Pantheon Report

Generated at 2019-07-18 13:29:51 (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.
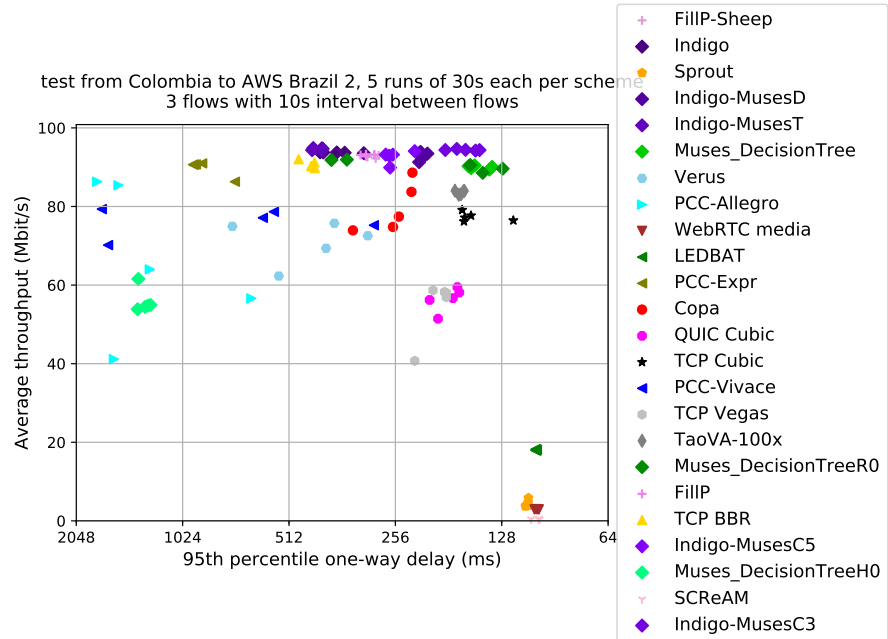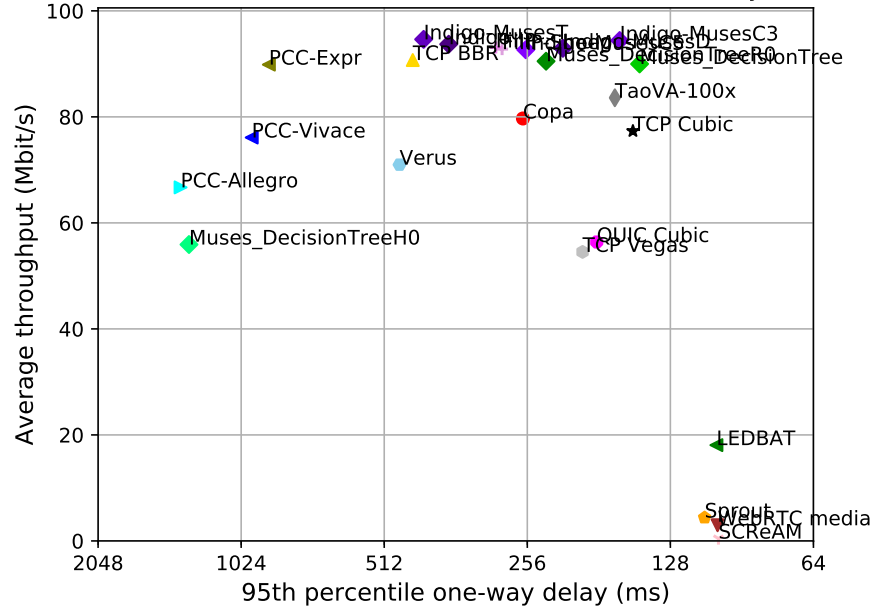
```
System info:
Linux 4.15.0-1043-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

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
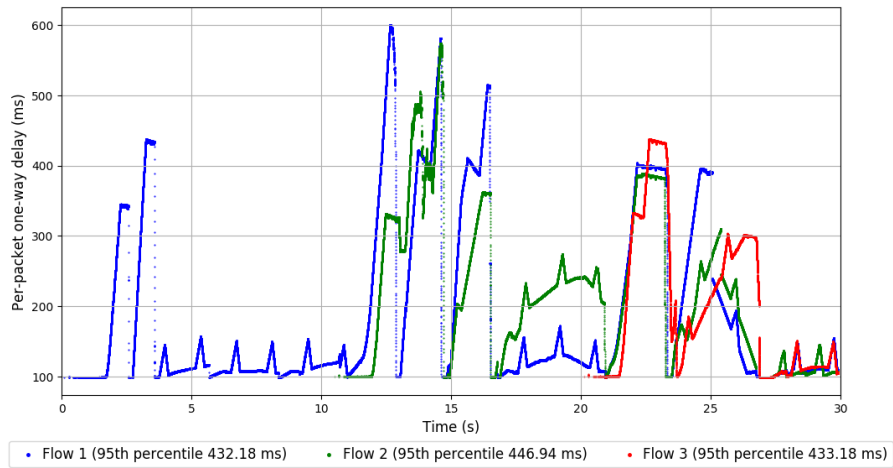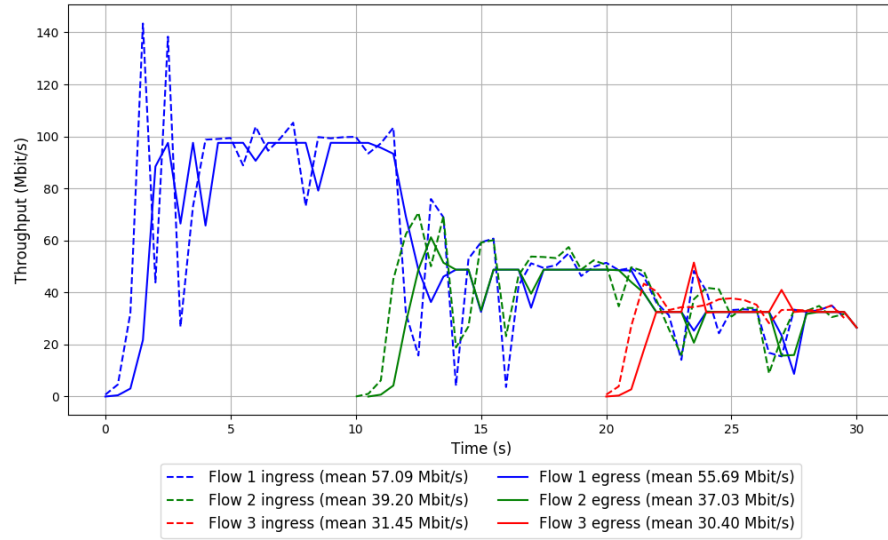3 flows with 10s interval between flows (mean of all runs by scheme)

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

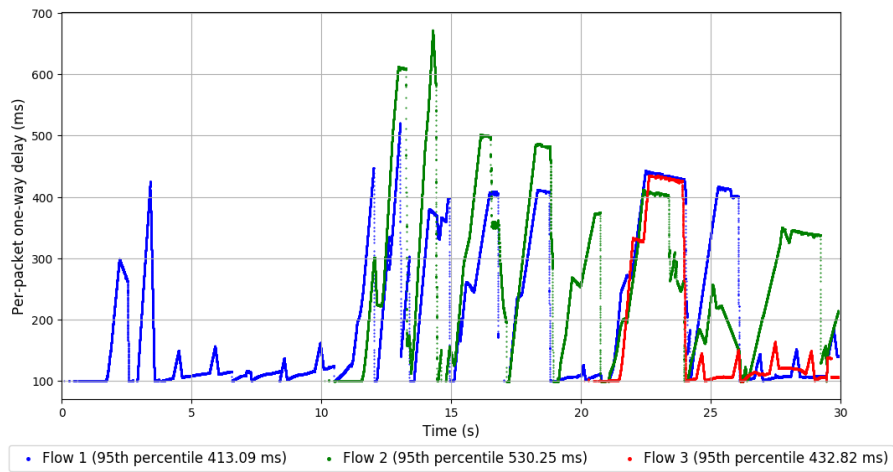| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	55.77	38.14	29.80	435.36	488.95	432.24	2.97	5.20	6.33
Copa	5	47.13	34.29	29.73	238.47	198.52	156.71	0.67	0.91	2.05
TCP Cubic	5	42.14	35.97	34.39	177.24	152.89	143.15	0.37	0.75	2.11
FillP	5	57.37	39.02	29.90	320.47	260.71	279.52	1.18	2.60	4.04
FillP-Sheep	5	57.07	38.98	30.22	302.52	254.97	323.13	0.87	1.90	3.55
Indigo	5	58.53	38.89	29.03	394.13	175.95	151.80	5.60	1.42	2.79
Indigo-MusesC3	5	60.64	39.85	29.55	148.57	196.53	177.57	1.88	2.42	3.24
Indigo-MusesC5	5	57.73	41.36	30.16	249.35	264.29	305.02	2.60	4.40	7.77
Indigo-MusesD	5	60.95	37.41	28.99	220.98	169.56	147.71	5.77	4.72	3.77
Indigo-MusesT	5	60.53	40.77	28.76	353.74	410.46	481.72	6.53	4.92	7.44
LEDBAT	5	11.75	7.76	3.65	102.43	102.41	102.02	1.16	1.76	3.60
Muses_DecisionTree	5	55.31	38.13	29.70	151.11	150.57	155.76	0.74	1.02	2.46
Muses_DecisionTreeH0	5	32.98	23.99	22.32	1270.78	1235.51	1456.13	27.99	27.43	38.76
Muses_DecisionTreeR0	5	59.78	34.60	24.63	235.37	136.49	139.35	2.69	1.23	2.72
PCC-Allegro	5	30.74	40.85	27.20	870.68	525.18	1056.70	8.68	7.62	13.44
PCC-Expr	5	57.32	36.60	25.32	908.08	771.27	253.60	21.86	9.74	2.89
QUIC Cubic	5	33.51	24.38	20.53	149.90	213.11	294.98	0.60	1.25	3.24
SCReAM	5	0.22	0.22	0.22	101.23	101.02	101.09	0.51	1.04	1.78
Sprout	5	2.80	1.97	0.93	108.84	106.78	104.13	1.06	1.30	3.04
TaoVA-100x	5	49.32	37.61	28.29	161.78	178.46	160.05	0.45	0.84	2.12
TCP Vegas	5	29.73	26.13	22.81	173.49	185.85	212.62	0.67	0.94	2.06
Verus	5	44.69	28.13	23.26	458.53	704.44	348.64	1.42	1.82	2.94
PCC-Vivace	5	50.61	30.54	15.99	1010.21	274.70	249.19	3.27	1.82	4.81
WebRTC media	5	1.68	0.92	0.37	101.59	101.90	101.83	0.54	0.85	1.85

```
Run 1: Statistics of TCP BBR

Start at: 2019-07-18 10:47:08
End at: 2019-07-18 10:47:38
Local clock offset: -3.908 ms
Remote clock offset: -7.506 ms


# Below is generated by plot.py at 2019-07-18 13:16:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.77 Mbit/s
95th percentile per-packet one-way delay: 432.845 ms
Loss rate: 4.18%
-- Flow 1:
Average throughput: 55.69 Mbit/s
95th percentile per-packet one-way delay: 432.182 ms
Loss rate: 3.02%
-- Flow 2:
Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 446.944 ms
Loss rate: 6.40%
-- Flow 3:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 433.181 ms
Loss rate: 5.03%
```
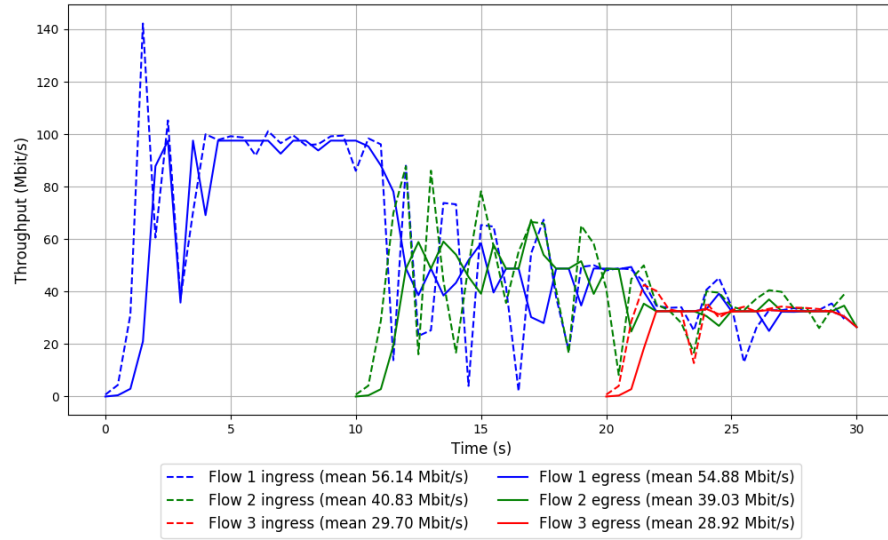
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-07-18 11:18:17
End at: 2019-07-18 11:18:47
Local clock offset: -3.962 ms
Remote clock offset: -5.868 ms


# Below is generated by plot.py at 2019-07-18 13:16:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.30 Mbit/s
95th percentile per-packet one-way delay: 439.241 ms
Loss rate: 3.69%
-- Flow 1:
Average throughput: 54.88 Mbit/s
95th percentile per-packet one-way delay: 413.094 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 39.03 Mbit/s
95th percentile per-packet one-way delay: 530.254 ms
Loss rate: 5.26%
-- Flow 3:
Average throughput: 28.92 Mbit/s
95th percentile per-packet one-way delay: 432.823 ms
Loss rate: 4.32%
```
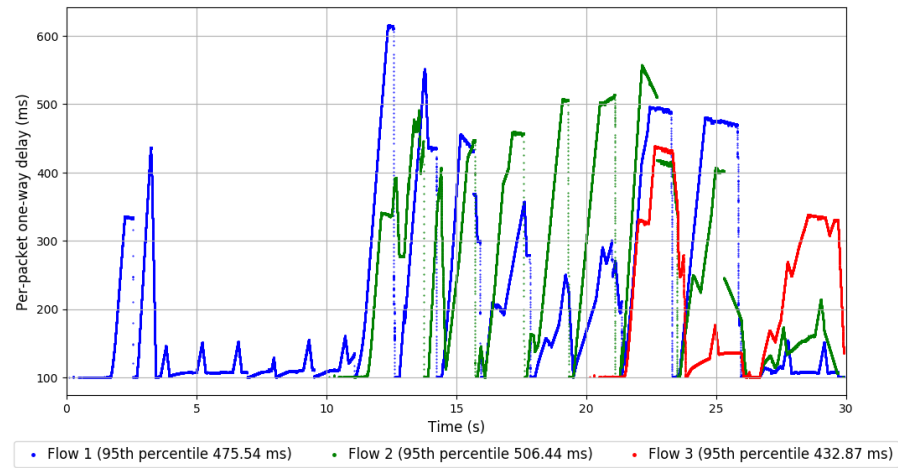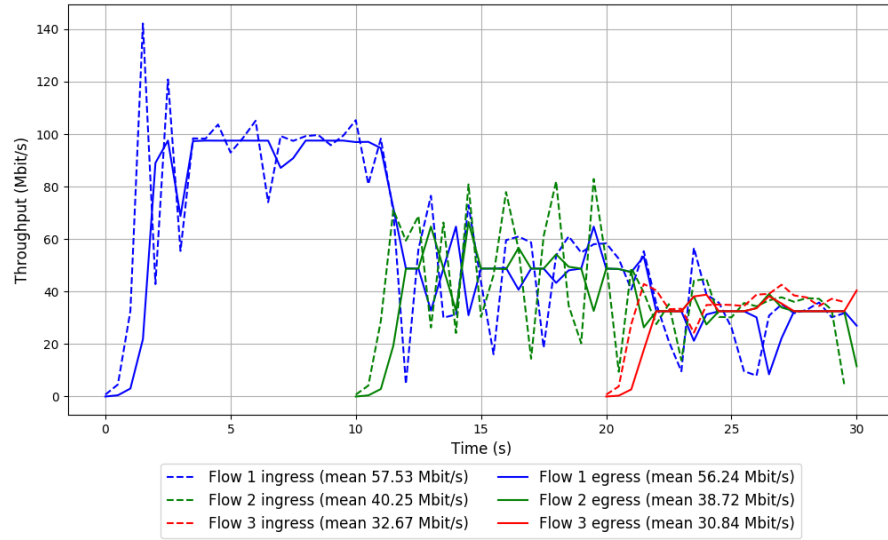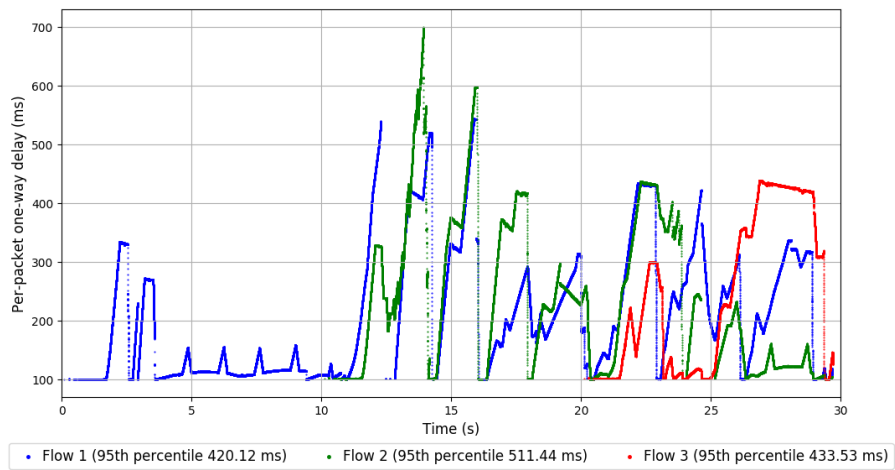
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 56.14 Mbit/s) --- Flow 1 egress (mean 54.88 Mbit/s)
Flow 2 ingress (mean 40.83 Mbit/s) --- Flow 2 egress (mean 39.03 Mbit/s)
Flow 3 ingress (mean 29.70 Mbit/s) --- Flow 3 egress (mean 28.92 Mbit/s)

Flow 1 (95th percentile 413.09 ms) · Flow 2 (95th percentile 530.25 ms) · Flow 3 (95th percentile 432.82 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2019-07-18 11:49:24
End at: 2019-07-18 11:49:54
Local clock offset: -3.085 ms
Remote clock offset: -1.422 ms


# Below is generated by plot.py at 2019-07-18 13:16:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.04 Mbit/s
95th percentile per-packet one-way delay: 480.770 ms
Loss rate: 3.83%
-- Flow 1:
Average throughput: 56.24 Mbit/s
95th percentile per-packet one-way delay: 475.536 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 506.438 ms
Loss rate: 4.64%
-- Flow 3:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 432.873 ms
Loss rate: 7.27%
```
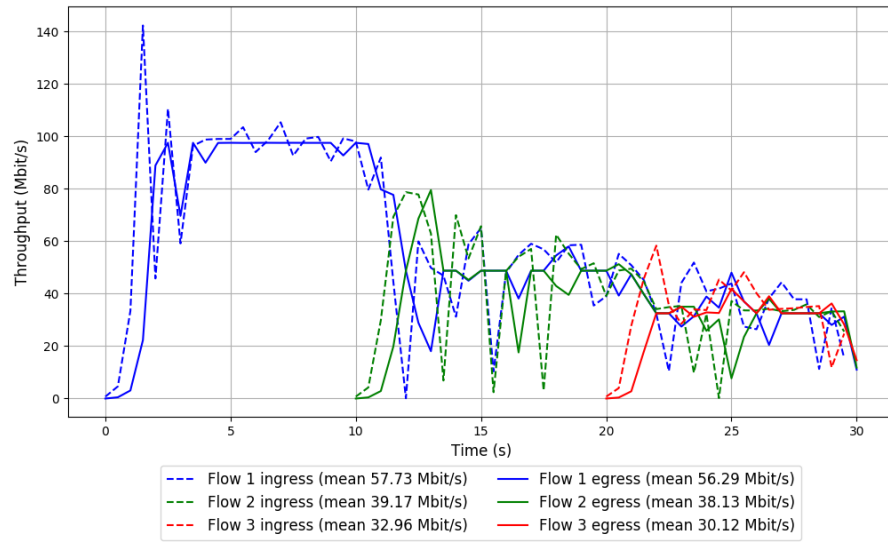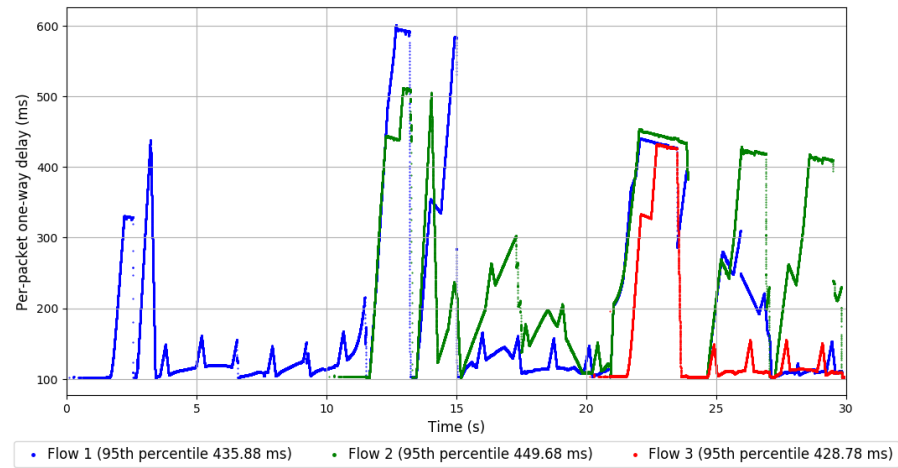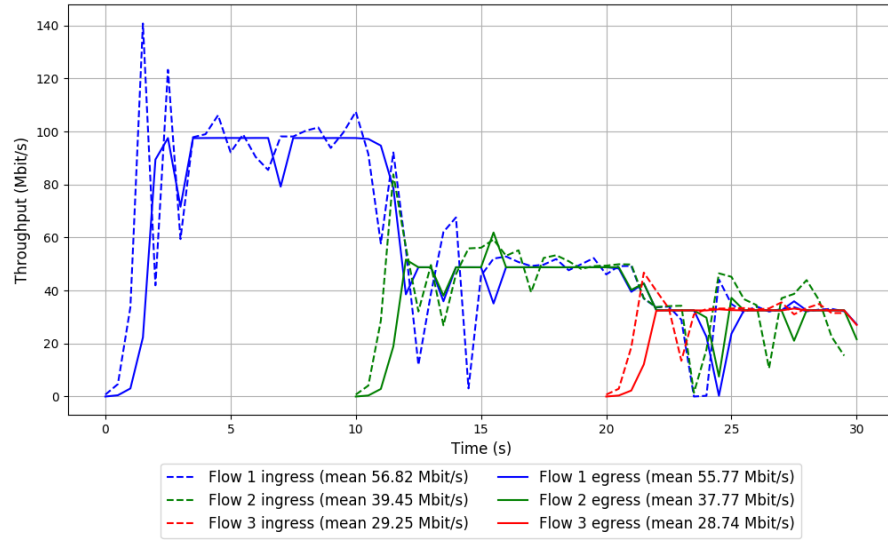
Run 3: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 57.53 Mbit/s)   —— Flow 1 egress (mean 56.24 Mbit/s)
- - - Flow 2 ingress (mean 40.25 Mbit/s)   —— Flow 2 egress (mean 38.72 Mbit/s)
- - - Flow 3 ingress (mean 32.67 Mbit/s)   —— Flow 3 egress (mean 30.84 Mbit/s)

• Flow 1 (95th percentile 475.54 ms)   • Flow 2 (95th percentile 506.44 ms)   • Flow 3 (95th percentile 432.87 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-07-18 12:20:29
End at: 2019-07-18 12:20:59
Local clock offset: -4.06 ms
Remote clock offset: -3.964 ms


# Below is generated by plot.py at 2019-07-18 13:16:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.21 Mbit/s
95th percentile per-packet one-way delay: 433.501 ms
Loss rate: 4.88%
-- Flow 1:
Average throughput: 56.29 Mbit/s
95th percentile per-packet one-way delay: 420.123 ms
Loss rate: 3.76%
-- Flow 2:
Average throughput: 38.13 Mbit/s
95th percentile per-packet one-way delay: 511.439 ms
Loss rate: 4.58%
-- Flow 3:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 433.527 ms
Loss rate: 11.55%
```
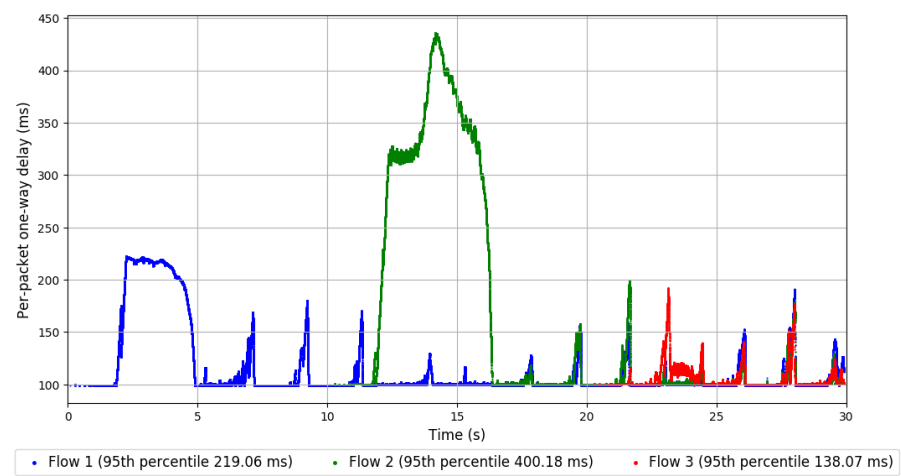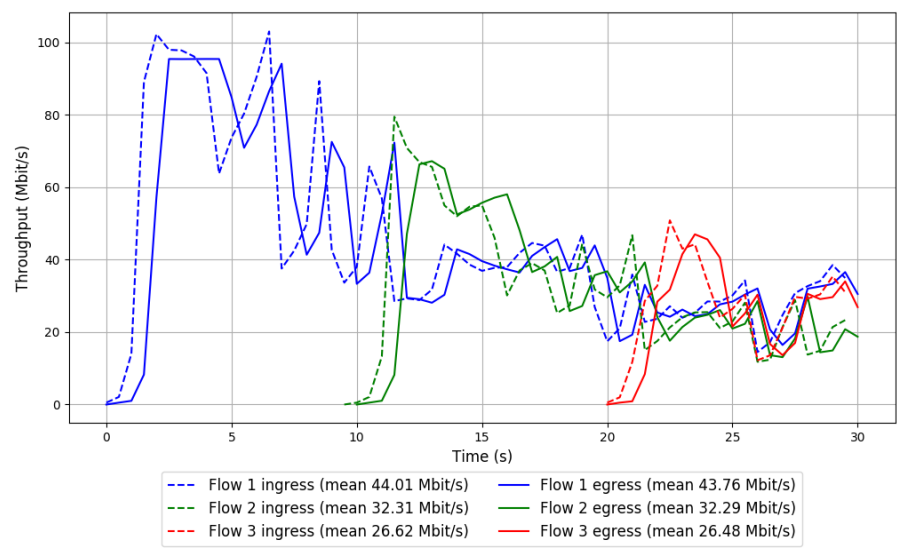
Run 4: Report of TCP BBR — Data Link

Legend:
- Flow 1 ingress (mean 57.73 Mbit/s)
- Flow 1 egress (mean 56.29 Mbit/s)
- Flow 2 ingress (mean 39.17 Mbit/s)
- Flow 2 egress (mean 38.13 Mbit/s)
- Flow 3 ingress (mean 32.96 Mbit/s)
- Flow 3 egress (mean 30.12 Mbit/s)

Legend:
- Flow 1 (95th percentile 420.12 ms)
- Flow 2 (95th percentile 511.44 ms)
- Flow 3 (95th percentile 433.53 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-07-18 12:51:30
End at: 2019-07-18 12:52:00
Local clock offset: -3.863 ms
Remote clock offset: -10.852 ms


# Below is generated by plot.py at 2019-07-18 13:16:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.30 Mbit/s
95th percentile per-packet one-way delay: 443.013 ms
Loss rate: 3.29%
-- Flow 1:
Average throughput: 55.77 Mbit/s
95th percentile per-packet one-way delay: 435.882 ms
Loss rate: 2.42%
-- Flow 2:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 449.677 ms
Loss rate: 5.10%
-- Flow 3:
Average throughput: 28.74 Mbit/s
95th percentile per-packet one-way delay: 428.776 ms
Loss rate: 3.49%
```
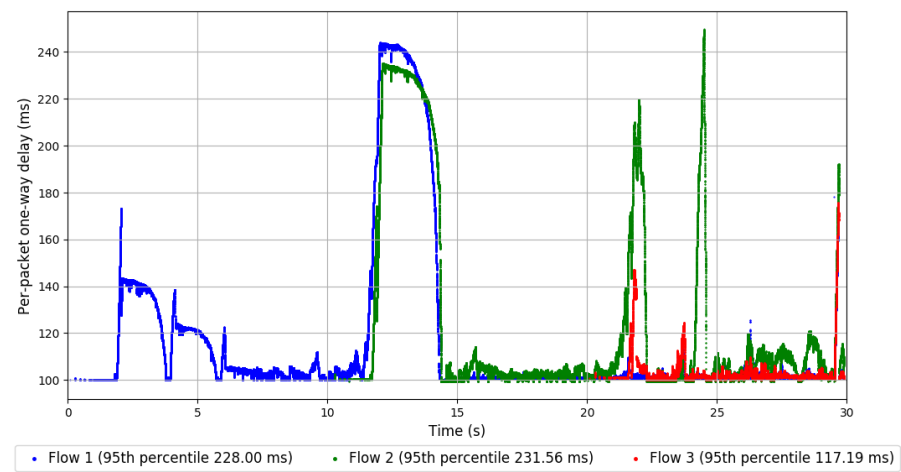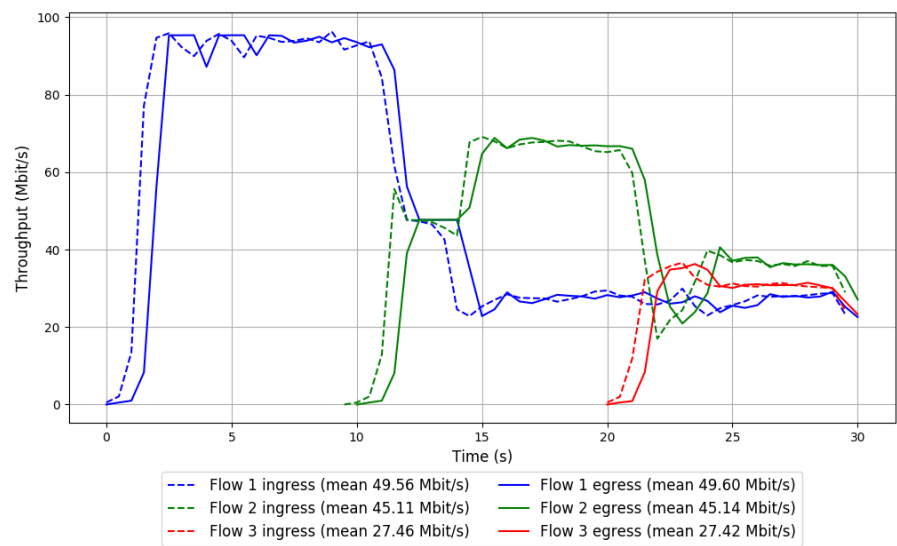
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 56.82 Mbit/s) --- Flow 1 egress (mean 55.77 Mbit/s)
Flow 2 ingress (mean 39.45 Mbit/s) --- Flow 2 egress (mean 37.77 Mbit/s)
Flow 3 ingress (mean 29.25 Mbit/s) --- Flow 3 egress (mean 28.74 Mbit/s)

Flow 1 (95th percentile 435.88 ms)   Flow 2 (95th percentile 449.68 ms)   Flow 3 (95th percentile 428.78 ms)

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```
Run 1: Statistics of Copa

Start at: 2019-07-18 11:01:25
End at: 2019-07-18 11:01:55
Local clock offset: -4.142 ms
Remote clock offset: -7.819 ms


# Below is generated by plot.py at 2019-07-18 13:16:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.93 Mbit/s
95th percentile per-packet one-way delay: 337.574 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 43.76 Mbit/s
95th percentile per-packet one-way delay: 219.061 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 400.175 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 26.48 Mbit/s
95th percentile per-packet one-way delay: 138.069 ms
Loss rate: 2.26%
```
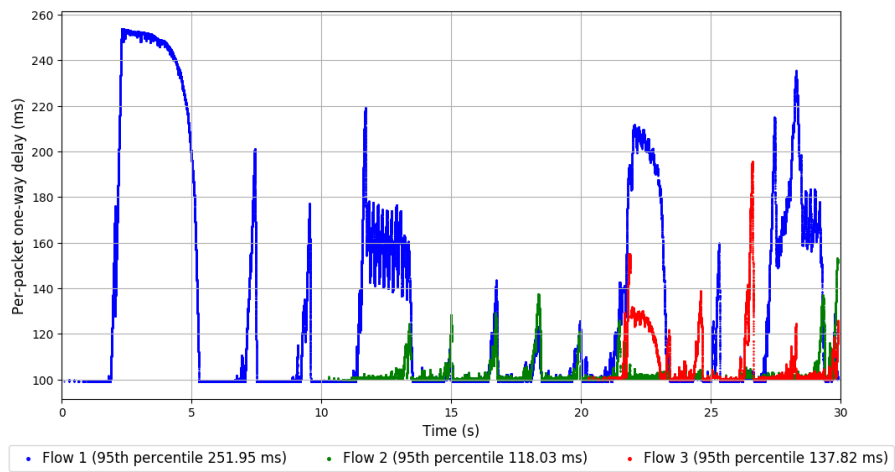
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-07-18 11:32:34
End at: 2019-07-18 11:33:04
Local clock offset: -3.473 ms
Remote clock offset: -5.311 ms


# Below is generated by plot.py at 2019-07-18 13:17:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.61 Mbit/s
95th percentile per-packet one-way delay: 229.074 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 49.60 Mbit/s
95th percentile per-packet one-way delay: 228.001 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 45.14 Mbit/s
95th percentile per-packet one-way delay: 231.565 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 27.42 Mbit/s
95th percentile per-packet one-way delay: 117.189 ms
Loss rate: 1.91%
```
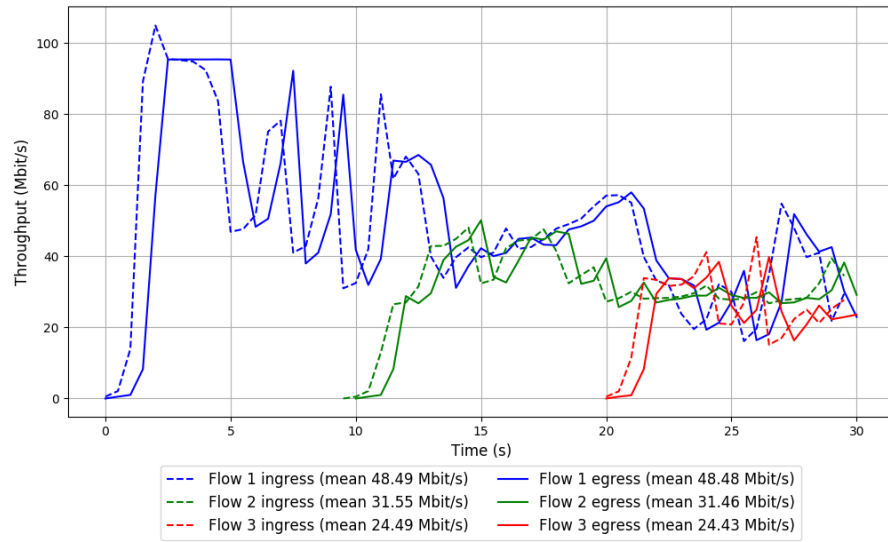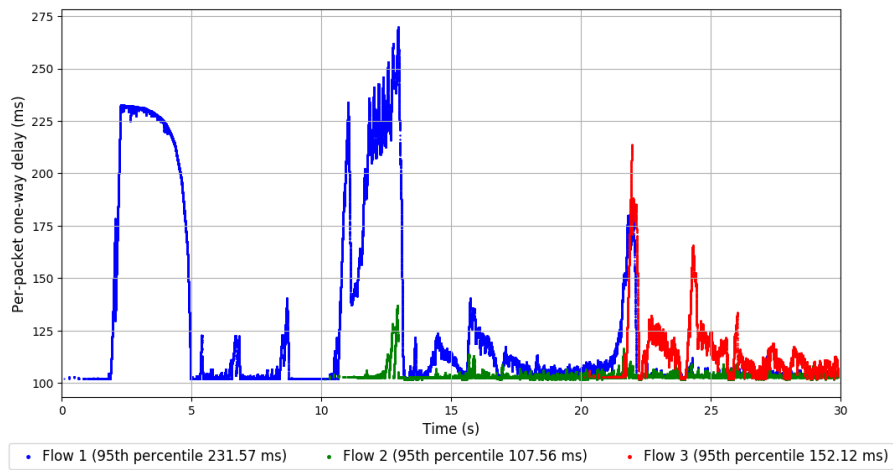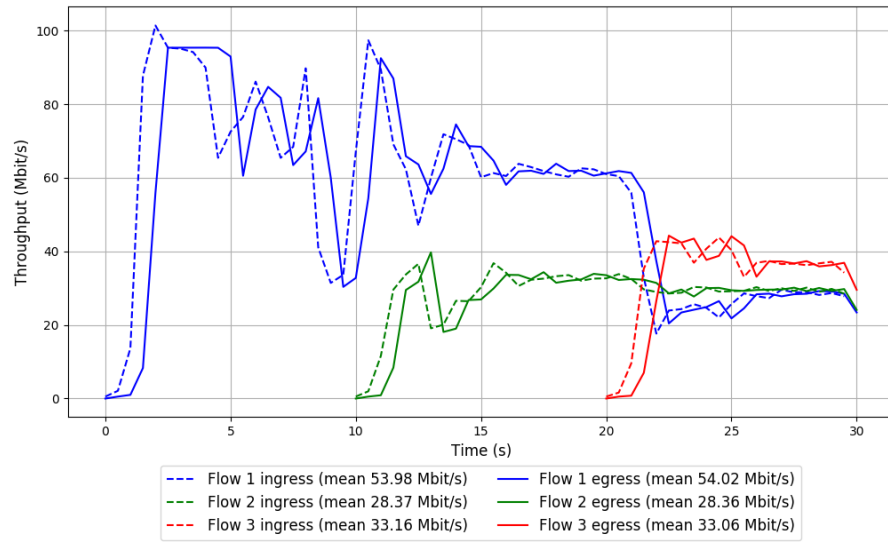
Run 2: Report of Copa — Data Link

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```
Run 3: Statistics of Copa

Start at: 2019-07-18 12:03:39
End at: 2019-07-18 12:04:09
Local clock offset: -3.784 ms
Remote clock offset: 1.252 ms


# Below is generated by plot.py at 2019-07-18 13:17:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.42 Mbit/s
95th percentile per-packet one-way delay: 250.253 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 48.48 Mbit/s
95th percentile per-packet one-way delay: 251.950 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 118.033 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 137.816 ms
Loss rate: 2.01%
```
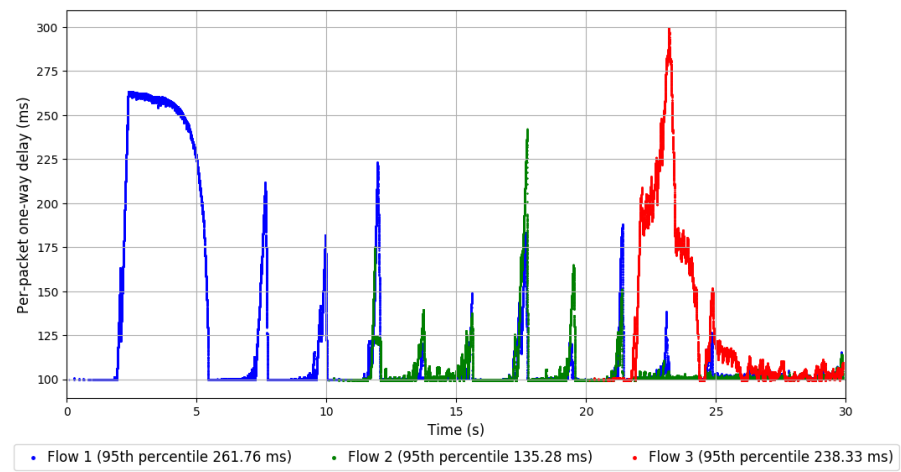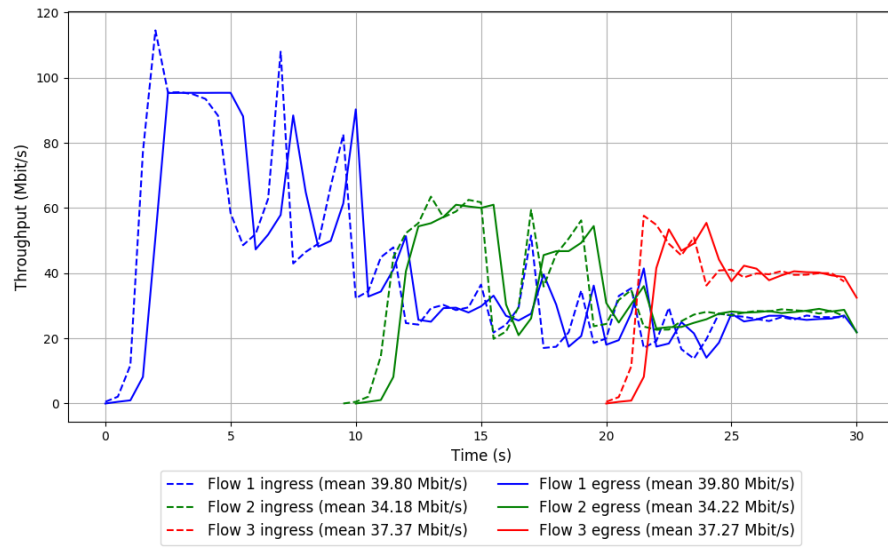
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 48.49 Mbit/s) Flow 1 egress (mean 48.48 Mbit/s)
Flow 2 ingress (mean 31.55 Mbit/s) Flow 2 egress (mean 31.46 Mbit/s)
Flow 3 ingress (mean 24.49 Mbit/s) Flow 3 egress (mean 24.43 Mbit/s)

