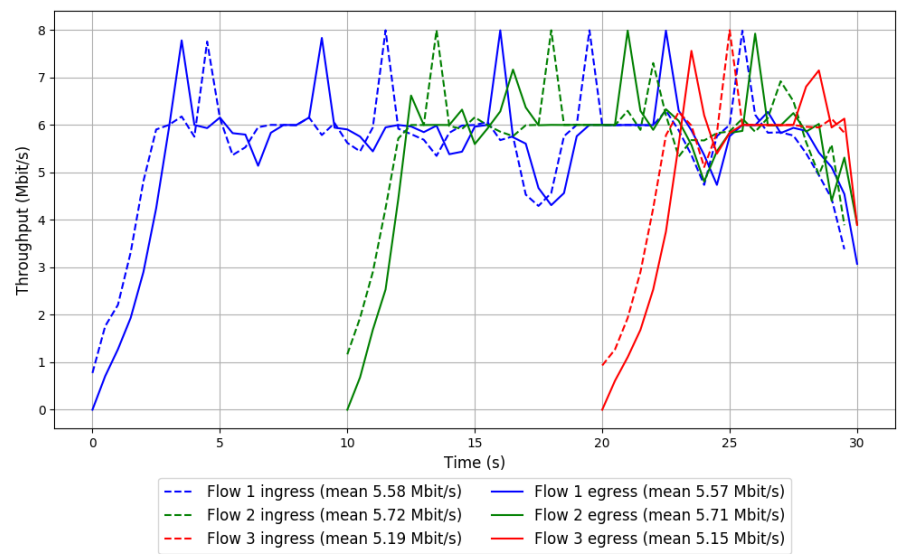
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-12-11 15:24:26
End at: 2019-12-11 15:24:57
Local clock offset: -6.382 ms
Remote clock offset: -9.372 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 100.775 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 5.74 Mbit/s
95th percentile per-packet one-way delay: 98.990 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 100.774 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 5.10 Mbit/s
95th percentile per-packet one-way delay: 104.059 ms
Loss rate: 0.99%
```
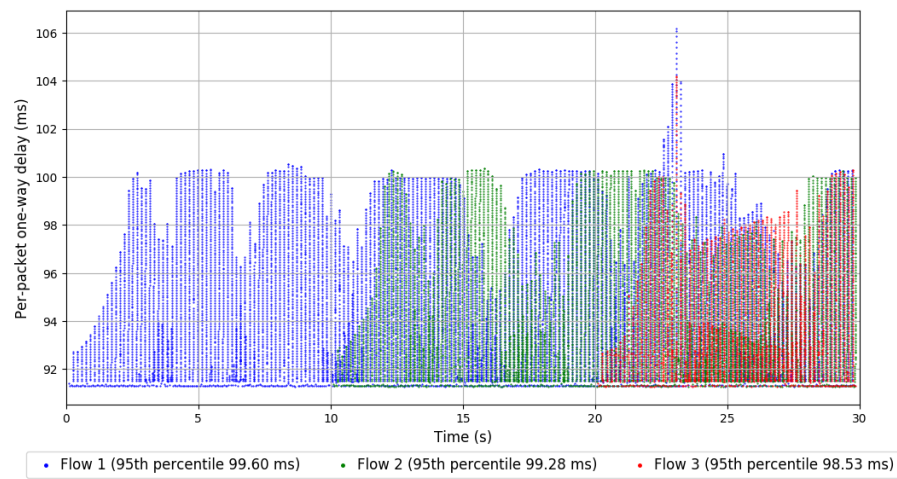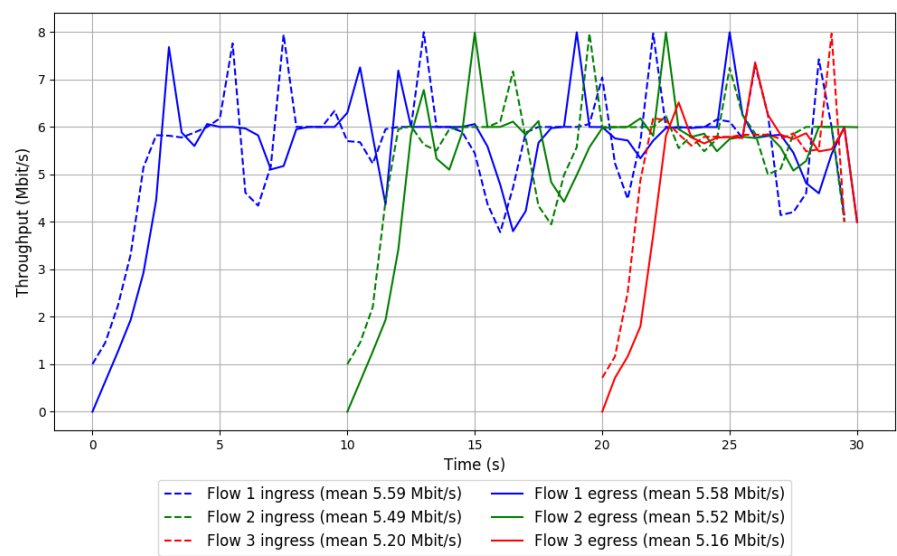
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-12-11 15:54:44
End at: 2019-12-11 15:55:14
Local clock offset: -8.049 ms
Remote clock offset: -9.545 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.00 Mbit/s
95th percentile per-packet one-way delay: 98.479 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 5.78 Mbit/s
95th percentile per-packet one-way delay: 98.158 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 5.45 Mbit/s
95th percentile per-packet one-way delay: 98.295 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 4.93 Mbit/s
95th percentile per-packet one-way delay: 100.628 ms
Loss rate: 1.97%
```
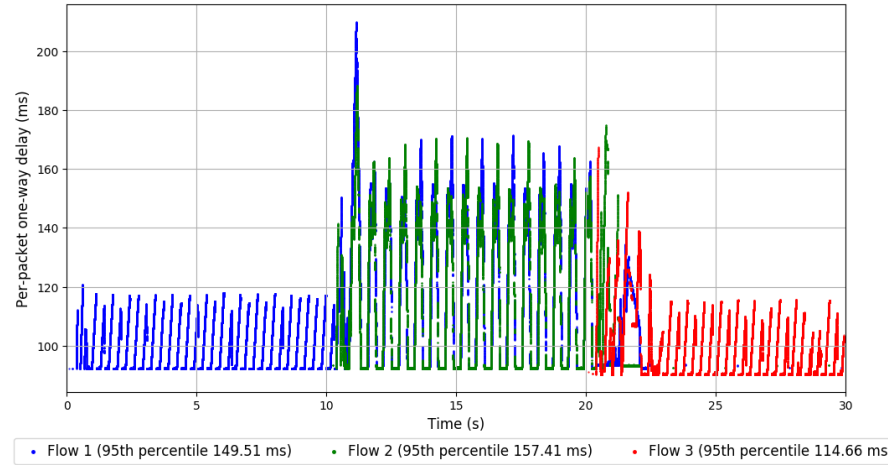
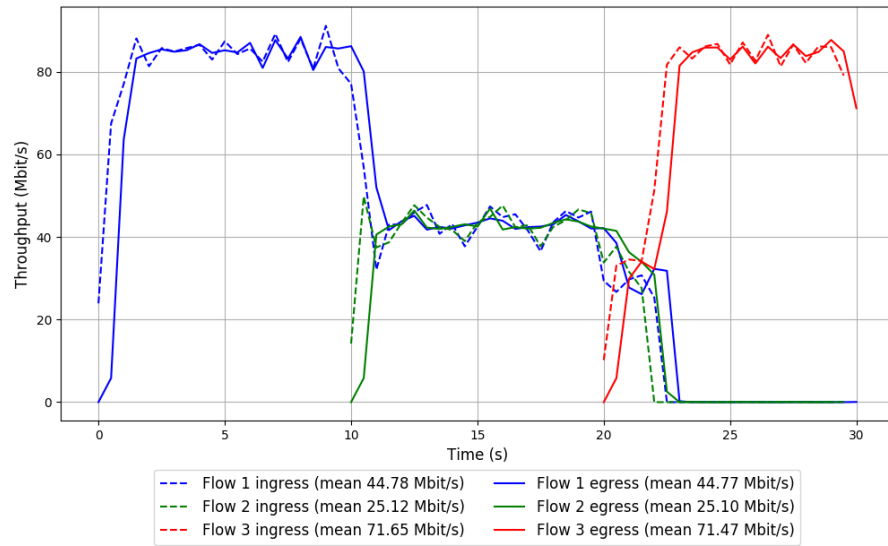# Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-12-11 16:25:02
End at: 2019-12-11 16:25:32
Local clock offset: -6.057 ms
Remote clock offset: -9.302 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 98.852 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 98.426 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 98.428 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 100.785 ms
Loss rate: 1.90%
```

Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-12-11 16:55:18
End at: 2019-12-11 16:55:48
Local clock offset: -6.301 ms
Remote clock offset: -9.101 ms


# Below is generated by plot.py at 2019-12-11 17:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 99.399 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 5.58 Mbit/s
95th percentile per-packet one-way delay: 99.601 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 5.52 Mbit/s
95th percentile per-packet one-way delay: 99.282 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 98.534 ms
Loss rate: 1.95%
```
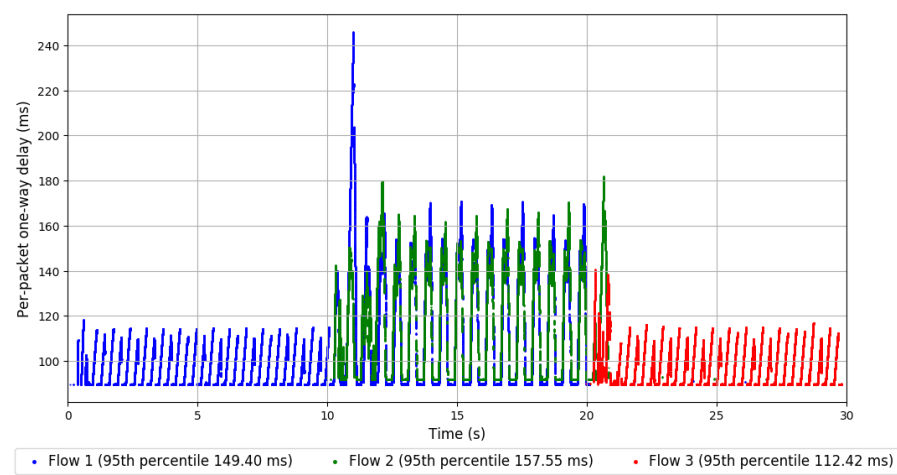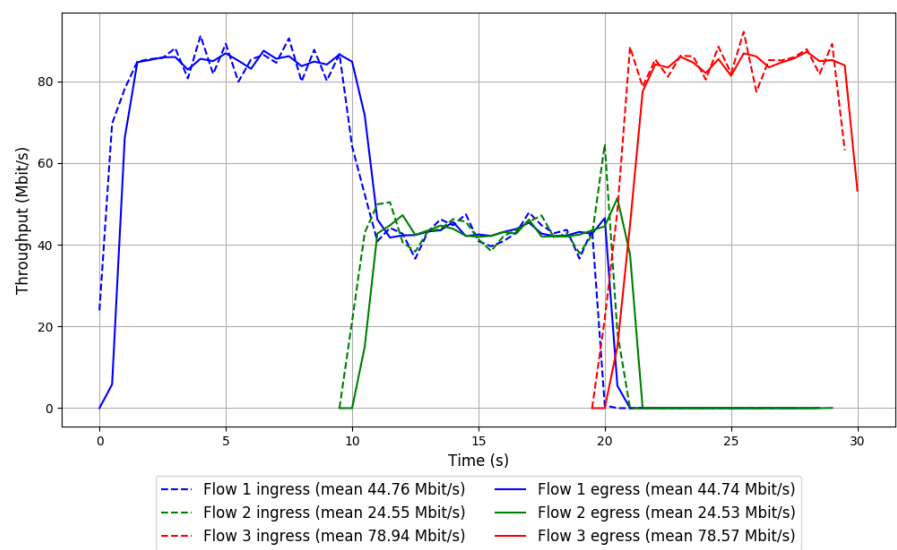
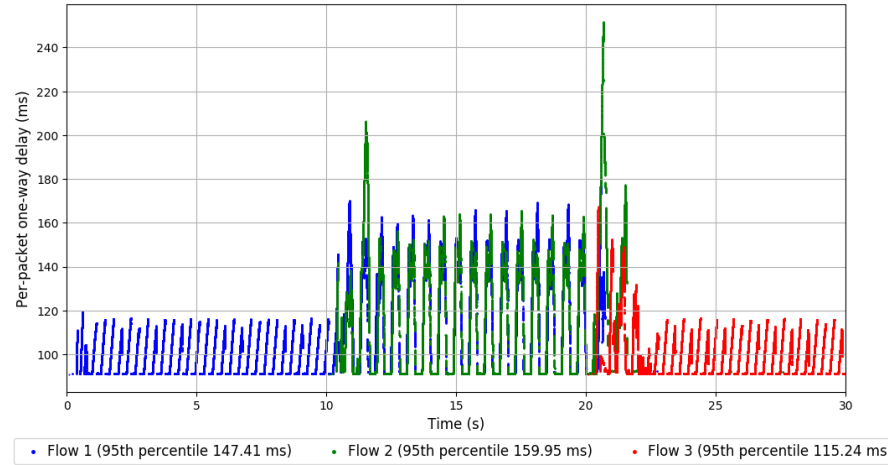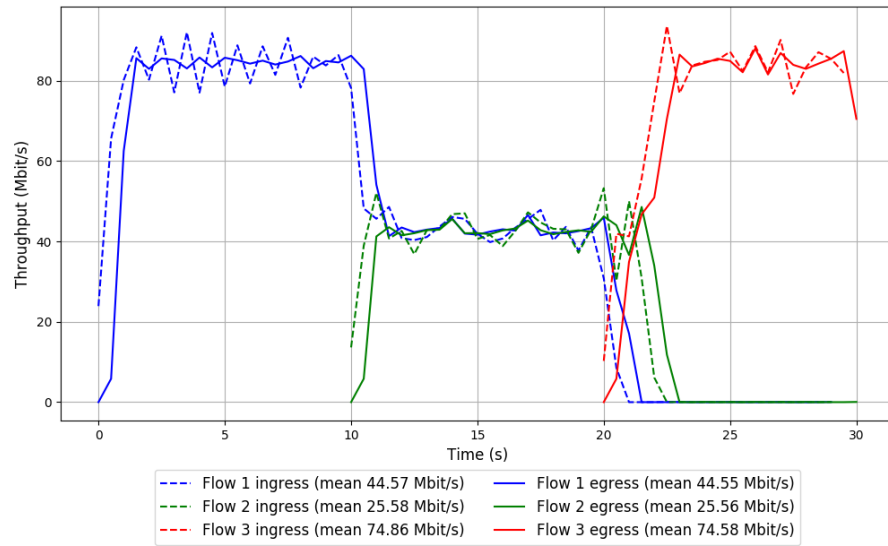## Run 5: Report of Sprout — Data Link