Flow 1 (95th percentile 251.95 ms)   Flow 2 (95th percentile 118.03 ms)   Flow 3 (95th percentile 137.82 ms)

```
Run 4: Statistics of Copa

Start at: 2019-07-18 12:34:45
End at: 2019-07-18 12:35:15
Local clock offset: -4.126 ms
Remote clock offset: -9.621 ms


# Below is generated by plot.py at 2019-07-18 13:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.72 Mbit/s
95th percentile per-packet one-way delay: 230.509 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 54.02 Mbit/s
95th percentile per-packet one-way delay: 231.574 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 28.36 Mbit/s
95th percentile per-packet one-way delay: 107.556 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 152.124 ms
Loss rate: 2.07%
```
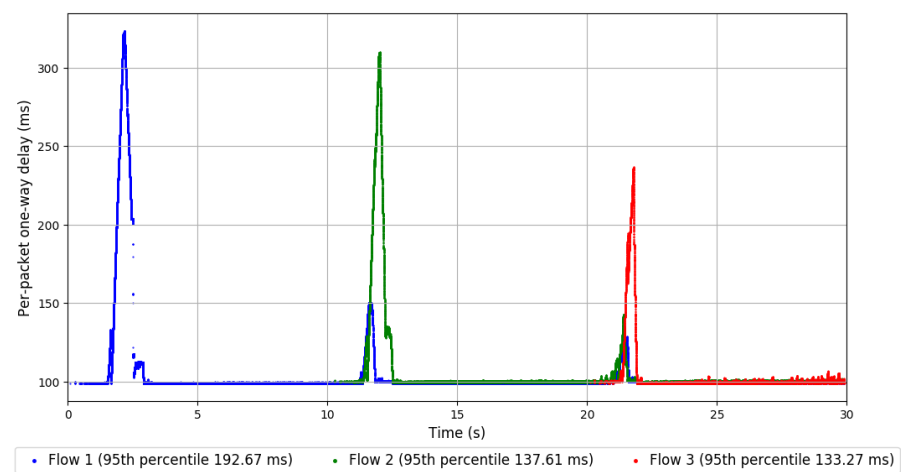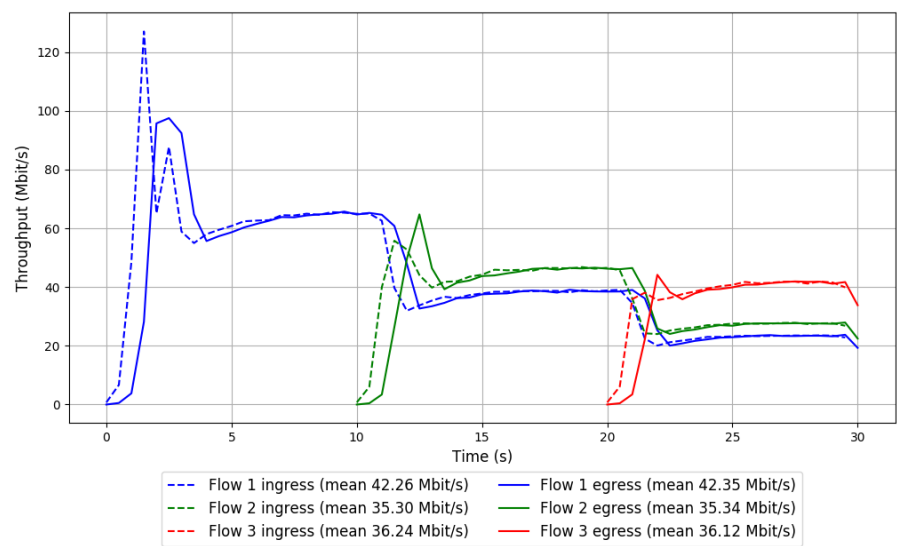
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 53.98 Mbit/s) --- Flow 1 egress (mean 54.02 Mbit/s)
Flow 2 ingress (mean 28.37 Mbit/s) --- Flow 2 egress (mean 28.36 Mbit/s)
Flow 3 ingress (mean 33.16 Mbit/s) --- Flow 3 egress (mean 33.06 Mbit/s)

Flow 1 (95th percentile 231.57 ms)　　Flow 2 (95th percentile 107.56 ms)　　Flow 3 (95th percentile 152.12 ms)

```
Run 5: Statistics of Copa

Start at: 2019-07-18 13:05:54
End at: 2019-07-18 13:06:24
Local clock offset: -3.055 ms
Remote clock offset: -8.057 ms


# Below is generated by plot.py at 2019-07-18 13:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.79 Mbit/s
95th percentile per-packet one-way delay: 259.980 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 39.80 Mbit/s
95th percentile per-packet one-way delay: 261.759 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 34.22 Mbit/s
95th percentile per-packet one-way delay: 135.278 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 37.27 Mbit/s
95th percentile per-packet one-way delay: 238.333 ms
Loss rate: 2.00%
```
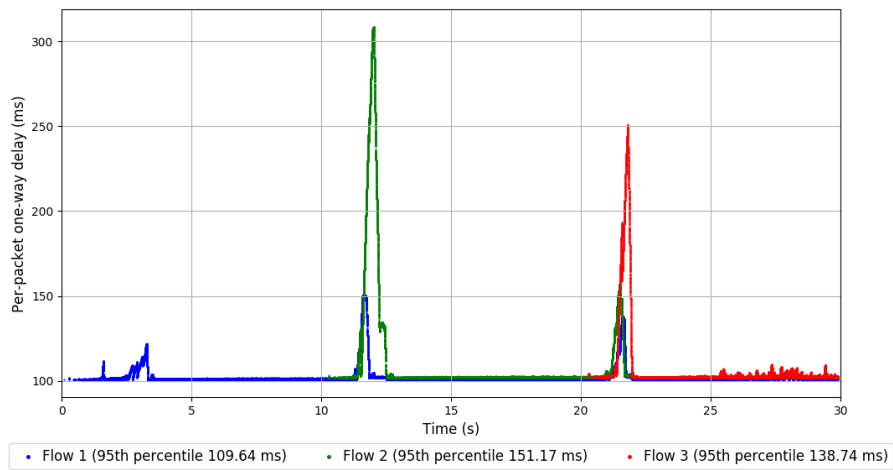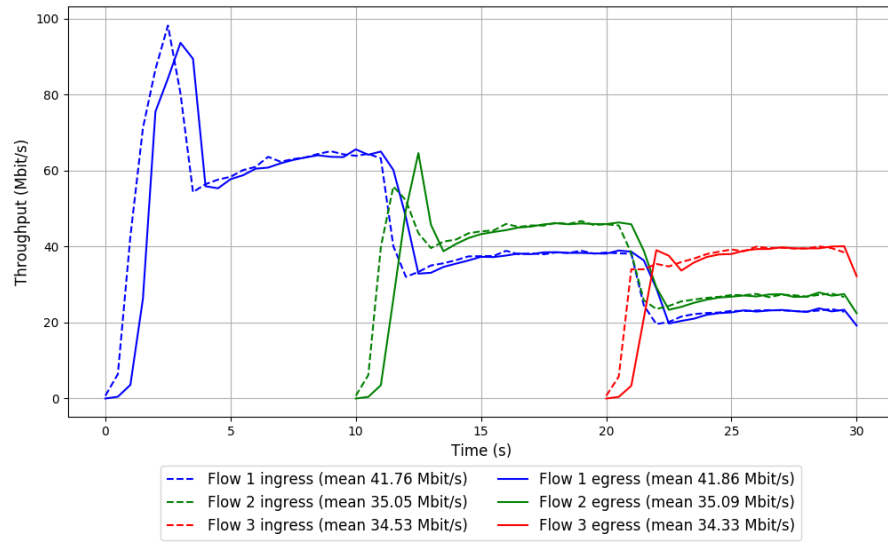
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-07-18 10:48:27
End at: 2019-07-18 10:48:57
Local clock offset: -4.12 ms
Remote clock offset: -7.569 ms


# Below is generated by plot.py at 2019-07-18 13:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.68 Mbit/s
95th percentile per-packet one-way delay: 156.359 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 42.35 Mbit/s
95th percentile per-packet one-way delay: 192.673 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.34 Mbit/s
95th percentile per-packet one-way delay: 137.613 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 36.12 Mbit/s
95th percentile per-packet one-way delay: 133.273 ms
Loss rate: 2.03%
```
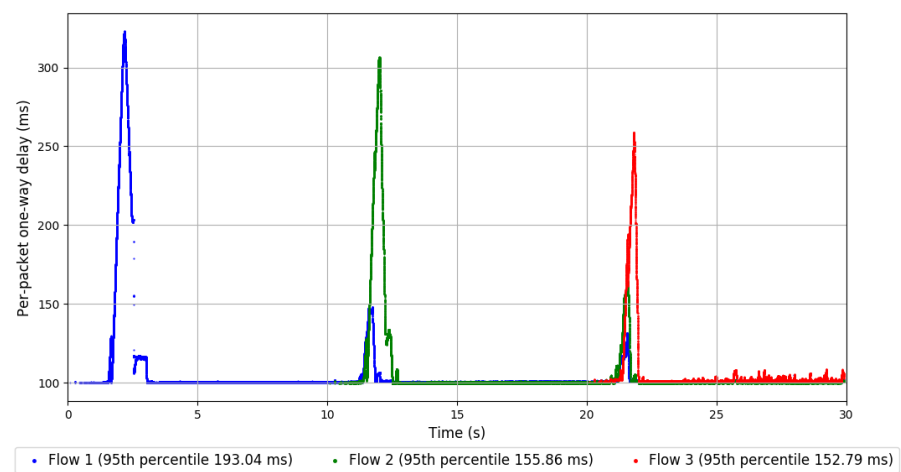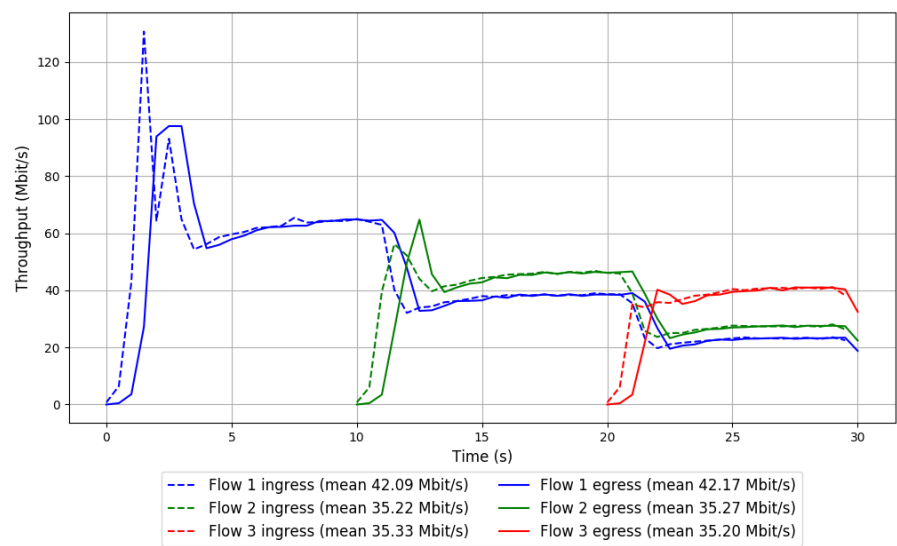
Run 1: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 42.26 Mbit/s) —— Flow 1 egress (mean 42.35 Mbit/s)
- - - Flow 2 ingress (mean 35.30 Mbit/s) —— Flow 2 egress (mean 35.34 Mbit/s)
- - - Flow 3 ingress (mean 36.24 Mbit/s) —— Flow 3 egress (mean 36.12 Mbit/s)

• Flow 1 (95th percentile 192.67 ms)   • Flow 2 (95th percentile 137.61 ms)   • Flow 3 (95th percentile 133.27 ms)
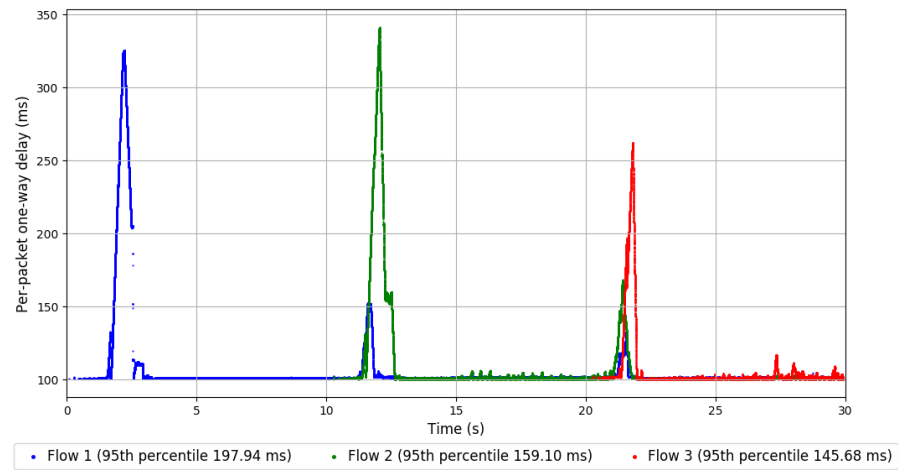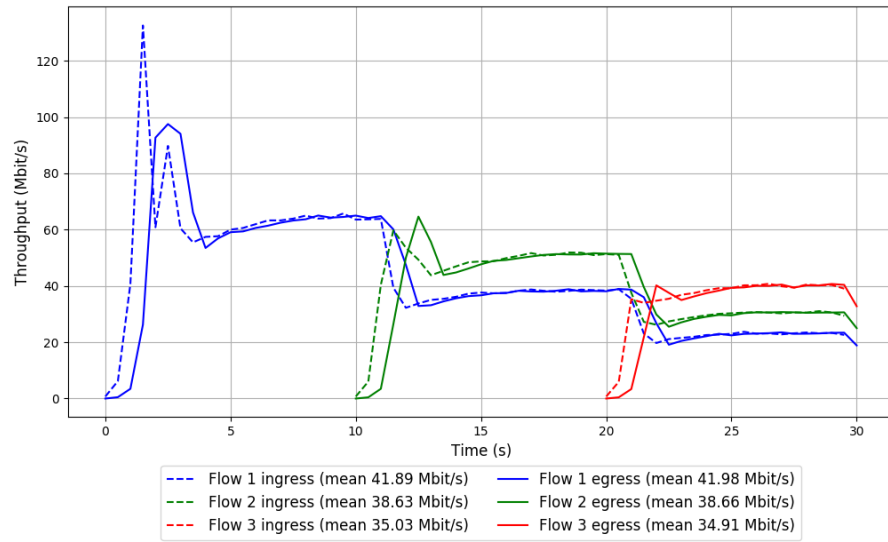
```
Run 2: Statistics of TCP Cubic

Start at: 2019-07-18 11:19:36
End at: 2019-07-18 11:20:06
Local clock offset: -4.247 ms
Remote clock offset: -7.549 ms


# Below is generated by plot.py at 2019-07-18 13:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.45 Mbit/s
95th percentile per-packet one-way delay: 118.678 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 41.86 Mbit/s
95th percentile per-packet one-way delay: 109.638 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 35.09 Mbit/s
95th percentile per-packet one-way delay: 151.167 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 138.742 ms
Loss rate: 2.32%
```

Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 41.76 Mbit/s) — Flow 1 egress (mean 41.86 Mbit/s)
Flow 2 ingress (mean 35.05 Mbit/s) — Flow 2 egress (mean 35.09 Mbit/s)
Flow 3 ingress (mean 34.53 Mbit/s) — Flow 3 egress (mean 34.33 Mbit/s)

Flow 1 (95th percentile 109.64 ms) • Flow 2 (95th percentile 151.17 ms) • Flow 3 (95th percentile 138.74 ms)
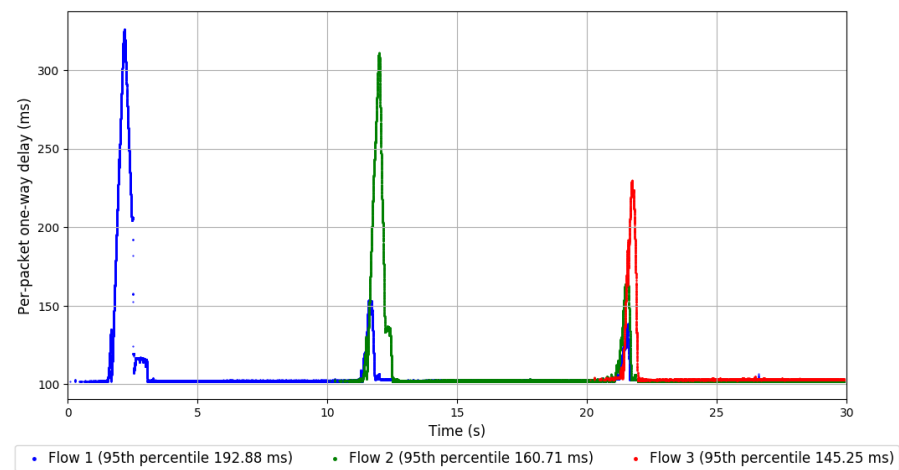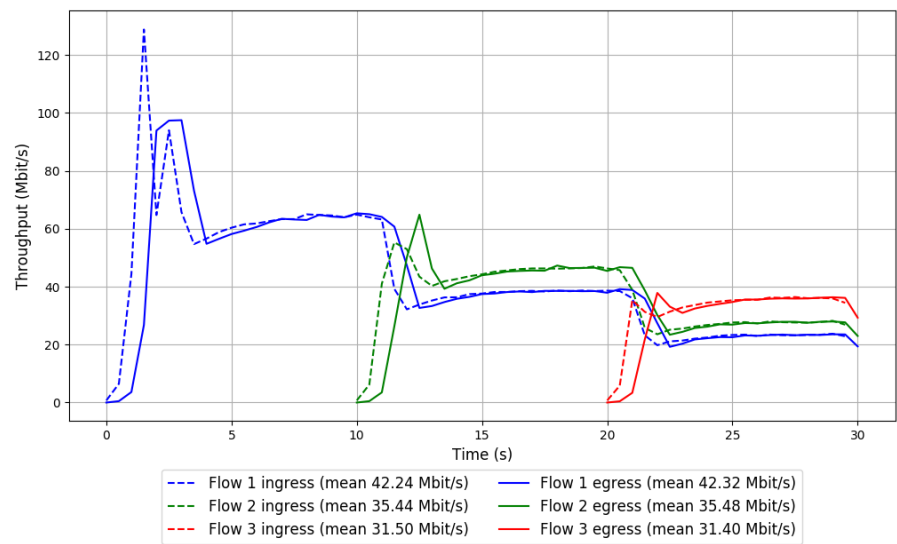
```
Run 3: Statistics of TCP Cubic

Start at: 2019-07-18 11:50:43
End at: 2019-07-18 11:51:13
Local clock offset: -3.079 ms
Remote clock offset: -1.09 ms


# Below is generated by plot.py at 2019-07-18 13:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.16 Mbit/s
95th percentile per-packet one-way delay: 162.886 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 42.17 Mbit/s
95th percentile per-packet one-way delay: 193.041 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 35.27 Mbit/s
95th percentile per-packet one-way delay: 155.856 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 35.20 Mbit/s
95th percentile per-packet one-way delay: 152.791 ms
Loss rate: 2.11%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 42.09 Mbit/s) --- Flow 1 egress (mean 42.17 Mbit/s)
Flow 2 ingress (mean 35.22 Mbit/s) --- Flow 2 egress (mean 35.27 Mbit/s)
Flow 3 ingress (mean 35.33 Mbit/s) --- Flow 3 egress (mean 35.20 Mbit/s)

Flow 1 (95th percentile 193.04 ms) Flow 2 (95th percentile 155.86 ms) Flow 3 (95th percentile 152.79 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-07-18 12:21:48
End at: 2019-07-18 12:22:18
Local clock offset: -4.139 ms
Remote clock offset: -4.313 ms


# Below is generated by plot.py at 2019-07-18 13:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.13 Mbit/s
95th percentile per-packet one-way delay: 165.659 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 41.98 Mbit/s
95th percentile per-packet one-way delay: 197.945 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 38.66 Mbit/s
95th percentile per-packet one-way delay: 159.097 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 34.91 Mbit/s
95th percentile per-packet one-way delay: 145.675 ms
Loss rate: 2.08%
```
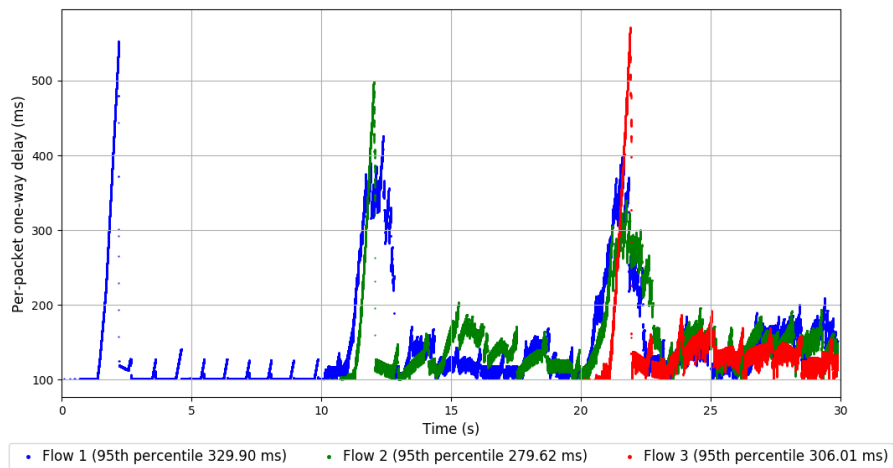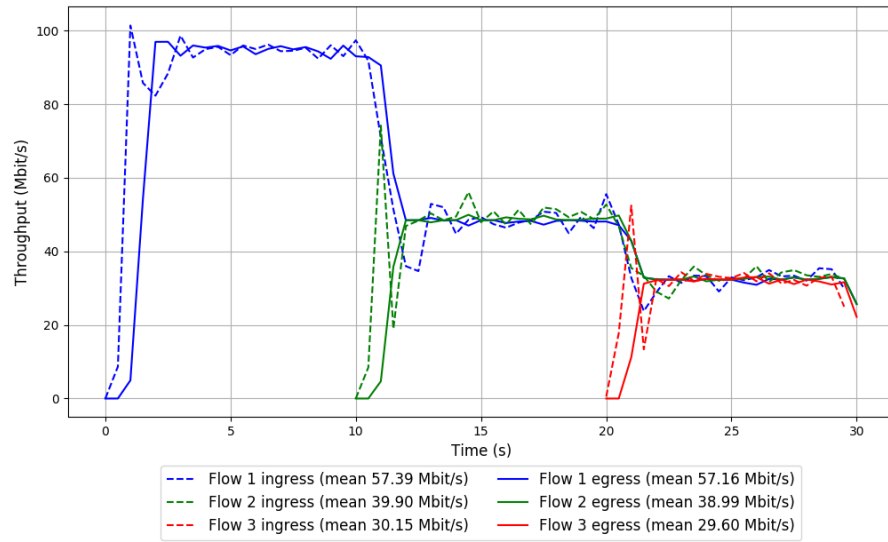
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 41.89 Mbit/s) —— Flow 1 egress (mean 41.98 Mbit/s)
Flow 2 ingress (mean 38.63 Mbit/s) —— Flow 2 egress (mean 38.66 Mbit/s)
Flow 3 ingress (mean 35.03 Mbit/s) —— Flow 3 egress (mean 34.91 Mbit/s)

Flow 1 (95th percentile 197.94 ms) • Flow 2 (95th percentile 159.10 ms) • Flow 3 (95th percentile 145.68 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-07-18 12:52:49
End at: 2019-07-18 12:53:19
Local clock offset: -3.838 ms
Remote clock offset: -10.652 ms


# Below is generated by plot.py at 2019-07-18 13:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.21 Mbit/s
95th percentile per-packet one-way delay: 163.736 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 42.32 Mbit/s
95th percentile per-packet one-way delay: 192.881 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 35.48 Mbit/s
95th percentile per-packet one-way delay: 160.709 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 31.40 Mbit/s
95th percentile per-packet one-way delay: 145.253 ms
Loss rate: 2.03%
```

Run 5: Report of TCP Cubic — Data Link

- Flow 1 ingress (mean 42.24 Mbit/s)
- Flow 1 egress (mean 42.32 Mbit/s)
- Flow 2 ingress (mean 35.44 Mbit/s)
- Flow 2 egress (mean 35.48 Mbit/s)
- Flow 3 ingress (mean 31.50 Mbit/s)
- Flow 3 egress (mean 31.40 Mbit/s)

- Flow 1 (95th percentile 192.88 ms)
- Flow 2 (95th percentile 160.71 ms)
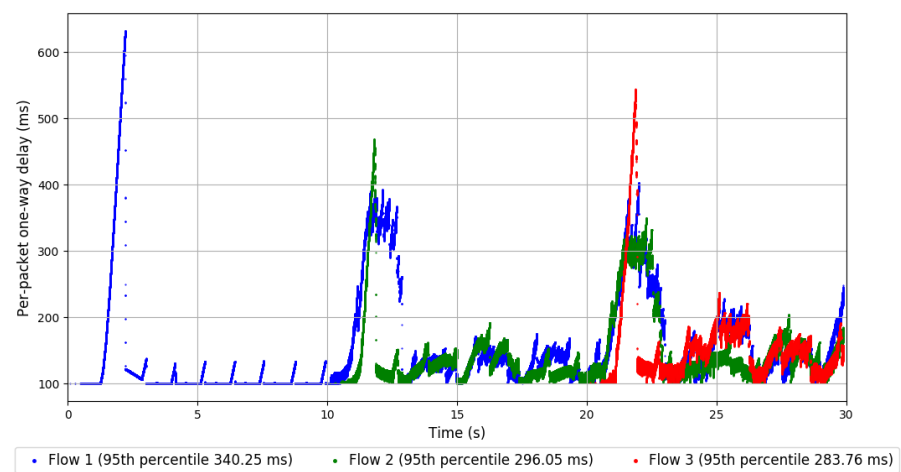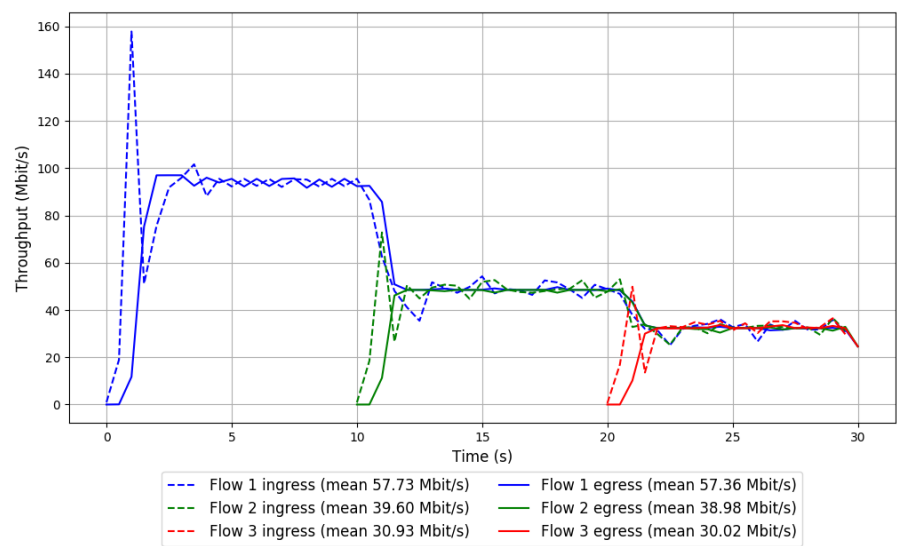- Flow 3 (95th percentile 145.25 ms)

```
Run 1: Statistics of FillP

Start at: 2019-07-18 10:38:02
End at: 2019-07-18 10:38:32
Local clock offset: -3.95 ms
Remote clock offset: -8.699 ms


# Below is generated by plot.py at 2019-07-18 13:18:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 310.094 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 57.16 Mbit/s
95th percentile per-packet one-way delay: 329.899 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 279.617 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 306.006 ms
Loss rate: 3.44%
```

Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-07-18 11:09:08
End at: 2019-07-18 11:09:38
Local clock offset: -3.948 ms
Remote clock offset: -8.615 ms


# Below is generated by plot.py at 2019-07-18 13:18:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.14 Mbit/s
95th percentile per-packet one-way delay: 255.895 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 299.842 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 39.21 Mbit/s
95th percentile per-packet one-way delay: 229.306 ms
Loss rate: 2.99%
-- Flow 3:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 240.864 ms
Loss rate: 4.12%
```
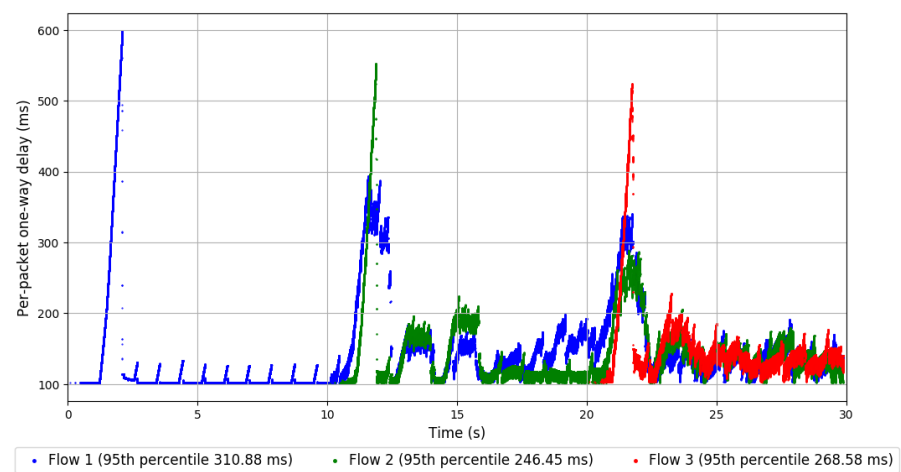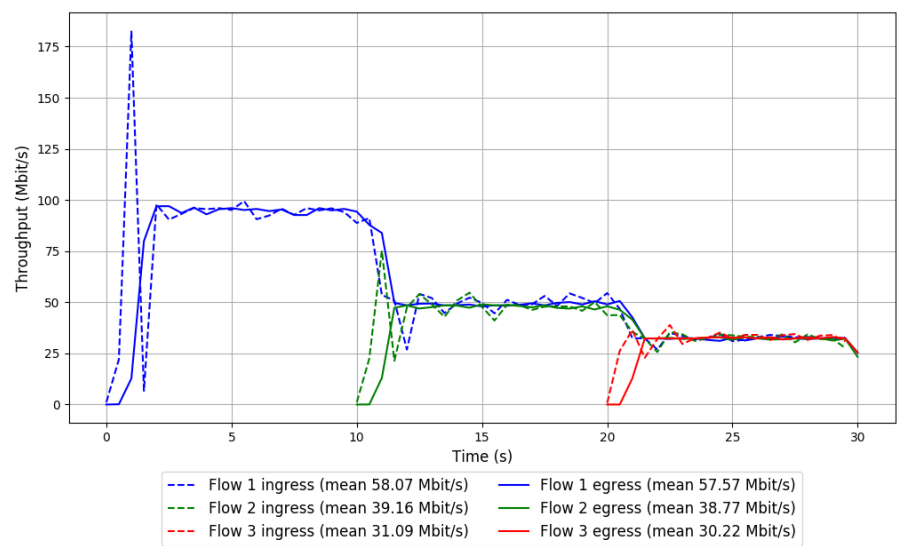
Run 2: Report of FillP — Data Link

- - - Flow 1 ingress (mean 57.76 Mbit/s) ——— Flow 1 egress (mean 57.33 Mbit/s)
- - - Flow 2 ingress (mean 40.09 Mbit/s) ——— Flow 2 egress (mean 39.21 Mbit/s)
- - - Flow 3 ingress (mean 30.43 Mbit/s) ——— Flow 3 egress (mean 29.70 Mbit/s)

- Flow 1 (95th percentile 299.84 ms)   - Flow 2 (95th percentile 229.31 ms)   - Flow 3 (95th percentile 240.86 ms)
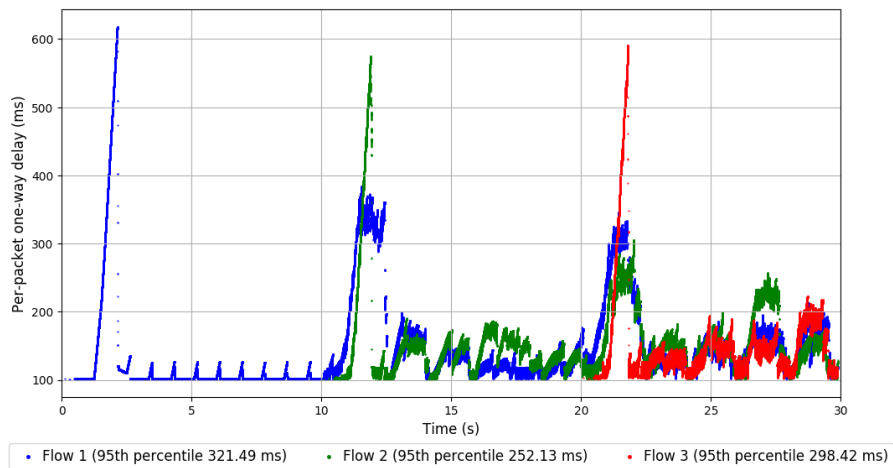
```
Run 3: Statistics of FillP

Start at: 2019-07-18 11:40:19
End at: 2019-07-18 11:40:49
Local clock offset: -3.536 ms
Remote clock offset: -6.166 ms


# Below is generated by plot.py at 2019-07-18 13:18:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.09 Mbit/s
95th percentile per-packet one-way delay: 321.200 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 57.36 Mbit/s
95th percentile per-packet one-way delay: 340.252 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 296.050 ms
Loss rate: 2.37%
-- Flow 3:
Average throughput: 30.02 Mbit/s
95th percentile per-packet one-way delay: 283.759 ms
Loss rate: 4.65%
```
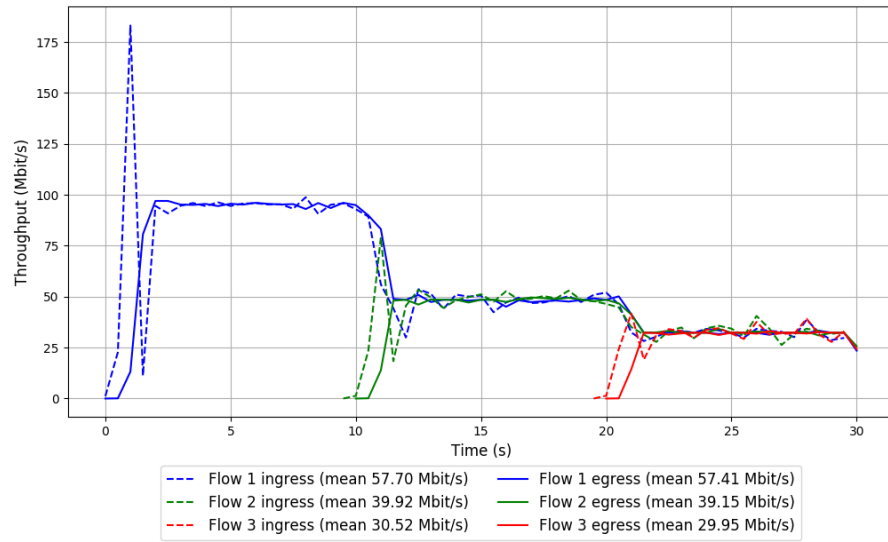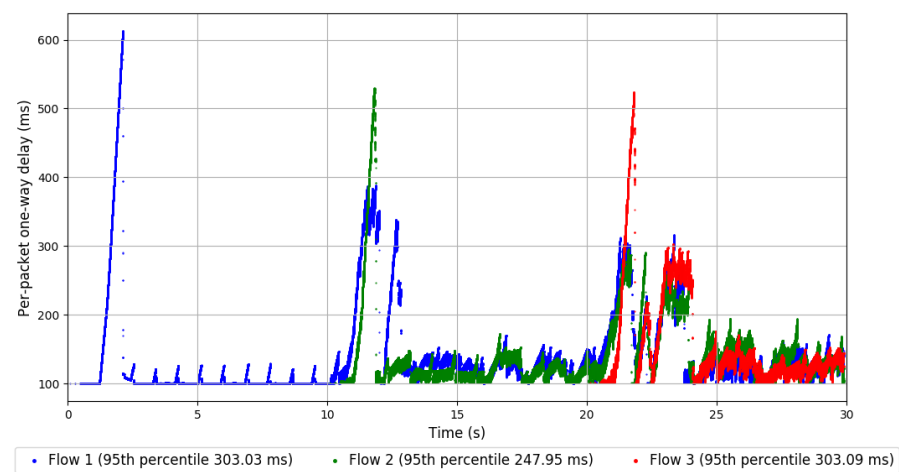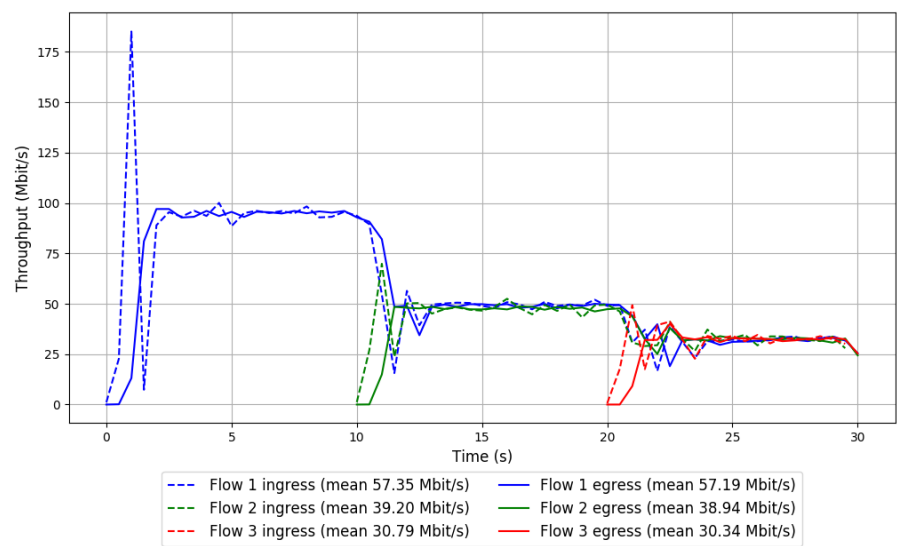
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 57.73 Mbit/s) — Flow 1 egress (mean 57.36 Mbit/s)
Flow 2 ingress (mean 39.60 Mbit/s) — Flow 2 egress (mean 38.98 Mbit/s)
Flow 3 ingress (mean 30.93 Mbit/s) — Flow 3 egress (mean 30.02 Mbit/s)

Flow 1 (95th percentile 340.25 ms) — Flow 2 (95th percentile 296.05 ms) — Flow 3 (95th percentile 283.76 ms)

```
Run 4: Statistics of FillP

Start at: 2019-07-18 12:11:24
End at: 2019-07-18 12:11:54
Local clock offset: -4.027 ms
Remote clock offset: 0.172 ms

# Below is generated by plot.py at 2019-07-18 13:18:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 293.997 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 57.57 Mbit/s
95th percentile per-packet one-way delay: 310.879 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 38.77 Mbit/s
95th percentile per-packet one-way delay: 246.453 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 268.576 ms
Loss rate: 4.31%
```
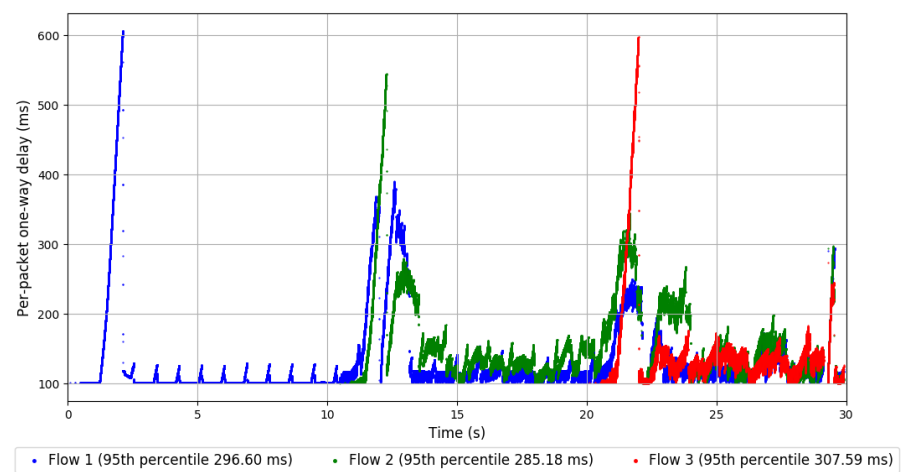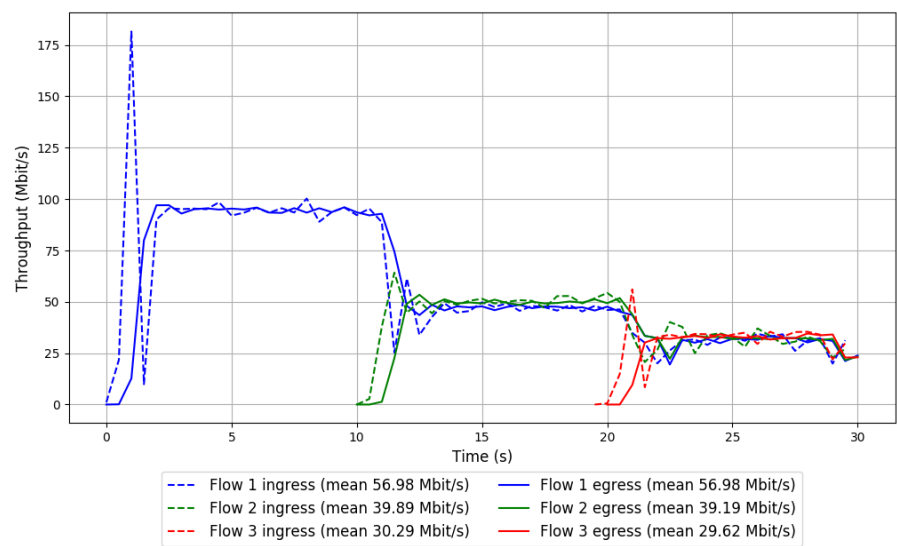
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 58.07 Mbit/s) — Flow 1 egress (mean 57.57 Mbit/s)
Flow 2 ingress (mean 39.16 Mbit/s) — Flow 2 egress (mean 38.77 Mbit/s)
Flow 3 ingress (mean 31.09 Mbit/s) — Flow 3 egress (mean 30.22 Mbit/s)

Flow 1 (95th percentile 310.88 ms)   Flow 2 (95th percentile 246.45 ms)   Flow 3 (95th percentile 268.58 ms)

42

```
Run 5: Statistics of FillP

Start at: 2019-07-18 12:42:27
End at: 2019-07-18 12:42:57
Local clock offset: -3.835 ms
Remote clock offset: -9.913 ms


# Below is generated by plot.py at 2019-07-18 13:19:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 309.939 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 57.41 Mbit/s
95th percentile per-packet one-way delay: 321.488 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 39.15 Mbit/s
95th percentile per-packet one-way delay: 252.135 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 29.95 Mbit/s
95th percentile per-packet one-way delay: 298.420 ms
Loss rate: 3.70%
```
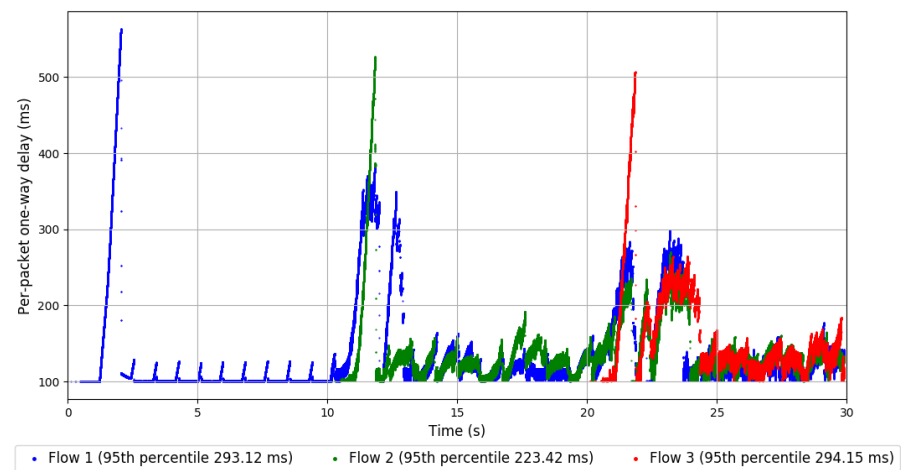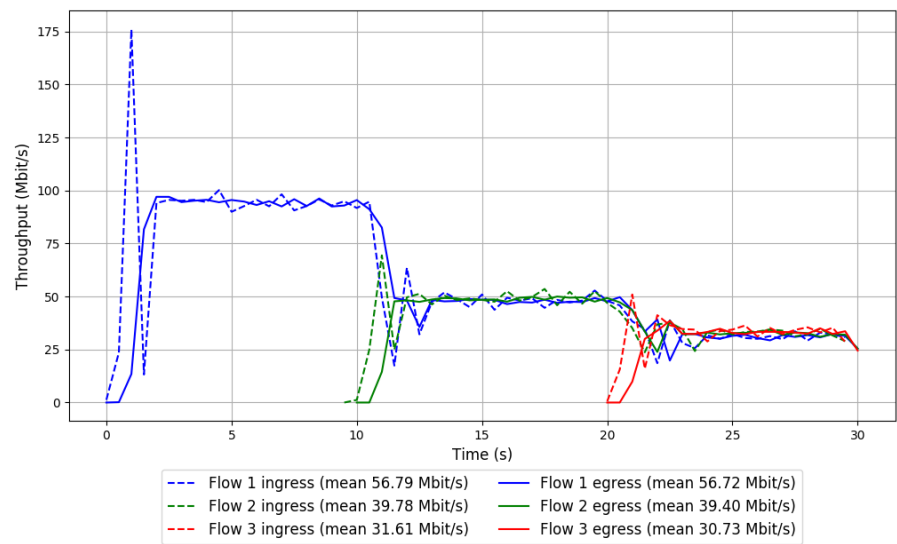
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 57.70 Mbit/s) — Flow 1 egress (mean 57.41 Mbit/s)
Flow 2 ingress (mean 39.92 Mbit/s) — Flow 2 egress (mean 39.15 Mbit/s)
Flow 3 ingress (mean 30.52 Mbit/s) — Flow 3 egress (mean 29.95 Mbit/s)

Flow 1 (95th percentile 321.49 ms)   Flow 2 (95th percentile 252.13 ms)   Flow 3 (95th percentile 298.42 ms)

44

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-07-18 10:52:21
End at: 2019-07-18 10:52:51
Local clock offset: -4.143 ms
Remote clock offset: -8.444 ms


# Below is generated by plot.py at 2019-07-18 13:19:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 285.403 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 57.19 Mbit/s
95th percentile per-packet one-way delay: 303.027 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 38.94 Mbit/s
95th percentile per-packet one-way delay: 247.951 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 303.094 ms
Loss rate: 3.05%
```
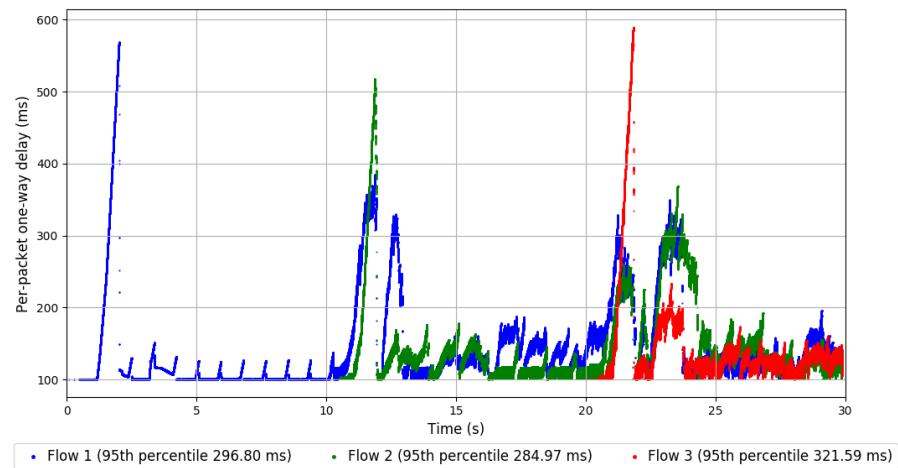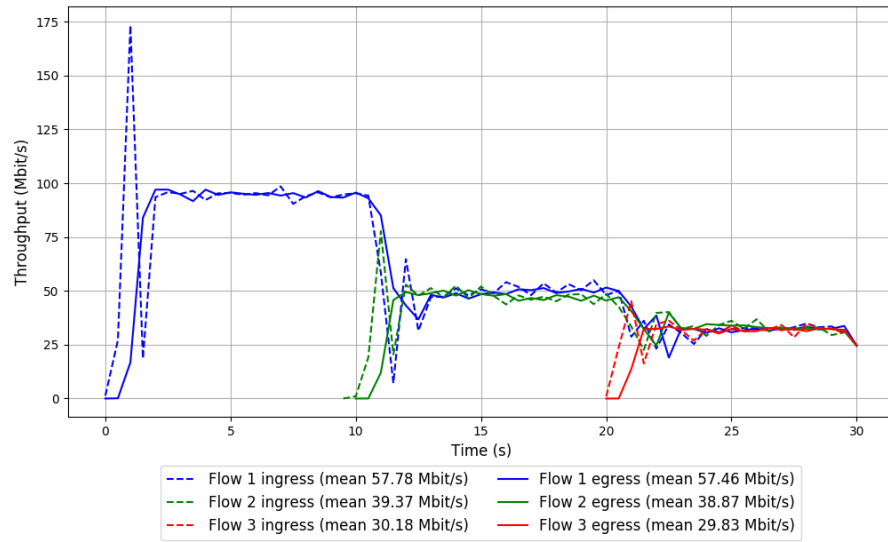
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-07-18 11:23:30
End at: 2019-07-18 11:24:00
Local clock offset: -3.956 ms
Remote clock offset: -6.355 ms


# Below is generated by plot.py at 2019-07-18 13:19:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 291.105 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 56.98 Mbit/s
95th percentile per-packet one-way delay: 296.597 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 39.19 Mbit/s
95th percentile per-packet one-way delay: 285.178 ms
Loss rate: 2.55%
-- Flow 3:
Average throughput: 29.62 Mbit/s
95th percentile per-packet one-way delay: 307.589 ms
Loss rate: 3.91%
```

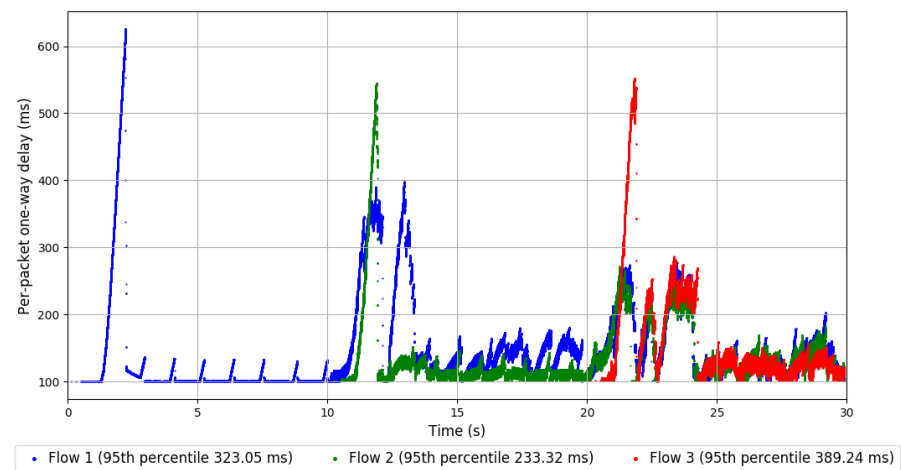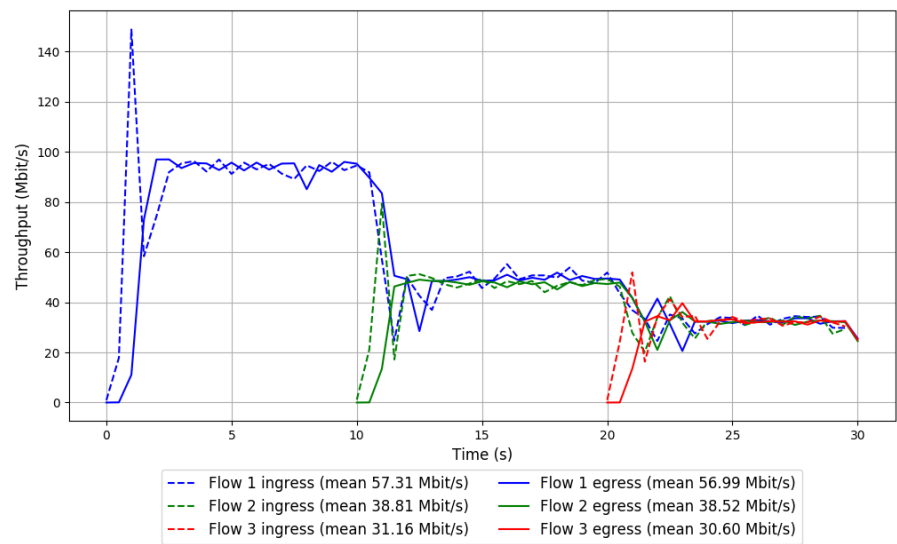Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-07-18 11:54:36
End at: 2019-07-18 11:55:06
Local clock offset: -3.254 ms
Remote clock offset: -0.849 ms


# Below is generated by plot.py at 2019-07-18 13:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.99 Mbit/s
95th percentile per-packet one-way delay: 269.514 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 293.120 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 223.424 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 294.149 ms
Loss rate: 4.34%
```
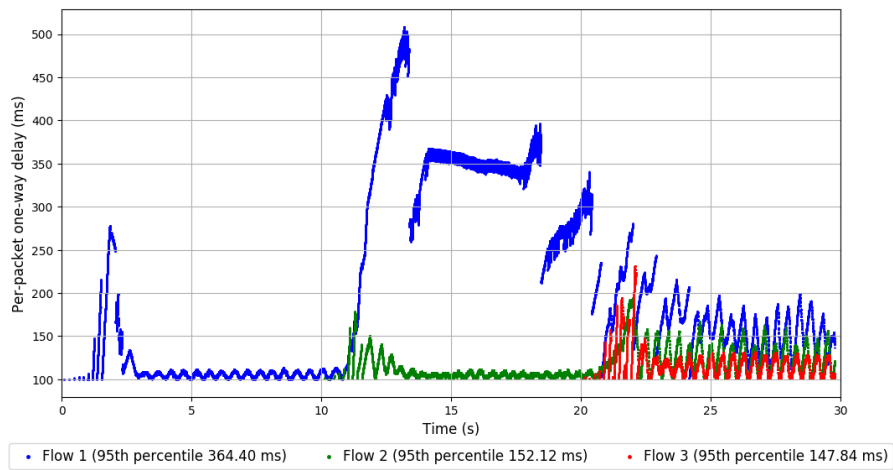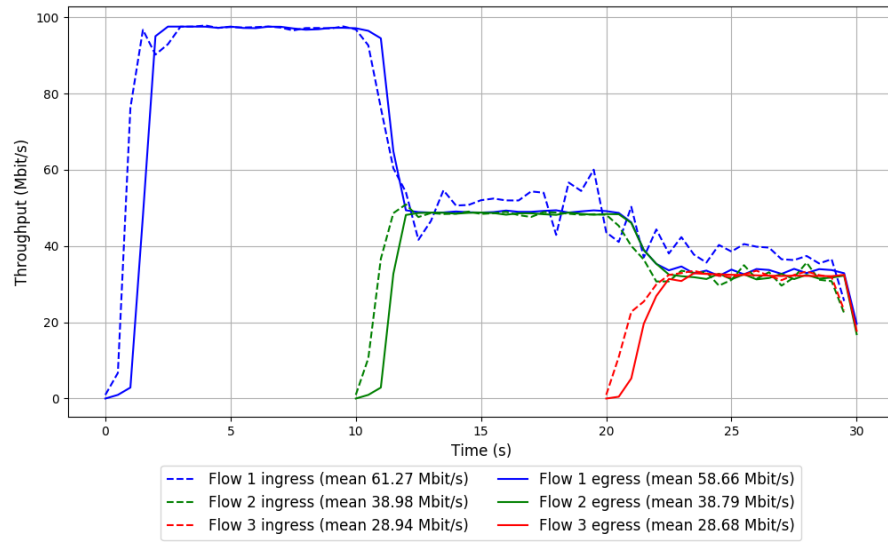
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 56.79 Mbit/s) --- Flow 1 egress (mean 56.72 Mbit/s)
Flow 2 ingress (mean 39.78 Mbit/s) --- Flow 2 egress (mean 39.40 Mbit/s)
Flow 3 ingress (mean 31.61 Mbit/s) --- Flow 3 egress (mean 30.73 Mbit/s)

Flow 1 (95th percentile 293.12 ms)   Flow 2 (95th percentile 223.42 ms)   Flow 3 (95th percentile 294.15 ms)

50

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-07-18 12:25:40
End at: 2019-07-18 12:26:10
Local clock offset: -4.281 ms
Remote clock offset: -6.218 ms


# Below is generated by plot.py at 2019-07-18 13:19:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 293.225 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 57.46 Mbit/s
95th percentile per-packet one-way delay: 296.800 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 38.87 Mbit/s
95th percentile per-packet one-way delay: 284.974 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 29.83 Mbit/s
95th percentile per-packet one-way delay: 321.590 ms
Loss rate: 2.91%
```

Run 4: Report of FillP-Sheep — Data Link
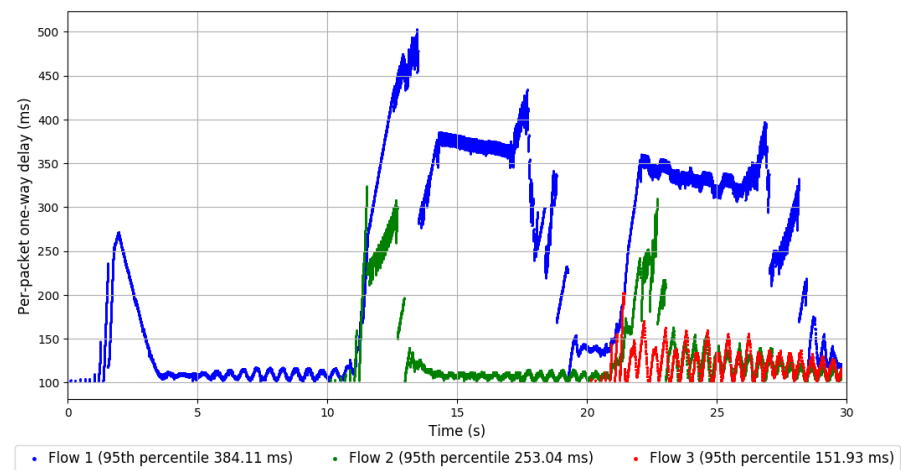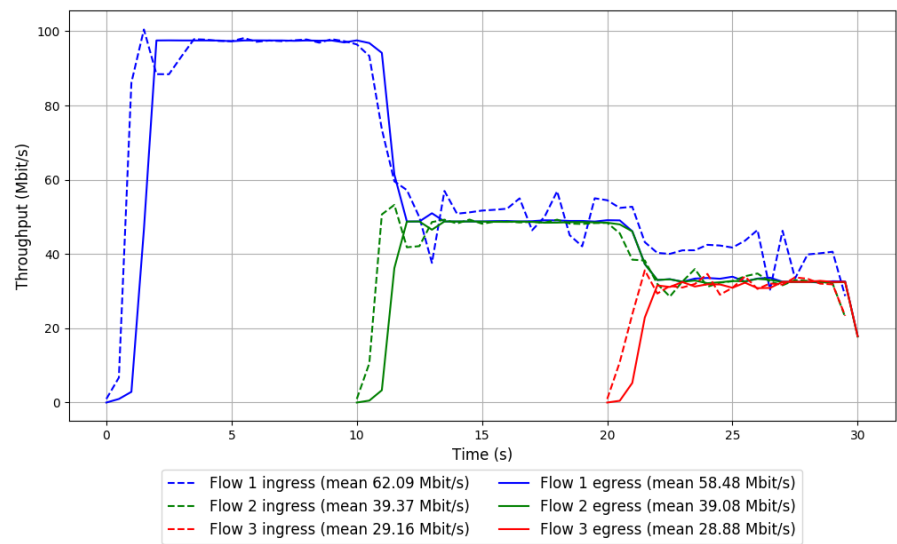
```
Run 5: Statistics of FillP-Sheep

Start at: 2019-07-18 12:56:43
End at: 2019-07-18 12:57:13
Local clock offset: -3.63 ms
Remote clock offset: -8.099 ms


# Below is generated by plot.py at 2019-07-18 13:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.60 Mbit/s
95th percentile per-packet one-way delay: 307.037 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 323.053 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 38.52 Mbit/s
95th percentile per-packet one-way delay: 233.322 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 30.60 Mbit/s
95th percentile per-packet one-way delay: 389.238 ms
Loss rate: 3.54%
```

Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.31 Mbit/s) --- Flow 1 egress (mean 56.99 Mbit/s)
Flow 2 ingress (mean 38.81 Mbit/s) --- Flow 2 egress (mean 38.52 Mbit/s)
Flow 3 ingress (mean 31.16 Mbit/s) --- Flow 3 egress (mean 30.60 Mbit/s)

Flow 1 (95th percentile 323.05 ms)   Flow 2 (95th percentile 233.32 ms)   Flow 3 (95th percentile 389.24 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-07-18 10:53:38
End at: 2019-07-18 10:54:08
Local clock offset: -3.905 ms
Remote clock offset: -7.778 ms


# Below is generated by plot.py at 2019-07-18 13:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 356.128 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 58.66 Mbit/s
95th percentile per-packet one-way delay: 364.397 ms
Loss rate: 4.81%
-- Flow 2:
Average throughput: 38.79 Mbit/s
95th percentile per-packet one-way delay: 152.119 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 28.68 Mbit/s
95th percentile per-packet one-way delay: 147.845 ms
Loss rate: 2.63%
```
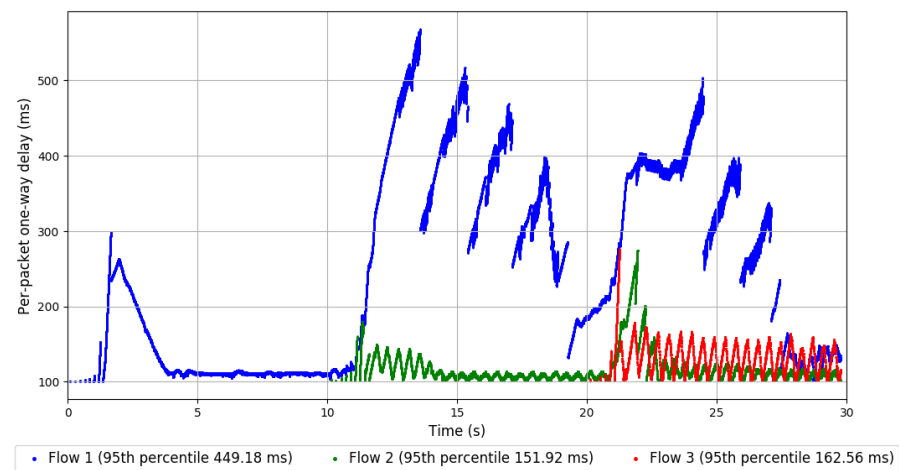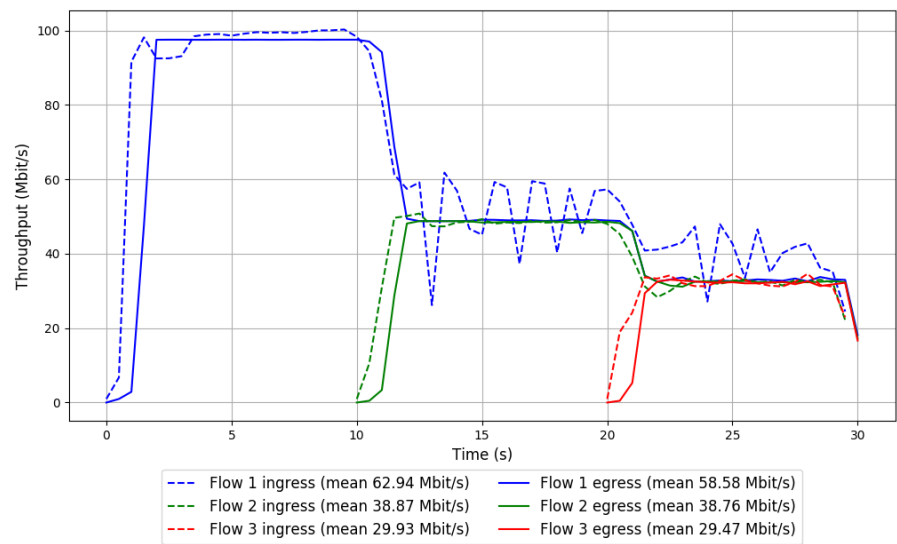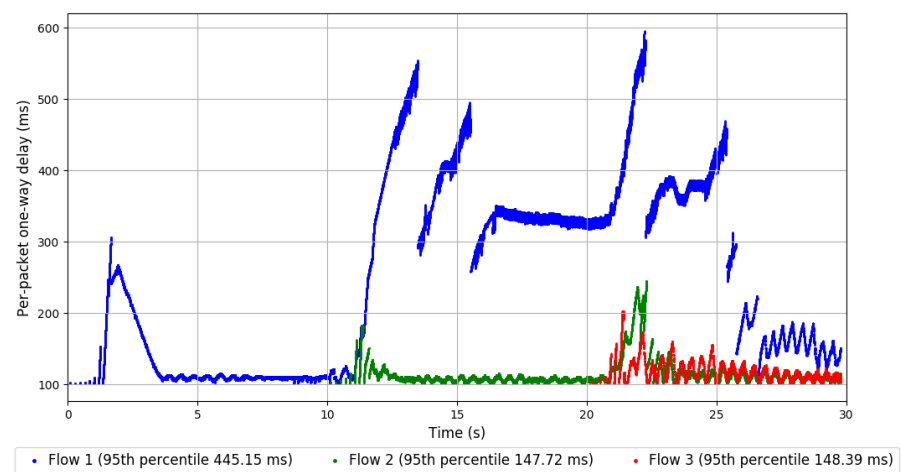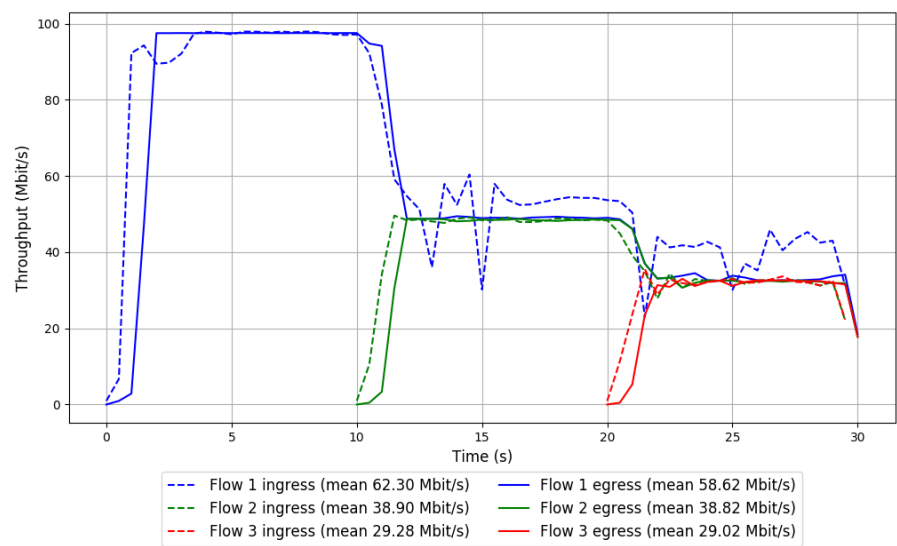
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-07-18 11:24:47
End at: 2019-07-18 11:25:17
Local clock offset: -3.939 ms
Remote clock offset: -7.526 ms


# Below is generated by plot.py at 2019-07-18 13:19:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.75 Mbit/s
95th percentile per-packet one-way delay: 374.981 ms
Loss rate: 4.74%
-- Flow 1:
Average throughput: 58.48 Mbit/s
95th percentile per-packet one-way delay: 384.109 ms
Loss rate: 6.36%
-- Flow 2:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 253.039 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 28.88 Mbit/s
95th percentile per-packet one-way delay: 151.927 ms
Loss rate: 2.69%
```
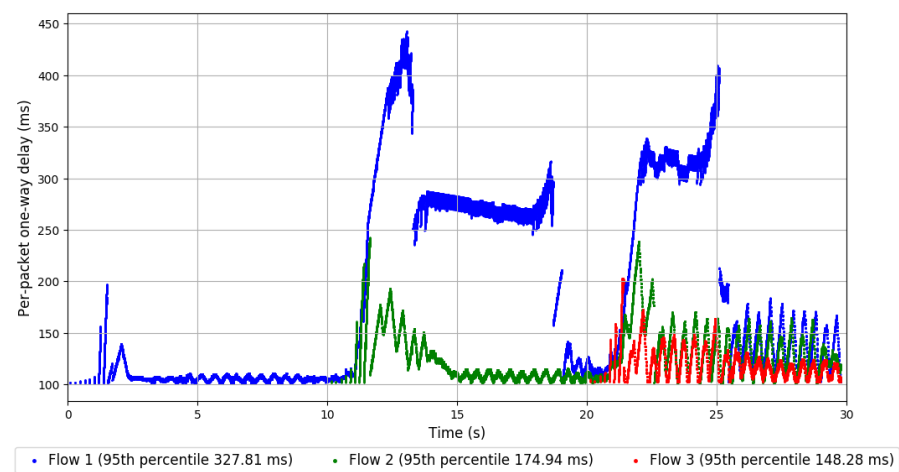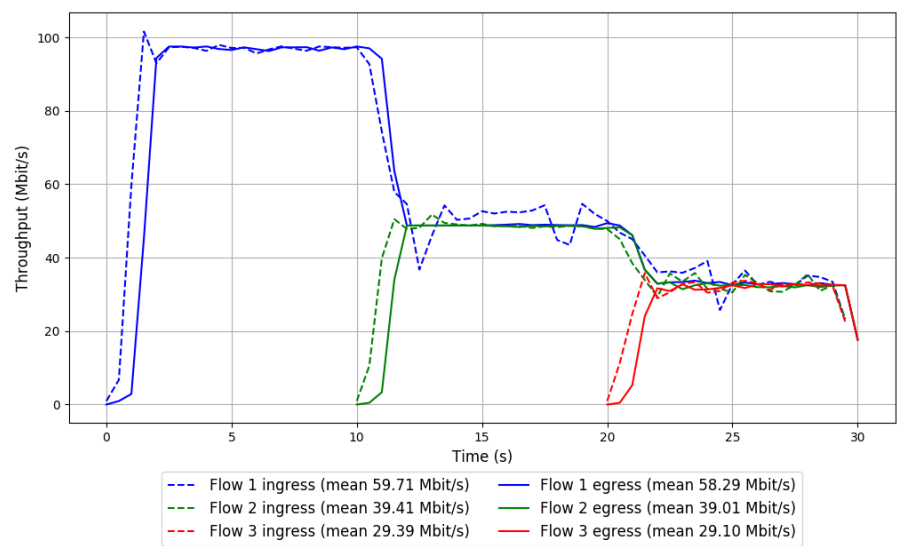
Run 2: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 62.09 Mbit/s) —— Flow 1 egress (mean 58.48 Mbit/s)
- - - Flow 2 ingress (mean 39.37 Mbit/s) —— Flow 2 egress (mean 39.08 Mbit/s)
- - - Flow 3 ingress (mean 29.16 Mbit/s) —— Flow 3 egress (mean 28.88 Mbit/s)

• Flow 1 (95th percentile 384.11 ms)   • Flow 2 (95th percentile 253.04 ms)   • Flow 3 (95th percentile 151.93 ms)

```
Run 3: Statistics of Indigo

Start at: 2019-07-18 11:55:53
End at: 2019-07-18 11:56:23
Local clock offset: -3.188 ms
Remote clock offset: -0.714 ms


# Below is generated by plot.py at 2019-07-18 13:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 418.239 ms
Loss rate: 5.40%
-- Flow 1:
Average throughput: 58.58 Mbit/s
95th percentile per-packet one-way delay: 449.175 ms
Loss rate: 7.46%
-- Flow 2:
Average throughput: 38.76 Mbit/s
95th percentile per-packet one-way delay: 151.922 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 29.47 Mbit/s
95th percentile per-packet one-way delay: 162.556 ms
Loss rate: 3.30%
```
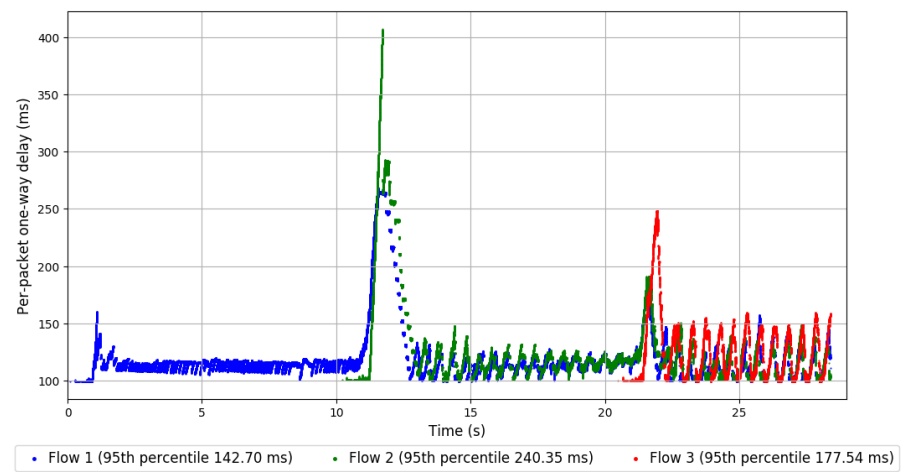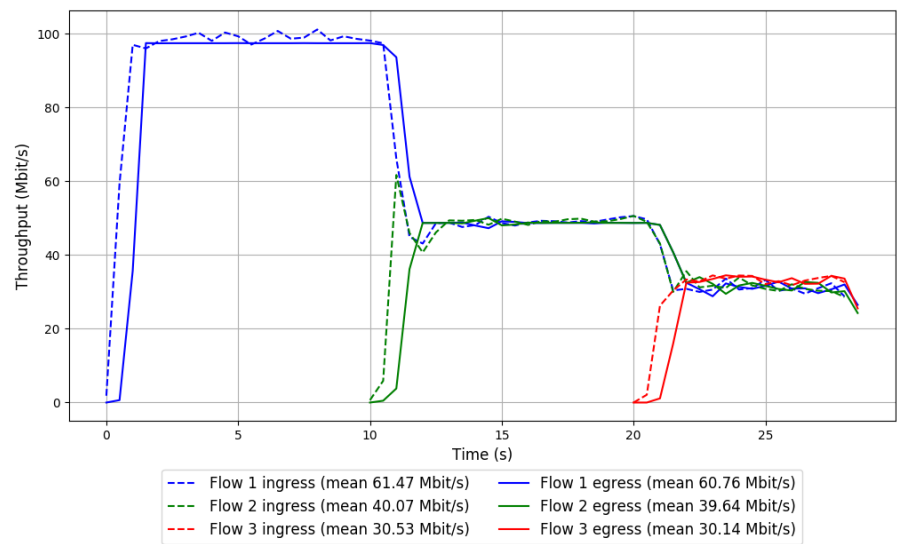
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-07-18 12:26:58
End at: 2019-07-18 12:27:28
Local clock offset: -4.027 ms
Remote clock offset: -7.308 ms

# Below is generated by plot.py at 2019-07-18 13:20:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.75 Mbit/s
95th percentile per-packet one-way delay: 409.466 ms
Loss rate: 4.65%
-- Flow 1:
Average throughput: 58.62 Mbit/s
95th percentile per-packet one-way delay: 445.146 ms
Loss rate: 6.44%
-- Flow 2:
Average throughput: 38.82 Mbit/s
95th percentile per-packet one-way delay: 147.724 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 29.02 Mbit/s
95th percentile per-packet one-way delay: 148.390 ms
Loss rate: 2.60%
```

Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 62.30 Mbit/s) — — — Flow 1 egress (mean 58.62 Mbit/s)
Flow 2 ingress (mean 38.90 Mbit/s) — — — Flow 2 egress (mean 38.82 Mbit/s)
Flow 3 ingress (mean 29.28 Mbit/s) — — — Flow 3 egress (mean 29.02 Mbit/s)

Flow 1 (95th percentile 445.15 ms) Flow 2 (95th percentile 147.72 ms) Flow 3 (95th percentile 148.39 ms)

```
Run 5: Statistics of Indigo

Start at: 2019-07-18 12:58:01
End at: 2019-07-18 12:58:31
Local clock offset: -3.702 ms
Remote clock offset: -9.973 ms


# Below is generated by plot.py at 2019-07-18 13:20:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 314.404 ms
Loss rate: 2.62%
-- Flow 1:
Average throughput: 58.29 Mbit/s
95th percentile per-packet one-way delay: 327.812 ms
Loss rate: 2.93%
-- Flow 2:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 174.945 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 29.10 Mbit/s
95th percentile per-packet one-way delay: 148.285 ms
Loss rate: 2.71%
```
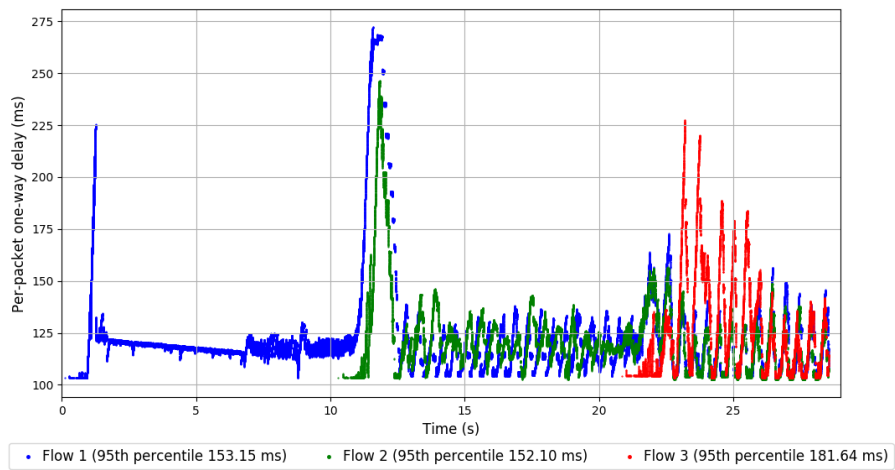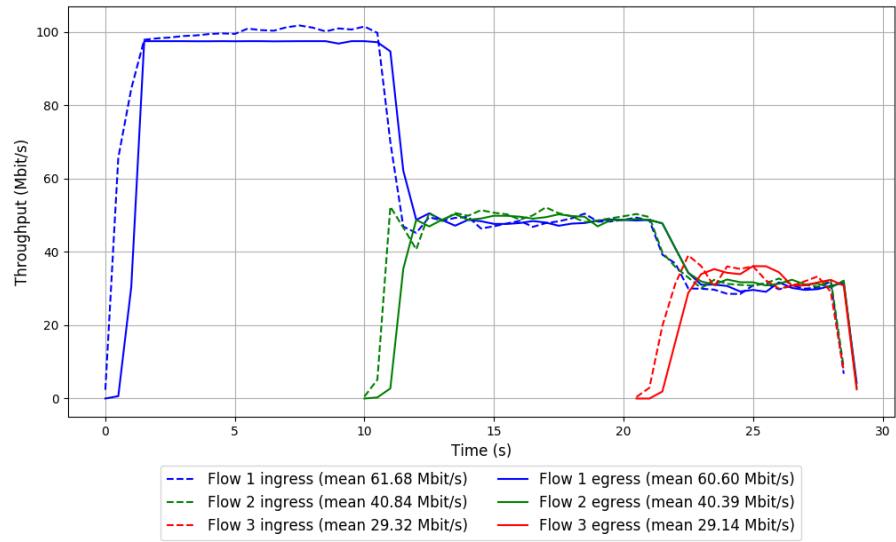
Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 59.71 Mbit/s) --- Flow 1 egress (mean 58.29 Mbit/s)
Flow 2 ingress (mean 39.41 Mbit/s) --- Flow 2 egress (mean 39.01 Mbit/s)
Flow 3 ingress (mean 29.39 Mbit/s) --- Flow 3 egress (mean 29.10 Mbit/s)

Flow 1 (95th percentile 327.81 ms)   Flow 2 (95th percentile 174.94 ms)   Flow 3 (95th percentile 148.28 ms)

64

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-18 10:56:12
End at: 2019-07-18 10:56:42
Local clock offset: -3.914 ms
Remote clock offset: -7.722 ms


# Below is generated by plot.py at 2019-07-18 13:20:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.65 Mbit/s
95th percentile per-packet one-way delay: 171.520 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 60.76 Mbit/s
95th percentile per-packet one-way delay: 142.701 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 39.64 Mbit/s
95th percentile per-packet one-way delay: 240.355 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 177.540 ms
Loss rate: 3.32%
```
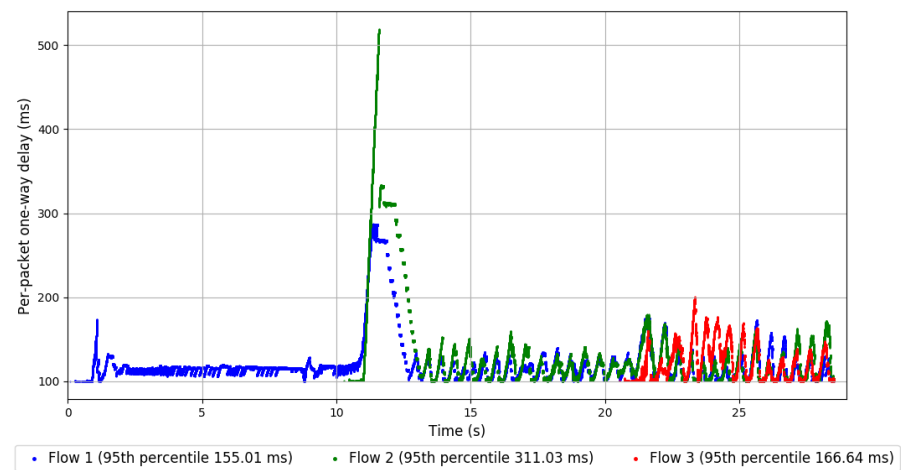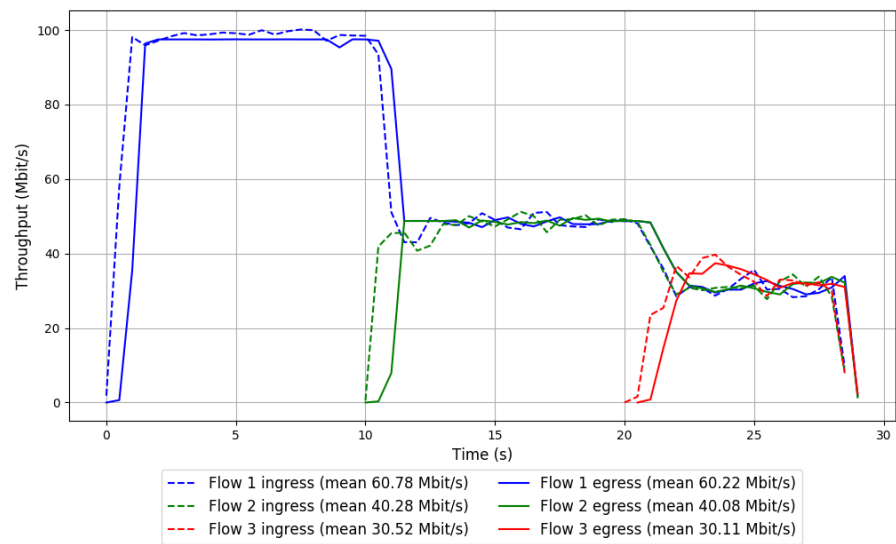
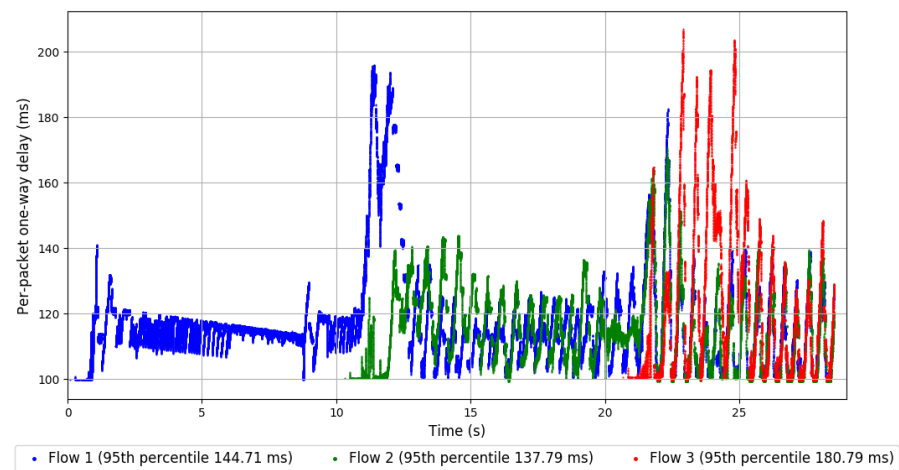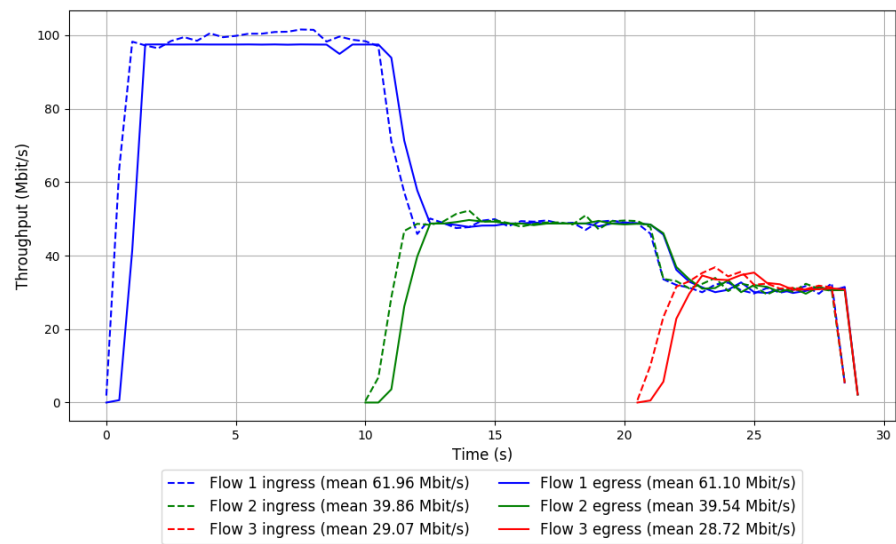Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-18 11:27:21
End at: 2019-07-18 11:27:51
Local clock offset: -3.757 ms
Remote clock offset: -8.765 ms


# Below is generated by plot.py at 2019-07-18 13:20:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.41 Mbit/s
95th percentile per-packet one-way delay: 162.060 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 60.60 Mbit/s
95th percentile per-packet one-way delay: 153.147 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 40.39 Mbit/s
95th percentile per-packet one-way delay: 152.105 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 29.14 Mbit/s
95th percentile per-packet one-way delay: 181.644 ms
Loss rate: 2.84%
```