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

Start at: 2019-12-11 15:04:13
End at: 2019-12-11 15:04:43
Local clock offset: -7.185 ms
Remote clock offset: -8.581 ms


# Below is generated by plot.py at 2019-12-11 17:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.36 Mbit/s
95th percentile per-packet one-way delay: 149.685 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 44.77 Mbit/s
95th percentile per-packet one-way delay: 149.506 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 25.10 Mbit/s
95th percentile per-packet one-way delay: 157.415 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 71.47 Mbit/s
95th percentile per-packet one-way delay: 114.659 ms
Loss rate: 1.63%
```

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

- - - Flow 1 ingress (mean 44.78 Mbit/s) —— Flow 1 egress (mean 44.77 Mbit/s)
- - - Flow 2 ingress (mean 25.12 Mbit/s) —— Flow 2 egress (mean 25.10 Mbit/s)
- - - Flow 3 ingress (mean 71.65 Mbit/s) —— Flow 3 egress (mean 71.47 Mbit/s)

- Flow 1 (95th percentile 149.51 ms)   - Flow 2 (95th percentile 157.41 ms)   - Flow 3 (95th percentile 114.66 ms)

```
Run 2: Statistics of TaoVA-100x

Start at: 2019-12-11 15:34:27
End at: 2019-12-11 15:34:58
Local clock offset: -6.617 ms
Remote clock offset: -8.931 ms


# Below is generated by plot.py at 2019-12-11 17:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.76 Mbit/s
95th percentile per-packet one-way delay: 149.012 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 44.74 Mbit/s
95th percentile per-packet one-way delay: 149.397 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 157.552 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 78.57 Mbit/s
95th percentile per-packet one-way delay: 112.418 ms
Loss rate: 1.85%
```

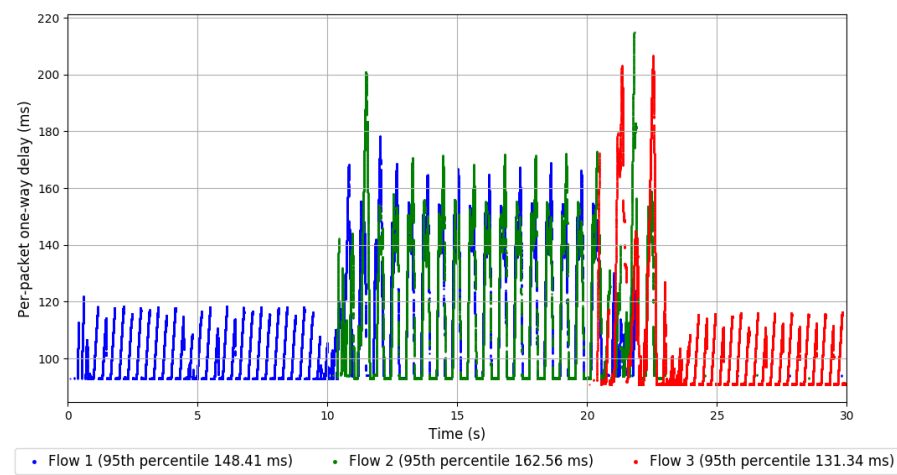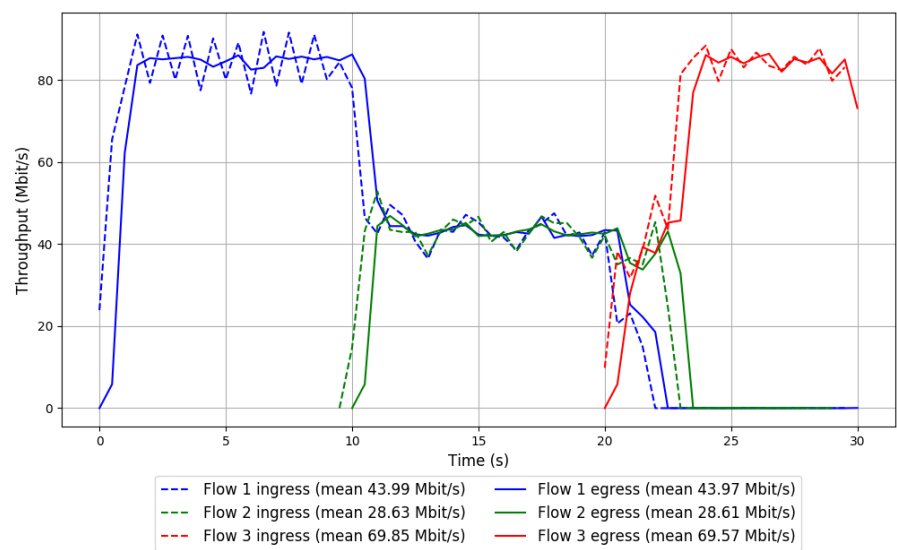## Run 2: Report of TaoVA-100x — Data Link

- Flow 1 ingress (mean 44.76 Mbit/s)
- Flow 2 ingress (mean 24.55 Mbit/s)
- Flow 3 ingress (mean 78.94 Mbit/s)
- Flow 1 egress (mean 44.74 Mbit/s)
- Flow 2 egress (mean 24.53 Mbit/s)
- Flow 3 egress (mean 78.57 Mbit/s)

- Flow 1 (95th percentile 149.40 ms)
- Flow 2 (95th percentile 157.55 ms)
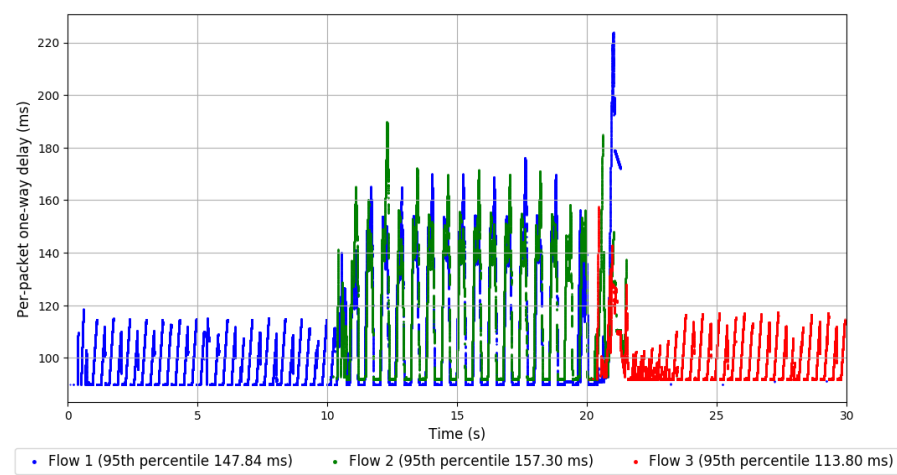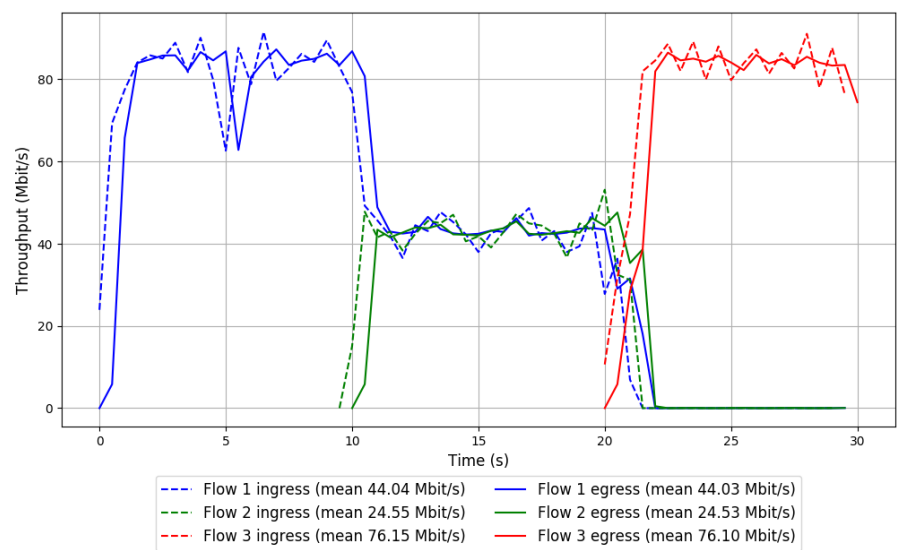- Flow 3 (95th percentile 112.42 ms)

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```
Run 3: Statistics of TaoVA-100x

Start at: 2019-12-11 16:04:45
End at: 2019-12-11 16:05:15
Local clock offset: -8.532 ms
Remote clock offset: -8.792 ms


# Below is generated by plot.py at 2019-12-11 17:36:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.02 Mbit/s
95th percentile per-packet one-way delay: 148.178 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 44.55 Mbit/s
95th percentile per-packet one-way delay: 147.411 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 25.56 Mbit/s
95th percentile per-packet one-way delay: 159.949 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 74.58 Mbit/s
95th percentile per-packet one-way delay: 115.238 ms
Loss rate: 1.77%
```