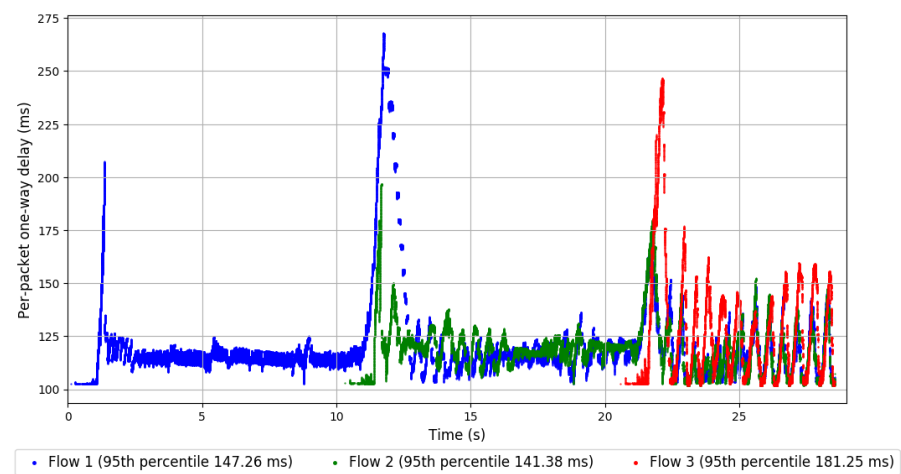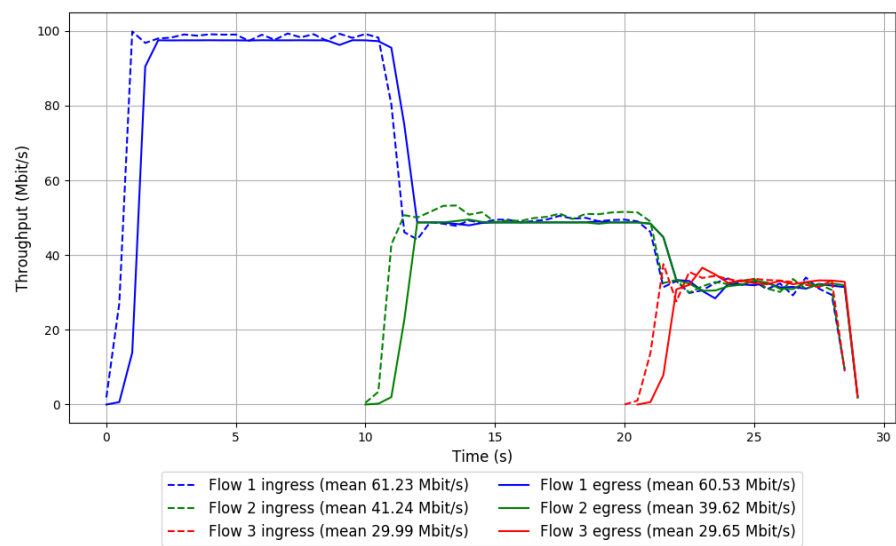Run 2: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 61.68 Mbit/s) --- Flow 1 egress (mean 60.60 Mbit/s)
Flow 2 ingress (mean 40.84 Mbit/s) --- Flow 2 egress (mean 40.39 Mbit/s)
Flow 3 ingress (mean 29.32 Mbit/s) --- Flow 3 egress (mean 29.14 Mbit/s)

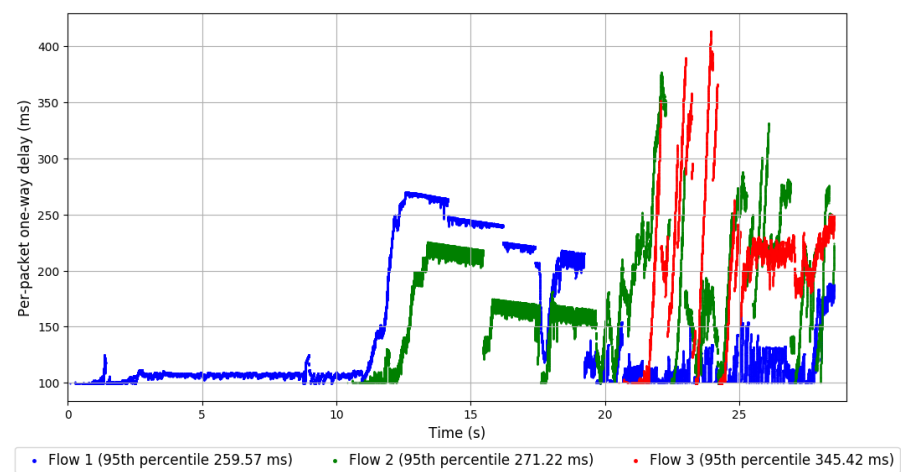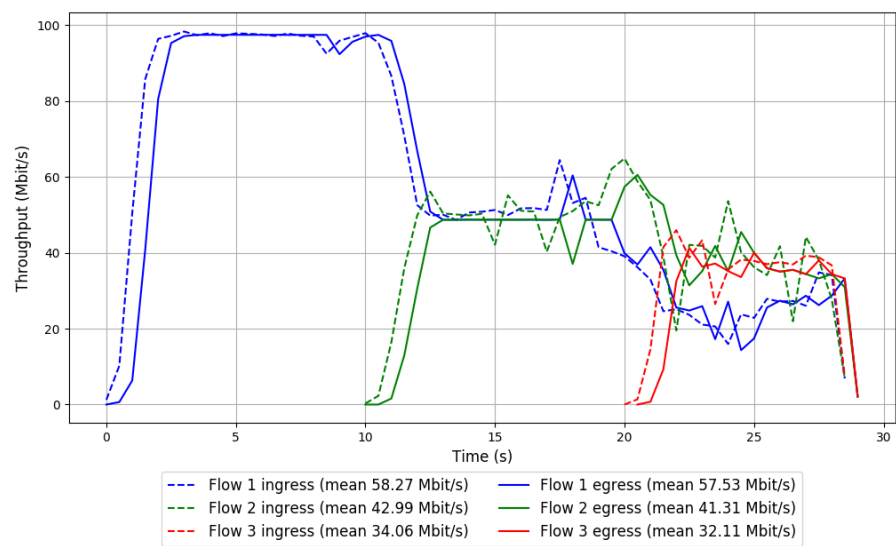Flow 1 (95th percentile 153.15 ms) Flow 2 (95th percentile 152.10 ms) Flow 3 (95th percentile 181.64 ms)

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-18 11:58:27
End at: 2019-07-18 11:58:57
Local clock offset: -3.424 ms
Remote clock offset: 0.431 ms


# Below is generated by plot.py at 2019-07-18 13:20:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.38 Mbit/s
95th percentile per-packet one-way delay: 184.860 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 60.22 Mbit/s
95th percentile per-packet one-way delay: 155.006 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 40.08 Mbit/s
95th percentile per-packet one-way delay: 311.033 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 30.11 Mbit/s
95th percentile per-packet one-way delay: 166.638 ms
Loss rate: 3.48%
```

Run 3: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 60.78 Mbit/s) —— Flow 1 egress (mean 60.22 Mbit/s)
- - - Flow 2 ingress (mean 40.28 Mbit/s) —— Flow 2 egress (mean 40.08 Mbit/s)
- - - Flow 3 ingress (mean 30.52 Mbit/s) —— Flow 3 egress (mean 30.11 Mbit/s)

• Flow 1 (95th percentile 155.01 ms)   • Flow 2 (95th percentile 311.03 ms)   • Flow 3 (95th percentile 166.64 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-18 12:29:33
End at: 2019-07-18 12:30:03
Local clock offset: -3.955 ms
Remote clock offset: -6.003 ms

# Below is generated by plot.py at 2019-07-18 13:20:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 147.929 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 61.10 Mbit/s
95th percentile per-packet one-way delay: 144.713 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 39.54 Mbit/s
95th percentile per-packet one-way delay: 137.786 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 28.72 Mbit/s
95th percentile per-packet one-way delay: 180.786 ms
Loss rate: 3.28%
```
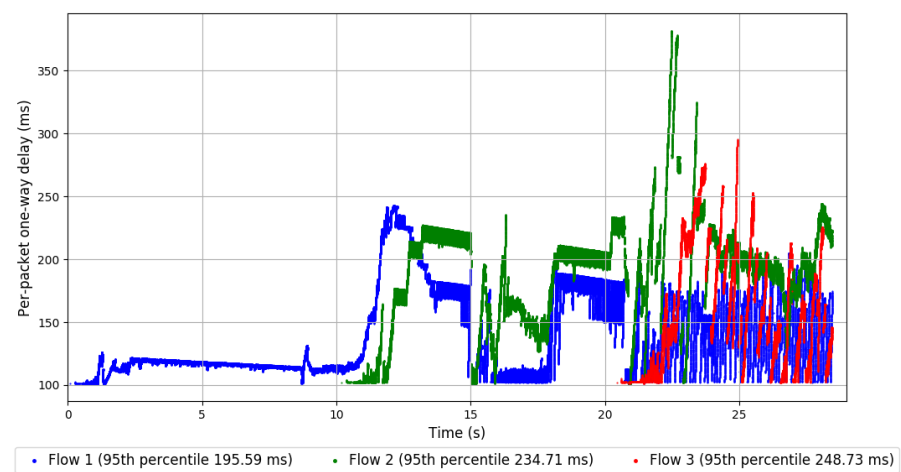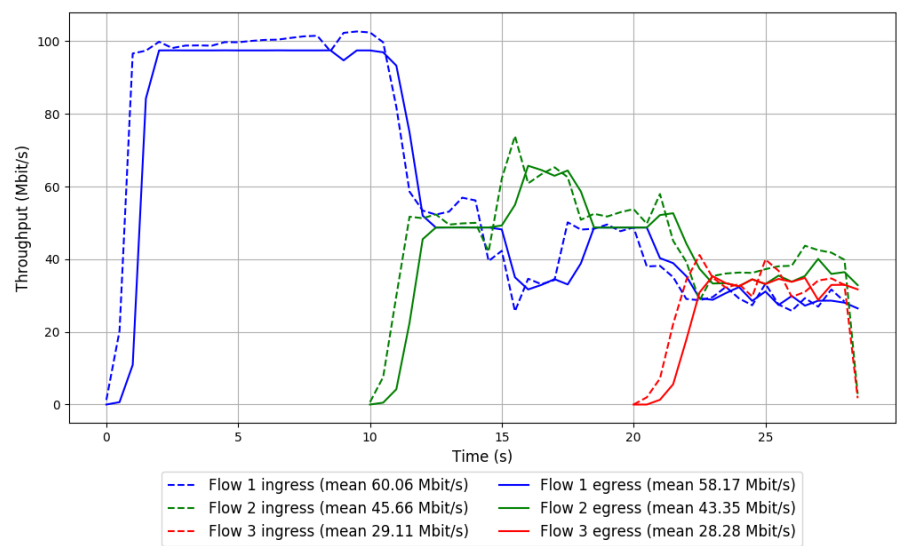
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-18 13:00:36
End at: 2019-07-18 13:01:06
Local clock offset: -3.321 ms
Remote clock offset: -10.469 ms


# Below is generated by plot.py at 2019-07-18 13:20:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.23 Mbit/s
95th percentile per-packet one-way delay: 151.824 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 60.53 Mbit/s
95th percentile per-packet one-way delay: 147.265 ms
Loss rate: 1.75%
-- Flow 2:
Average throughput: 39.62 Mbit/s
95th percentile per-packet one-way delay: 141.378 ms
Loss rate: 4.82%
-- Flow 3:
Average throughput: 29.65 Mbit/s
95th percentile per-packet one-way delay: 181.248 ms
Loss rate: 3.27%
```

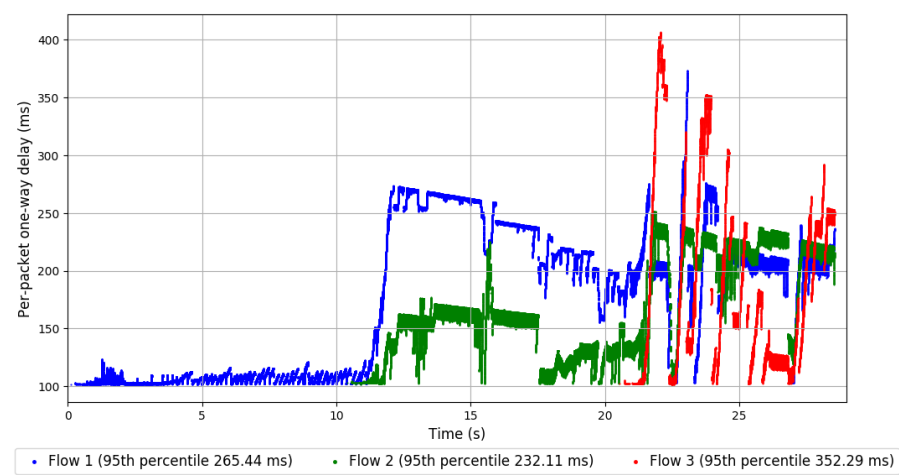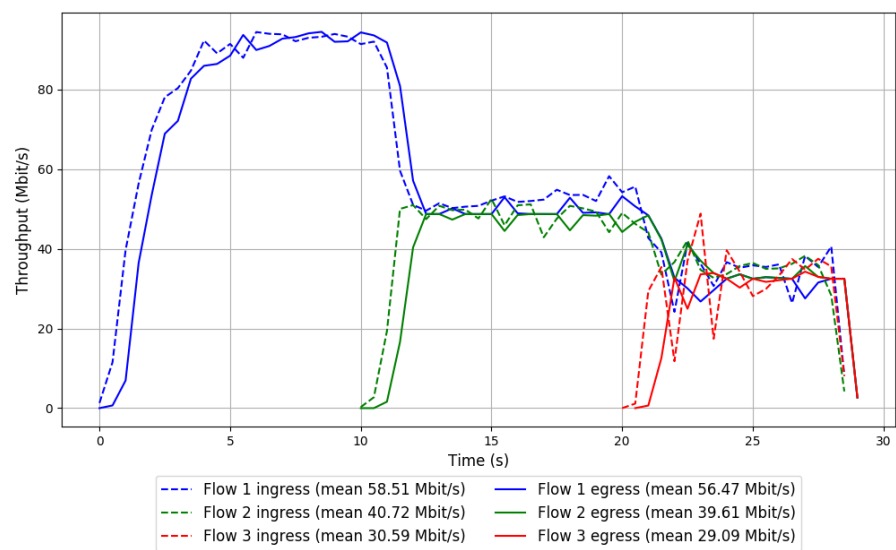Run 5: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 61.23 Mbit/s) —— Flow 1 egress (mean 60.53 Mbit/s)
- - - Flow 2 ingress (mean 41.24 Mbit/s) —— Flow 2 egress (mean 39.62 Mbit/s)
- - - Flow 3 ingress (mean 29.99 Mbit/s) —— Flow 3 egress (mean 29.65 Mbit/s)

• Flow 1 (95th percentile 147.26 ms) • Flow 2 (95th percentile 141.38 ms) • Flow 3 (95th percentile 181.25 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-18 10:44:29
End at: 2019-07-18 10:44:59
Local clock offset: -3.96 ms
Remote clock offset: -7.594 ms


# Below is generated by plot.py at 2019-07-18 13:21:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.93 Mbit/s
95th percentile per-packet one-way delay: 266.305 ms
Loss rate: 3.28%
-- Flow 1:
Average throughput: 57.53 Mbit/s
95th percentile per-packet one-way delay: 259.573 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 41.31 Mbit/s
95th percentile per-packet one-way delay: 271.219 ms
Loss rate: 4.77%
-- Flow 3:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 345.423 ms
Loss rate: 7.63%
```

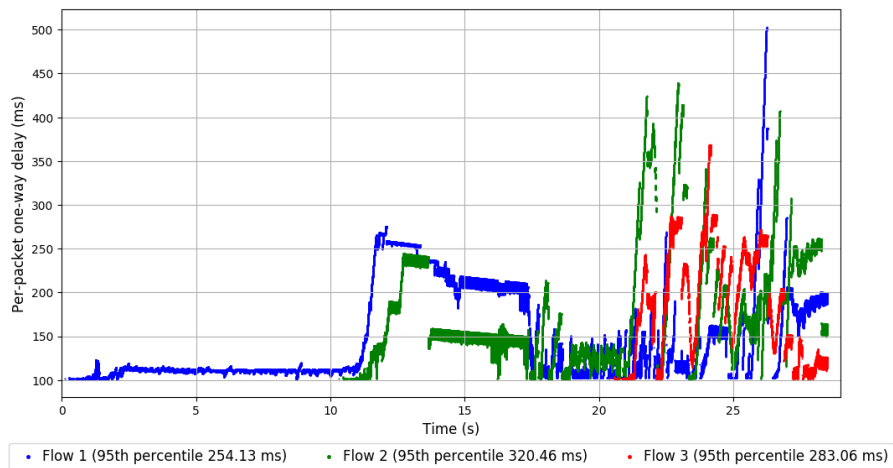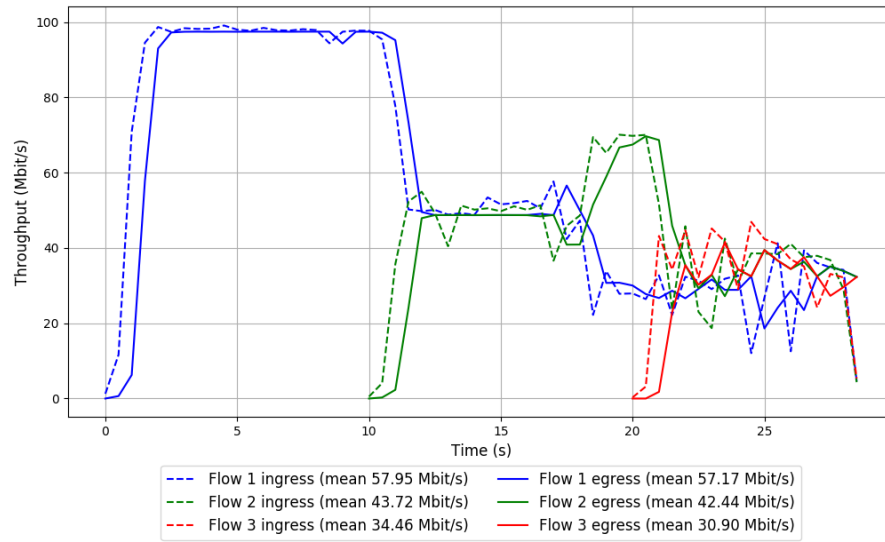Run 1: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 58.27 Mbit/s) —— Flow 1 egress (mean 57.53 Mbit/s)
- - - Flow 2 ingress (mean 42.99 Mbit/s) —— Flow 2 egress (mean 41.31 Mbit/s)
- - - Flow 3 ingress (mean 34.06 Mbit/s) —— Flow 3 egress (mean 32.11 Mbit/s)

• Flow 1 (95th percentile 259.57 ms)   • Flow 2 (95th percentile 271.22 ms)   • Flow 3 (95th percentile 345.42 ms)
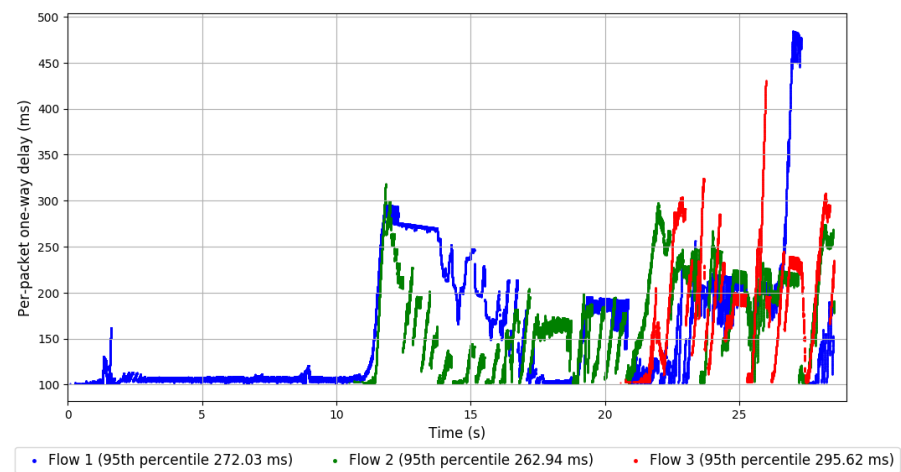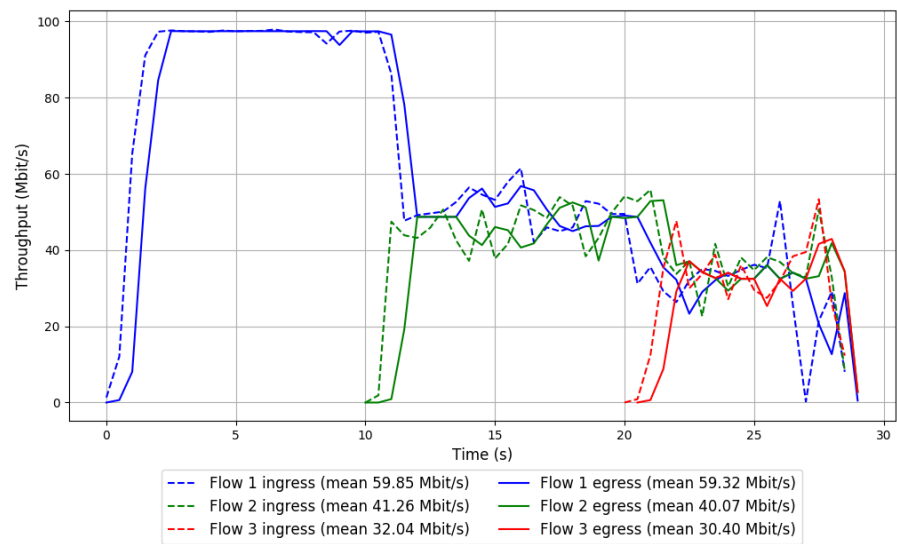
```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-18 11:15:41
End at: 2019-07-18 11:16:11
Local clock offset: -3.953 ms
Remote clock offset: -7.881 ms


# Below is generated by plot.py at 2019-07-18 13:21:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.09 Mbit/s
95th percentile per-packet one-way delay: 225.626 ms
Loss rate: 4.41%
-- Flow 1:
Average throughput: 58.17 Mbit/s
95th percentile per-packet one-way delay: 195.587 ms
Loss rate: 3.60%
-- Flow 2:
Average throughput: 43.35 Mbit/s
95th percentile per-packet one-way delay: 234.705 ms
Loss rate: 5.94%
-- Flow 3:
Average throughput: 28.28 Mbit/s
95th percentile per-packet one-way delay: 248.728 ms
Loss rate: 4.92%
```
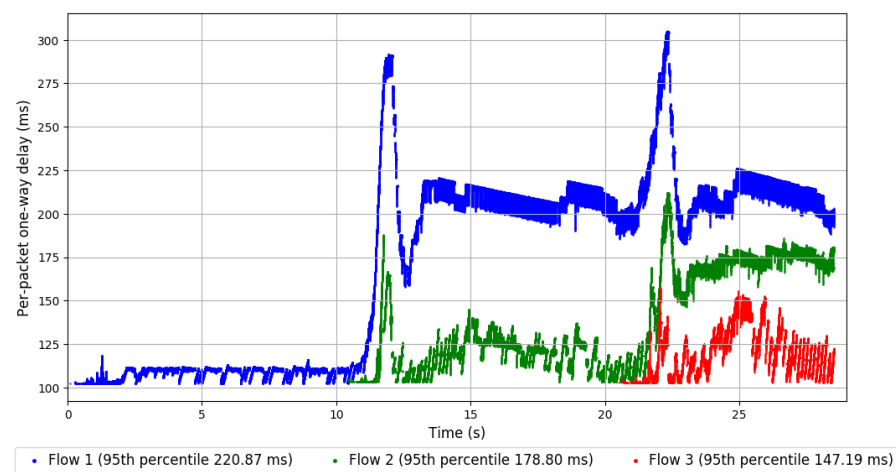
Run 2: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 60.06 Mbit/s) ——— Flow 1 egress (mean 58.17 Mbit/s)
- - - - Flow 2 ingress (mean 45.66 Mbit/s) ——— Flow 2 egress (mean 43.35 Mbit/s)
- - - - Flow 3 ingress (mean 29.11 Mbit/s) ——— Flow 3 egress (mean 28.28 Mbit/s)

• Flow 1 (95th percentile 195.59 ms) • Flow 2 (95th percentile 234.71 ms) • Flow 3 (95th percentile 248.73 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-18 11:46:47
End at: 2019-07-18 11:47:17
Local clock offset: -3.104 ms
Remote clock offset: -3.772 ms


# Below is generated by plot.py at 2019-07-18 13:21:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.91 Mbit/s
95th percentile per-packet one-way delay: 264.858 ms
Loss rate: 4.23%
-- Flow 1:
Average throughput: 56.47 Mbit/s
95th percentile per-packet one-way delay: 265.435 ms
Loss rate: 4.08%
-- Flow 2:
Average throughput: 39.61 Mbit/s
95th percentile per-packet one-way delay: 232.107 ms
Loss rate: 3.67%
-- Flow 3:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 352.294 ms
Loss rate: 6.92%
```

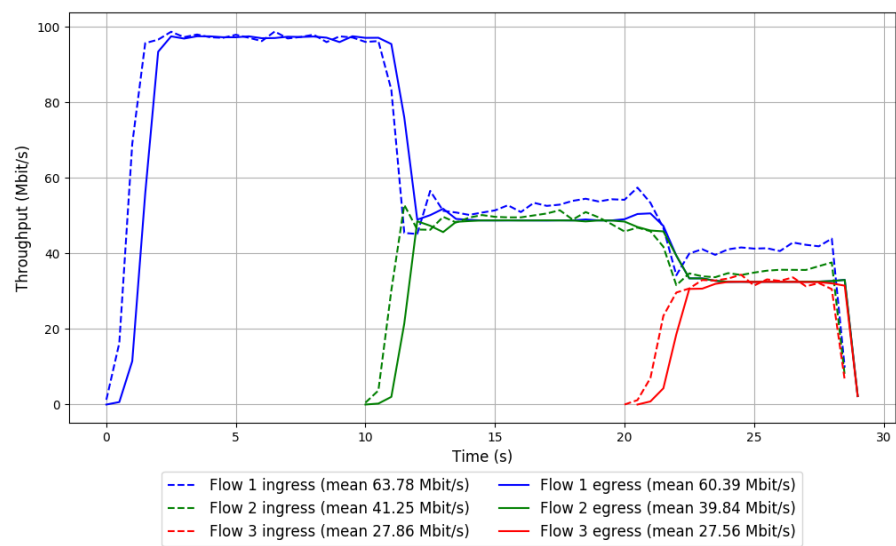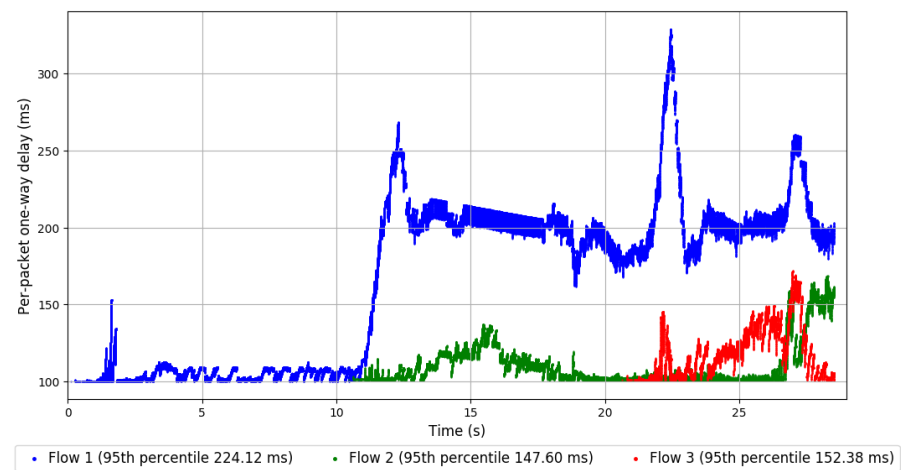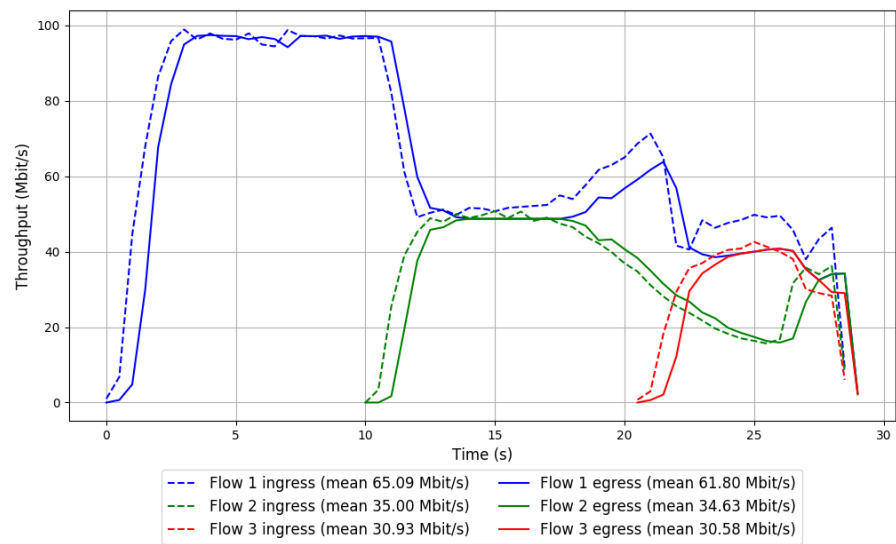Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 58.51 Mbit/s) — Flow 1 egress (mean 56.47 Mbit/s)
Flow 2 ingress (mean 40.72 Mbit/s) — Flow 2 egress (mean 39.61 Mbit/s)
Flow 3 ingress (mean 30.59 Mbit/s) — Flow 3 egress (mean 29.09 Mbit/s)

Flow 1 (95th percentile 265.44 ms) — Flow 2 (95th percentile 232.11 ms) — Flow 3 (95th percentile 352.29 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-18 12:17:52
End at: 2019-07-18 12:18:22
Local clock offset: -4.05 ms
Remote clock offset: -3.361 ms


# Below is generated by plot.py at 2019-07-18 13:21:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.19 Mbit/s
95th percentile per-packet one-way delay: 260.158 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 254.128 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 42.44 Mbit/s
95th percentile per-packet one-way delay: 320.456 ms
Loss rate: 3.80%
-- Flow 3:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 283.056 ms
Loss rate: 12.21%
```

Run 4: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 57.95 Mbit/s)   —— Flow 1 egress (mean 57.17 Mbit/s)
- - - - Flow 2 ingress (mean 43.72 Mbit/s)   —— Flow 2 egress (mean 42.44 Mbit/s)
- - - - Flow 3 ingress (mean 34.46 Mbit/s)   —— Flow 3 egress (mean 30.90 Mbit/s)

- Flow 1 (95th percentile 254.13 ms)   • Flow 2 (95th percentile 320.46 ms)   • Flow 3 (95th percentile 283.06 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-18 12:48:54
End at: 2019-07-18 12:49:24
Local clock offset: -3.835 ms
Remote clock offset: -10.409 ms


# Below is generated by plot.py at 2019-07-18 13:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 272.656 ms
Loss rate: 2.71%
-- Flow 1:
Average throughput: 59.32 Mbit/s
95th percentile per-packet one-way delay: 272.026 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 40.07 Mbit/s
95th percentile per-packet one-way delay: 262.942 ms
Loss rate: 3.81%
-- Flow 3:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 295.620 ms
Loss rate: 7.19%
```
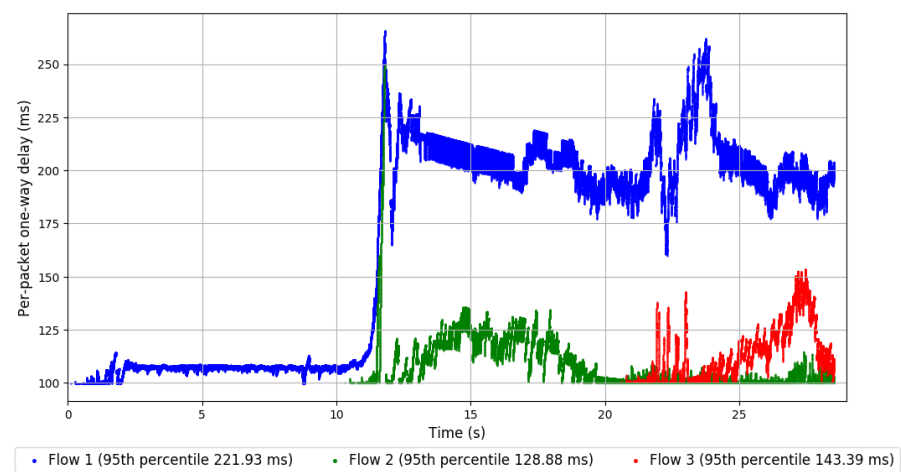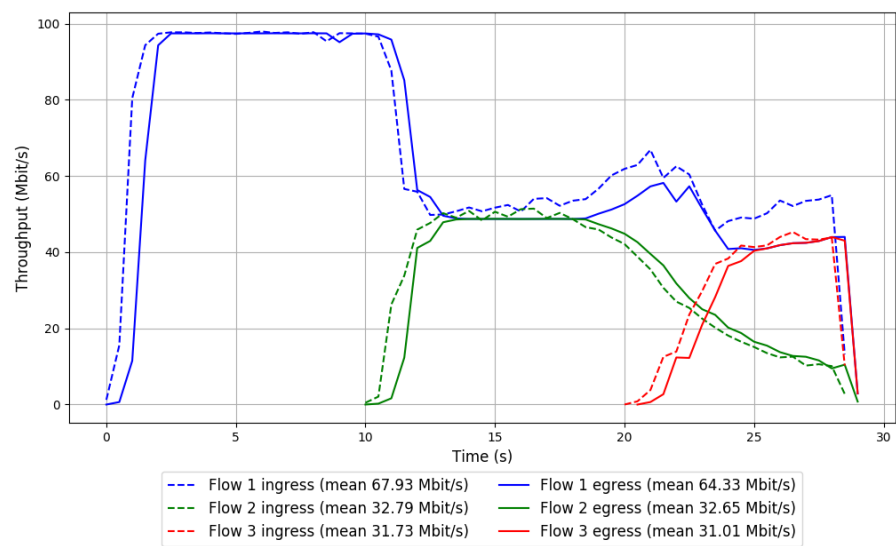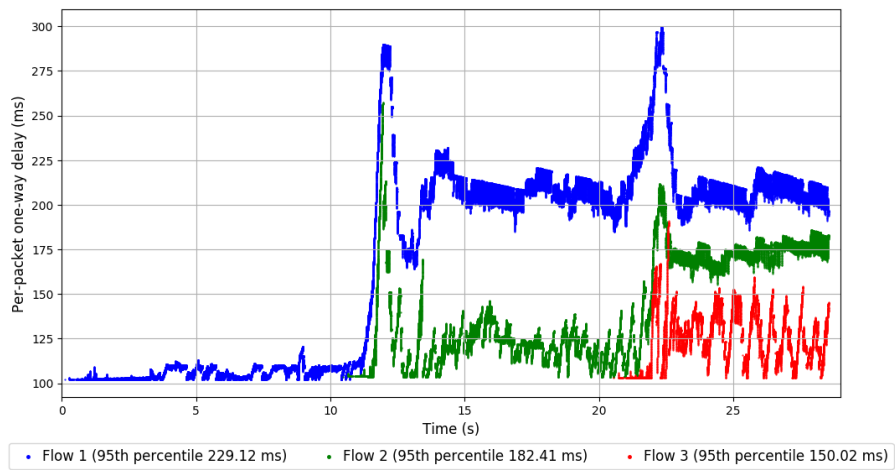
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 59.85 Mbit/s) — — — Flow 1 egress (mean 59.32 Mbit/s)
Flow 2 ingress (mean 41.26 Mbit/s) — — — Flow 2 egress (mean 40.07 Mbit/s)
Flow 3 ingress (mean 32.04 Mbit/s) — — — Flow 3 egress (mean 30.40 Mbit/s)

Flow 1 (95th percentile 272.03 ms) • Flow 2 (95th percentile 262.94 ms) • Flow 3 (95th percentile 295.62 ms)
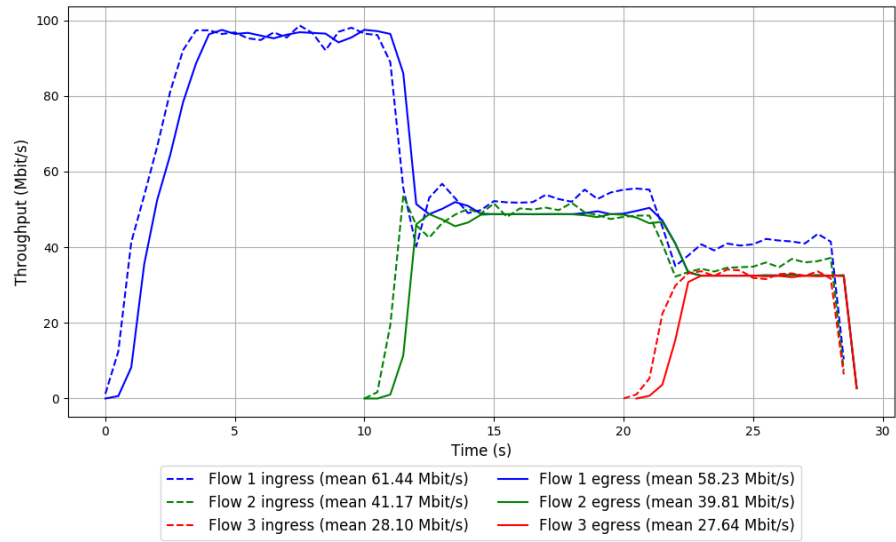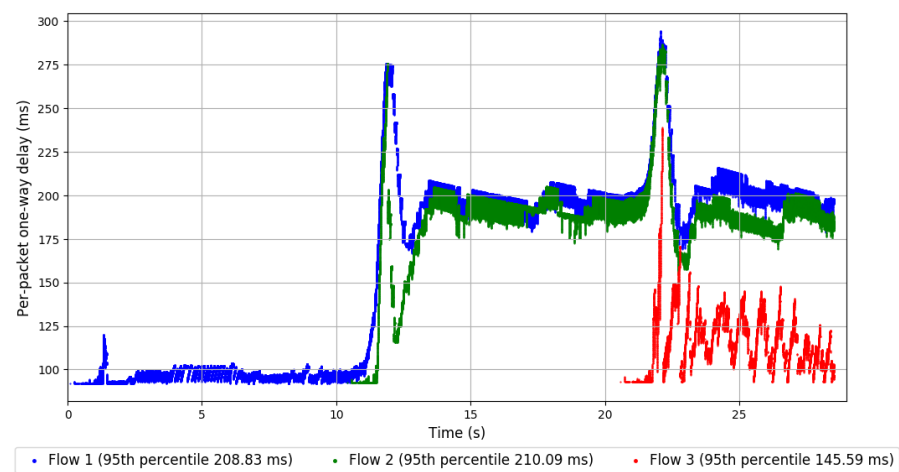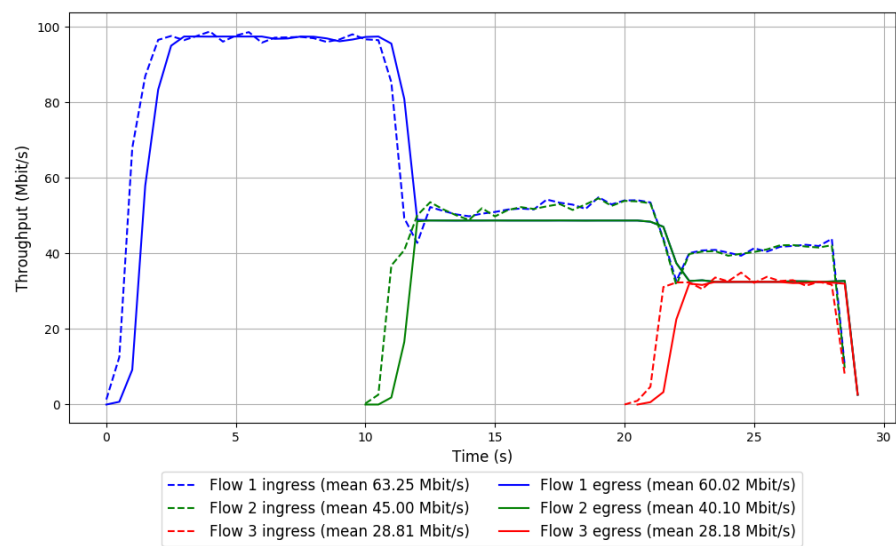
```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-18 10:57:30
End at: 2019-07-18 10:58:00
Local clock offset: -4.154 ms
Remote clock offset: -10.424 ms


# Below is generated by plot.py at 2019-07-18 13:21:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.70 Mbit/s
95th percentile per-packet one-way delay: 218.115 ms
Loss rate: 5.25%
-- Flow 1:
Average throughput: 60.39 Mbit/s
95th percentile per-packet one-way delay: 220.872 ms
Loss rate: 5.89%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 178.803 ms
Loss rate: 4.34%
-- Flow 3:
Average throughput: 27.56 Mbit/s
95th percentile per-packet one-way delay: 147.194 ms
Loss rate: 3.19%
```

Run 1: Report of Indigo-MusesD — Data Link

- - - - Flow 1 ingress (mean 63.78 Mbit/s) ——— Flow 1 egress (mean 60.39 Mbit/s)
- - - - Flow 2 ingress (mean 41.25 Mbit/s) ——— Flow 2 egress (mean 39.84 Mbit/s)
- - - - Flow 3 ingress (mean 27.86 Mbit/s) ——— Flow 3 egress (mean 27.56 Mbit/s)

• Flow 1 (95th percentile 220.87 ms)   • Flow 2 (95th percentile 178.80 ms)   • Flow 3 (95th percentile 147.19 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-18 11:28:39
End at: 2019-07-18 11:29:09
Local clock offset: -3.722 ms
Remote clock offset: -5.682 ms


# Below is generated by plot.py at 2019-07-18 13:21:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 214.975 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 61.80 Mbit/s
95th percentile per-packet one-way delay: 224.123 ms
Loss rate: 5.60%
-- Flow 2:
Average throughput: 34.63 Mbit/s
95th percentile per-packet one-way delay: 147.601 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 30.58 Mbit/s
95th percentile per-packet one-way delay: 152.376 ms
Loss rate: 3.28%
```

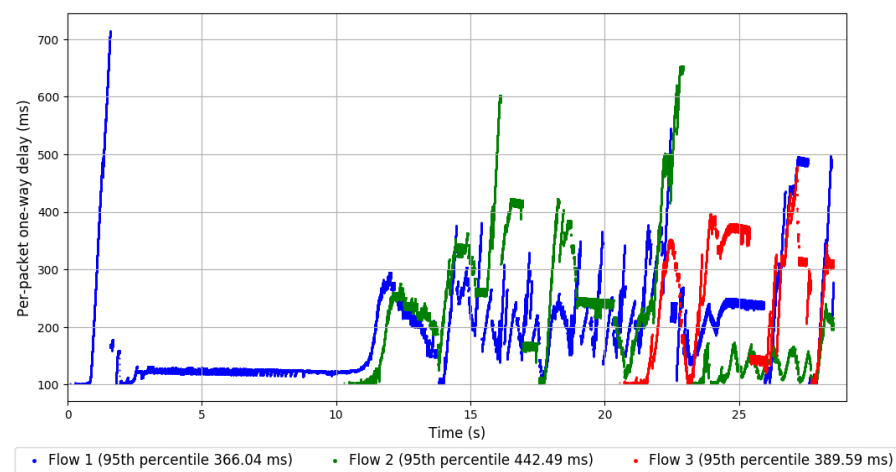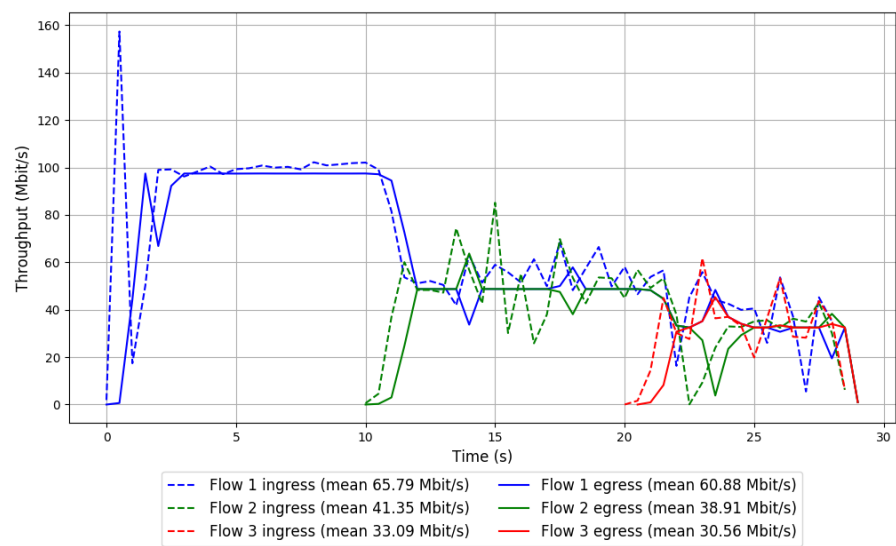Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-18 11:59:45
End at: 2019-07-18 12:00:15
Local clock offset: -3.517 ms
Remote clock offset: 0.67 ms


# Below is generated by plot.py at 2019-07-18 13:21:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 217.146 ms
Loss rate: 4.77%
-- Flow 1:
Average throughput: 64.33 Mbit/s
95th percentile per-packet one-way delay: 221.934 ms
Loss rate: 5.89%
-- Flow 2:
Average throughput: 32.65 Mbit/s
95th percentile per-packet one-way delay: 128.877 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 31.01 Mbit/s
95th percentile per-packet one-way delay: 143.391 ms
Loss rate: 4.40%
```
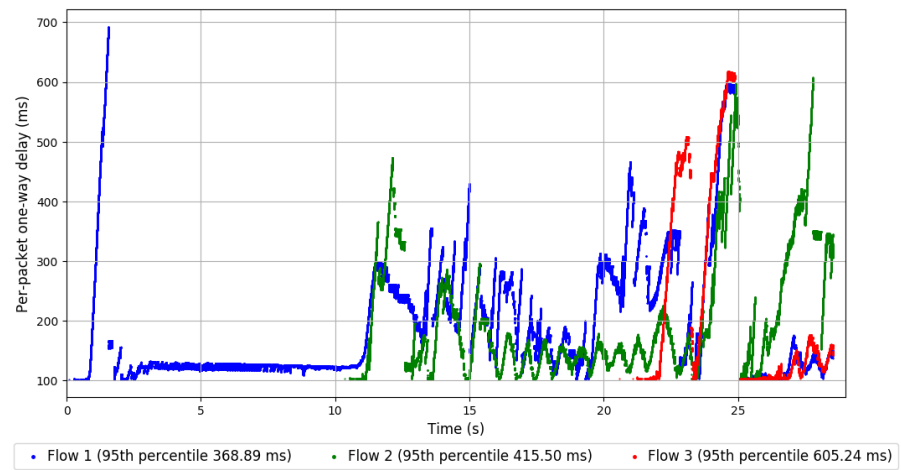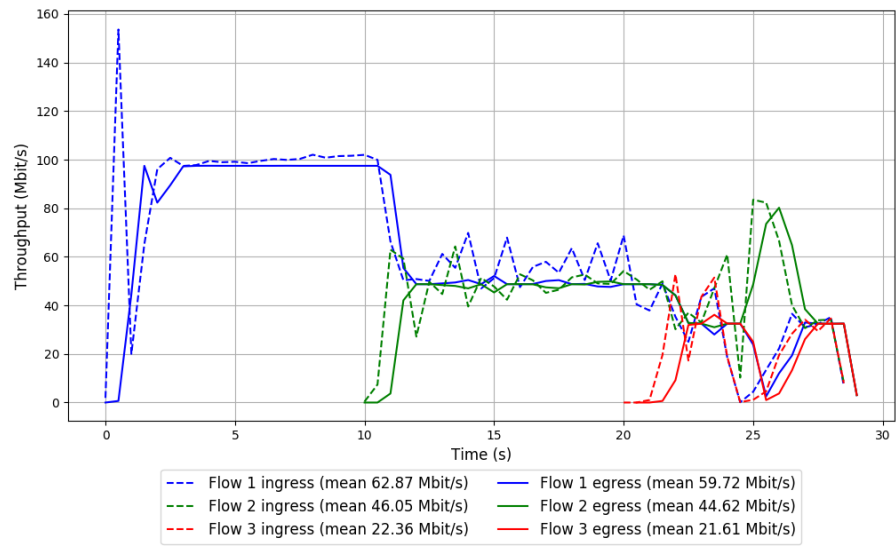
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-18 12:30:51
End at: 2019-07-18 12:31:21
Local clock offset: -3.95 ms
Remote clock offset: -9.284 ms


# Below is generated by plot.py at 2019-07-18 13:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.29 Mbit/s
95th percentile per-packet one-way delay: 219.302 ms
Loss rate: 5.20%
-- Flow 1:
Average throughput: 58.23 Mbit/s
95th percentile per-packet one-way delay: 229.120 ms
Loss rate: 5.80%
-- Flow 2:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 182.406 ms
Loss rate: 4.23%
-- Flow 3:
Average throughput: 27.64 Mbit/s
95th percentile per-packet one-way delay: 150.023 ms
Loss rate: 3.73%
```

Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-18 13:01:59
End at: 2019-07-18 13:02:29
Local clock offset: -3.466 ms
Remote clock offset: -7.842 ms


# Below is generated by plot.py at 2019-07-18 13:22:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.47 Mbit/s
95th percentile per-packet one-way delay: 207.738 ms
Loss rate: 7.27%
-- Flow 1:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 208.828 ms
Loss rate: 5.65%
-- Flow 2:
Average throughput: 40.10 Mbit/s
95th percentile per-packet one-way delay: 210.094 ms
Loss rate: 11.71%
-- Flow 3:
Average throughput: 28.18 Mbit/s
95th percentile per-packet one-way delay: 145.586 ms
Loss rate: 4.23%
```
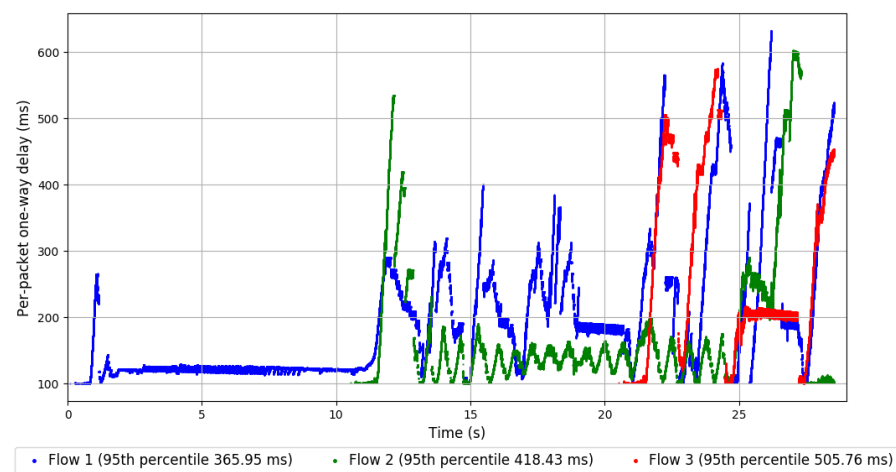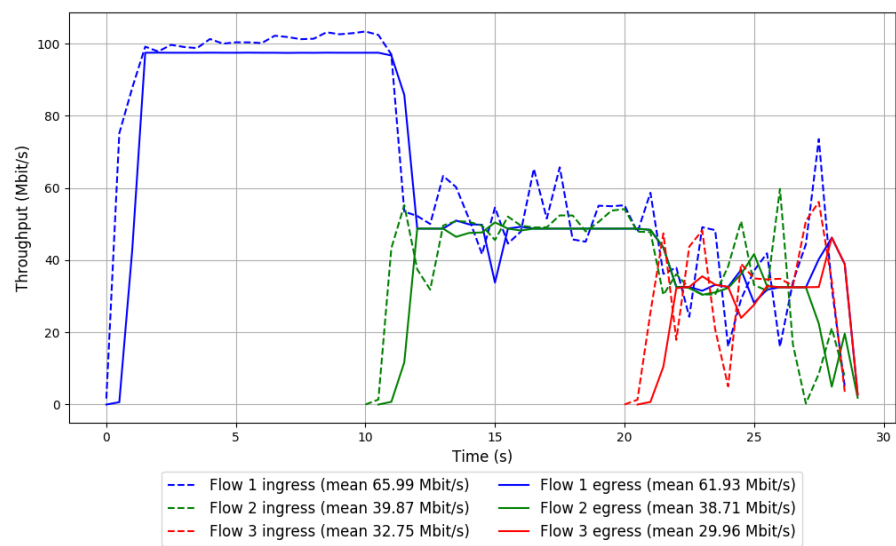
Run 5: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 63.25 Mbit/s)   —— Flow 1 egress (mean 60.02 Mbit/s)
- - - Flow 2 ingress (mean 45.00 Mbit/s)   —— Flow 2 egress (mean 40.10 Mbit/s)
- - - Flow 3 ingress (mean 28.81 Mbit/s)   —— Flow 3 egress (mean 28.18 Mbit/s)

- Flow 1 (95th percentile 208.83 ms)   • Flow 2 (95th percentile 210.09 ms)   • Flow 3 (95th percentile 145.59 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-18 11:02:45
End at: 2019-07-18 11:03:15
Local clock offset: -3.992 ms
Remote clock offset: -10.524 ms


# Below is generated by plot.py at 2019-07-18 13:22:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 413.665 ms
Loss rate: 7.50%
-- Flow 1:
Average throughput: 60.88 Mbit/s
95th percentile per-packet one-way delay: 366.041 ms
Loss rate: 7.49%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 442.485 ms
Loss rate: 6.79%
-- Flow 3:
Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 389.591 ms
Loss rate: 9.63%
```
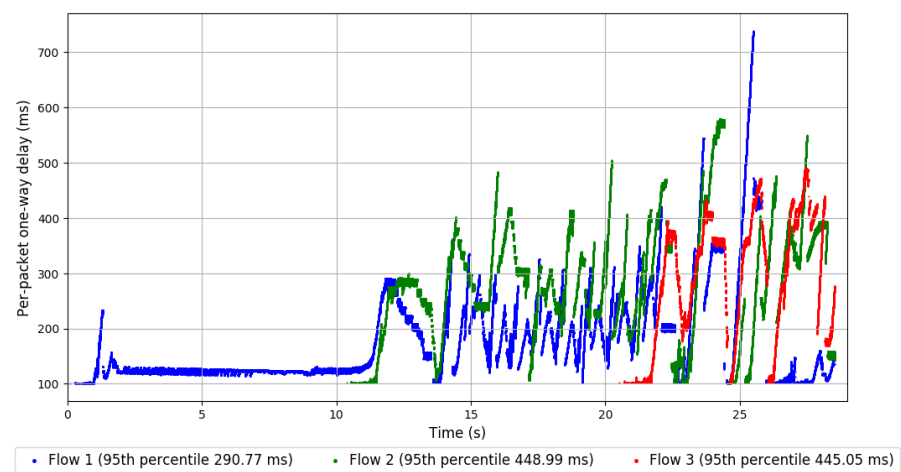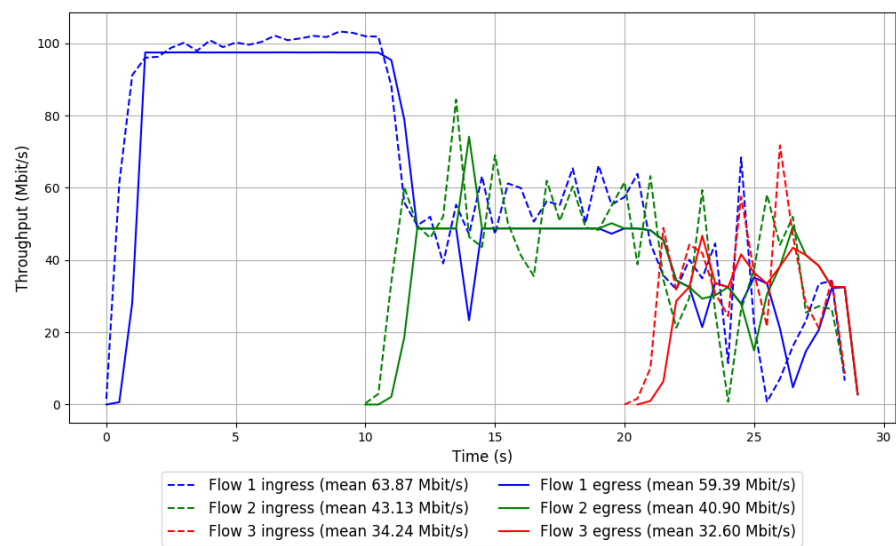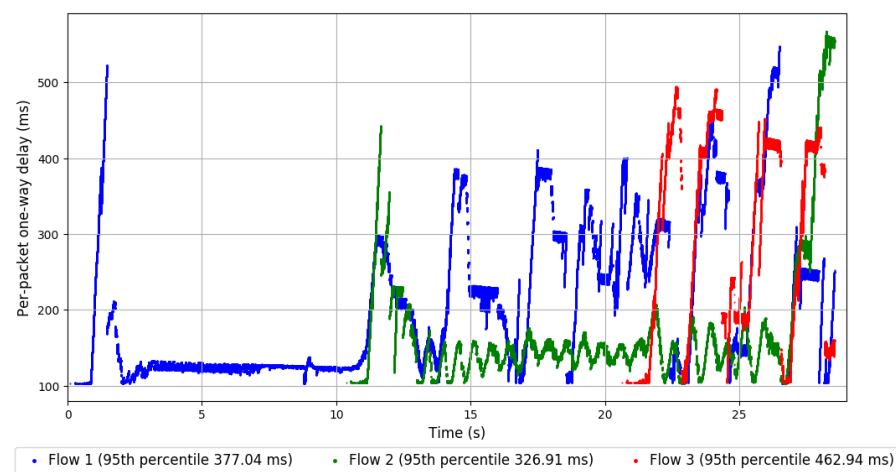
Run 1: Report of Indigo-MusesT — Data Link

- - - - Flow 1 ingress (mean 65.79 Mbit/s) ——— Flow 1 egress (mean 60.88 Mbit/s)
- - - - Flow 2 ingress (mean 41.35 Mbit/s) ——— Flow 2 egress (mean 38.91 Mbit/s)
- - - - Flow 3 ingress (mean 33.09 Mbit/s) ——— Flow 3 egress (mean 30.56 Mbit/s)

- Flow 1 (95th percentile 366.04 ms)   • Flow 2 (95th percentile 442.49 ms)   • Flow 3 (95th percentile 389.59 ms)
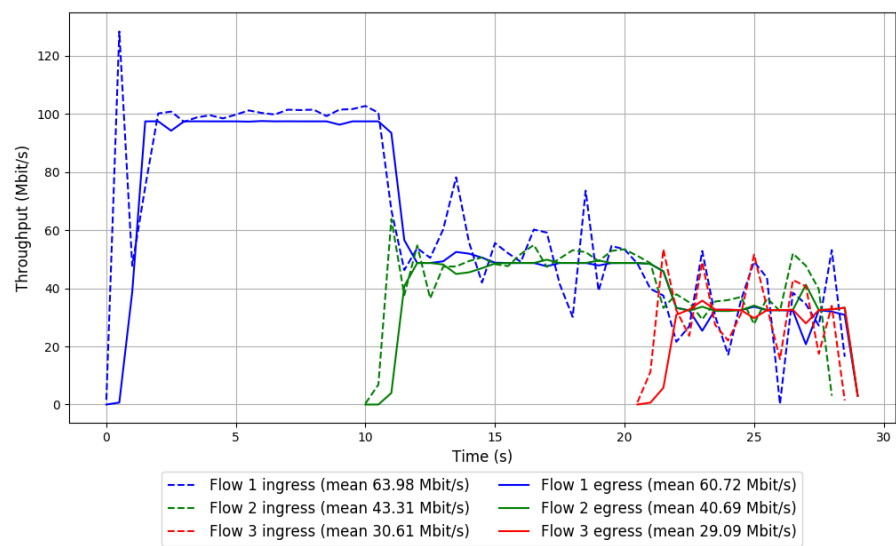
```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-18 11:33:56
End at: 2019-07-18 11:34:26
Local clock offset: -3.641 ms
Remote clock offset: -7.645 ms


# Below is generated by plot.py at 2019-07-18 13:22:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.33 Mbit/s
95th percentile per-packet one-way delay: 440.423 ms
Loss rate: 5.10%
-- Flow 1:
Average throughput: 59.72 Mbit/s
95th percentile per-packet one-way delay: 368.889 ms
Loss rate: 5.58%
-- Flow 2:
Average throughput: 44.62 Mbit/s
95th percentile per-packet one-way delay: 415.505 ms
Loss rate: 4.02%
-- Flow 3:
Average throughput: 21.61 Mbit/s
95th percentile per-packet one-way delay: 605.242 ms
Loss rate: 5.36%
```

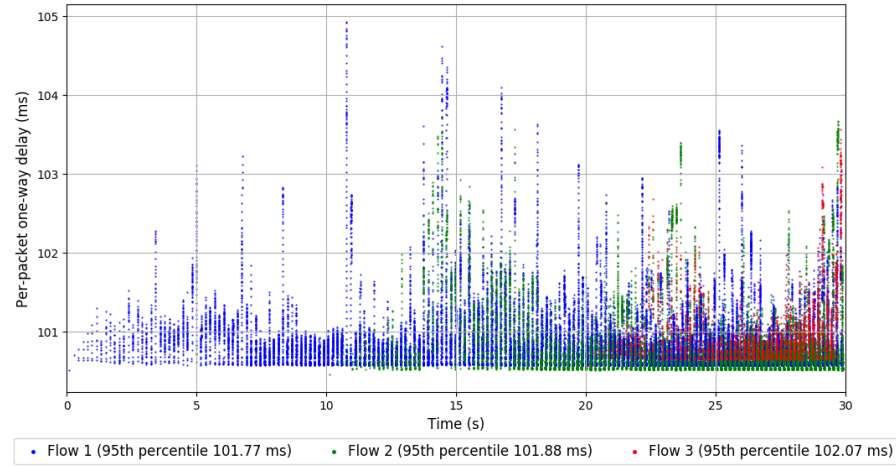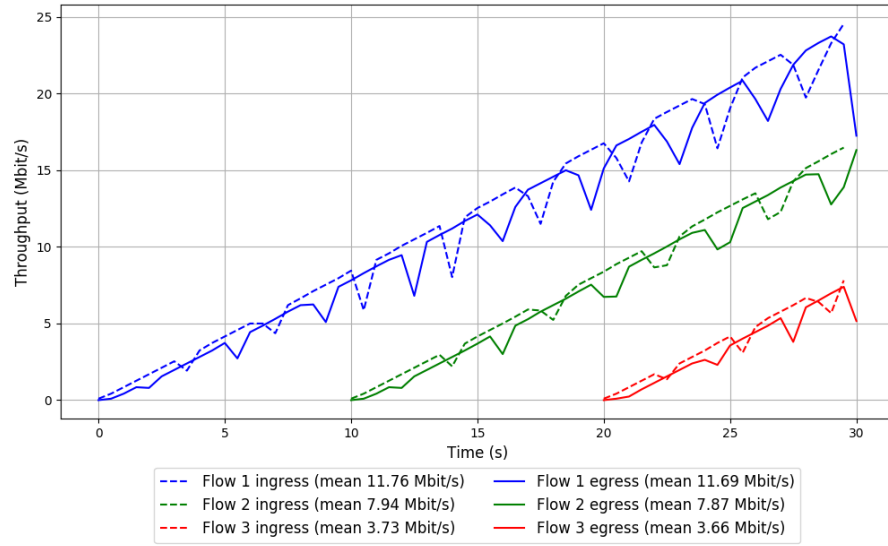# Run 2: Report of Indigo-MusesT — Data Link

- Flow 1 ingress (mean 62.87 Mbit/s)
- Flow 1 egress (mean 59.72 Mbit/s)
- Flow 2 ingress (mean 46.05 Mbit/s)
- Flow 2 egress (mean 44.62 Mbit/s)
- Flow 3 ingress (mean 22.36 Mbit/s)
- Flow 3 egress (mean 21.61 Mbit/s)

- Flow 1 (95th percentile 368.89 ms)
- Flow 2 (95th percentile 415.50 ms)
- Flow 3 (95th percentile 605.24 ms)

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```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-18 12:05:00
End at: 2019-07-18 12:05:30
Local clock offset: -3.775 ms
Remote clock offset: 0.782 ms


# Below is generated by plot.py at 2019-07-18 13:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.87 Mbit/s
95th percentile per-packet one-way delay: 437.068 ms
Loss rate: 6.15%
-- Flow 1:
Average throughput: 61.93 Mbit/s
95th percentile per-packet one-way delay: 365.948 ms
Loss rate: 6.54%
-- Flow 2:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 418.429 ms
Loss rate: 3.84%
-- Flow 3:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 505.756 ms
Loss rate: 9.66%
```

Run 3: Report of Indigo-MusesT — Data Link
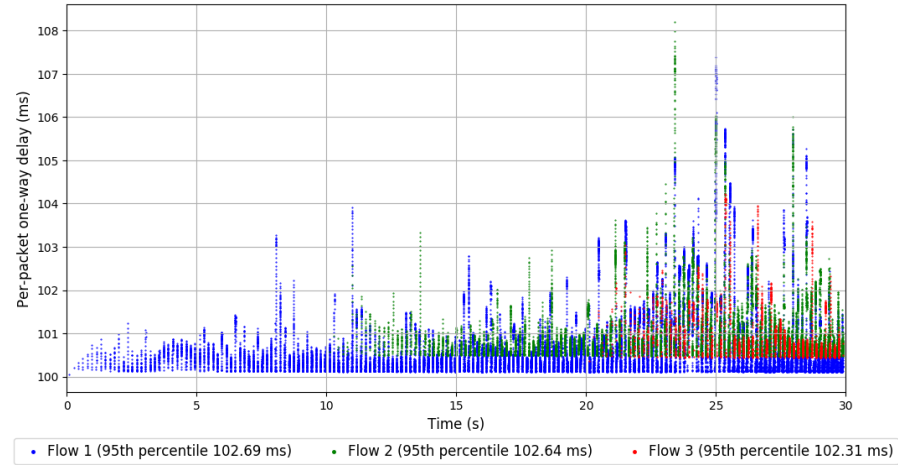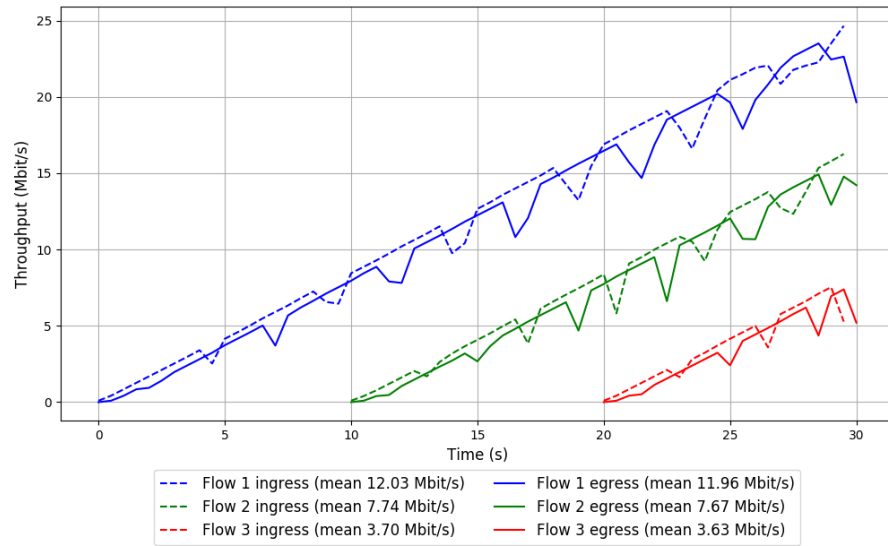
```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-18 12:36:06
End at: 2019-07-18 12:36:36
Local clock offset: -4.13 ms
Remote clock offset: -9.03 ms


# Below is generated by plot.py at 2019-07-18 13:22:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.69 Mbit/s
95th percentile per-packet one-way delay: 410.922 ms
Loss rate: 7.08%
-- Flow 1:
Average throughput: 59.39 Mbit/s
95th percentile per-packet one-way delay: 290.772 ms
Loss rate: 7.58%
-- Flow 2:
Average throughput: 40.90 Mbit/s
95th percentile per-packet one-way delay: 448.990 ms
Loss rate: 6.03%
-- Flow 3:
Average throughput: 32.60 Mbit/s
95th percentile per-packet one-way delay: 445.045 ms
Loss rate: 6.77%
```

Run 4: Report of Indigo-MusesT — Data Link
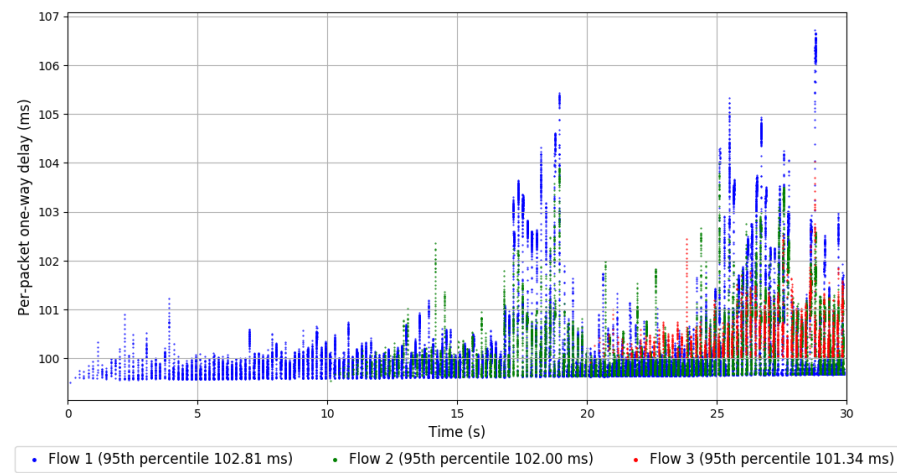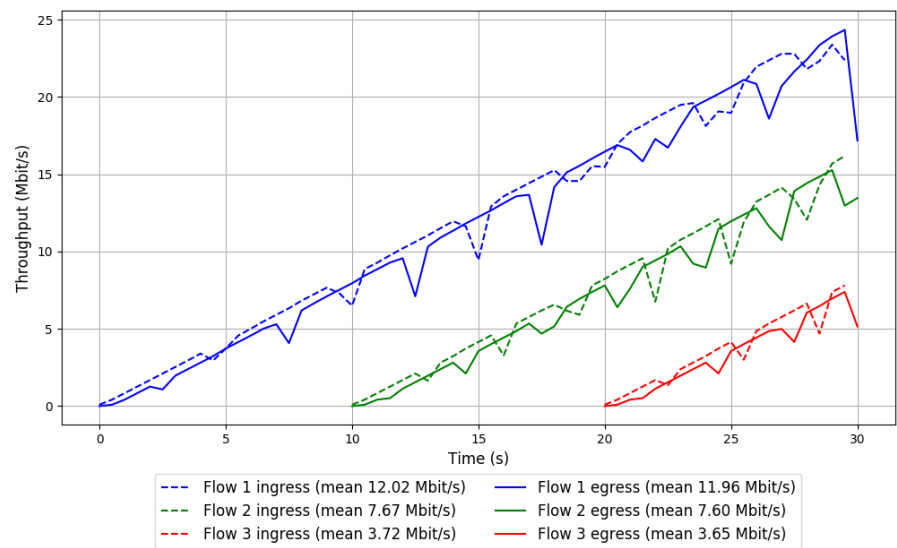
```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-18 13:07:16
End at: 2019-07-18 13:07:46
Local clock offset: -3.069 ms
Remote clock offset: -11.574 ms


# Below is generated by plot.py at 2019-07-18 13:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 413.060 ms
Loss rate: 5.08%
-- Flow 1:
Average throughput: 60.72 Mbit/s
95th percentile per-packet one-way delay: 377.042 ms
Loss rate: 5.48%
-- Flow 2:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 326.911 ms
Loss rate: 3.93%
-- Flow 3:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 462.944 ms
Loss rate: 5.76%
```

Run 5: Report of Indigo-MusesT — Data Link
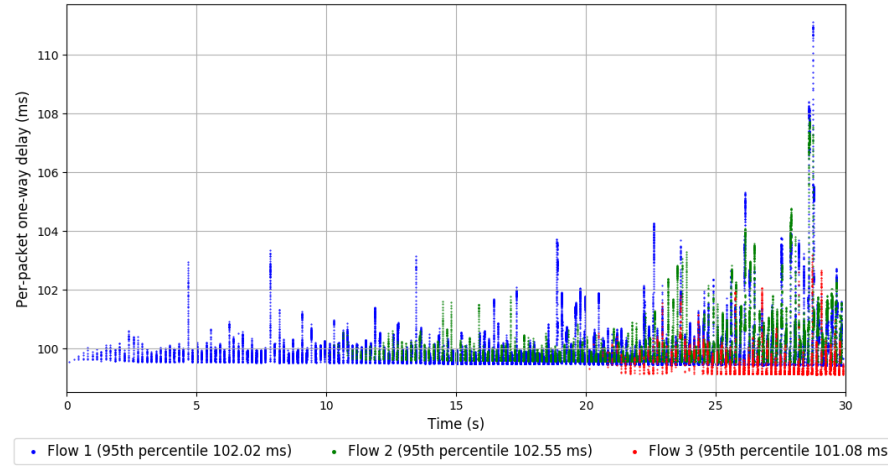

Flow 1 ingress (mean 63.98 Mbit/s) --- Flow 1 egress (mean 60.72 Mbit/s)
Flow 2 ingress (mean 43.31 Mbit/s) --- Flow 2 egress (mean 40.69 Mbit/s)
Flow 3 ingress (mean 30.61 Mbit/s) --- Flow 3 egress (mean 29.09 Mbit/s)

Flow 1 (95th percentile 377.04 ms)   Flow 2 (95th percentile 326.91 ms)   Flow 3 (95th percentile 462.94 ms)
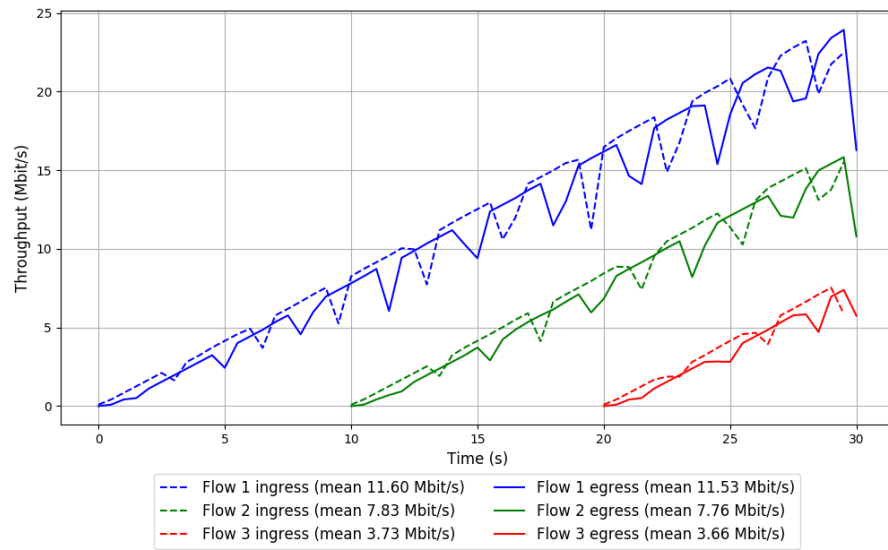
```
Run 1: Statistics of LEDBAT

Start at: 2019-07-18 10:54:58
End at: 2019-07-18 10:55:28
Local clock offset: -4.129 ms
Remote clock offset: -8.639 ms


# Below is generated by plot.py at 2019-07-18 13:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.10 Mbit/s
95th percentile per-packet one-way delay: 101.820 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 101.766 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 101.884 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 102.067 ms
Loss rate: 3.60%
```
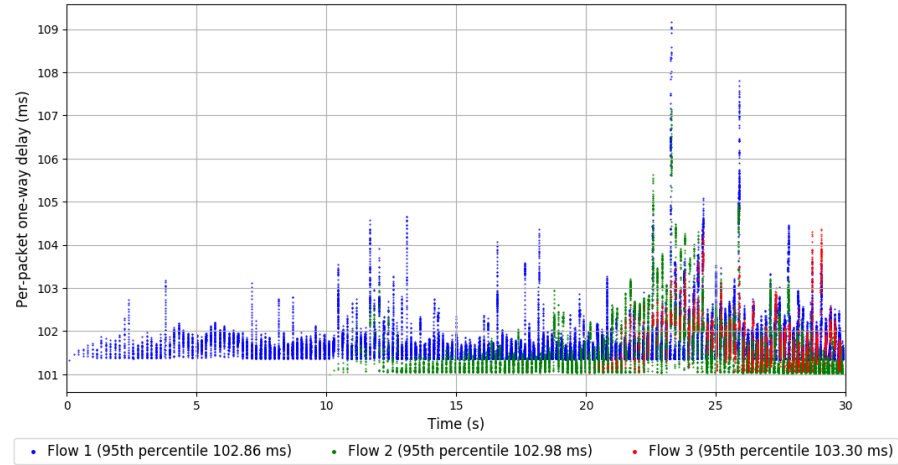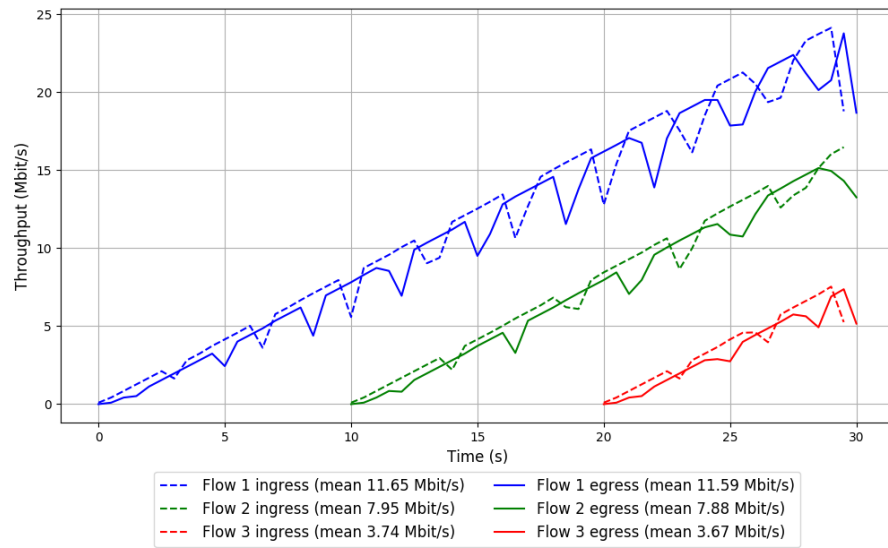
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-07-18 11:26:07
End at: 2019-07-18 11:26:37
Local clock offset: -3.811 ms
Remote clock offset: -6.208 ms


# Below is generated by plot.py at 2019-07-18 13:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.23 Mbit/s
95th percentile per-packet one-way delay: 102.656 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 11.96 Mbit/s
95th percentile per-packet one-way delay: 102.695 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 102.643 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 102.305 ms
Loss rate: 3.57%
```
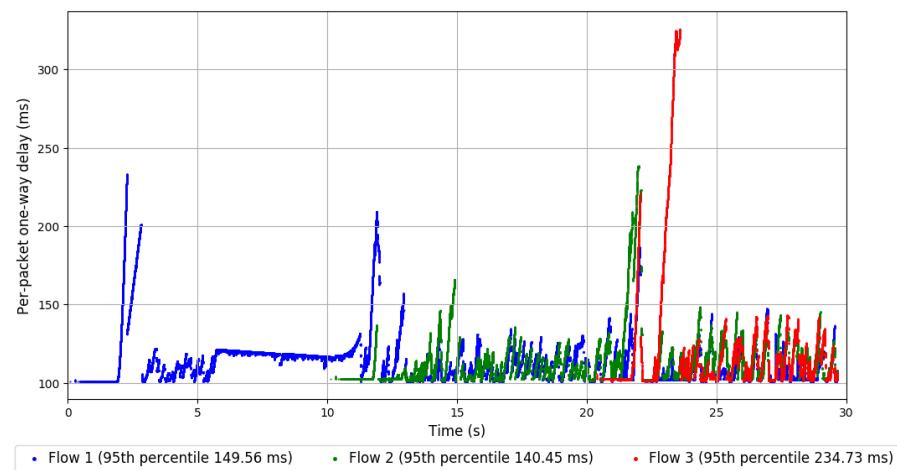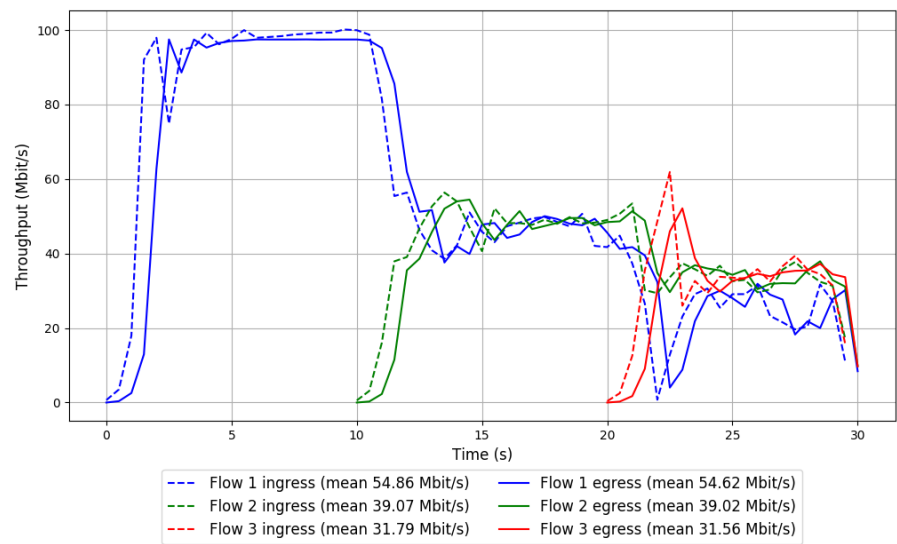
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-07-18 11:57:13
End at: 2019-07-18 11:57:43
Local clock offset: -3.61 ms
Remote clock offset: -0.207 ms


# Below is generated by plot.py at 2019-07-18 13:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.19 Mbit/s
95th percentile per-packet one-way delay: 102.537 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 11.96 Mbit/s
95th percentile per-packet one-way delay: 102.812 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 7.60 Mbit/s
95th percentile per-packet one-way delay: 101.999 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 101.342 ms
Loss rate: 3.60%
```

Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-07-18 12:28:18
End at: 2019-07-18 12:28:48
Local clock offset: -4.003 ms
Remote clock offset: -5.772 ms


# Below is generated by plot.py at 2019-07-18 13:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.87 Mbit/s
95th percentile per-packet one-way delay: 102.130 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 102.017 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 102.546 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 101.085 ms
Loss rate: 3.60%
```

Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-07-18 12:59:21
End at: 2019-07-18 12:59:51
Local clock offset: -3.413 ms
Remote clock offset: -9.619 ms


# Below is generated by plot.py at 2019-07-18 13:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.00 Mbit/s
95th percentile per-packet one-way delay: 102.946 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 11.59 Mbit/s
95th percentile per-packet one-way delay: 102.860 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 102.979 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 103.299 ms
Loss rate: 3.61%
```
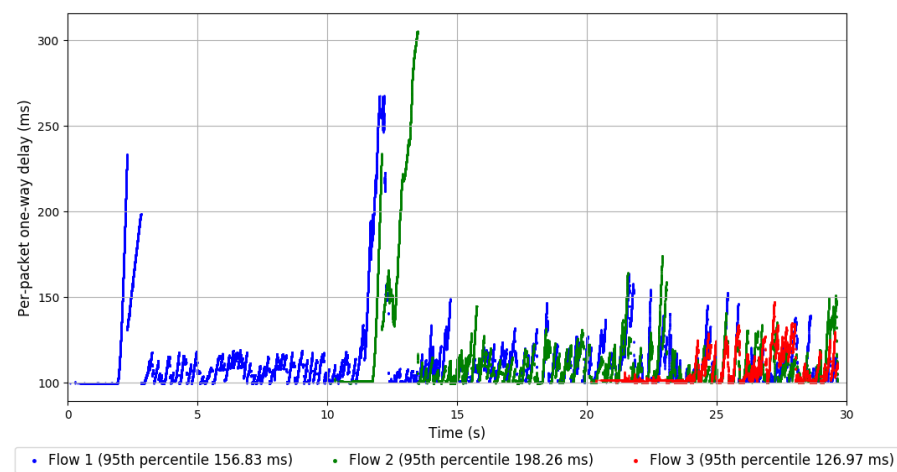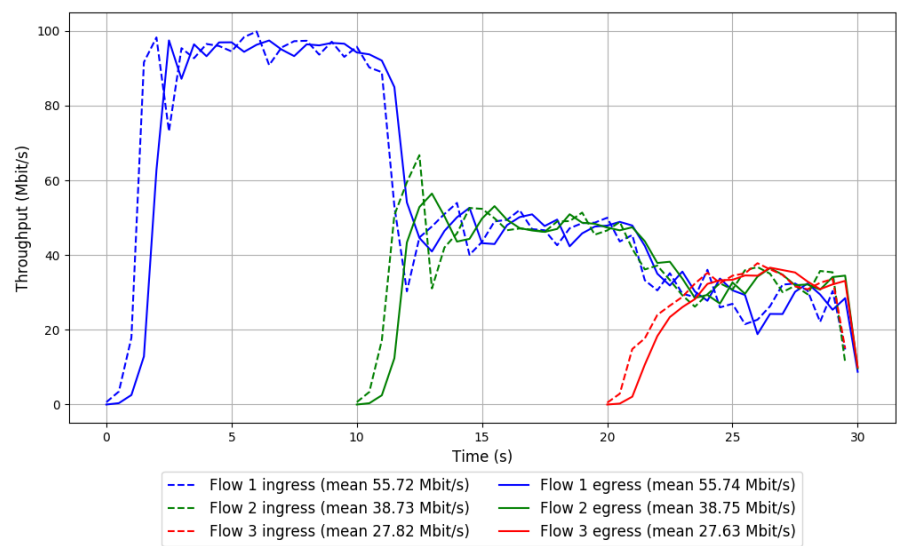
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 11:07:50
End at: 2019-07-18 11:08:20
Local clock offset: -3.955 ms
Remote clock offset: -8.823 ms


# Below is generated by plot.py at 2019-07-18 13:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.47 Mbit/s
95th percentile per-packet one-way delay: 152.689 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 54.62 Mbit/s
95th percentile per-packet one-way delay: 149.562 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 39.02 Mbit/s
95th percentile per-packet one-way delay: 140.451 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 31.56 Mbit/s
95th percentile per-packet one-way delay: 234.734 ms
Loss rate: 2.54%
```
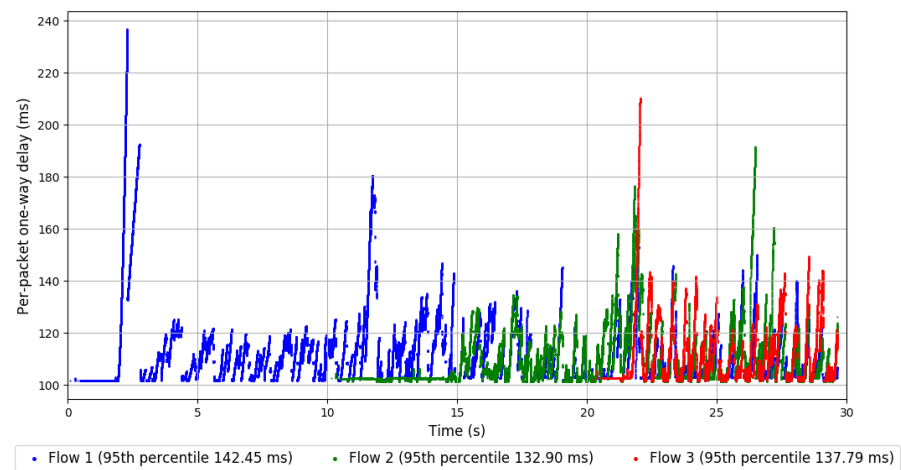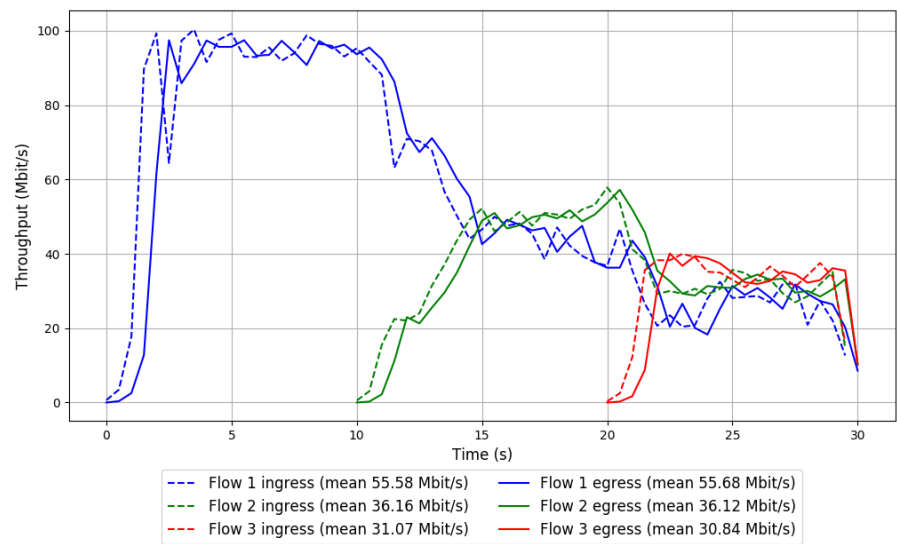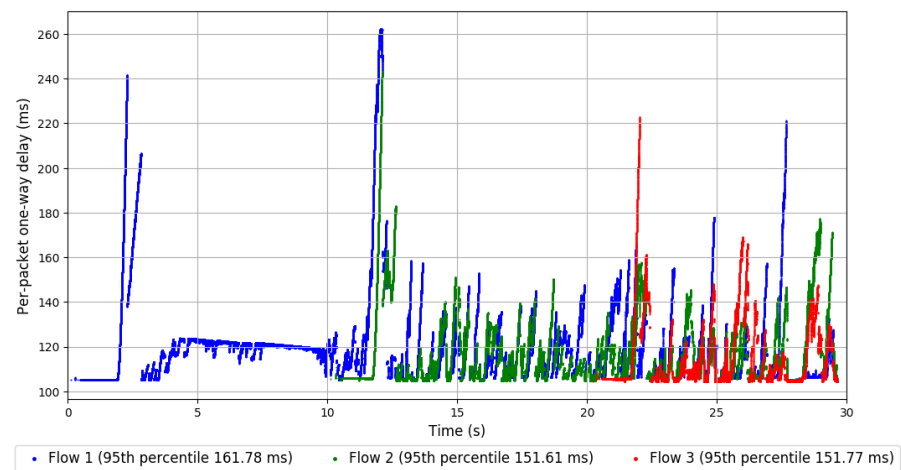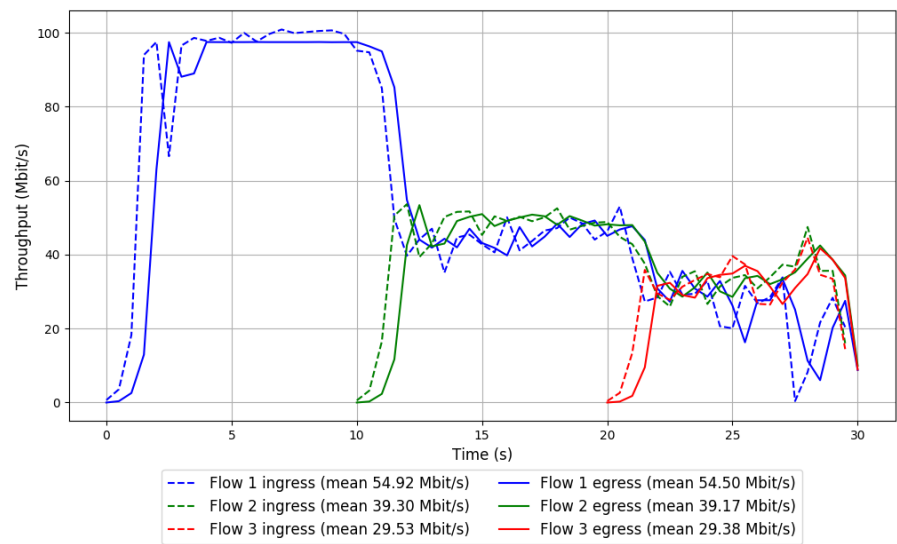
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 11:39:01
End at: 2019-07-18 11:39:31
Local clock offset: -3.261 ms
Remote clock offset: -4.964 ms


# Below is generated by plot.py at 2019-07-18 13:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.24 Mbit/s
95th percentile per-packet one-way delay: 158.942 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 55.74 Mbit/s
95th percentile per-packet one-way delay: 156.832 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 38.75 Mbit/s
95th percentile per-packet one-way delay: 198.257 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 27.63 Mbit/s
95th percentile per-packet one-way delay: 126.973 ms
Loss rate: 2.47%
```

Run 2: Report of Muses_DecisionTree — Data Link
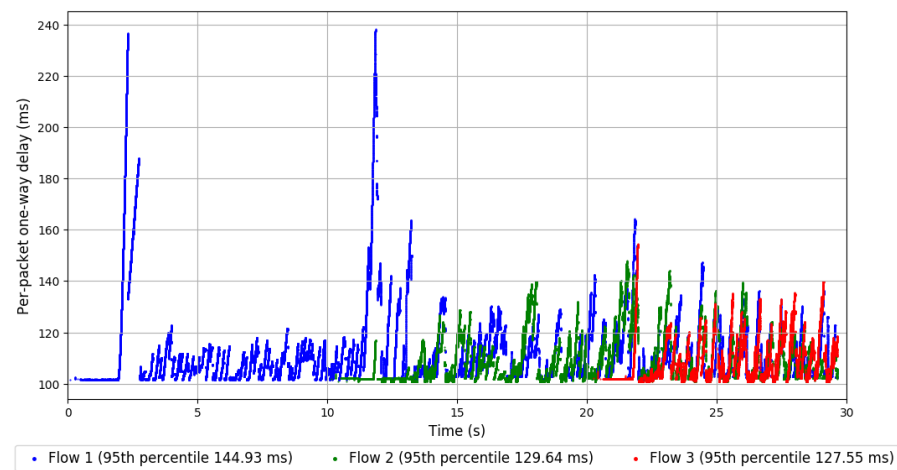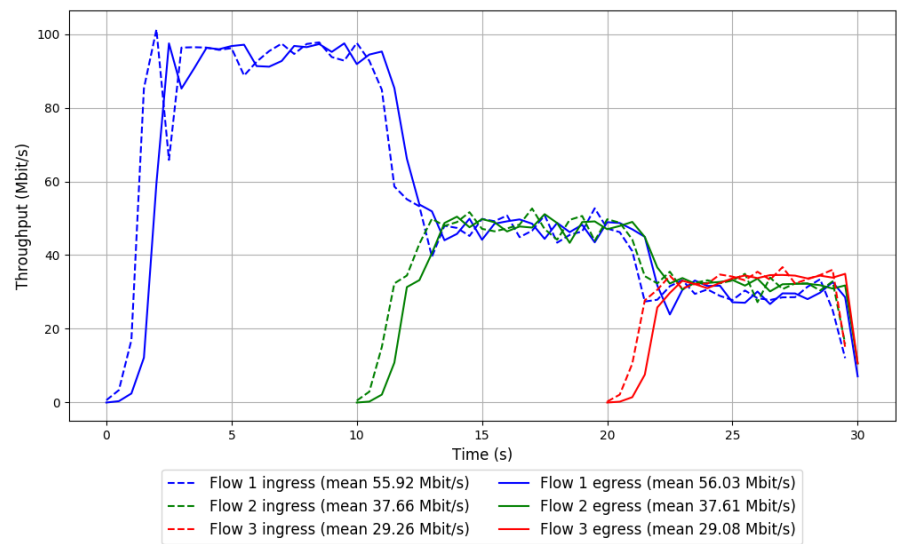
```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 12:10:05
End at: 2019-07-18 12:10:35
Local clock offset: -3.973 ms
Remote clock offset: 0.269 ms


# Below is generated by plot.py at 2019-07-18 13:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 138.697 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 55.68 Mbit/s
95th percentile per-packet one-way delay: 142.448 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 36.12 Mbit/s
95th percentile per-packet one-way delay: 132.896 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 137.790 ms
Loss rate: 2.54%
```

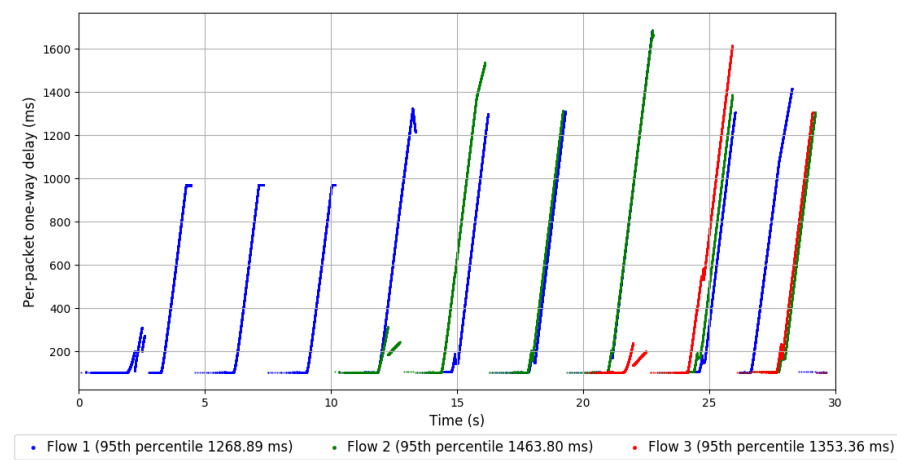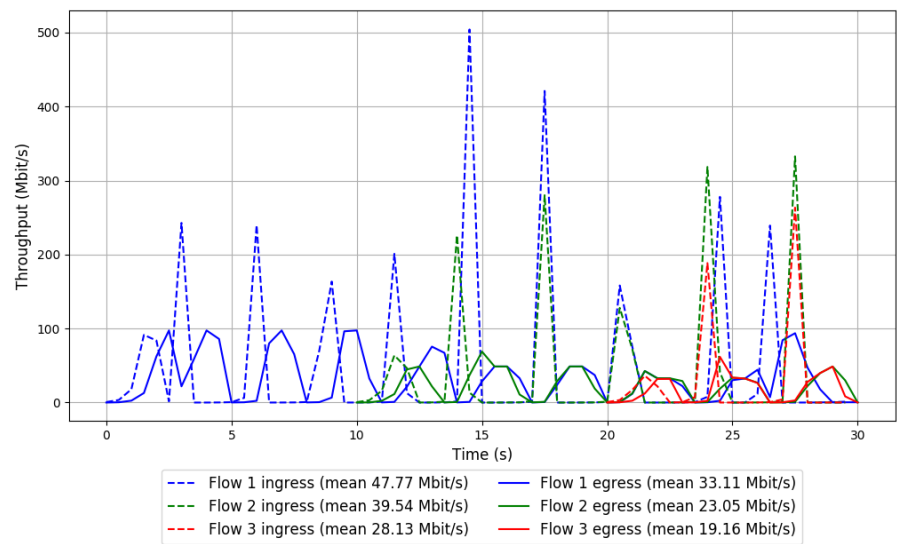# Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 12:41:08
End at: 2019-07-18 12:41:38
Local clock offset: -3.842 ms
Remote clock offset: -13.256 ms


# Below is generated by plot.py at 2019-07-18 13:23:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.77 Mbit/s
95th percentile per-packet one-way delay: 156.290 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 54.50 Mbit/s
95th percentile per-packet one-way delay: 161.784 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 39.17 Mbit/s
95th percentile per-packet one-way delay: 151.608 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 29.38 Mbit/s
95th percentile per-packet one-way delay: 151.772 ms
Loss rate: 2.31%
```
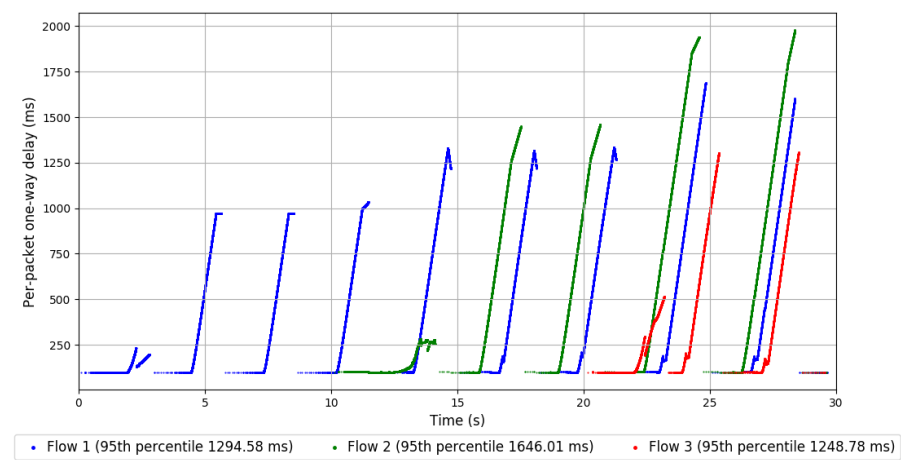
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 13:12:20
End at: 2019-07-18 13:12:50
Local clock offset: -2.846 ms
Remote clock offset: -9.759 ms


# Below is generated by plot.py at 2019-07-18 13:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.08 Mbit/s
95th percentile per-packet one-way delay: 136.304 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 56.03 Mbit/s
95th percentile per-packet one-way delay: 144.934 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 37.61 Mbit/s
95th percentile per-packet one-way delay: 129.640 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 29.08 Mbit/s
95th percentile per-packet one-way delay: 127.550 ms
Loss rate: 2.42%
```

Run 5: Report of Muses_DecisionTree — Data Link
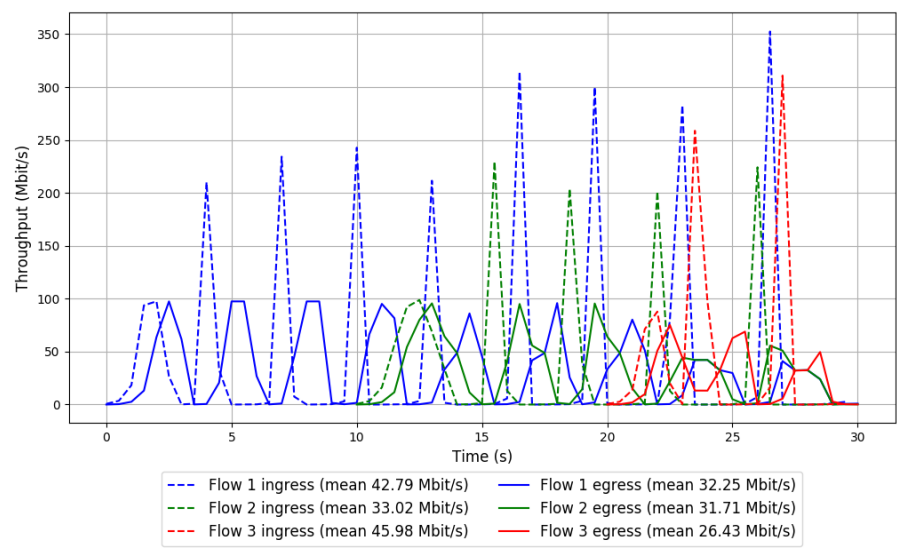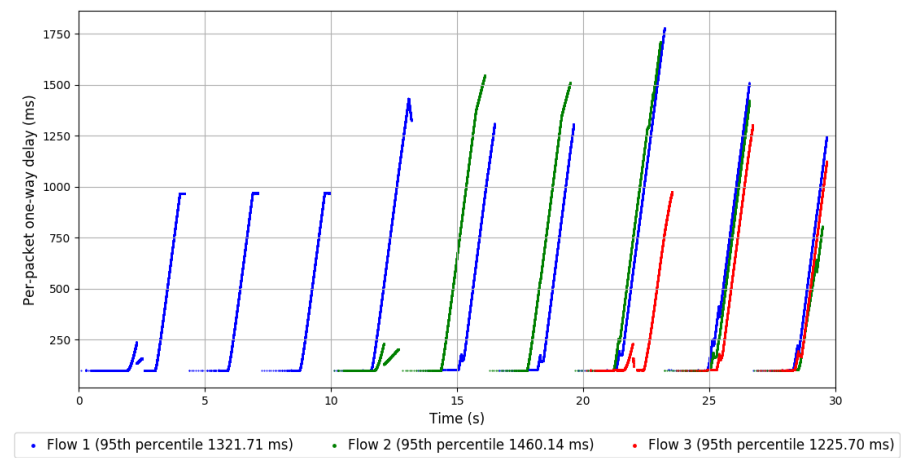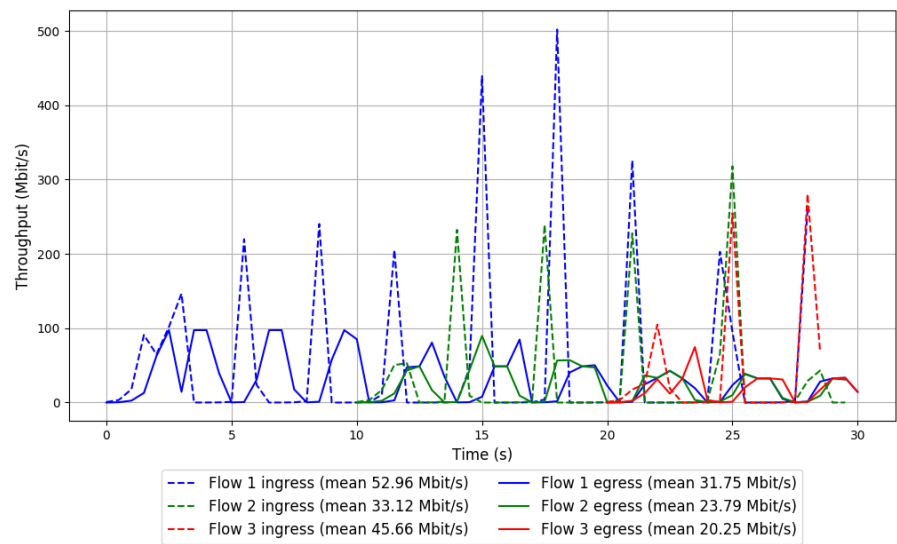
```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 10:51:04
End at: 2019-07-18 10:51:34
Local clock offset: -3.91 ms
Remote clock offset: -9.569 ms


# Below is generated by plot.py at 2019-07-18 13:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.44 Mbit/s
95th percentile per-packet one-way delay: 1307.504 ms
Loss rate: 34.83%
-- Flow 1:
Average throughput: 33.11 Mbit/s
95th percentile per-packet one-way delay: 1268.895 ms
Loss rate: 31.12%
-- Flow 2:
Average throughput: 23.05 Mbit/s
95th percentile per-packet one-way delay: 1463.798 ms
Loss rate: 42.22%
-- Flow 3:
Average throughput: 19.16 Mbit/s
95th percentile per-packet one-way delay: 1353.362 ms
Loss rate: 33.14%
```

Run 1: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 47.77 Mbit/s) —— Flow 1 egress (mean 33.11 Mbit/s)
Flow 2 ingress (mean 39.54 Mbit/s) —— Flow 2 egress (mean 23.05 Mbit/s)
Flow 3 ingress (mean 28.13 Mbit/s) —— Flow 3 egress (mean 19.16 Mbit/s)

Flow 1 (95th percentile 1268.89 ms)   Flow 2 (95th percentile 1463.80 ms)   Flow 3 (95th percentile 1353.36 ms)
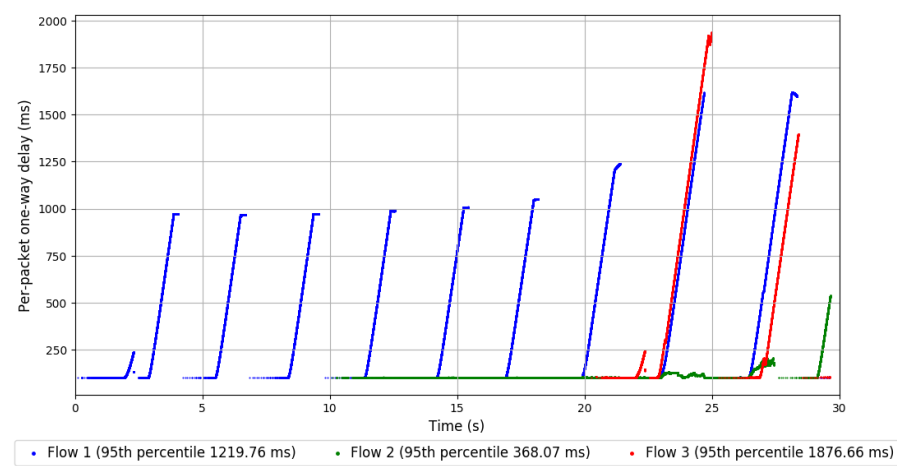
126

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 11:22:13
End at: 2019-07-18 11:22:43
Local clock offset: -4.191 ms
Remote clock offset: -6.637 ms


# Below is generated by plot.py at 2019-07-18 13:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.56 Mbit/s
95th percentile per-packet one-way delay: 1366.802 ms
Loss rate: 23.02%
-- Flow 1:
Average throughput: 32.25 Mbit/s
95th percentile per-packet one-way delay: 1294.576 ms
Loss rate: 25.09%
-- Flow 2:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 1646.008 ms
Loss rate: 4.96%
-- Flow 3:
Average throughput: 26.43 Mbit/s
95th percentile per-packet one-way delay: 1248.781 ms
Loss rate: 43.72%
```

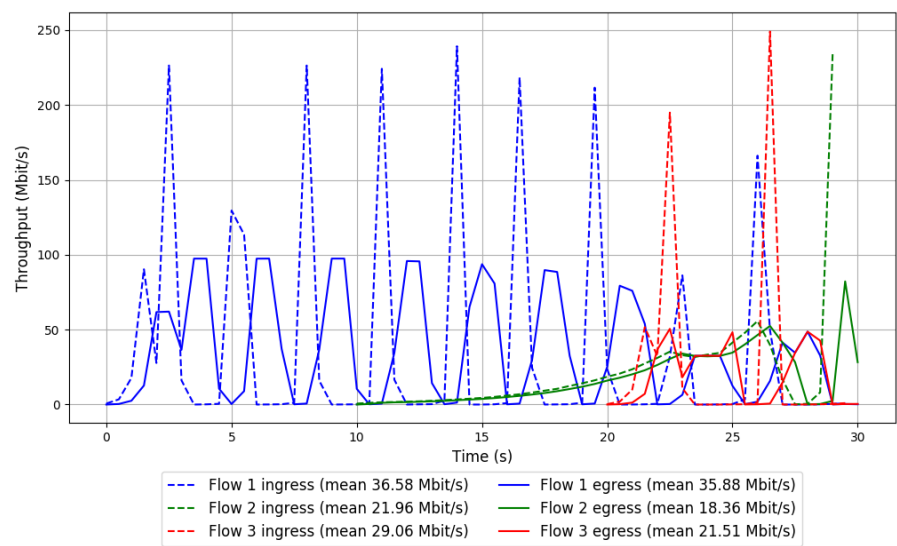Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 11:53:19
End at: 2019-07-18 11:53:49
Local clock offset: -3.328 ms
Remote clock offset: -0.287 ms


# Below is generated by plot.py at 2019-07-18 13:23:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.86 Mbit/s
95th percentile per-packet one-way delay: 1372.967 ms
Loss rate: 37.49%
-- Flow 1:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 1321.711 ms
Loss rate: 37.74%
-- Flow 2:
Average throughput: 23.79 Mbit/s
95th percentile per-packet one-way delay: 1460.145 ms
Loss rate: 29.18%
-- Flow 3:
Average throughput: 20.25 Mbit/s
95th percentile per-packet one-way delay: 1225.699 ms
Loss rate: 50.42%
```

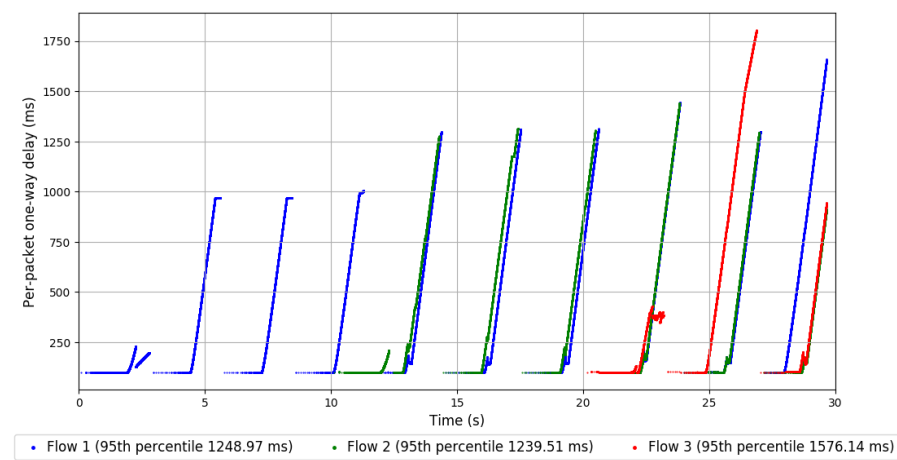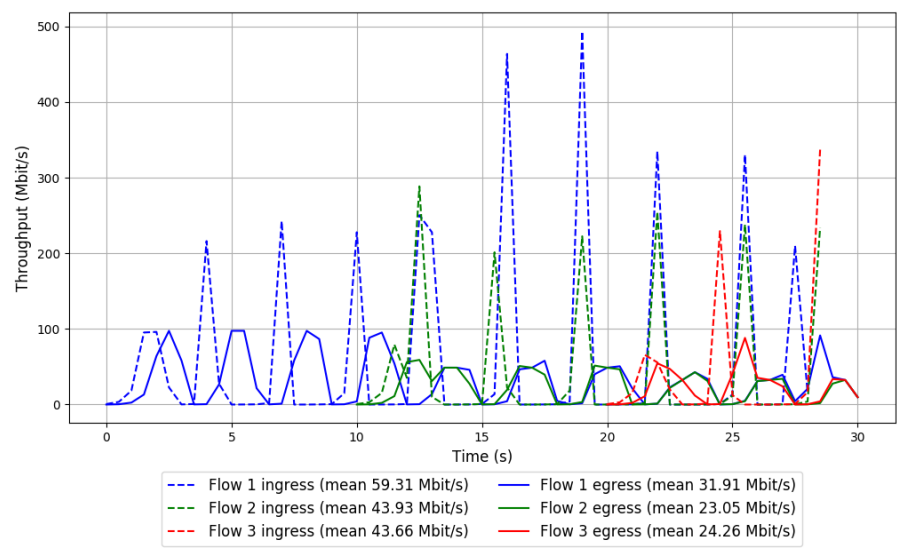Run 3: Report of Muses_DecisionTreeH0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 12:24:24
End at: 2019-07-18 12:24:54
Local clock offset: -4.083 ms
Remote clock offset: -8.325 ms


# Below is generated by plot.py at 2019-07-18 13:24:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.79 Mbit/s
95th percentile per-packet one-way delay: 1283.422 ms
Loss rate: 9.51%
-- Flow 1:
Average throughput: 35.88 Mbit/s
95th percentile per-packet one-way delay: 1219.761 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 18.36 Mbit/s
95th percentile per-packet one-way delay: 368.070 ms
Loss rate: 15.48%
-- Flow 3:
Average throughput: 21.51 Mbit/s
95th percentile per-packet one-way delay: 1876.663 ms
Loss rate: 27.40%
```
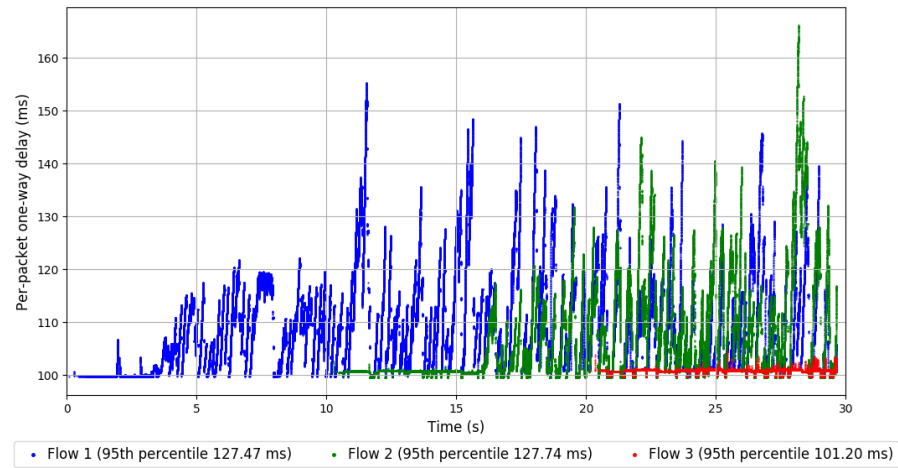
Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 12:55:26
End at: 2019-07-18 12:55:56
Local clock offset: -3.766 ms
Remote clock offset: -9.093 ms


# Below is generated by plot.py at 2019-07-18 13:24:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 1261.799 ms
Loss rate: 43.37%
-- Flow 1:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 1248.974 ms
Loss rate: 43.38%
-- Flow 2:
Average throughput: 23.05 Mbit/s
95th percentile per-packet one-way delay: 1239.510 ms
Loss rate: 45.30%
-- Flow 3:
Average throughput: 24.26 Mbit/s
95th percentile per-packet one-way delay: 1576.140 ms
Loss rate: 39.10%
```

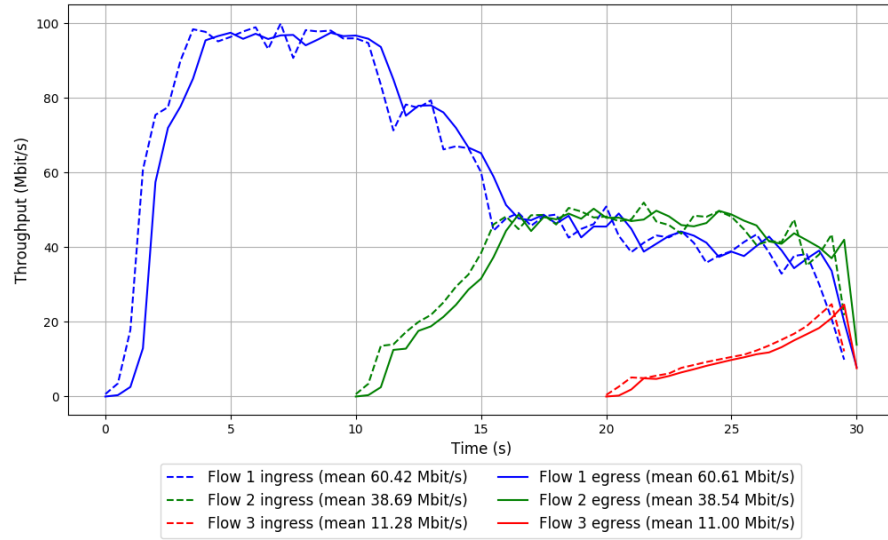Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 10:43:11
End at: 2019-07-18 10:43:41
Local clock offset: -3.89 ms
Remote clock offset: -7.479 ms


# Below is generated by plot.py at 2019-07-18 13:24:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.62 Mbit/s
95th percentile per-packet one-way delay: 127.237 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 60.61 Mbit/s
95th percentile per-packet one-way delay: 127.467 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 127.737 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 11.00 Mbit/s
95th percentile per-packet one-way delay: 101.197 ms
Loss rate: 4.27%
```
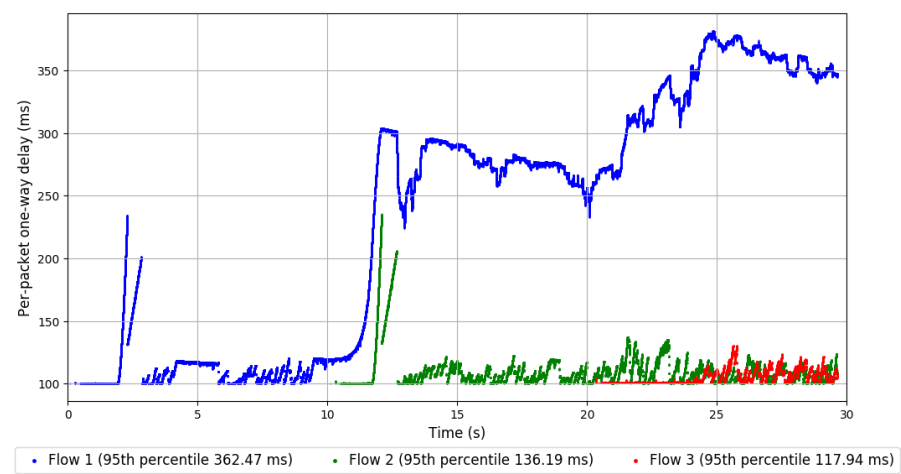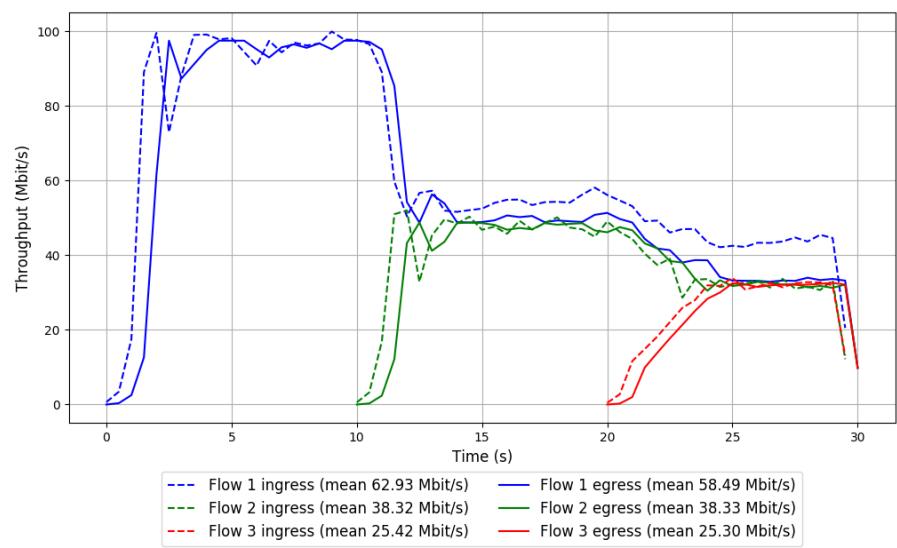
Run 1: Report of Muses_DecisionTreeR0 — Data Link

- Flow 1 ingress (mean 60.42 Mbit/s) --- Flow 1 egress (mean 60.61 Mbit/s)
- Flow 2 ingress (mean 38.69 Mbit/s) --- Flow 2 egress (mean 38.54 Mbit/s)
- Flow 3 ingress (mean 11.28 Mbit/s) --- Flow 3 egress (mean 11.00 Mbit/s)

- Flow 1 (95th percentile 127.47 ms)   • Flow 2 (95th percentile 127.74 ms)   • Flow 3 (95th percentile 101.20 ms)
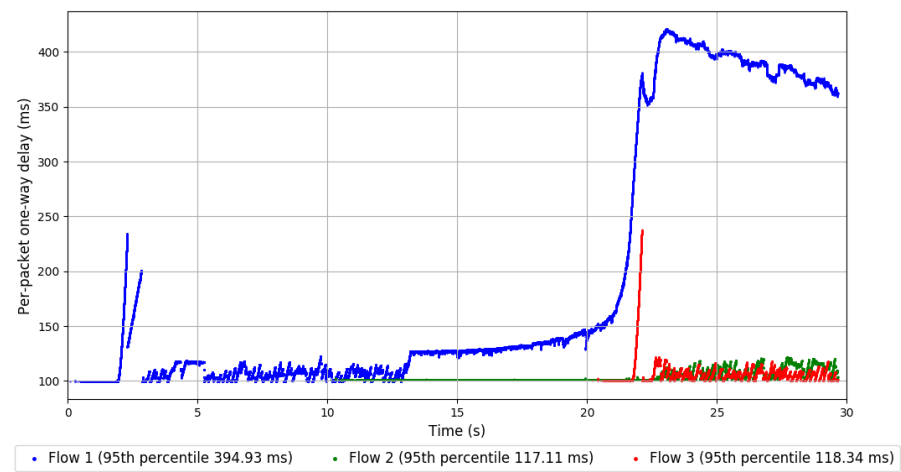
```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 11:14:22
End at: 2019-07-18 11:14:52
Local clock offset: -3.937 ms
Remote clock offset: -6.465 ms


# Below is generated by plot.py at 2019-07-18 13:24:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.92 Mbit/s
95th percentile per-packet one-way delay: 351.139 ms
Loss rate: 5.37%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 362.467 ms
Loss rate: 7.59%
-- Flow 2:
Average throughput: 38.33 Mbit/s
95th percentile per-packet one-way delay: 136.190 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 25.30 Mbit/s
95th percentile per-packet one-way delay: 117.941 ms
Loss rate: 2.29%
```