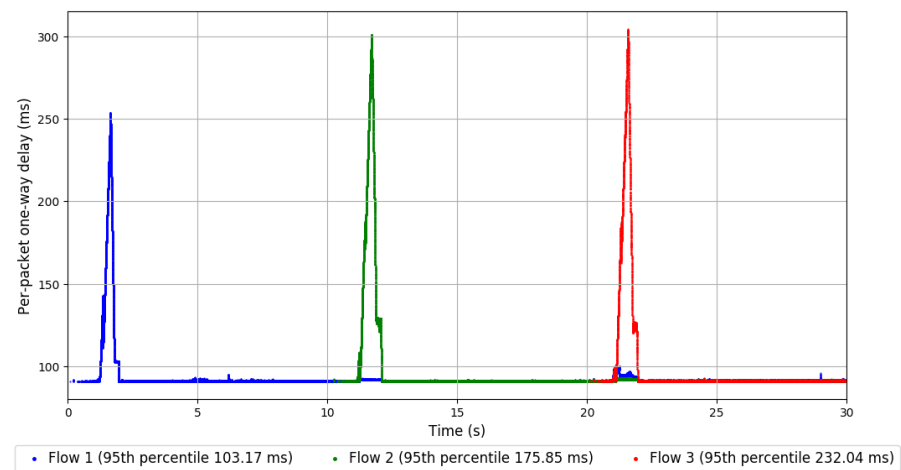## Run 3: Report of TaoVA-100x — Data Link

```
Run 4: Statistics of TaoVA-100x

Start at: 2019-12-11 16:35:03
End at: 2019-12-11 16:35:33
Local clock offset: -5.932 ms
Remote clock offset: -9.967 ms


# Below is generated by plot.py at 2019-12-11 17:36:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.40 Mbit/s
95th percentile per-packet one-way delay: 152.091 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 43.97 Mbit/s
95th percentile per-packet one-way delay: 148.407 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 28.61 Mbit/s
95th percentile per-packet one-way delay: 162.557 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 69.57 Mbit/s
95th percentile per-packet one-way delay: 131.337 ms
Loss rate: 1.77%
```

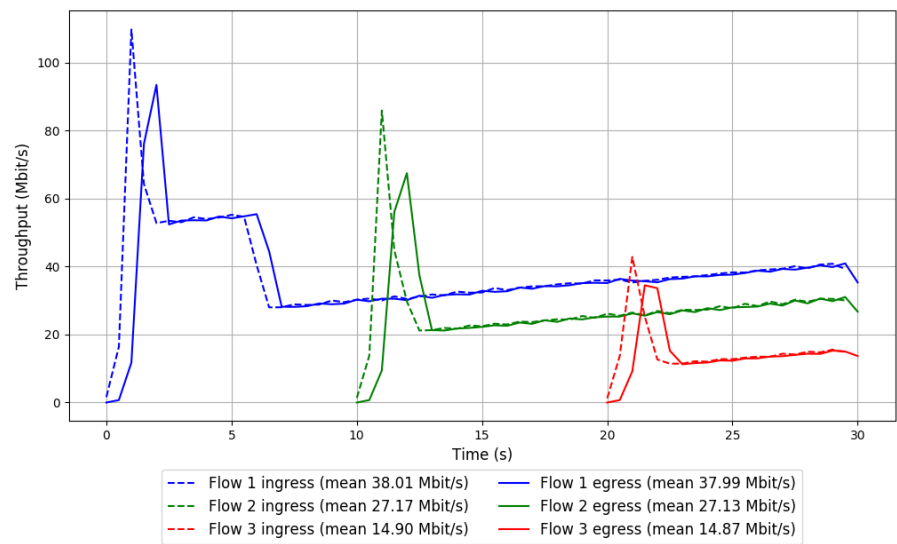Run 4: Report of TaoVA-100x — Data Link

```
Run 5: Statistics of TaoVA-100x

Start at: 2019-12-11 17:05:19
End at: 2019-12-11 17:05:49
Local clock offset: -5.606 ms
Remote clock offset: -8.423 ms


# Below is generated by plot.py at 2019-12-11 17:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.97 Mbit/s
95th percentile per-packet one-way delay: 148.895 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 44.03 Mbit/s
95th percentile per-packet one-way delay: 147.842 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 157.299 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 76.10 Mbit/s
95th percentile per-packet one-way delay: 113.797 ms
Loss rate: 1.47%
```

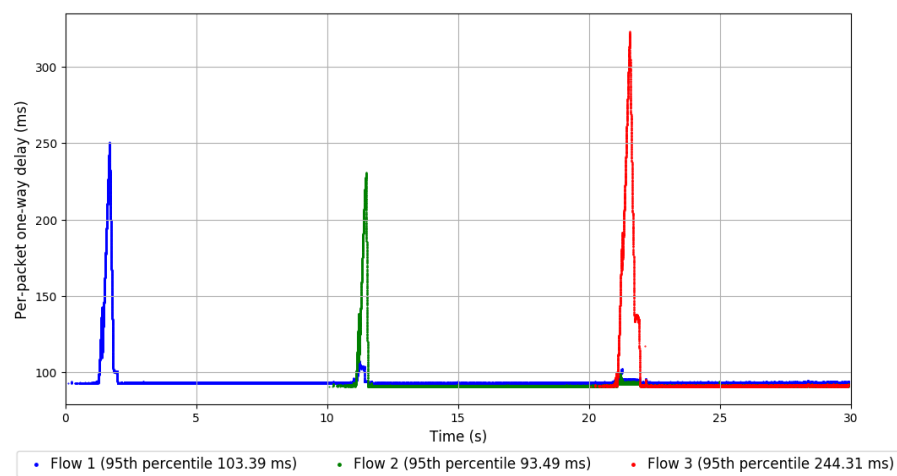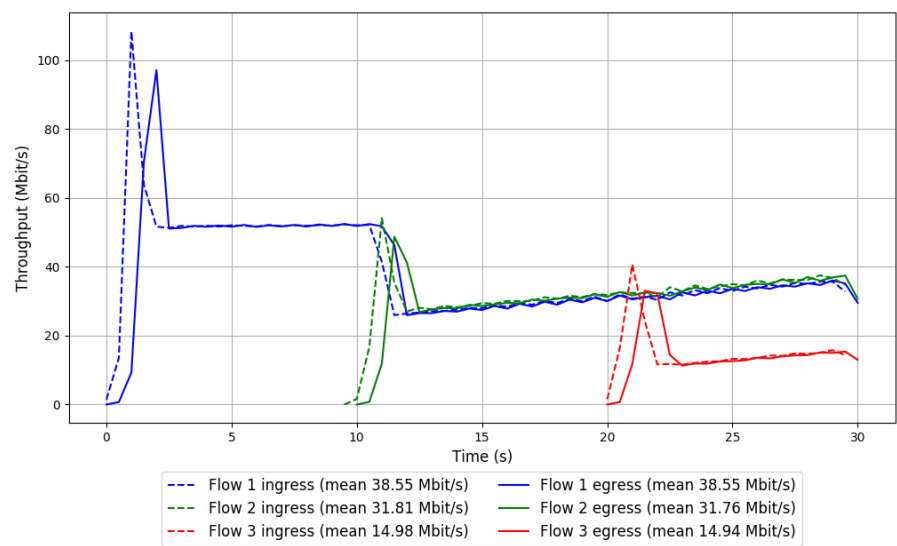Run 5: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2019-12-11 14:52:56
End at: 2019-12-11 14:53:26
Local clock offset: -5.364 ms
Remote clock offset: -9.591 ms


# Below is generated by plot.py at 2019-12-11 17:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.91 Mbit/s
95th percentile per-packet one-way delay: 134.373 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 103.167 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 27.13 Mbit/s
95th percentile per-packet one-way delay: 175.847 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 14.87 Mbit/s
95th percentile per-packet one-way delay: 232.045 ms
Loss rate: 1.61%
```

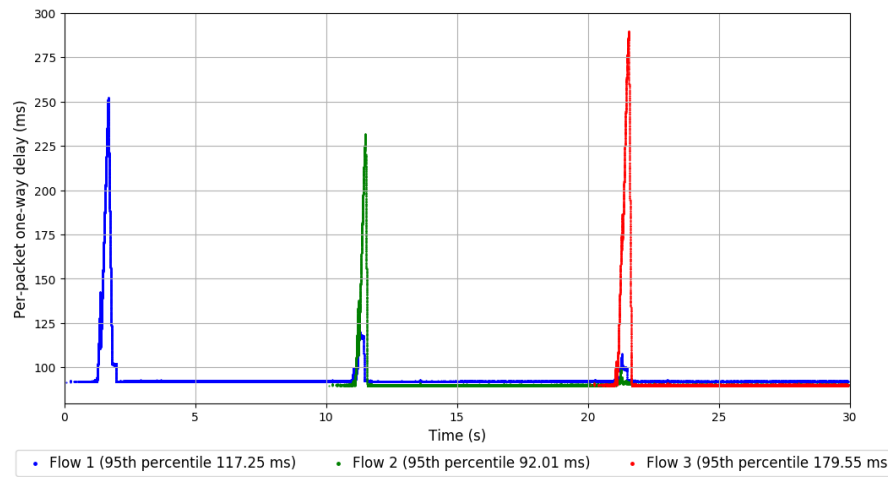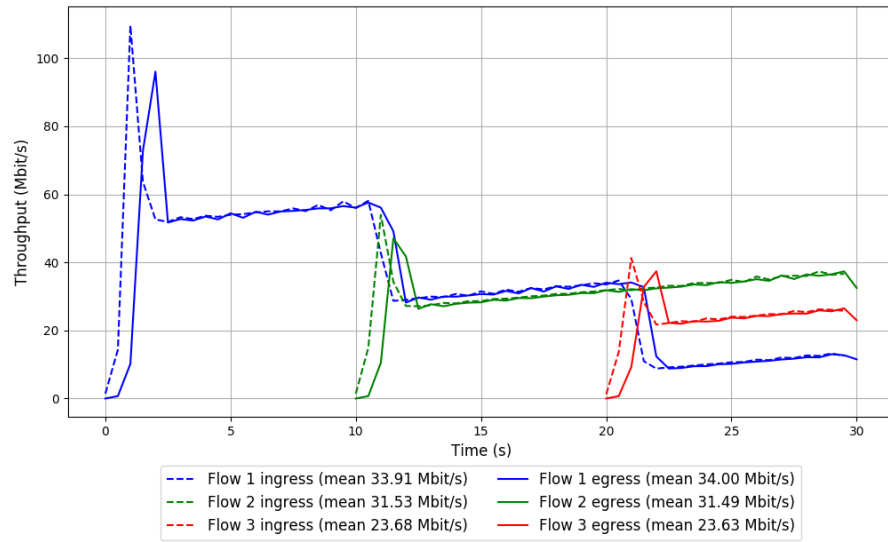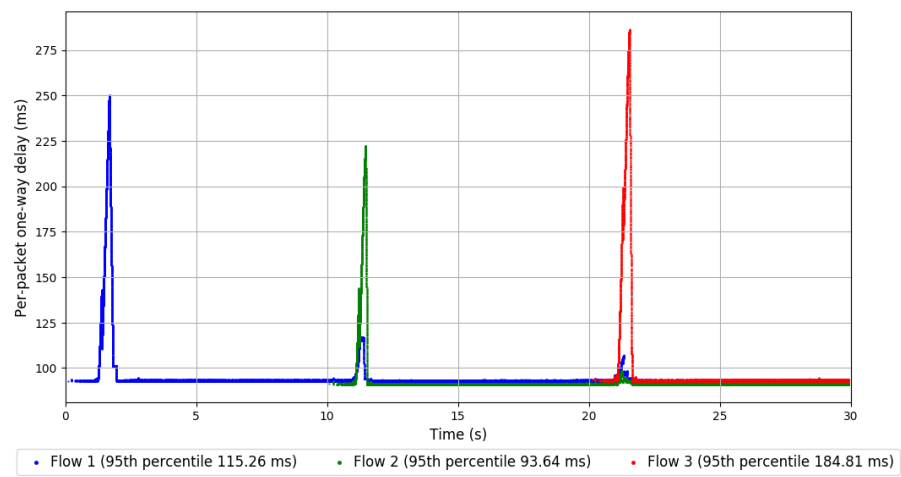Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-12-11 15:23:12
End at: 2019-12-11 15:23:42
Local clock offset: -6.379 ms
Remote clock offset: -9.891 ms


# Below is generated by plot.py at 2019-12-11 17:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.59 Mbit/s
95th percentile per-packet one-way delay: 112.566 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 103.394 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 93.492 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 14.94 Mbit/s
95th percentile per-packet one-way delay: 244.312 ms
Loss rate: 1.65%
```

Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 38.55 Mbit/s) --- Flow 1 egress (mean 38.55 Mbit/s)
Flow 2 ingress (mean 31.81 Mbit/s) --- Flow 2 egress (mean 31.76 Mbit/s)
Flow 3 ingress (mean 14.98 Mbit/s) --- Flow 3 egress (mean 14.94 Mbit/s)

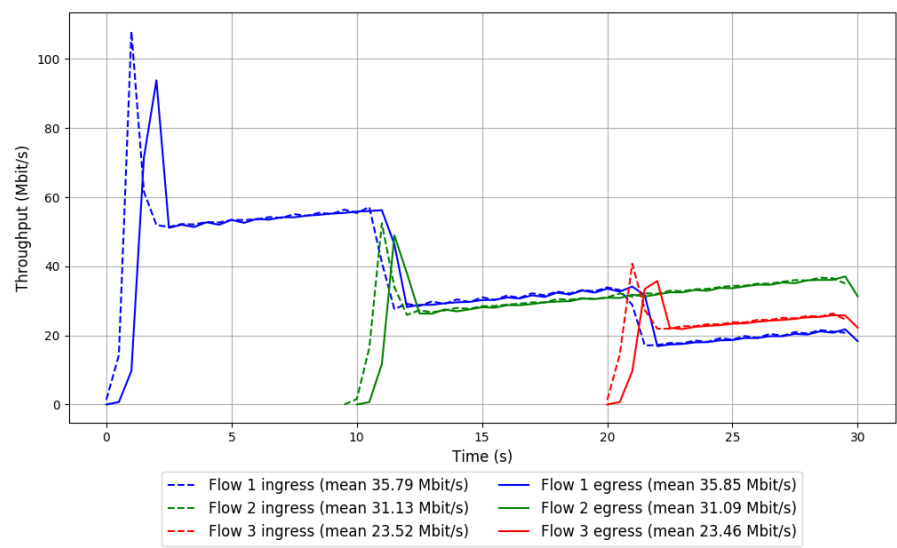Flow 1 (95th percentile 103.39 ms) Flow 2 (95th percentile 93.49 ms) Flow 3 (95th percentile 244.31 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2019-12-11 15:53:29
End at: 2019-12-11 15:53:59
Local clock offset: -7.292 ms
Remote clock offset: -8.953 ms


# Below is generated by plot.py at 2019-12-11 17:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.70 Mbit/s
95th percentile per-packet one-way delay: 115.336 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 34.00 Mbit/s
95th percentile per-packet one-way delay: 117.250 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 31.49 Mbit/s
95th percentile per-packet one-way delay: 92.011 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 23.63 Mbit/s
95th percentile per-packet one-way delay: 179.549 ms
Loss rate: 1.62%
```
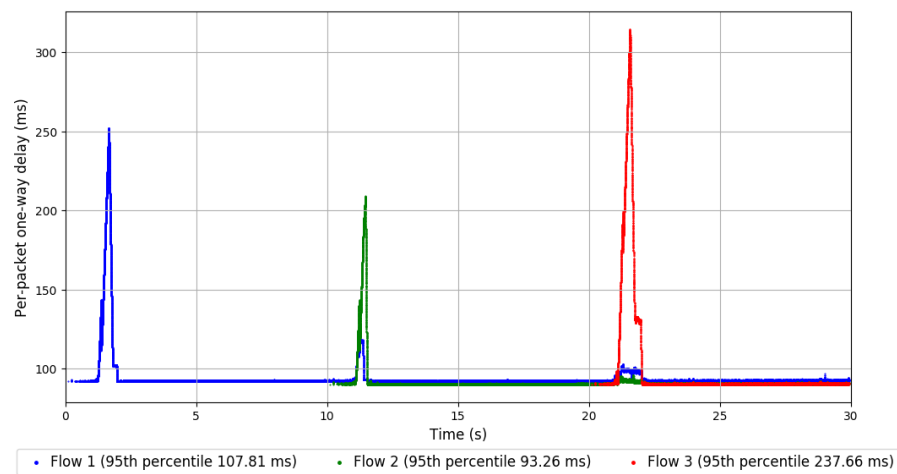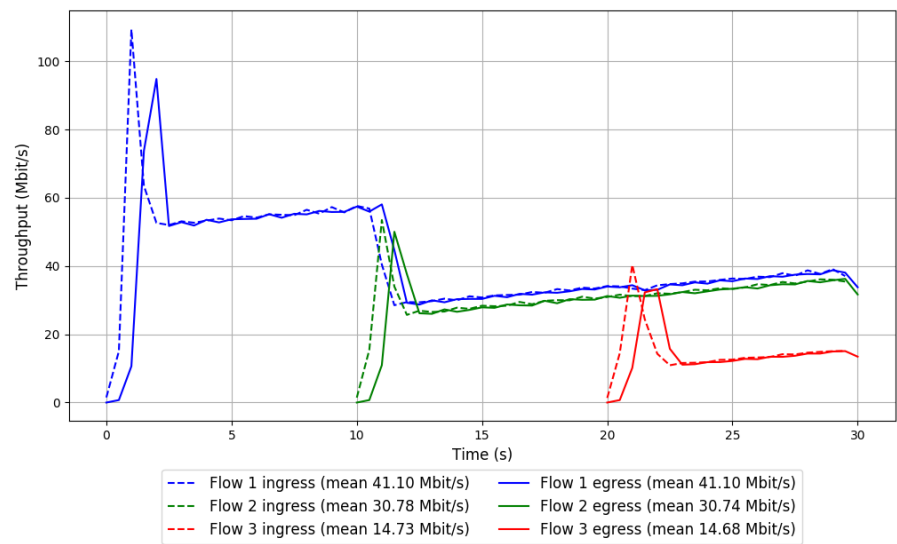
Run 3: Report of TCP Vegas — Data Link

- - - Flow 1 ingress (mean 33.91 Mbit/s)   —— Flow 1 egress (mean 34.00 Mbit/s)
- - - Flow 2 ingress (mean 31.53 Mbit/s)   —— Flow 2 egress (mean 31.49 Mbit/s)
- - - Flow 3 ingress (mean 23.68 Mbit/s)   —— Flow 3 egress (mean 23.63 Mbit/s)

- Flow 1 (95th percentile 117.25 ms)   • Flow 2 (95th percentile 92.01 ms)   • Flow 3 (95th percentile 179.55 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-12-11 16:23:47
End at: 2019-12-11 16:24:17
Local clock offset: -6.097 ms
Remote clock offset: -9.812 ms


# Below is generated by plot.py at 2019-12-11 17:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.24 Mbit/s
95th percentile per-packet one-way delay: 112.542 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 35.85 Mbit/s
95th percentile per-packet one-way delay: 115.263 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 31.09 Mbit/s
95th percentile per-packet one-way delay: 93.641 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 23.46 Mbit/s
95th percentile per-packet one-way delay: 184.806 ms
Loss rate: 1.63%
```
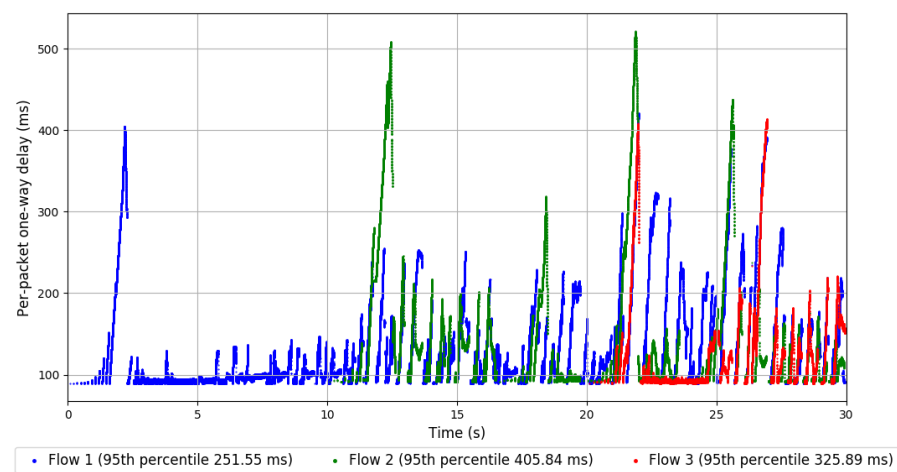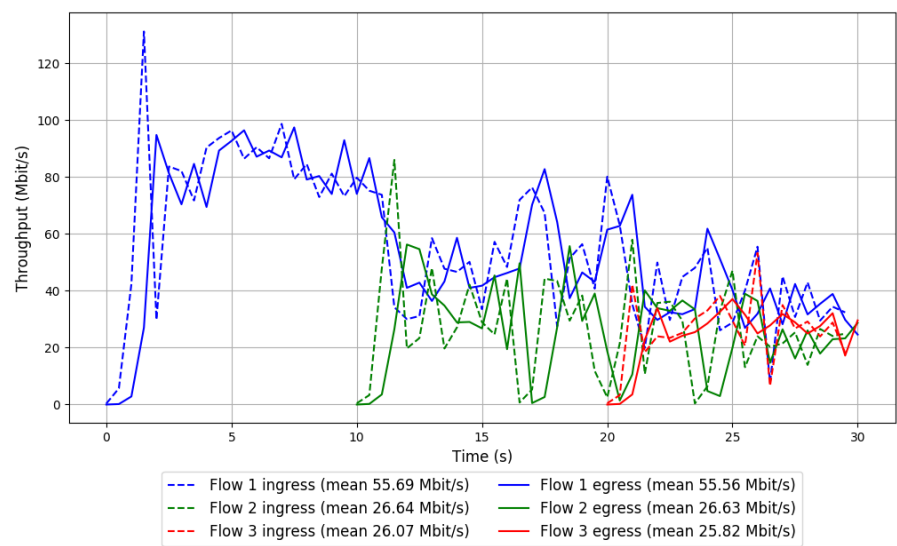
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-12-11 16:54:03
End at: 2019-12-11 16:54:33
Local clock offset: -6.311 ms
Remote clock offset: -9.866 ms