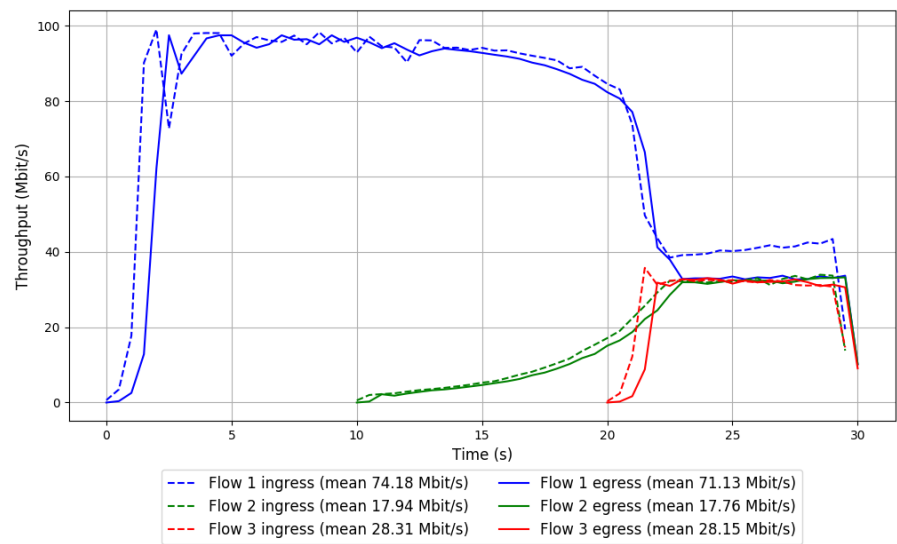Run 2: Report of Muses_DecisionTreeR0 — Data Link

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```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 11:45:29
End at: 2019-07-18 11:45:59
Local clock offset: -3.385 ms
Remote clock offset: -2.346 ms


# Below is generated by plot.py at 2019-07-18 13:24:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.84 Mbit/s
95th percentile per-packet one-way delay: 388.328 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 71.13 Mbit/s
95th percentile per-packet one-way delay: 394.926 ms
Loss rate: 4.67%
-- Flow 2:
Average throughput: 17.76 Mbit/s
95th percentile per-packet one-way delay: 117.106 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 118.340 ms
Loss rate: 2.38%
```

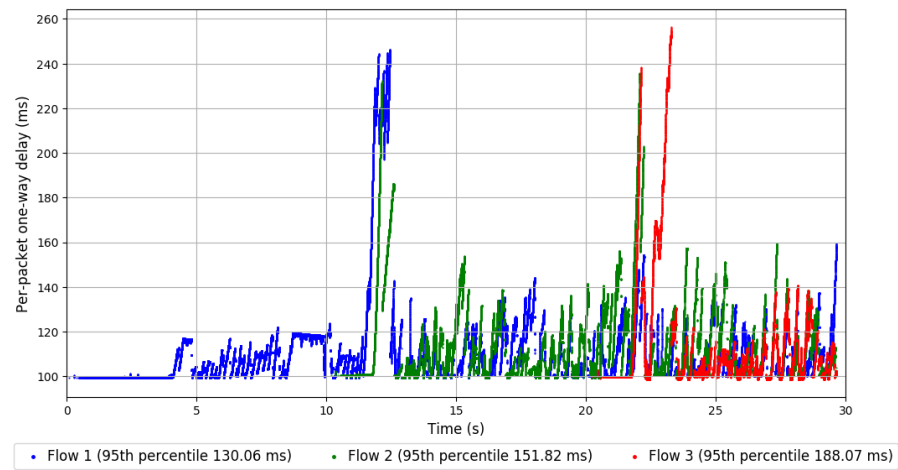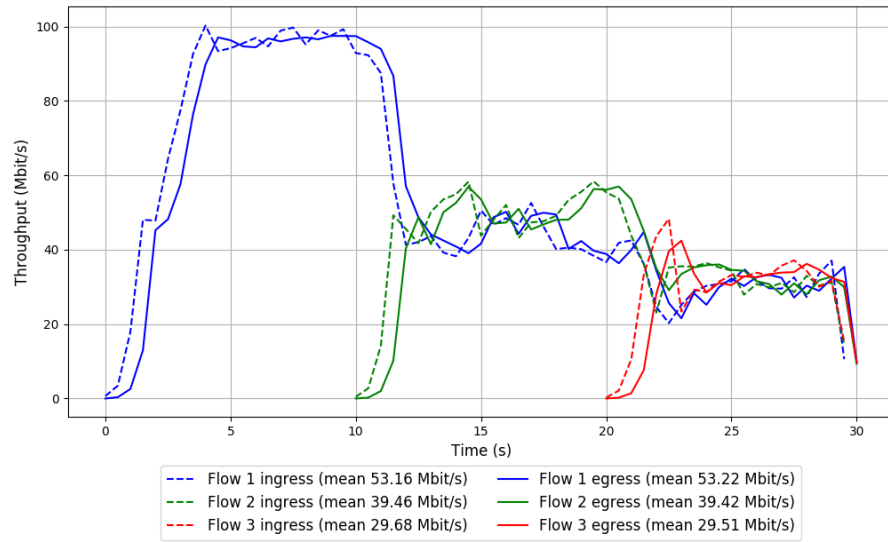Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 12:16:33
End at: 2019-07-18 12:17:03
Local clock offset: -4.253 ms
Remote clock offset: -0.491 ms


# Below is generated by plot.py at 2019-07-18 13:24:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.57 Mbit/s
95th percentile per-packet one-way delay: 144.900 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 53.22 Mbit/s
95th percentile per-packet one-way delay: 130.055 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 39.42 Mbit/s
95th percentile per-packet one-way delay: 151.823 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 188.072 ms
Loss rate: 2.43%
```
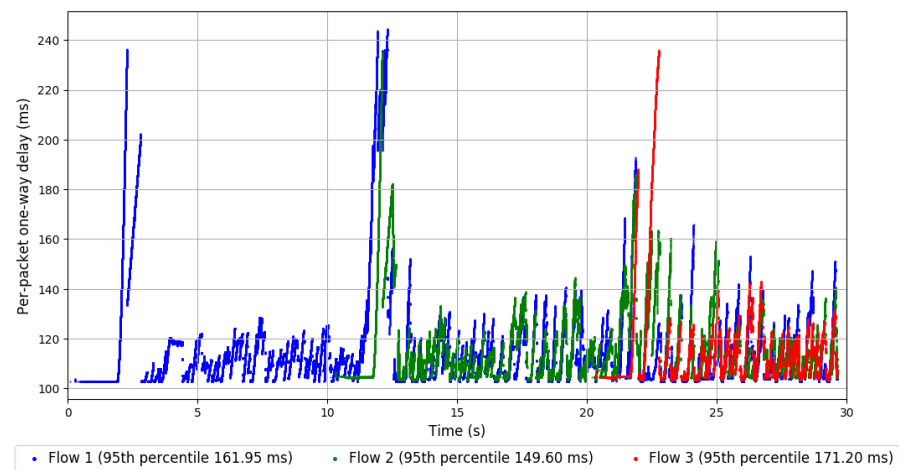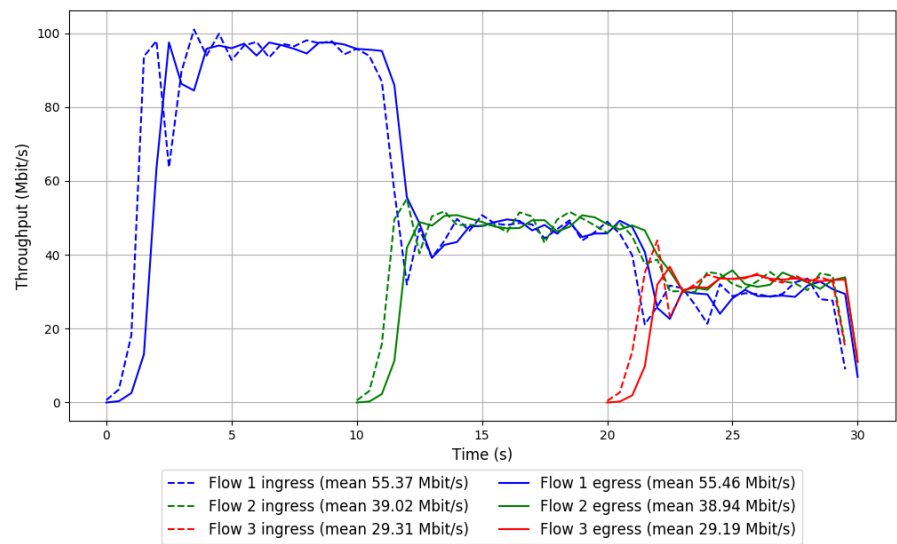
Run 4: Report of Muses_DecisionTreeR0 — Data Link

- Flow 1 ingress (mean 53.16 Mbit/s)
- Flow 1 egress (mean 53.22 Mbit/s)
- Flow 2 ingress (mean 39.46 Mbit/s)
- Flow 2 egress (mean 39.42 Mbit/s)
- Flow 3 ingress (mean 29.68 Mbit/s)
- Flow 3 egress (mean 29.51 Mbit/s)

- Flow 1 (95th percentile 130.06 ms)
- Flow 2 (95th percentile 151.82 ms)
- Flow 3 (95th percentile 188.07 ms)

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 12:47:36
End at: 2019-07-18 12:48:06
Local clock offset: -4.065 ms
Remote clock offset: -12.397 ms


# Below is generated by plot.py at 2019-07-18 13:24:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.54 Mbit/s
95th percentile per-packet one-way delay: 157.183 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 55.46 Mbit/s
95th percentile per-packet one-way delay: 161.951 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 38.94 Mbit/s
95th percentile per-packet one-way delay: 149.603 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 29.19 Mbit/s
95th percentile per-packet one-way delay: 171.197 ms
Loss rate: 2.23%
```
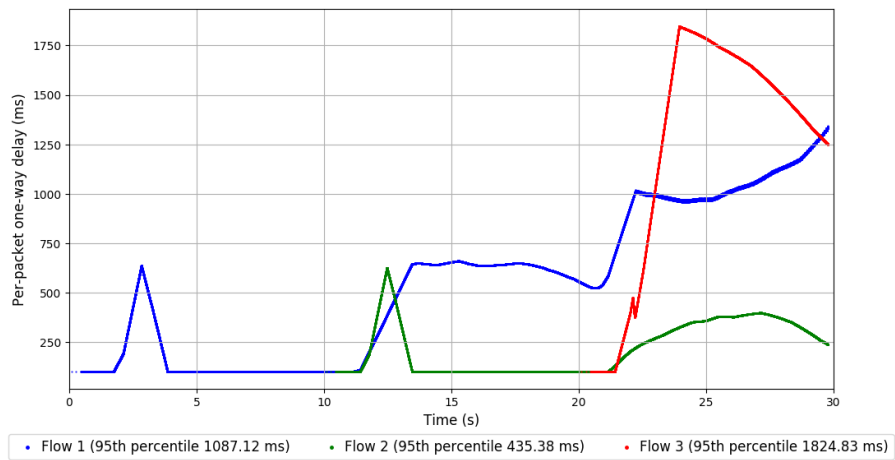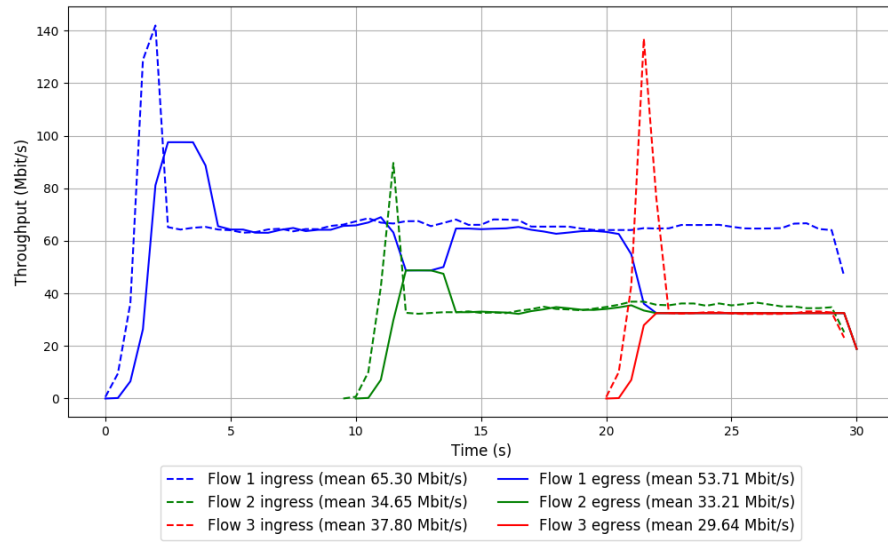
Run 5: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 55.37 Mbit/s)   Flow 1 egress (mean 55.46 Mbit/s)
Flow 2 ingress (mean 39.02 Mbit/s)   Flow 2 egress (mean 38.94 Mbit/s)
Flow 3 ingress (mean 29.31 Mbit/s)   Flow 3 egress (mean 29.19 Mbit/s)

Flow 1 (95th percentile 161.95 ms)   Flow 2 (95th percentile 149.60 ms)   Flow 3 (95th percentile 171.20 ms)
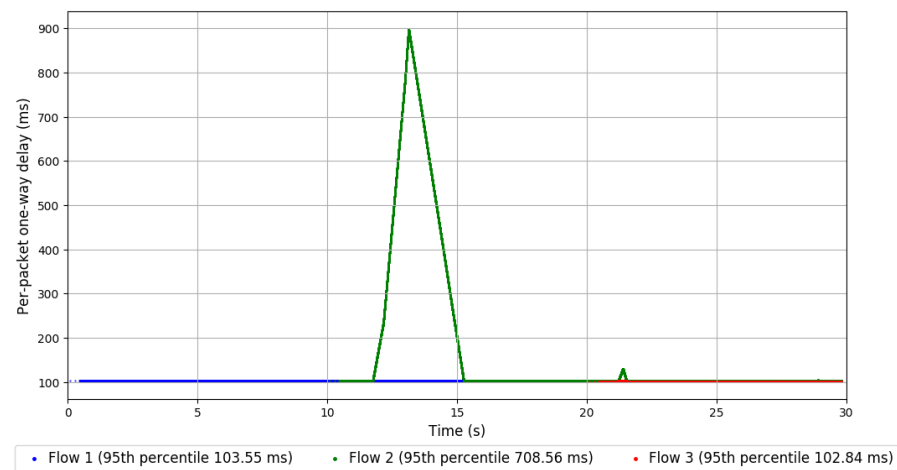
144

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-07-18 11:04:04
End at: 2019-07-18 11:04:34
Local clock offset: -3.937 ms
Remote clock offset: -10.724 ms

# Below is generated by plot.py at 2019-07-18 13:25:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.40 Mbit/s
95th percentile per-packet one-way delay: 1555.295 ms
Loss rate: 15.79%
-- Flow 1:
Average throughput: 53.71 Mbit/s
95th percentile per-packet one-way delay: 1087.115 ms
Loss rate: 18.22%
-- Flow 2:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 435.376 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 29.64 Mbit/s
95th percentile per-packet one-way delay: 1824.832 ms
Loss rate: 22.99%
```
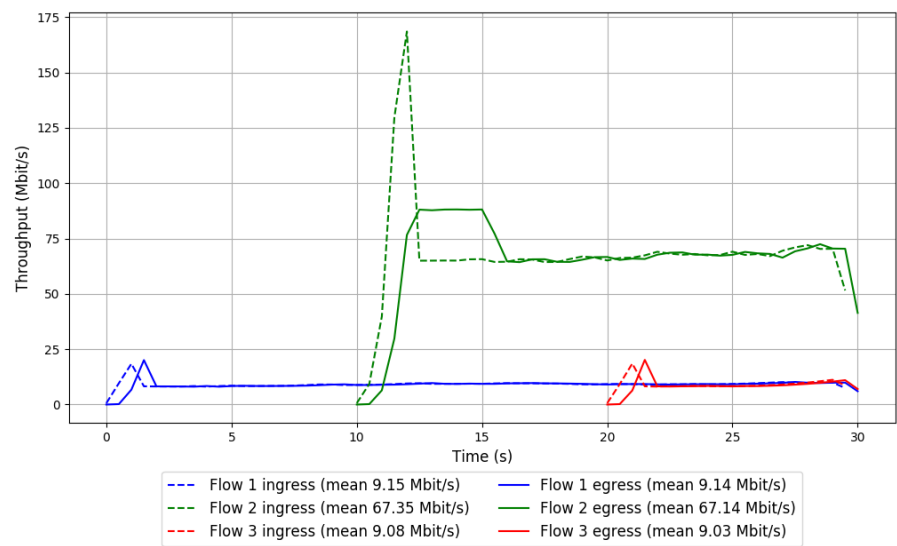
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-07-18 11:35:15
End at: 2019-07-18 11:35:45
Local clock offset: -3.594 ms
Remote clock offset: -7.935 ms


# Below is generated by plot.py at 2019-07-18 13:25:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.62 Mbit/s
95th percentile per-packet one-way delay: 654.250 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 9.14 Mbit/s
95th percentile per-packet one-way delay: 103.548 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 67.14 Mbit/s
95th percentile per-packet one-way delay: 708.564 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 102.839 ms
Loss rate: 2.28%
```
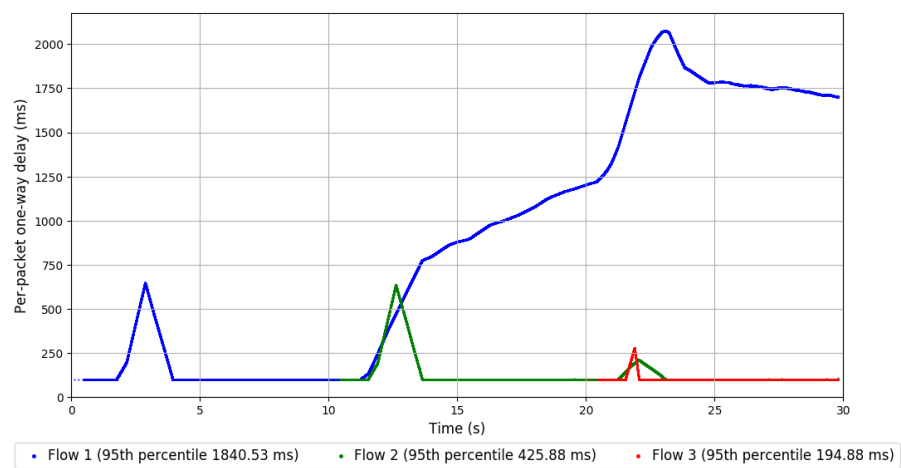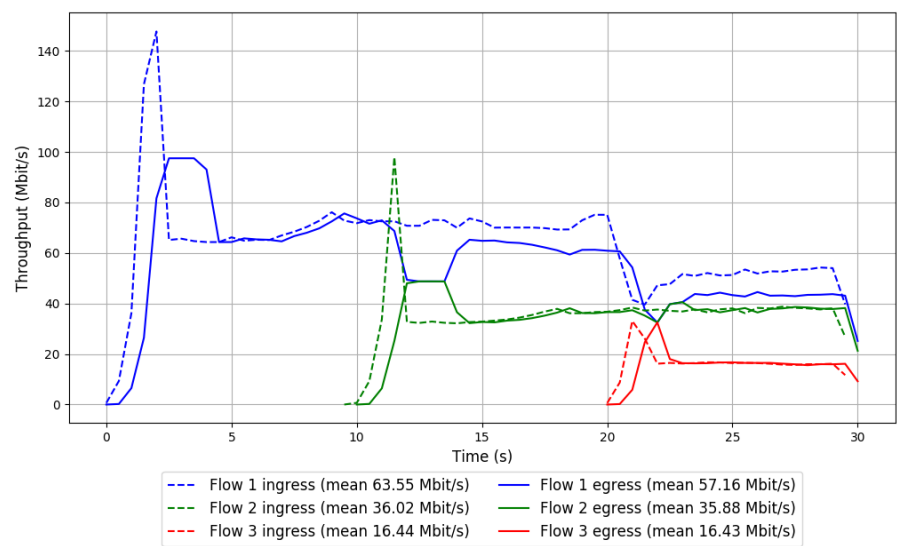
Run 2: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 9.15 Mbit/s) —— Flow 1 egress (mean 9.14 Mbit/s)
- - - Flow 2 ingress (mean 67.35 Mbit/s) —— Flow 2 egress (mean 67.14 Mbit/s)
- - - Flow 3 ingress (mean 9.08 Mbit/s) —— Flow 3 egress (mean 9.03 Mbit/s)

- Flow 1 (95th percentile 103.55 ms)   • Flow 2 (95th percentile 708.56 ms)   • Flow 3 (95th percentile 102.84 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-07-18 12:06:18
End at: 2019-07-18 12:06:48
Local clock offset: -3.818 ms
Remote clock offset: 0.846 ms


# Below is generated by plot.py at 2019-07-18 13:25:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.31 Mbit/s
95th percentile per-packet one-way delay: 1785.962 ms
Loss rate: 7.66%
-- Flow 1:
Average throughput: 57.16 Mbit/s
95th percentile per-packet one-way delay: 1840.532 ms
Loss rate: 10.58%
-- Flow 2:
Average throughput: 35.88 Mbit/s
95th percentile per-packet one-way delay: 425.881 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 16.43 Mbit/s
95th percentile per-packet one-way delay: 194.881 ms
Loss rate: 1.83%
```
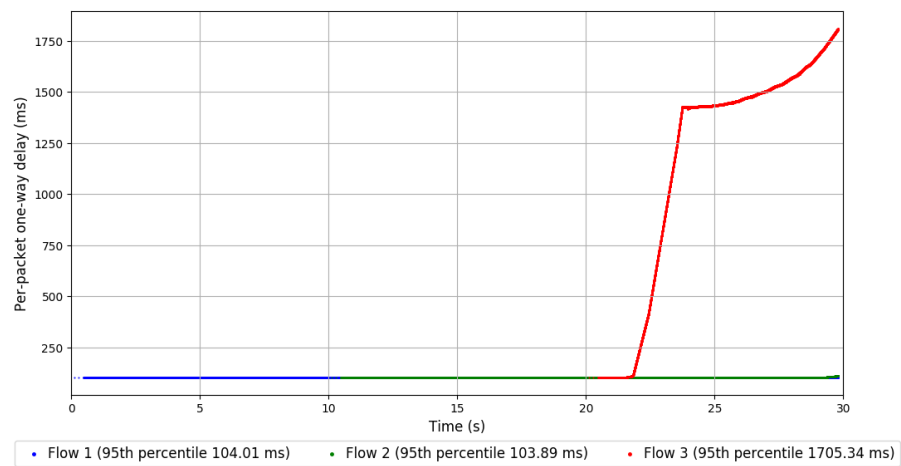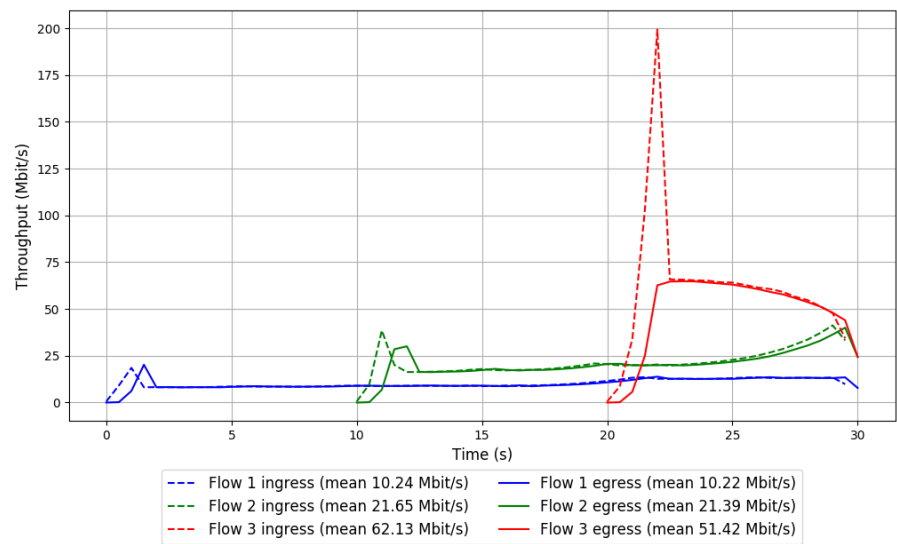
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-07-18 12:37:24
End at: 2019-07-18 12:37:54
Local clock offset: -4.116 ms
Remote clock offset: -10.936 ms


# Below is generated by plot.py at 2019-07-18 13:25:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.16 Mbit/s
95th percentile per-packet one-way delay: 1602.471 ms
Loss rate: 9.34%
-- Flow 1:
Average throughput: 10.22 Mbit/s
95th percentile per-packet one-way delay: 104.008 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 21.39 Mbit/s
95th percentile per-packet one-way delay: 103.892 ms
Loss rate: 2.08%
-- Flow 3:
Average throughput: 51.42 Mbit/s
95th percentile per-packet one-way delay: 1705.342 ms
Loss rate: 18.72%
```
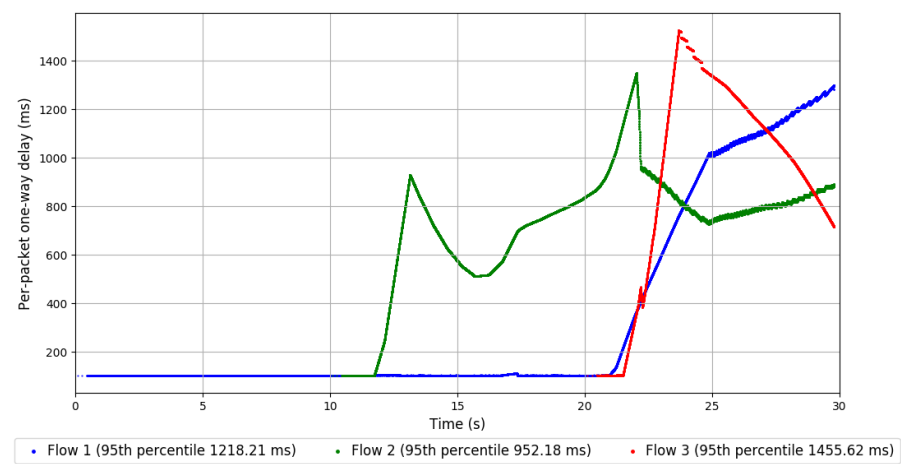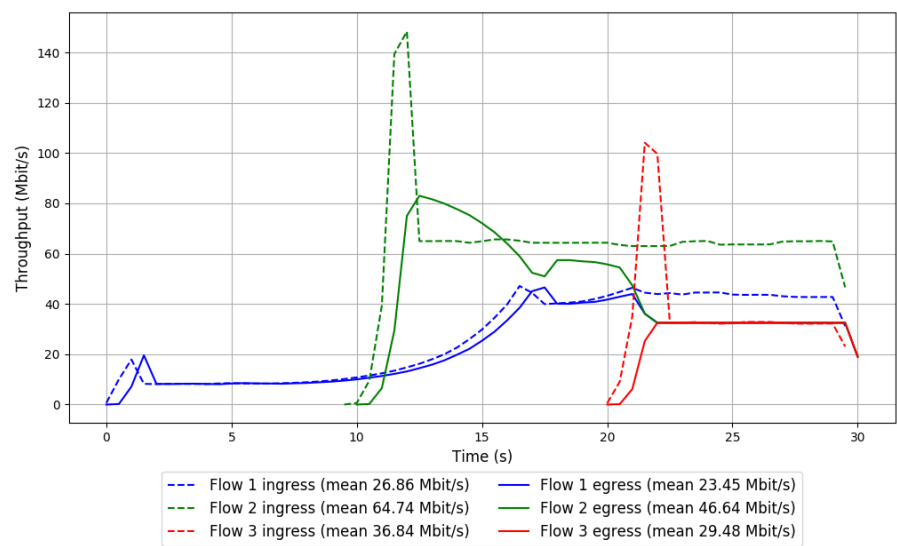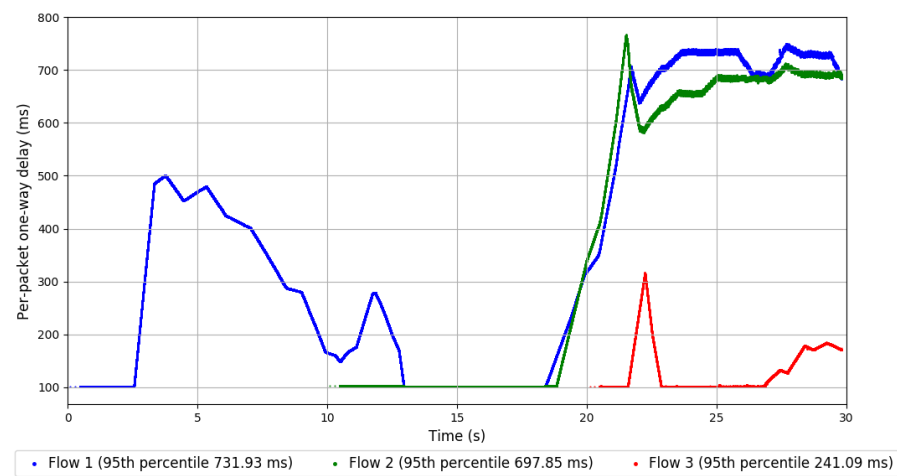
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 10.24 Mbit/s) --- Flow 1 egress (mean 10.22 Mbit/s)
Flow 2 ingress (mean 21.65 Mbit/s) --- Flow 2 egress (mean 21.39 Mbit/s)
Flow 3 ingress (mean 62.13 Mbit/s) --- Flow 3 egress (mean 51.42 Mbit/s)

Flow 1 (95th percentile 104.01 ms)   Flow 2 (95th percentile 103.89 ms)   Flow 3 (95th percentile 1705.34 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-07-18 13:08:34
End at: 2019-07-18 13:09:04
Local clock offset: -2.946 ms
Remote clock offset: -10.741 ms


# Below is generated by plot.py at 2019-07-18 13:25:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 1268.076 ms
Loss rate: 22.49%
-- Flow 1:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 1218.214 ms
Loss rate: 13.18%
-- Flow 2:
Average throughput: 46.64 Mbit/s
95th percentile per-packet one-way delay: 952.176 ms
Loss rate: 28.60%
-- Flow 3:
Average throughput: 29.48 Mbit/s
95th percentile per-packet one-way delay: 1455.615 ms
Loss rate: 21.40%
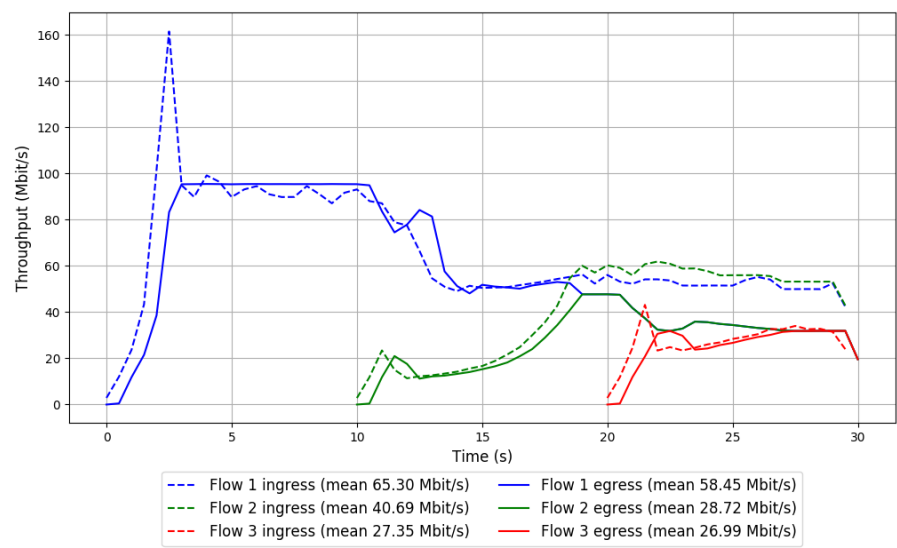```

Run 5: Report of PCC-Allegro — Data Link



Flow 1 ingress (mean 26.86 Mbit/s) --- Flow 1 egress (mean 23.45 Mbit/s)
Flow 2 ingress (mean 64.74 Mbit/s) --- Flow 2 egress (mean 46.64 Mbit/s)
Flow 3 ingress (mean 36.84 Mbit/s) --- Flow 3 egress (mean 29.48 Mbit/s)



Flow 1 (95th percentile 1218.21 ms)    Flow 2 (95th percentile 952.18 ms)    Flow 3 (95th percentile 1455.62 ms)
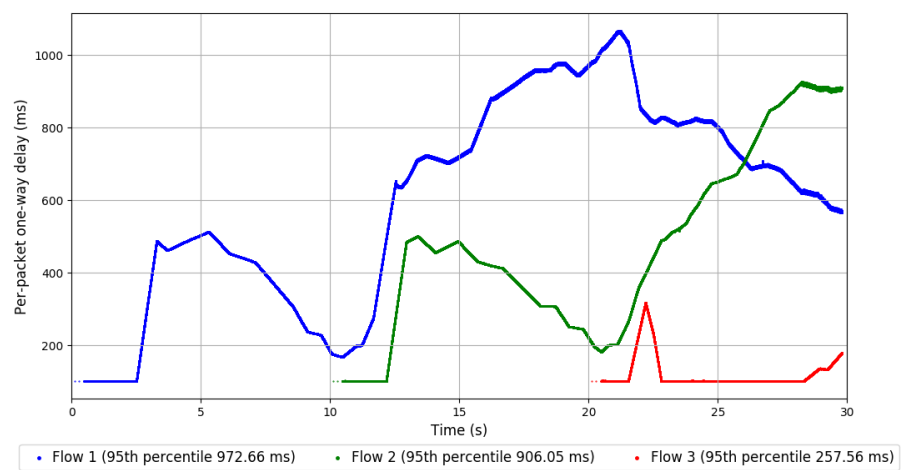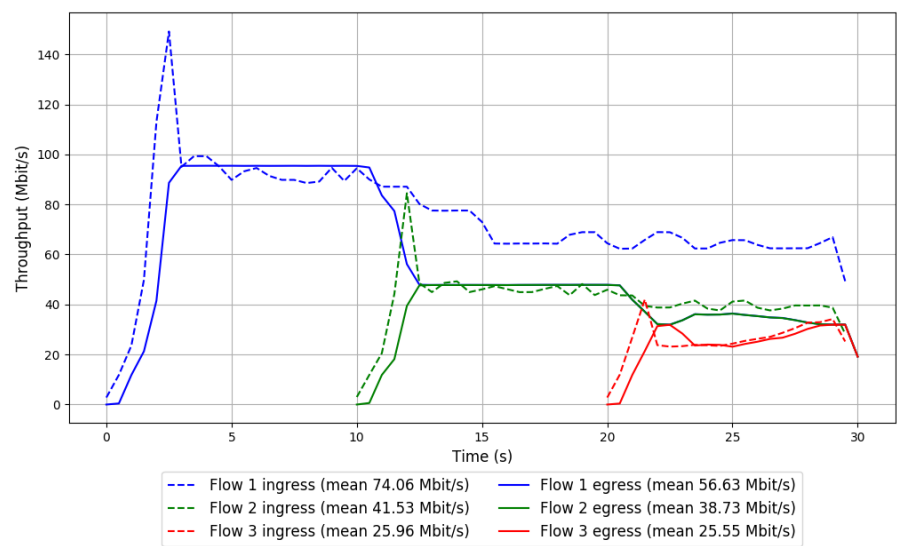
```
Run 1: Statistics of PCC-Expr

Start at: 2019-07-18 11:00:02
End at: 2019-07-18 11:00:32
Local clock offset: -4.148 ms
Remote clock offset: -9.568 ms

Below is generated by plot.py at 2019-07-18 13:26:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.31 Mbit/s
95th percentile per-packet one-way delay: 728.532 ms
Loss rate: 15.38%
-- Flow 1:
Average throughput: 58.45 Mbit/s
95th percentile per-packet one-way delay: 731.926 ms
Loss rate: 11.02%
-- Flow 2:
Average throughput: 28.72 Mbit/s
95th percentile per-packet one-way delay: 697.848 ms
Loss rate: 30.04%
-- Flow 3:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 241.089 ms
Loss rate: 3.02%
```

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



Flow 1 ingress (mean 65.30 Mbit/s)    Flow 1 egress (mean 58.45 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s)    Flow 2 egress (mean 28.72 Mbit/s)
Flow 3 ingress (mean 27.35 Mbit/s)    Flow 3 egress (mean 26.99 Mbit/s)



Flow 1 (95th percentile 731.93 ms)    Flow 2 (95th percentile 697.85 ms)    Flow 3 (95th percentile 241.09 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-07-18 11:31:11
End at: 2019-07-18 11:31:41
Local clock offset: -3.758 ms
Remote clock offset: -5.866 ms

Below is generated by plot.py at 2019-07-18 13:26:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.65 Mbit/s
95th percentile per-packet one-way delay: 957.117 ms
Loss rate: 18.26%
-- Flow 1:
Average throughput: 56.63 Mbit/s
95th percentile per-packet one-way delay: 972.663 ms
Loss rate: 23.98%
-- Flow 2:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 906.048 ms
Loss rate: 7.57%
-- Flow 3:
Average throughput: 25.55 Mbit/s
95th percentile per-packet one-way delay: 257.563 ms
Loss rate: 3.35%
```
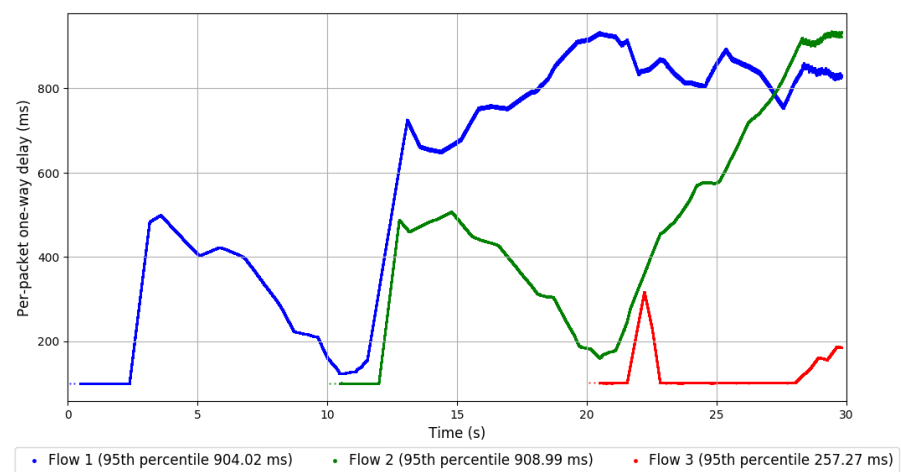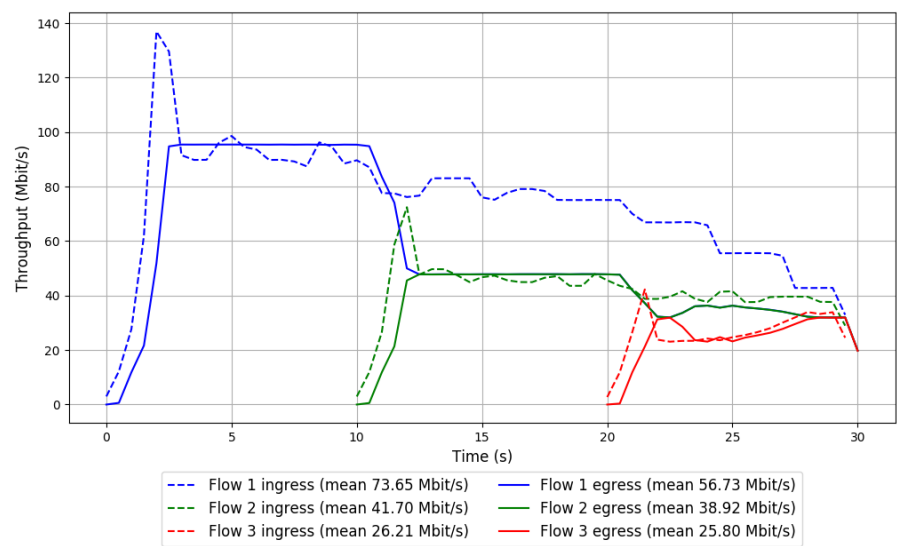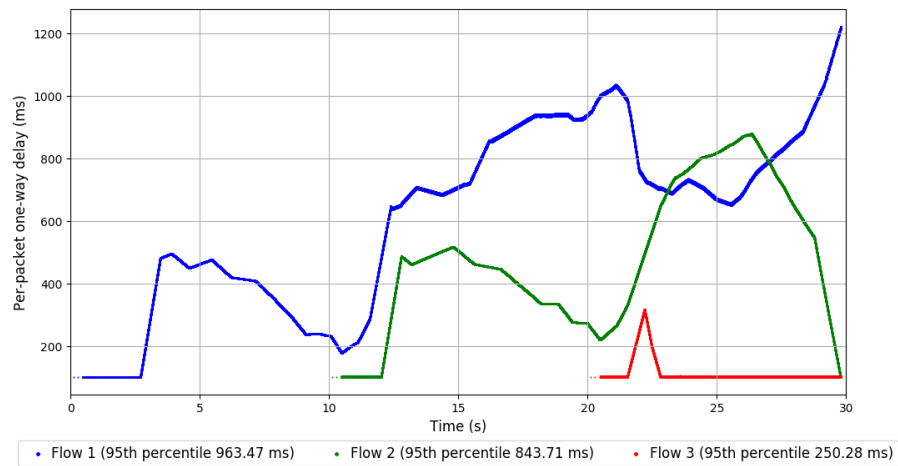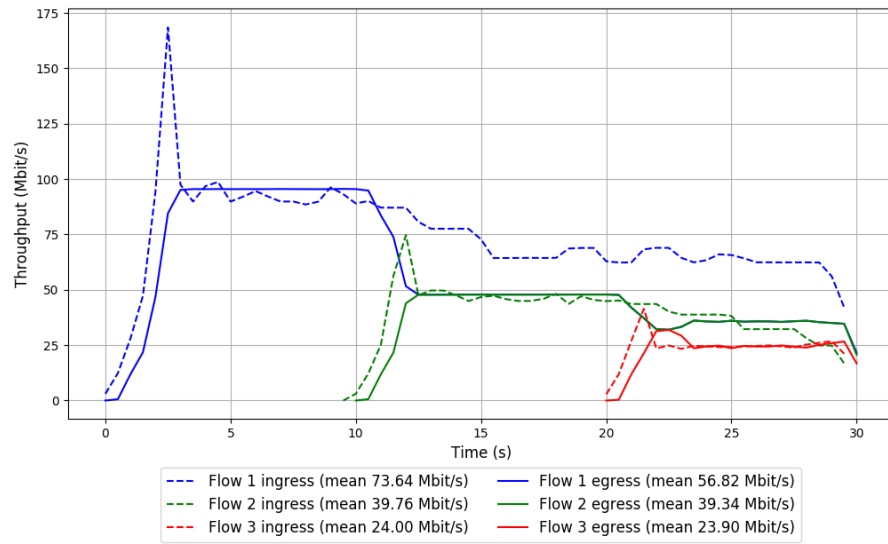
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-07-18 12:02:16
End at: 2019-07-18 12:02:46
Local clock offset: -3.863 ms
Remote clock offset: 1.081 ms