# Below is generated by plot.py at 2019-12-11 17:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.36 Mbit/s
95th percentile per-packet one-way delay: 116.474 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 107.809 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 30.74 Mbit/s
95th percentile per-packet one-way delay: 93.264 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 14.68 Mbit/s
95th percentile per-packet one-way delay: 237.660 ms
Loss rate: 1.67%
```

Run 5: Report of TCP Vegas — Data Link

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```
Run 1: Statistics of Verus

Start at: 2019-12-11 15:13:03
End at: 2019-12-11 15:13:33
Local clock offset: -7.603 ms
Remote clock offset: -8.457 ms


# Below is generated by plot.py at 2019-12-11 17:37:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.74 Mbit/s
95th percentile per-packet one-way delay: 290.667 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 251.552 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 26.63 Mbit/s
95th percentile per-packet one-way delay: 405.843 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 25.82 Mbit/s
95th percentile per-packet one-way delay: 325.888 ms
Loss rate: 0.66%
```
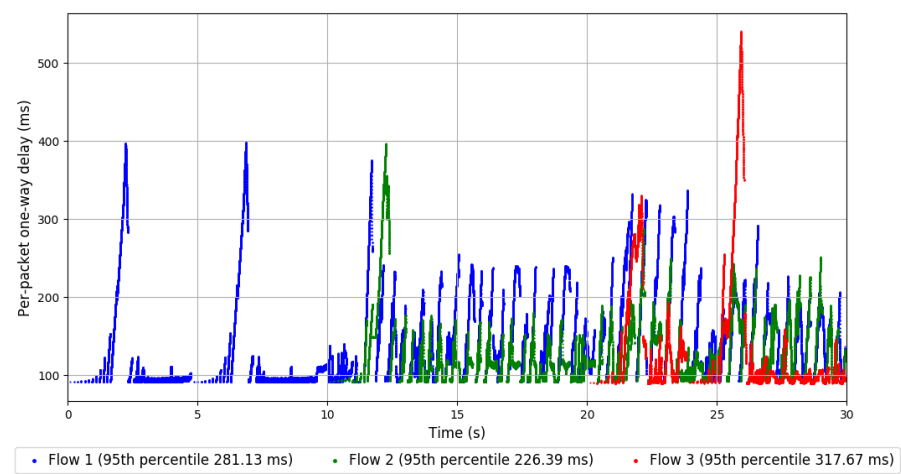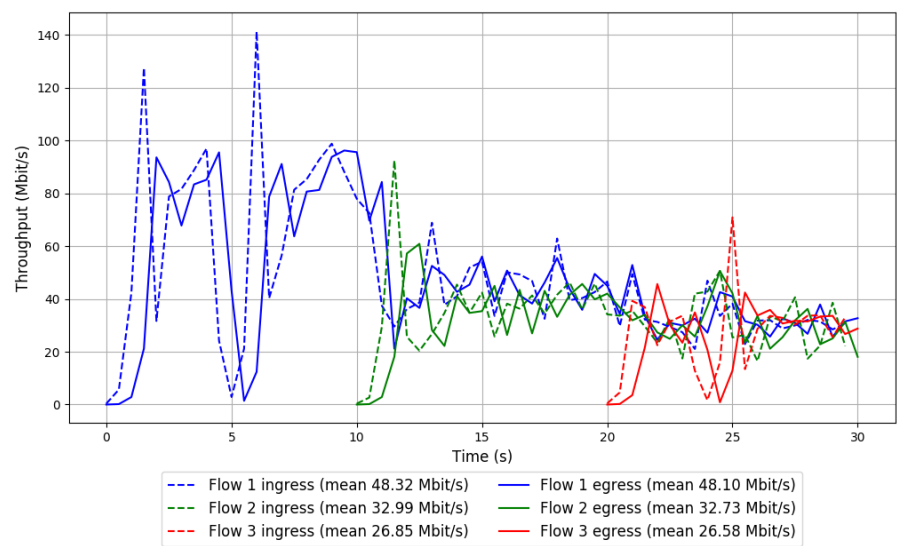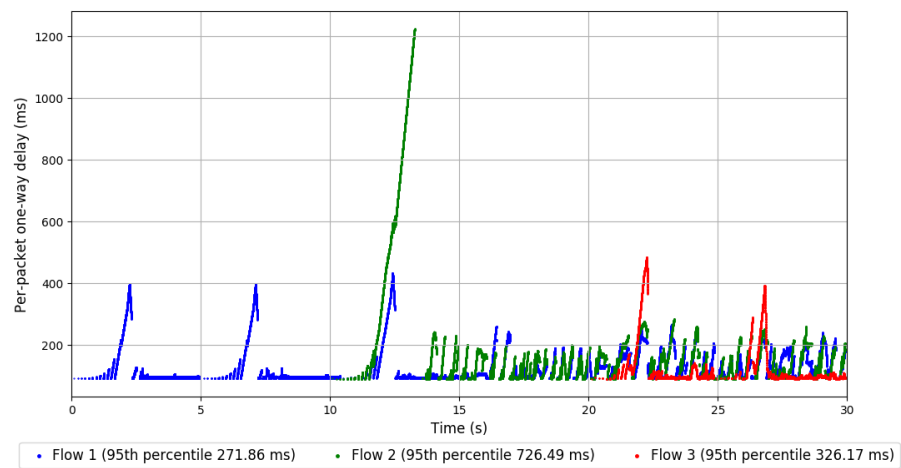
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-12-11 15:43:17
End at: 2019-12-11 15:43:47
Local clock offset: -7.597 ms
Remote clock offset: -9.81 ms


# Below is generated by plot.py at 2019-12-11 17:37:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.60 Mbit/s
95th percentile per-packet one-way delay: 277.976 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 48.10 Mbit/s
95th percentile per-packet one-way delay: 281.135 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 32.73 Mbit/s
95th percentile per-packet one-way delay: 226.388 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 26.58 Mbit/s
95th percentile per-packet one-way delay: 317.666 ms
Loss rate: 2.36%
```

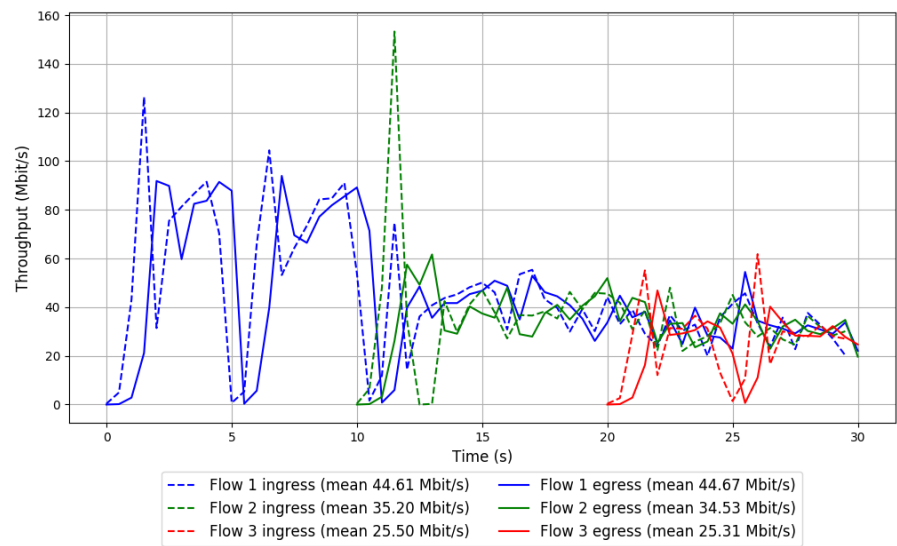## Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-12-11 16:13:36
End at: 2019-12-11 16:14:06
Local clock offset: -7.616 ms
Remote clock offset: -9.241 ms


# Below is generated by plot.py at 2019-12-11 17:37:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.94 Mbit/s
95th percentile per-packet one-way delay: 335.496 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 44.67 Mbit/s
95th percentile per-packet one-way delay: 271.862 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 34.53 Mbit/s
95th percentile per-packet one-way delay: 726.486 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 25.31 Mbit/s
95th percentile per-packet one-way delay: 326.166 ms
Loss rate: 2.13%
```

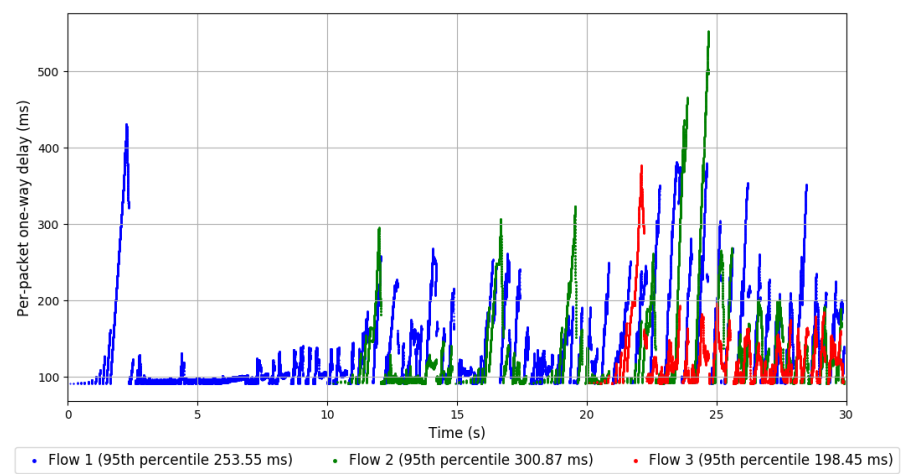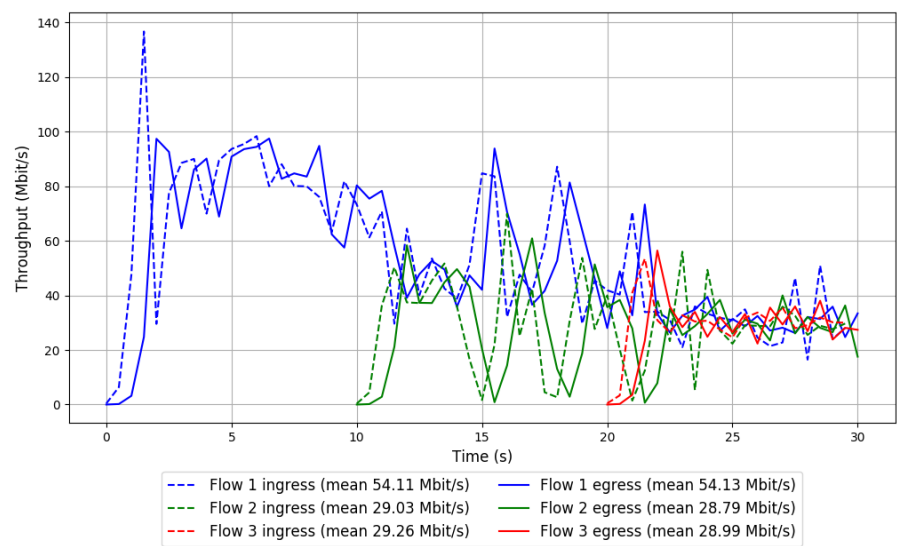Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-12-11 16:43:53
End at: 2019-12-11 16:44:23
Local clock offset: -6.438 ms
Remote clock offset: -9.248 ms


# Below is generated by plot.py at 2019-12-11 17:37:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.71 Mbit/s
95th percentile per-packet one-way delay: 263.280 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 54.13 Mbit/s
95th percentile per-packet one-way delay: 253.553 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 28.79 Mbit/s
95th percentile per-packet one-way delay: 300.871 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 28.99 Mbit/s
95th percentile per-packet one-way delay: 198.446 ms
Loss rate: 2.83%
```

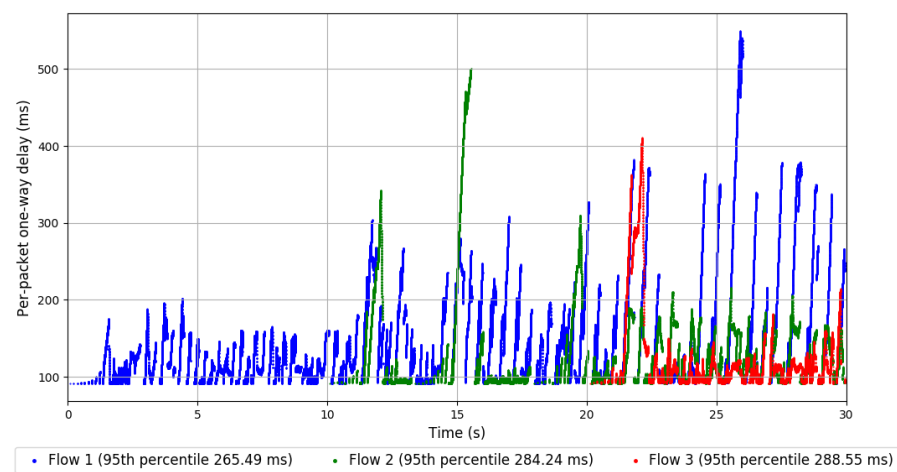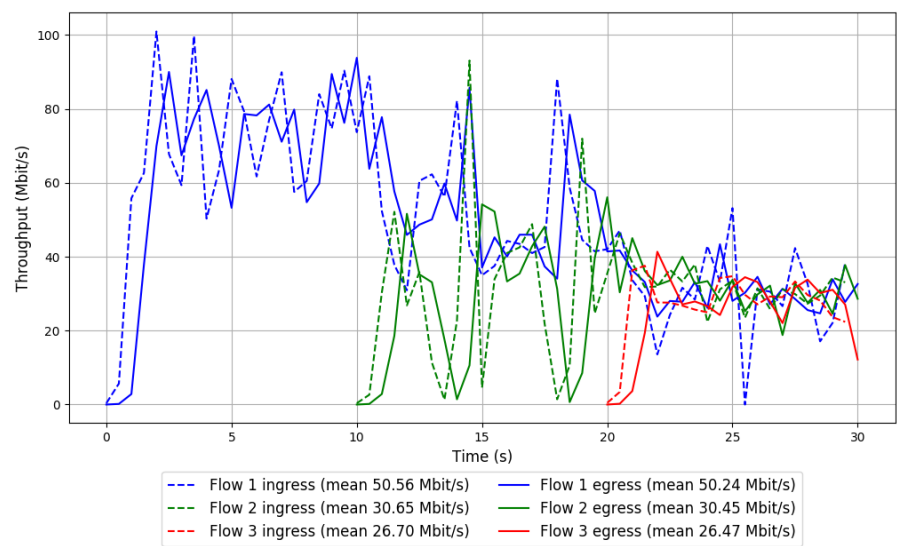## Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-12-11 17:14:12
End at: 2019-12-11 17:14:42
Local clock offset: -6.129 ms
Remote clock offset: -8.284 ms


# Below is generated by plot.py at 2019-12-11 17:37:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.17 Mbit/s
95th percentile per-packet one-way delay: 275.191 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 50.24 Mbit/s
95th percentile per-packet one-way delay: 265.491 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 30.45 Mbit/s
95th percentile per-packet one-way delay: 284.237 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 26.47 Mbit/s
95th percentile per-packet one-way delay: 288.550 ms
Loss rate: 2.23%
```

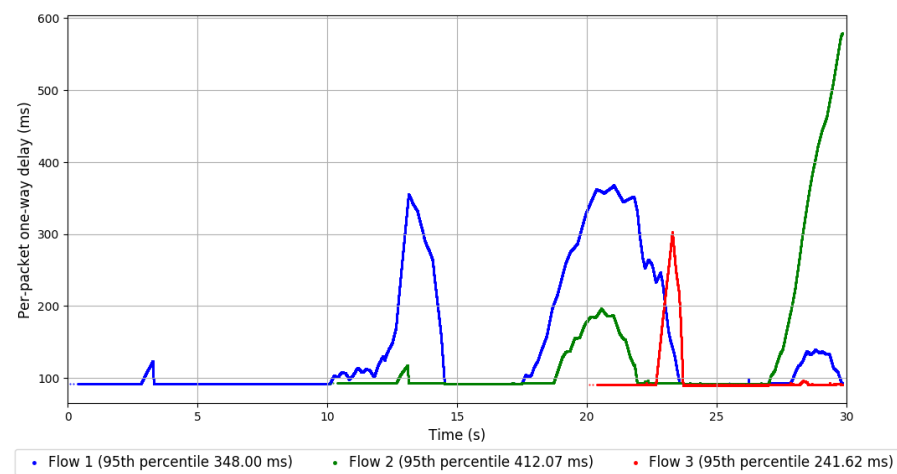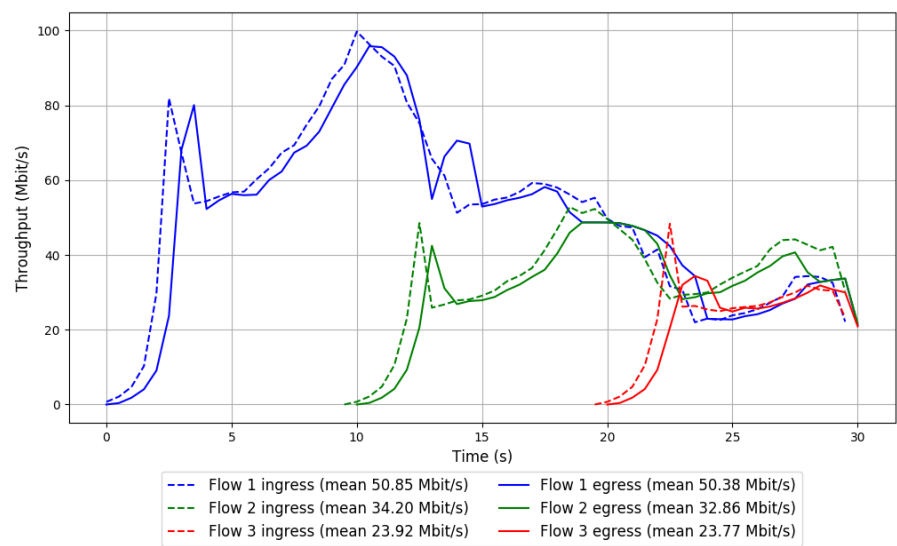# Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-12-11 14:59:13
End at: 2019-12-11 14:59:43
Local clock offset: -7.294 ms
Remote clock offset: -9.479 ms


# Below is generated by plot.py at 2019-12-11 17:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.99 Mbit/s
95th percentile per-packet one-way delay: 347.798 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 50.38 Mbit/s
95th percentile per-packet one-way delay: 347.997 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 32.86 Mbit/s
95th percentile per-packet one-way delay: 412.071 ms
Loss rate: 4.59%
-- Flow 3:
Average throughput: 23.77 Mbit/s
95th percentile per-packet one-way delay: 241.615 ms
Loss rate: 2.03%
```
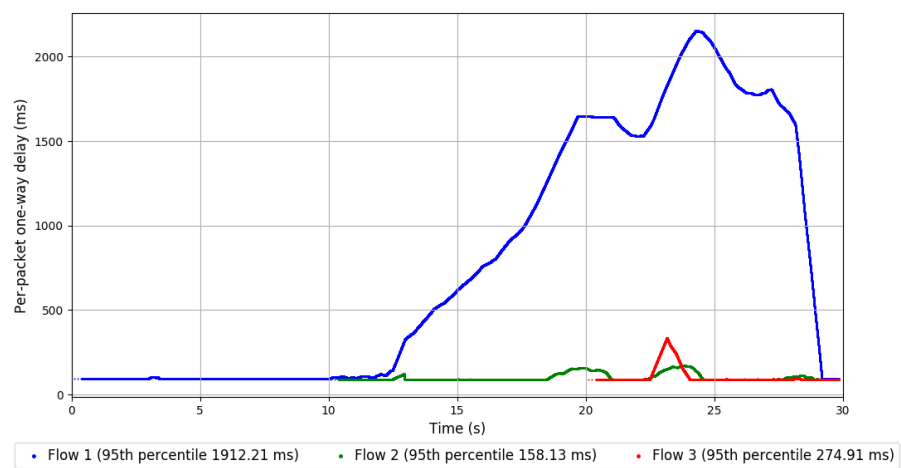
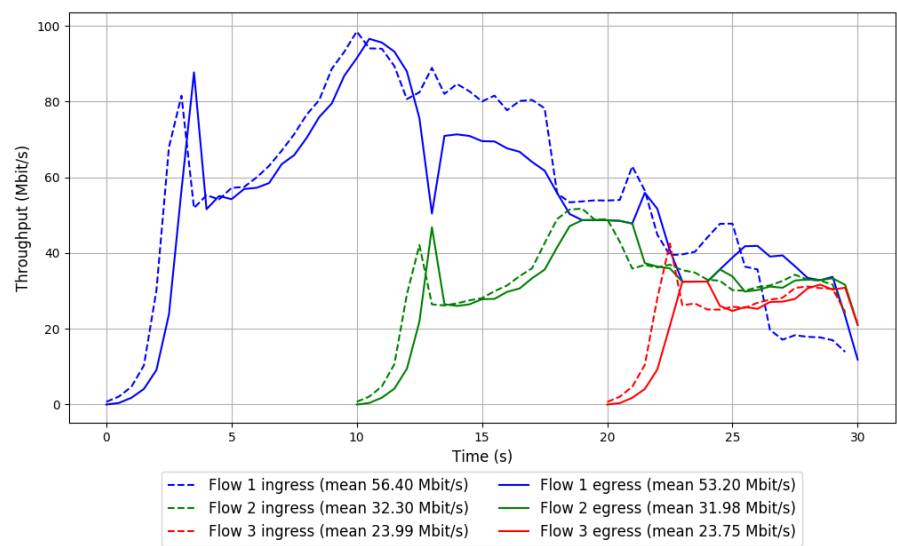Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-12-11 15:29:27
End at: 2019-12-11 15:29:57
Local clock offset: -7.161 ms
Remote clock offset: -9.615 ms


# Below is generated by plot.py at 2019-12-11 17:38:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.19 Mbit/s
95th percentile per-packet one-way delay: 1795.015 ms
Loss rate: 4.64%
-- Flow 1:
Average throughput: 53.20 Mbit/s
95th percentile per-packet one-way delay: 1912.215 ms
Loss rate: 6.10%
-- Flow 2:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 158.132 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 23.75 Mbit/s
95th percentile per-packet one-way delay: 274.907 ms
Loss rate: 2.36%
```

Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 56.40 Mbit/s)   Flow 1 egress (mean 53.20 Mbit/s)
Flow 2 ingress (mean 32.30 Mbit/s)   Flow 2 egress (mean 31.98 Mbit/s)
Flow 3 ingress (mean 23.99 Mbit/s)   Flow 3 egress (mean 23.75 Mbit/s)

Flow 1 (95th percentile 1912.21 ms)   Flow 2 (95th percentile 158.13 ms)   Flow 3 (95th percentile 274.91 ms)
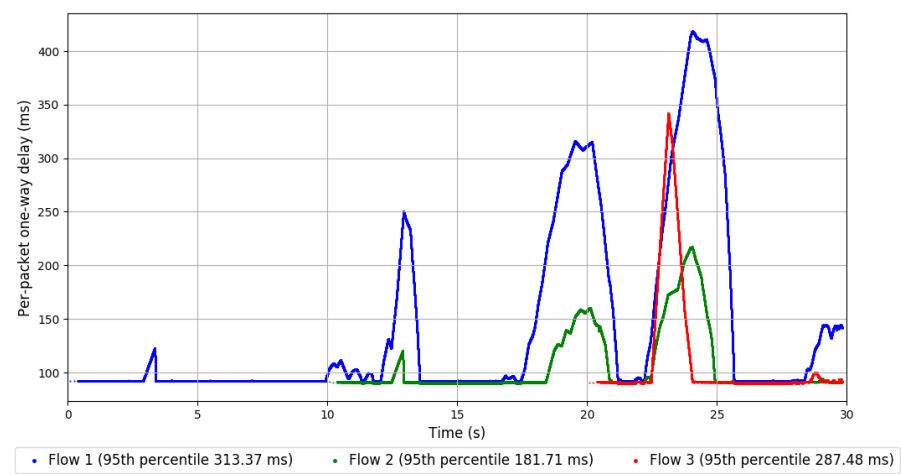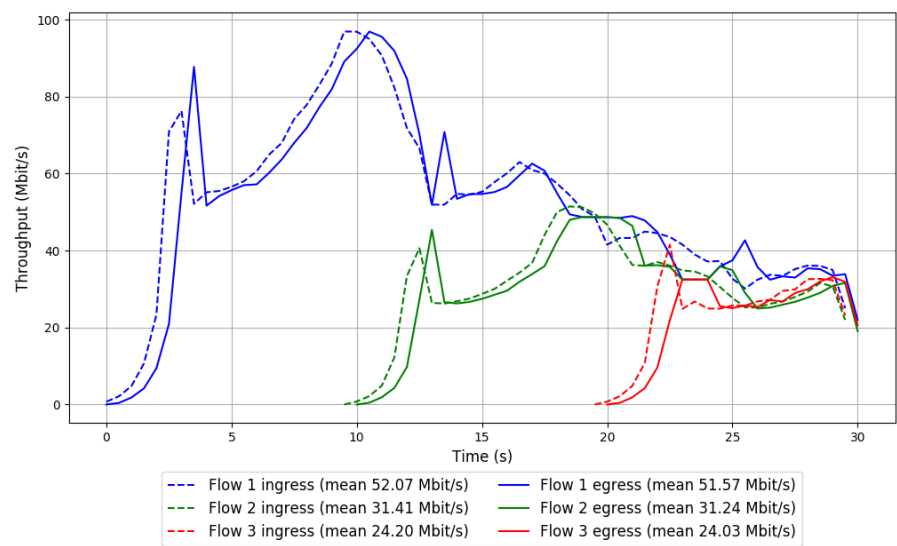
228

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-12-11 15:59:45
End at: 2019-12-11 16:00:15
Local clock offset: -7.626 ms
Remote clock offset: -9.514 ms


# Below is generated by plot.py at 2019-12-11 17:38:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.17 Mbit/s
95th percentile per-packet one-way delay: 305.238 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 51.57 Mbit/s
95th percentile per-packet one-way delay: 313.373 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 181.714 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 24.03 Mbit/s
95th percentile per-packet one-way delay: 287.476 ms
Loss rate: 2.13%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 52.07 Mbit/s) — Flow 1 egress (mean 51.57 Mbit/s)
Flow 2 ingress (mean 31.41 Mbit/s) — Flow 2 egress (mean 31.24 Mbit/s)
Flow 3 ingress (mean 24.20 Mbit/s) — Flow 3 egress (mean 24.03 Mbit/s)

Flow 1 (95th percentile 313.37 ms) — Flow 2 (95th percentile 181.71 ms) — Flow 3 (95th percentile 287.48 ms)
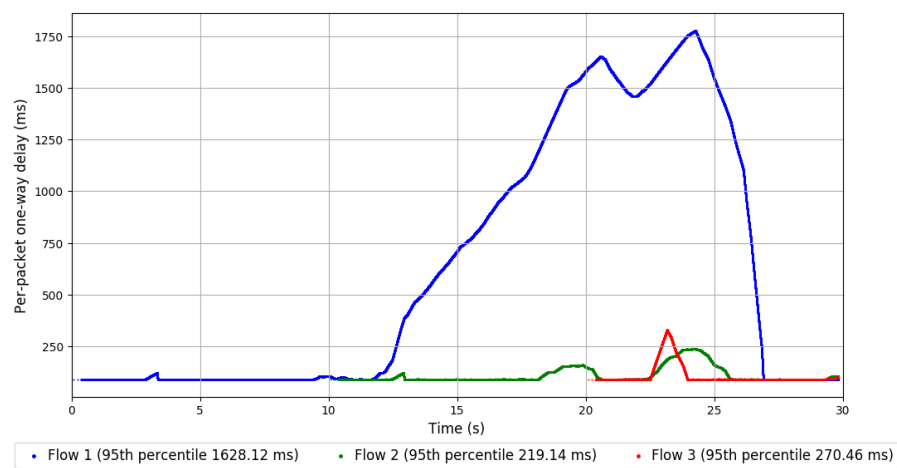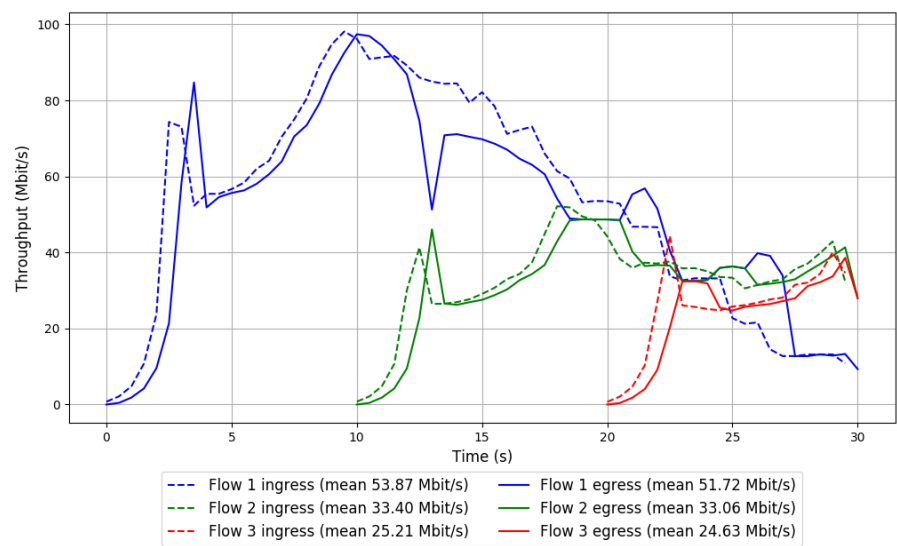
```
Run 4: Statistics of PCC-Vivace

Start at: 2019-12-11 16:30:03
End at: 2019-12-11 16:30:33
Local clock offset: -6.649 ms
Remote clock offset: -9.877 ms


# Below is generated by plot.py at 2019-12-11 17:38:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.73 Mbit/s
95th percentile per-packet one-way delay: 1579.829 ms
Loss rate: 3.64%
-- Flow 1:
Average throughput: 51.72 Mbit/s
95th percentile per-packet one-way delay: 1628.123 ms
Loss rate: 4.42%
-- Flow 2:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 219.141 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 270.464 ms
Loss rate: 3.68%
```

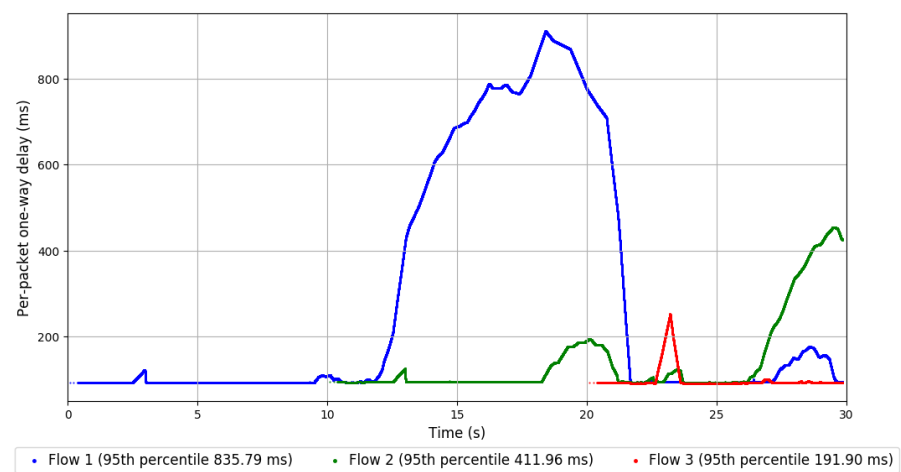# Run 4: Report of PCC-Vivace — Data Link

- - - - Flow 1 ingress (mean 53.87 Mbit/s) ——— Flow 1 egress (mean 51.72 Mbit/s)
- - - - Flow 2 ingress (mean 33.40 Mbit/s) ——— Flow 2 egress (mean 33.06 Mbit/s)
- - - - Flow 3 ingress (mean 25.21 Mbit/s) ——— Flow 3 egress (mean 24.63 Mbit/s)

- Flow 1 (95th percentile 1628.12 ms)   - Flow 2 (95th percentile 219.14 ms)   - Flow 3 (95th percentile 270.46 ms)
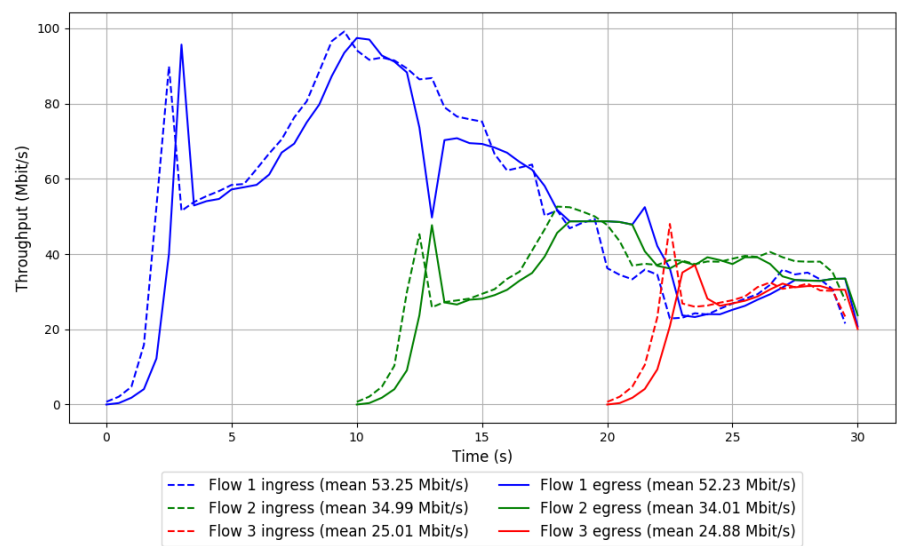
```
Run 5: Statistics of PCC-Vivace

Start at: 2019-12-11 17:00:19
End at: 2019-12-11 17:00:49
Local clock offset: -5.659 ms
Remote clock offset: -9.572 ms


# Below is generated by plot.py at 2019-12-11 17:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 785.674 ms
Loss rate: 2.63%
-- Flow 1:
Average throughput: 52.23 Mbit/s
95th percentile per-packet one-way delay: 835.795 ms
Loss rate: 2.38%
-- Flow 2:
Average throughput: 34.01 Mbit/s
95th percentile per-packet one-way delay: 411.964 ms
Loss rate: 3.46%
-- Flow 3:
Average throughput: 24.88 Mbit/s
95th percentile per-packet one-way delay: 191.898 ms
Loss rate: 1.94%
```

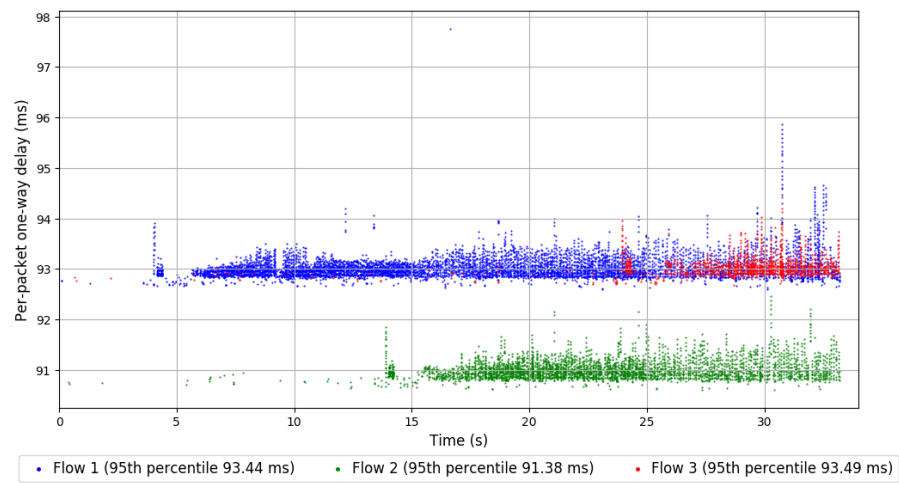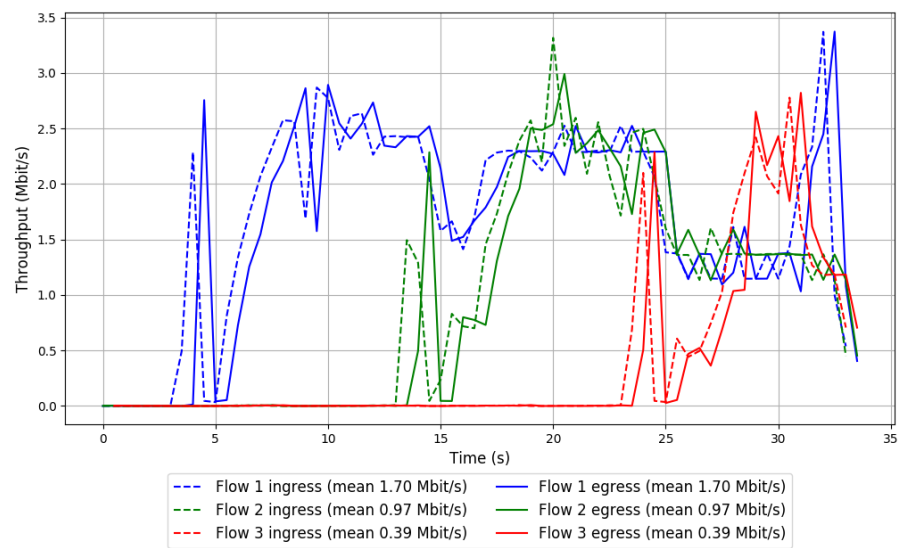Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 53.25 Mbit/s)   Flow 1 egress (mean 52.23 Mbit/s)
Flow 2 ingress (mean 34.99 Mbit/s)   Flow 2 egress (mean 34.01 Mbit/s)
Flow 3 ingress (mean 25.01 Mbit/s)   Flow 3 egress (mean 24.88 Mbit/s)

Flow 1 (95th percentile 835.79 ms)   Flow 2 (95th percentile 411.96 ms)   Flow 3 (95th percentile 191.90 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2019-12-11 15:10:36
End at: 2019-12-11 15:11:06
Local clock offset: -7.251 ms
Remote clock offset: -9.247 ms


# Below is generated by plot.py at 2019-12-11 17:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 93.369 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 93.436 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 91.384 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 93.491 ms
Loss rate: 0.94%
```

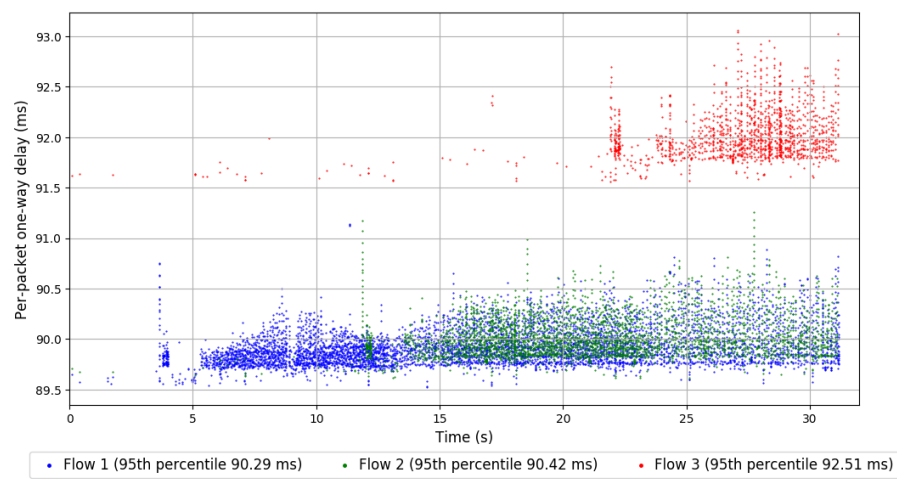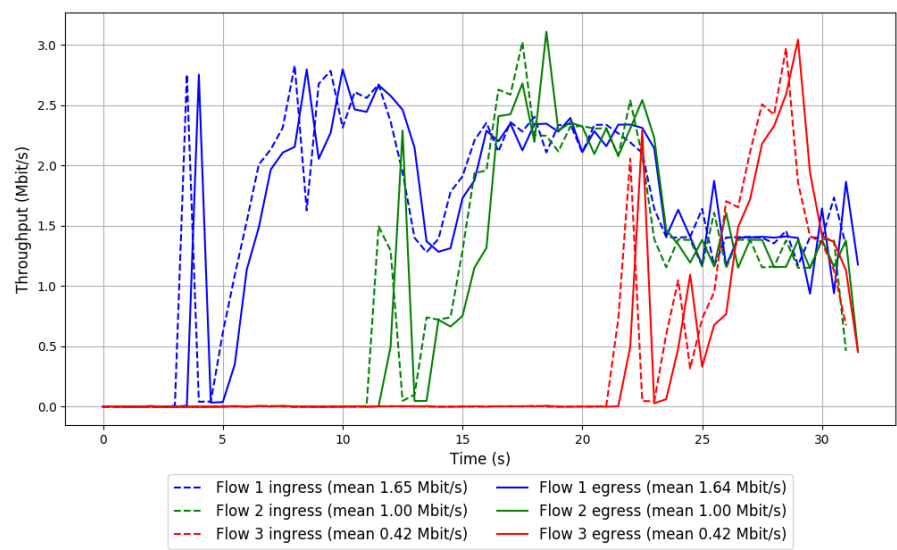Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-12-11 15:40:50
End at: 2019-12-11 15:41:20
Local clock offset: -7.533 ms
Remote clock offset: -9.736 ms


# Below is generated by plot.py at 2019-12-11 17:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 92.051 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 90.293 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 90.417 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 92.513 ms
Loss rate: 1.70%
```

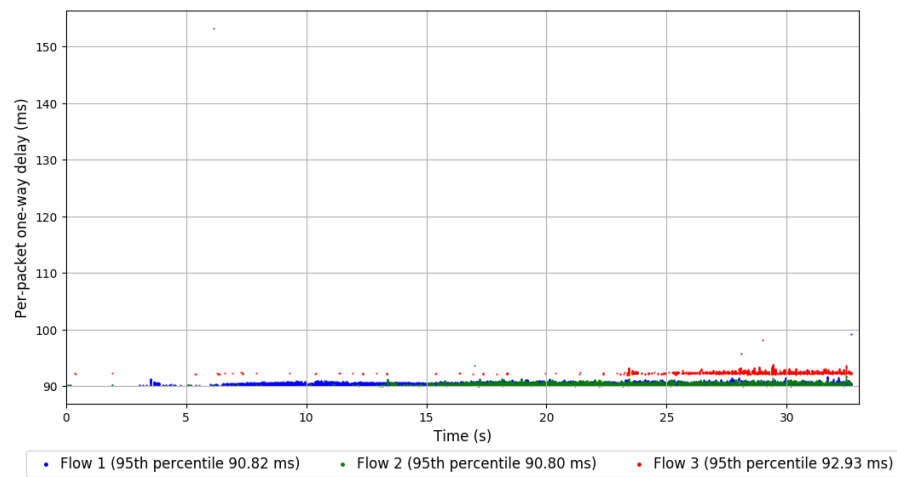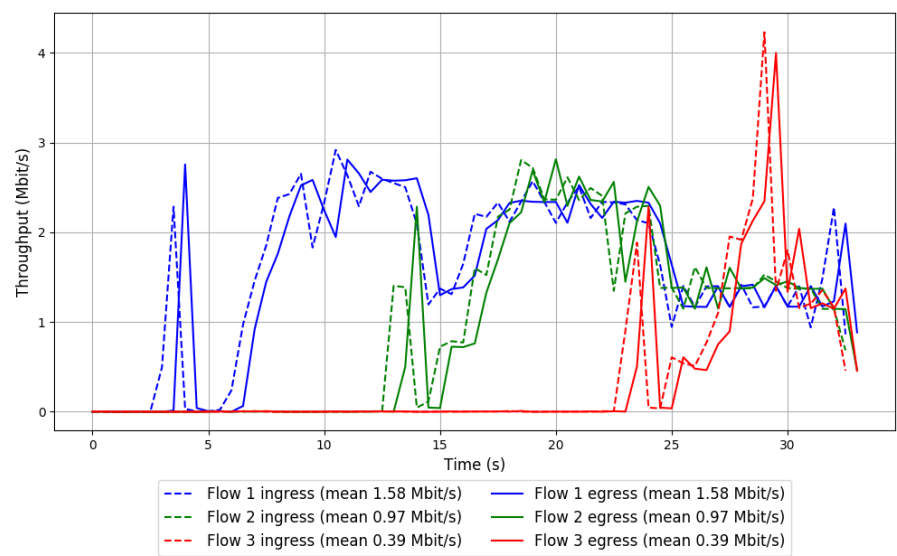## Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-12-11 16:11:08
End at: 2019-12-11 16:11:38
Local clock offset: -7.385 ms
Remote clock offset: -9.475 ms


# Below is generated by plot.py at 2019-12-11 17:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.94 Mbit/s
95th percentile per-packet one-way delay: 92.451 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 90.820 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 90.801 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 92.932 ms
Loss rate: 0.89%
```

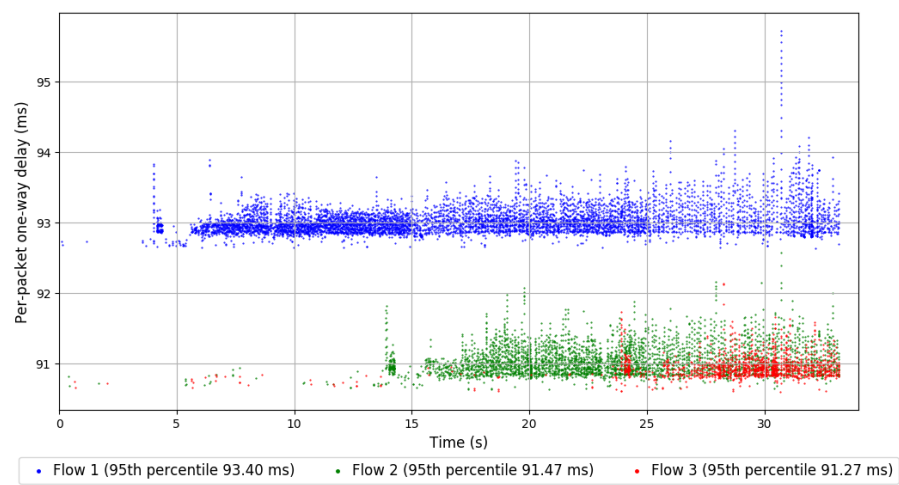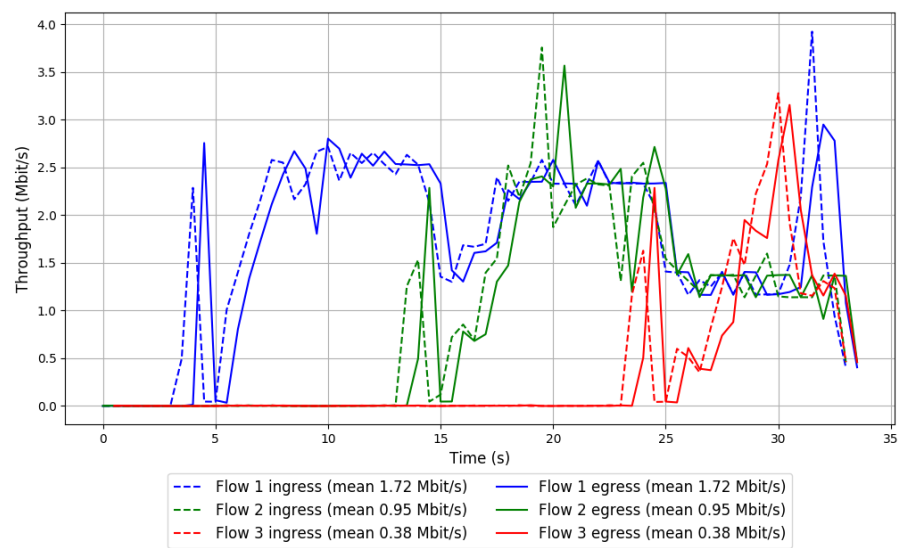Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-12-11 16:41:25
End at: 2019-12-11 16:41:55
Local clock offset: -5.801 ms
Remote clock offset: -9.861 ms


# Below is generated by plot.py at 2019-12-11 17:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 93.299 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 93.403 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 91.468 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 91.267 ms
Loss rate: 0.93%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-12-11 17:11:44
End at: 2019-12-11 17:12:14
Local clock offset: -6.584 ms
Remote clock offset: -8.952 ms


# Below is generated by plot.py at 2019-12-11 17:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 92.343 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 92.378 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 92.335 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 90.604 ms
Loss rate: 0.87%
```

Run 5: Report of WebRTC media — Data Link