Below is generated by plot.py at 2019-07-18 13:27:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.96 Mbit/s
95th percentile per-packet one-way delay: 901.638 ms
Loss rate: 17.83%
-- Flow 1:
Average throughput: 56.73 Mbit/s
95th percentile per-packet one-way delay: 904.016 ms
Loss rate: 23.42%
-- Flow 2:
Average throughput: 38.92 Mbit/s
95th percentile per-packet one-way delay: 908.988 ms
Loss rate: 7.50%
-- Flow 3:
Average throughput: 25.80 Mbit/s
95th percentile per-packet one-way delay: 257.274 ms
Loss rate: 3.32%
```
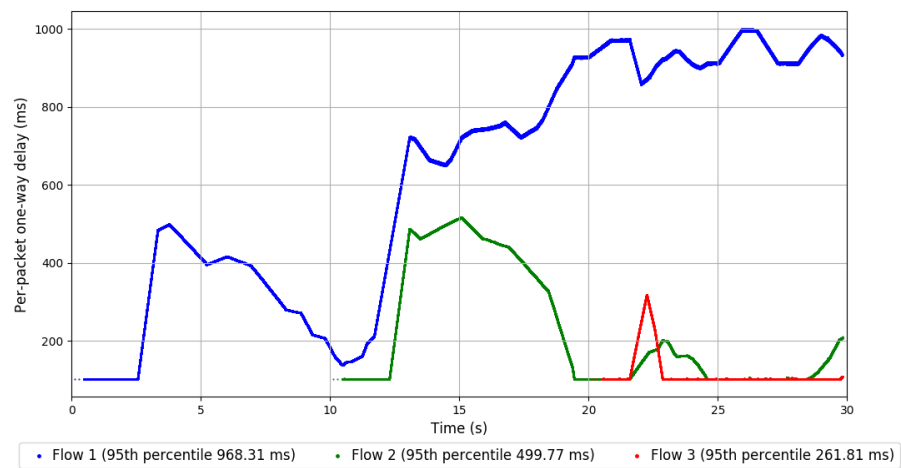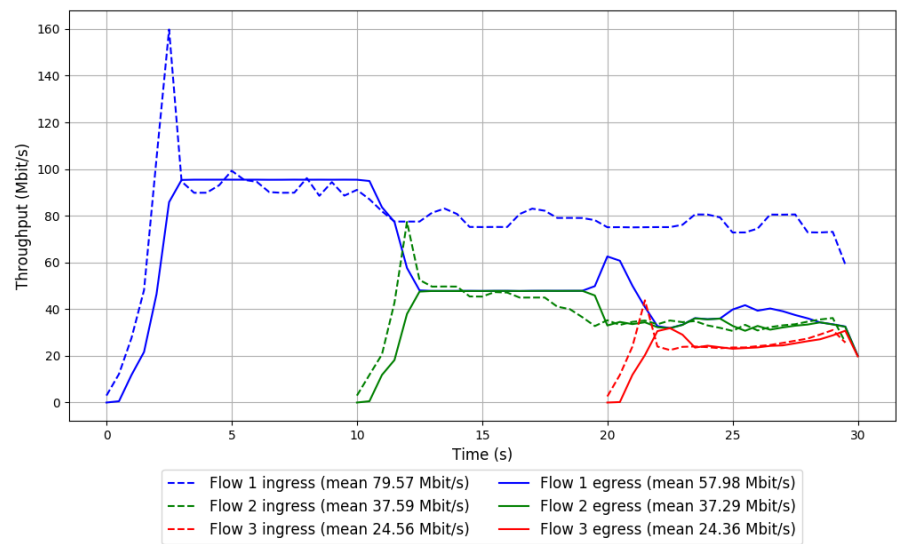
# Run 3: Report of PCC-Expr — Data Link



Flow 1 ingress (mean 73.65 Mbit/s)    Flow 1 egress (mean 56.73 Mbit/s)
Flow 2 ingress (mean 41.70 Mbit/s)    Flow 2 egress (mean 38.92 Mbit/s)
Flow 3 ingress (mean 26.21 Mbit/s)    Flow 3 egress (mean 25.80 Mbit/s)



Flow 1 (95th percentile 904.02 ms)    Flow 2 (95th percentile 908.99 ms)    Flow 3 (95th percentile 257.27 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-07-18 12:33:22
End at: 2019-07-18 12:33:52
Local clock offset: -3.991 ms
Remote clock offset: -9.479 ms

Below is generated by plot.py at 2019-07-18 13:27:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.71 Mbit/s
95th percentile per-packet one-way delay: 939.628 ms
Loss rate: 16.52%
-- Flow 1:
Average throughput: 56.82 Mbit/s
95th percentile per-packet one-way delay: 963.470 ms
Loss rate: 23.30%
-- Flow 2:
Average throughput: 39.34 Mbit/s
95th percentile per-packet one-way delay: 843.711 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 23.90 Mbit/s
95th percentile per-packet one-way delay: 250.280 ms
Loss rate: 2.18%
```
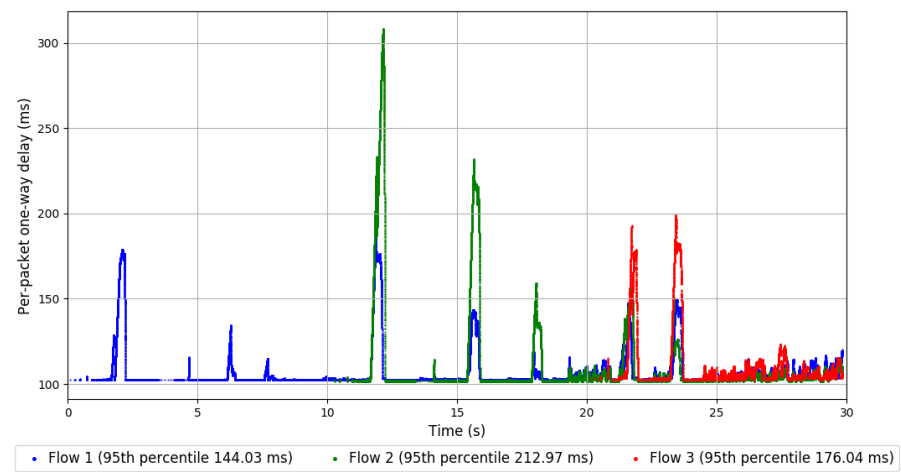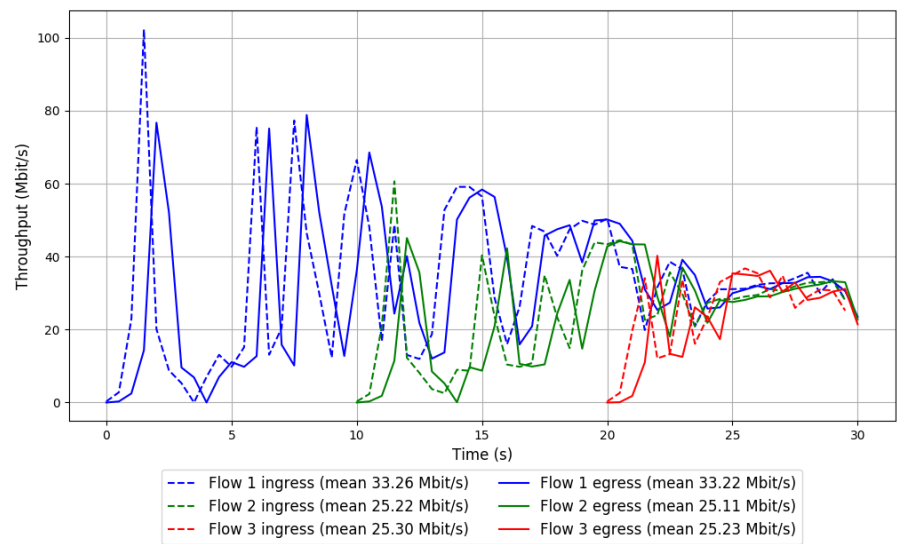
# Run 4: Report of PCC-Expr — Data Link



Flow 1 ingress (mean 73.64 Mbit/s)        Flow 1 egress (mean 56.82 Mbit/s)
Flow 2 ingress (mean 39.76 Mbit/s)        Flow 2 egress (mean 39.34 Mbit/s)
Flow 3 ingress (mean 24.00 Mbit/s)        Flow 3 egress (mean 23.90 Mbit/s)



Flow 1 (95th percentile 963.47 ms)    Flow 2 (95th percentile 843.71 ms)    Flow 3 (95th percentile 250.28 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-07-18 13:04:31
End at: 2019-07-18 13:05:01
Local clock offset: -3.16 ms
Remote clock offset: -9.566 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.66 Mbit/s
95th percentile per-packet one-way delay: 950.243 ms
Loss rate: 20.01%
-- Flow 1:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 968.309 ms
Loss rate: 27.56%
-- Flow 2:
Average throughput: 37.29 Mbit/s
95th percentile per-packet one-way delay: 499.772 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 261.807 ms
Loss rate: 2.59%
```

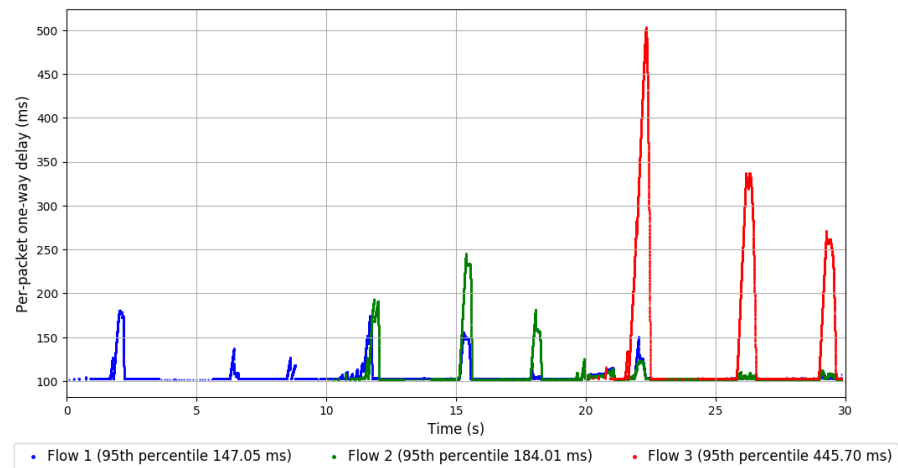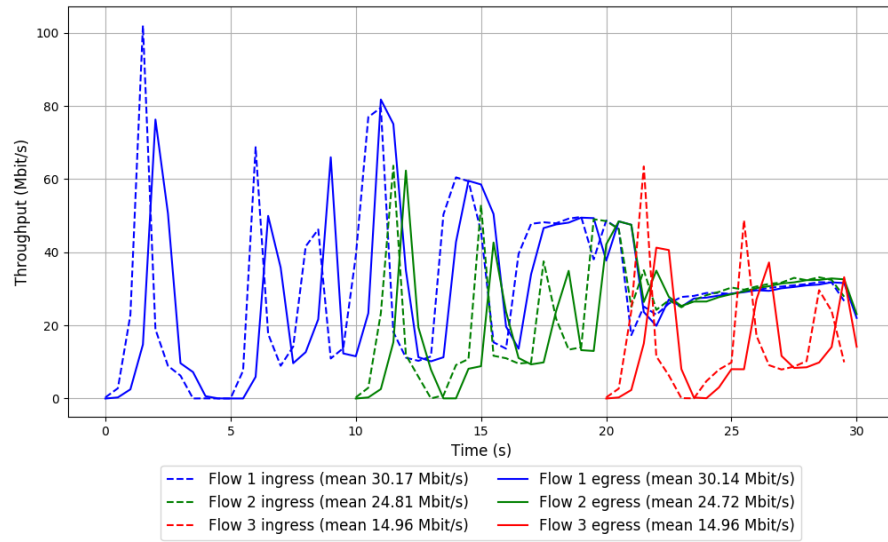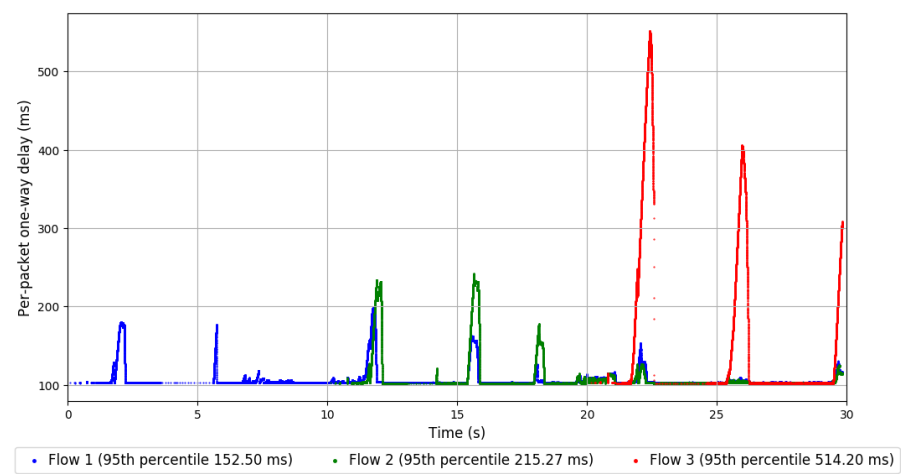Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-07-18 10:41:54
End at: 2019-07-18 10:42:24
Local clock offset: -4.203 ms
Remote clock offset: -10.084 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.12 Mbit/s
95th percentile per-packet one-way delay: 168.762 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 33.22 Mbit/s
95th percentile per-packet one-way delay: 144.031 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 25.11 Mbit/s
95th percentile per-packet one-way delay: 212.971 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 25.23 Mbit/s
95th percentile per-packet one-way delay: 176.044 ms
Loss rate: 2.07%
```

Run 1: Report of QUIC Cubic — Data Link

- - - - Flow 1 ingress (mean 33.26 Mbit/s)   —— Flow 1 egress (mean 33.22 Mbit/s)
- - - - Flow 2 ingress (mean 25.22 Mbit/s)   —— Flow 2 egress (mean 25.11 Mbit/s)
- - - - Flow 3 ingress (mean 25.30 Mbit/s)   —— Flow 3 egress (mean 25.23 Mbit/s)

• Flow 1 (95th percentile 144.03 ms)   • Flow 2 (95th percentile 212.97 ms)   • Flow 3 (95th percentile 176.04 ms)
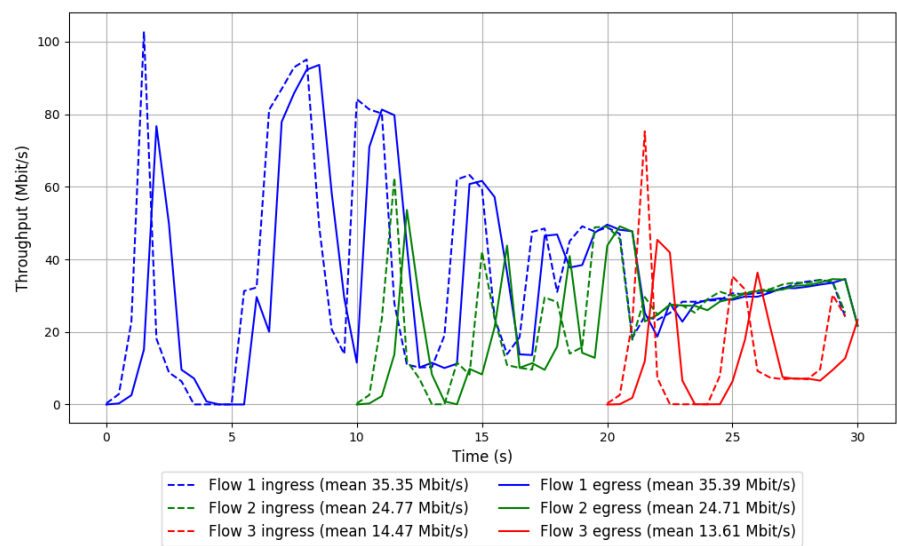
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```
Run 2: Statistics of QUIC Cubic

Start at: 2019-07-18 11:13:06
End at: 2019-07-18 11:13:36
Local clock offset: -4.165 ms
Remote clock offset: -9.249 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.44 Mbit/s
95th percentile per-packet one-way delay: 193.884 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 147.048 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 24.72 Mbit/s
95th percentile per-packet one-way delay: 184.013 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 14.96 Mbit/s
95th percentile per-packet one-way delay: 445.704 ms
Loss rate: 1.74%
```

Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-07-18 11:44:12
End at: 2019-07-18 11:44:42
Local clock offset: -3.151 ms
Remote clock offset: -5.437 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 204.797 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 152.505 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 24.71 Mbit/s
95th percentile per-packet one-way delay: 215.270 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 13.61 Mbit/s
95th percentile per-packet one-way delay: 514.199 ms
Loss rate: 7.56%
```
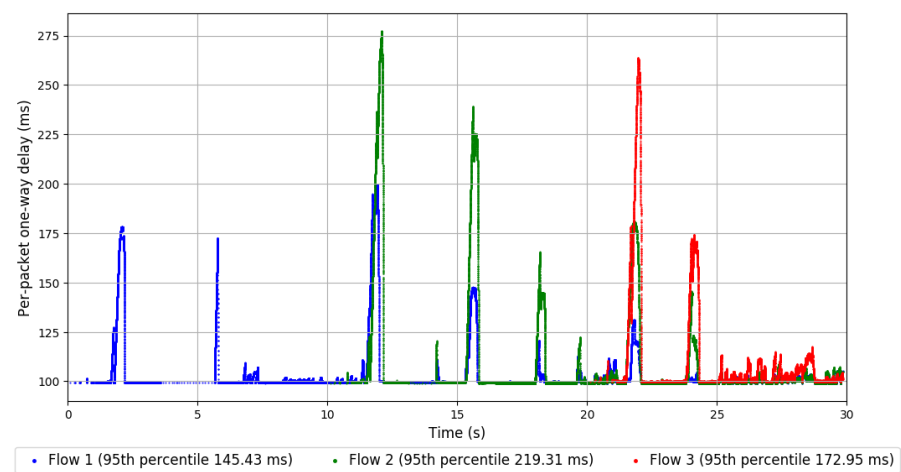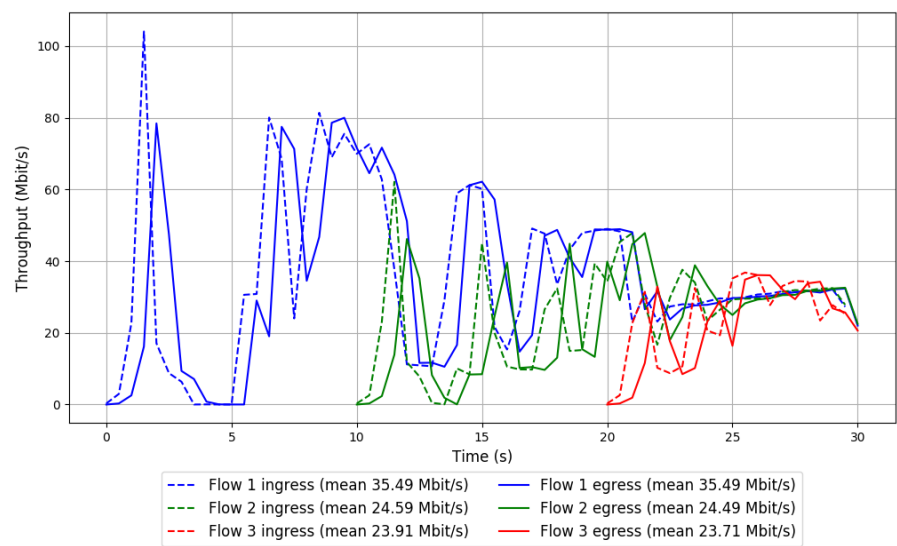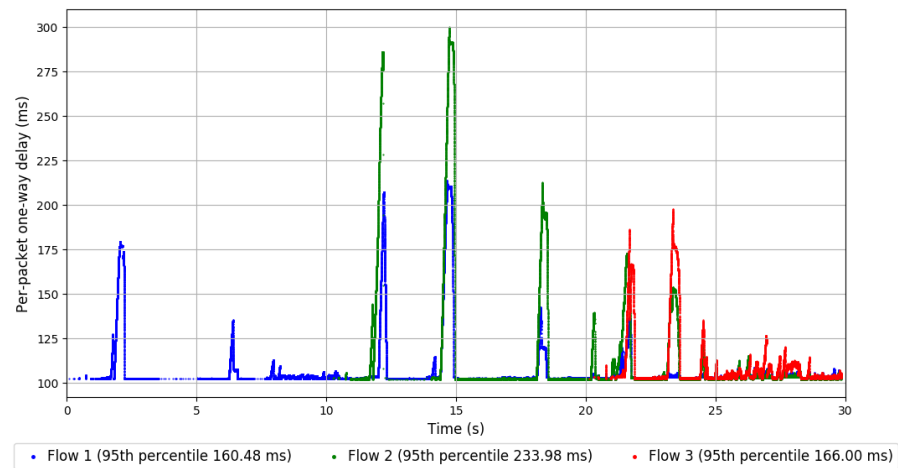
Run 3: Report of QUIC Cubic — Data Link

- Flow 1 ingress (mean 35.35 Mbit/s)
- Flow 1 egress (mean 35.39 Mbit/s)
- Flow 2 ingress (mean 24.77 Mbit/s)
- Flow 2 egress (mean 24.71 Mbit/s)
- Flow 3 ingress (mean 14.47 Mbit/s)
- Flow 3 egress (mean 13.61 Mbit/s)

- Flow 1 (95th percentile 152.50 ms)
- Flow 2 (95th percentile 215.27 ms)
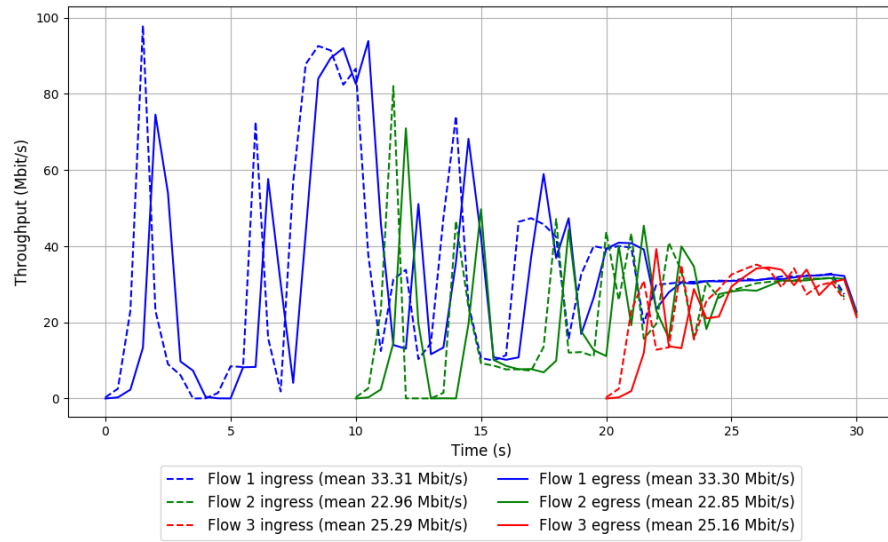- Flow 3 (95th percentile 514.20 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-07-18 12:15:17
End at: 2019-07-18 12:15:47
Local clock offset: -4.015 ms
Remote clock offset: 0.356 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.49 Mbit/s
95th percentile per-packet one-way delay: 170.904 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 35.49 Mbit/s
95th percentile per-packet one-way delay: 145.429 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 219.308 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 23.71 Mbit/s
95th percentile per-packet one-way delay: 172.946 ms
Loss rate: 2.58%
```
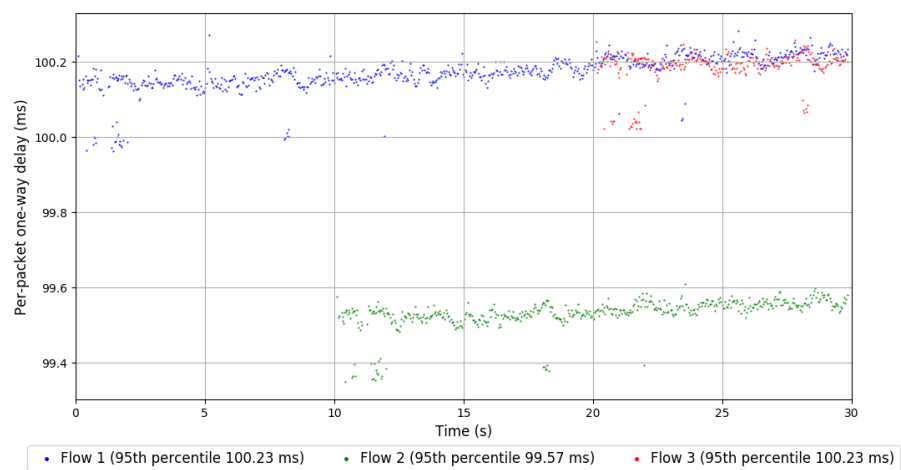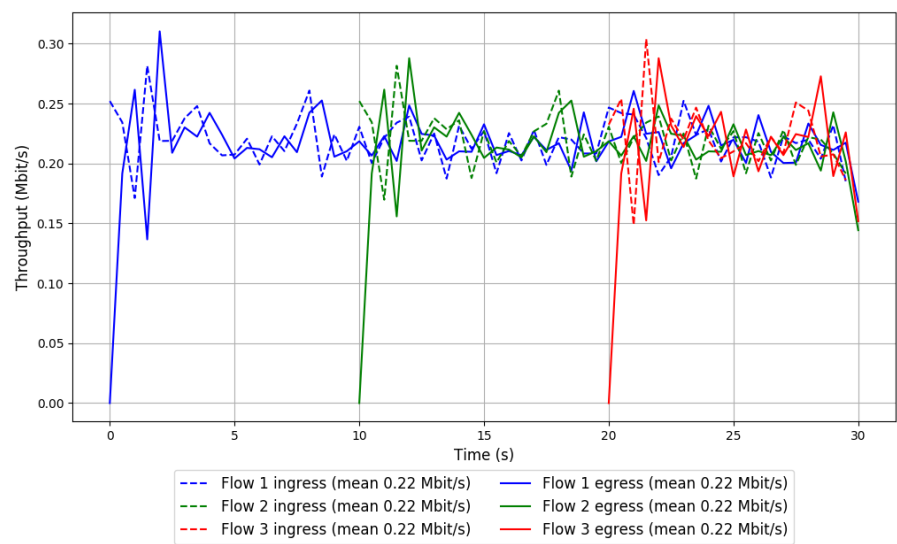
Run 4: Report of QUIC Cubic — Data Link

- Flow 1 ingress (mean 35.49 Mbit/s)
- Flow 1 egress (mean 35.49 Mbit/s)
- Flow 2 ingress (mean 24.59 Mbit/s)
- Flow 2 egress (mean 24.49 Mbit/s)
- Flow 3 ingress (mean 23.91 Mbit/s)
- Flow 3 egress (mean 23.71 Mbit/s)

- Flow 1 (95th percentile 145.43 ms)
- Flow 2 (95th percentile 219.31 ms)
- Flow 3 (95th percentile 172.95 ms)

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```
Run 5: Statistics of QUIC Cubic

Start at: 2019-07-18 12:46:19
End at: 2019-07-18 12:46:49
Local clock offset: -3.856 ms
Remote clock offset: -11.132 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.69 Mbit/s
95th percentile per-packet one-way delay: 176.010 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 33.30 Mbit/s
95th percentile per-packet one-way delay: 160.483 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 233.979 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 25.16 Mbit/s
95th percentile per-packet one-way delay: 166.001 ms
Loss rate: 2.25%
```

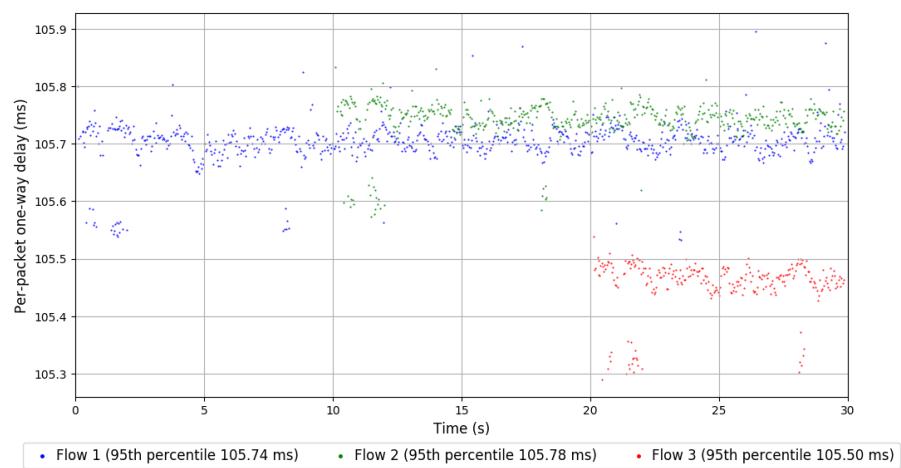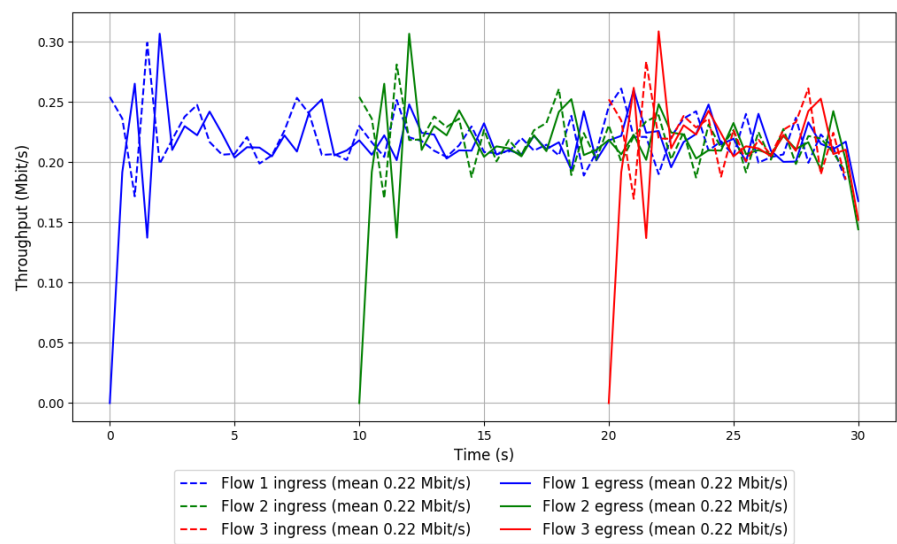Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-07-18 11:06:37
End at: 2019-07-18 11:07:07
Local clock offset: -3.946 ms
Remote clock offset: -7.521 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 100.225 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.229 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.573 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.228 ms
Loss rate: 1.50%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-07-18 11:37:48
End at: 2019-07-18 11:38:18
Local clock offset: -3.54 ms
Remote clock offset: -10.943 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 105.767 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 105.737 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 105.776 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 105.497 ms
Loss rate: 1.85%
```
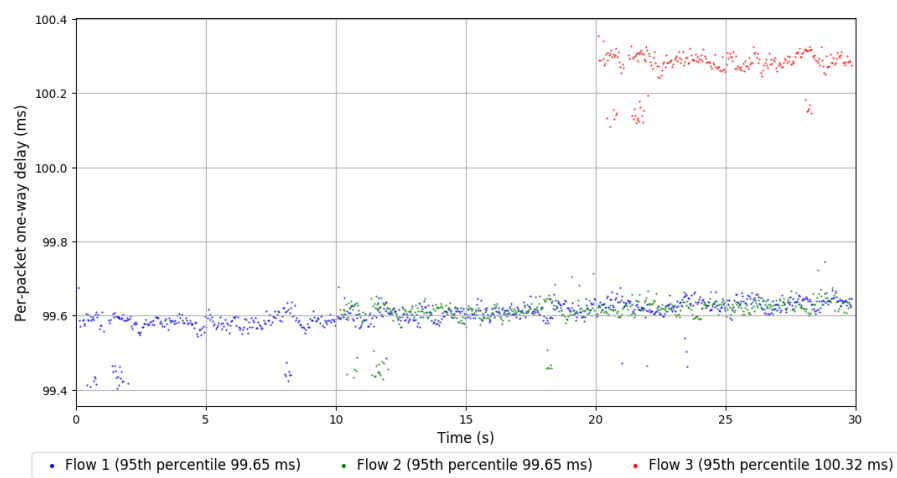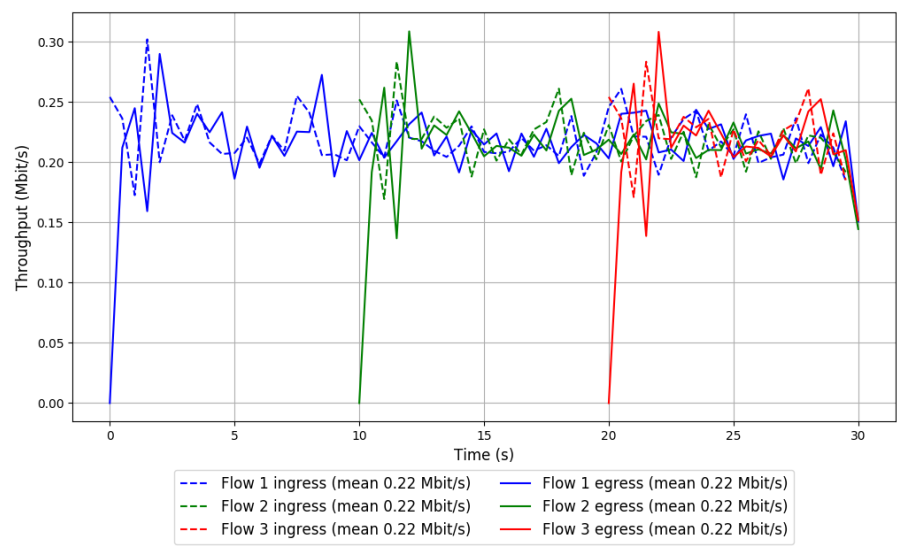
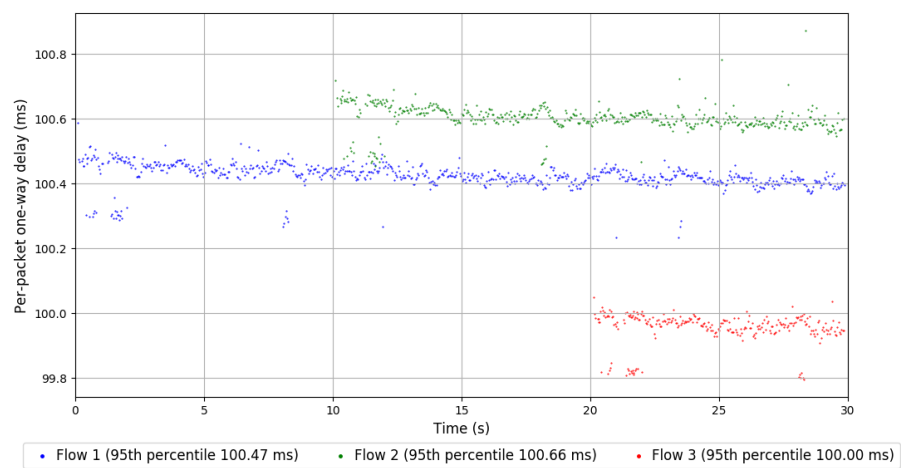## Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-07-18 12:08:52
End at: 2019-07-18 12:09:22
Local clock offset: -3.893 ms
Remote clock offset: 1.623 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 100.298 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.649 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.651 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.317 ms
Loss rate: 1.84%
```

Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-07-18 12:39:56
End at: 2019-07-18 12:40:26
Local clock offset: -3.865 ms
Remote clock offset: -8.562 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 100.634 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.475 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.657 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.004 ms
Loss rate: 1.85%
```
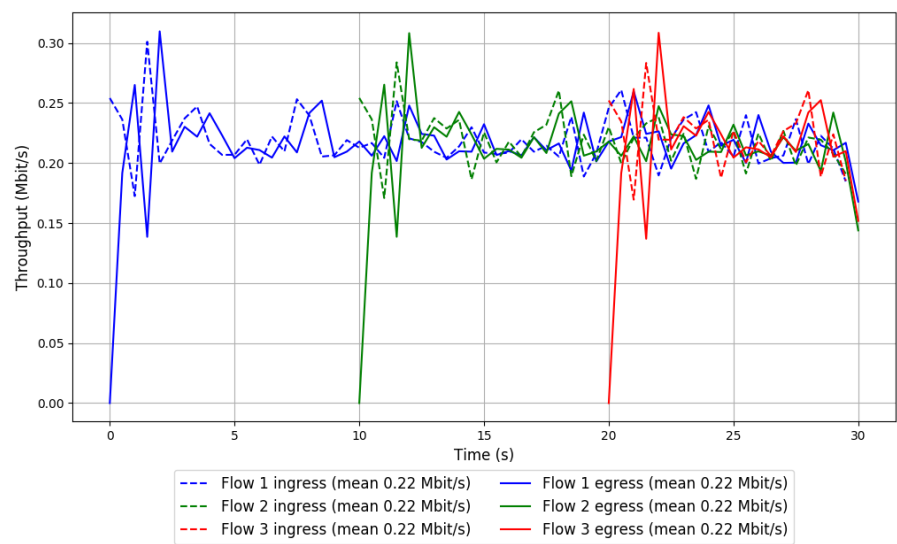
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-07-18 13:11:07
End at: 2019-07-18 13:11:37
Local clock offset: -2.892 ms
Remote clock offset: -8.114 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 100.071 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.078 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.446 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.421 ms
Loss rate: 1.85%
```
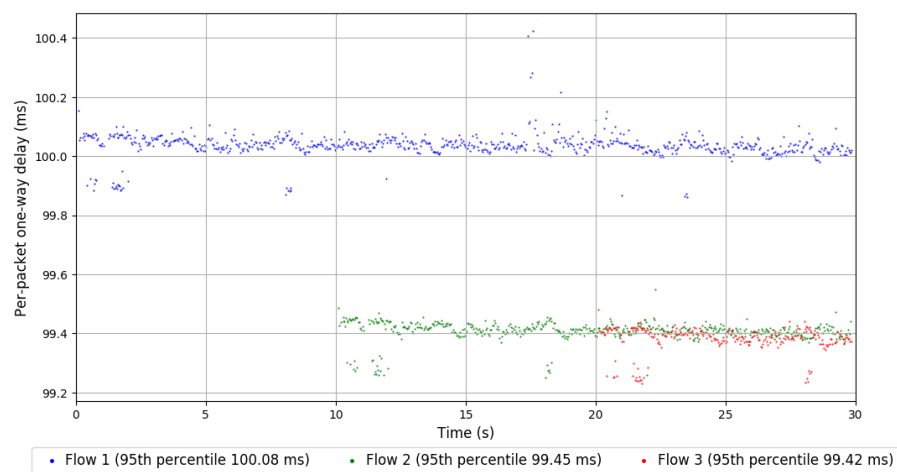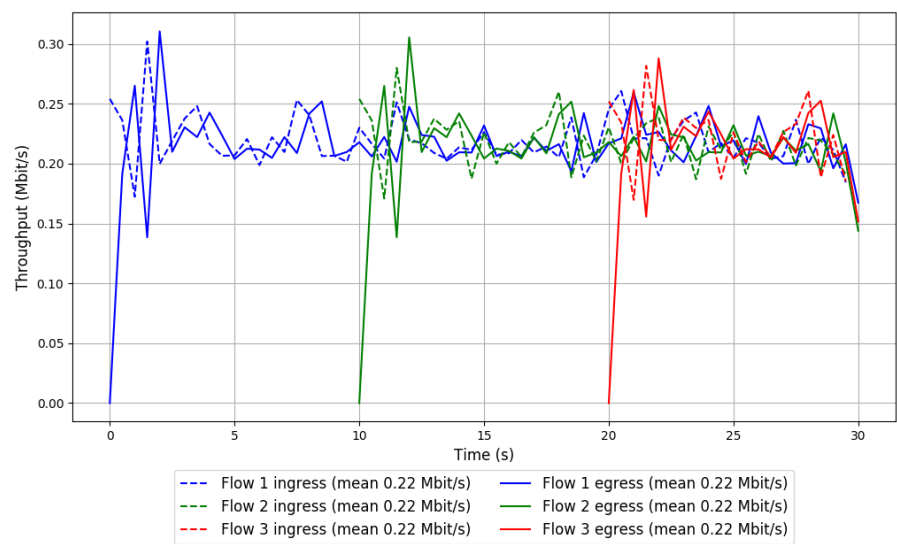
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-07-18 10:58:49
End at: 2019-07-18 10:59:19
Local clock offset: -3.914 ms
Remote clock offset: -8.56 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 107.555 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 107.593 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 2.67 Mbit/s
95th percentile per-packet one-way delay: 107.928 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 102.930 ms
Loss rate: 3.63%
```
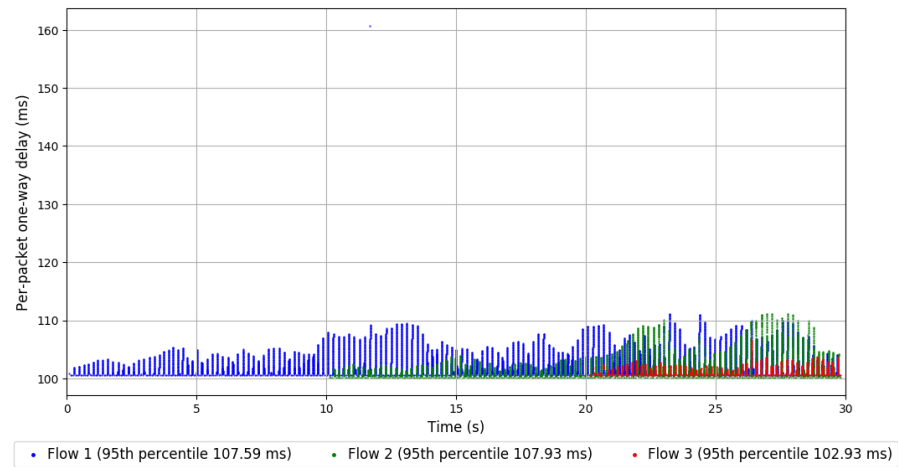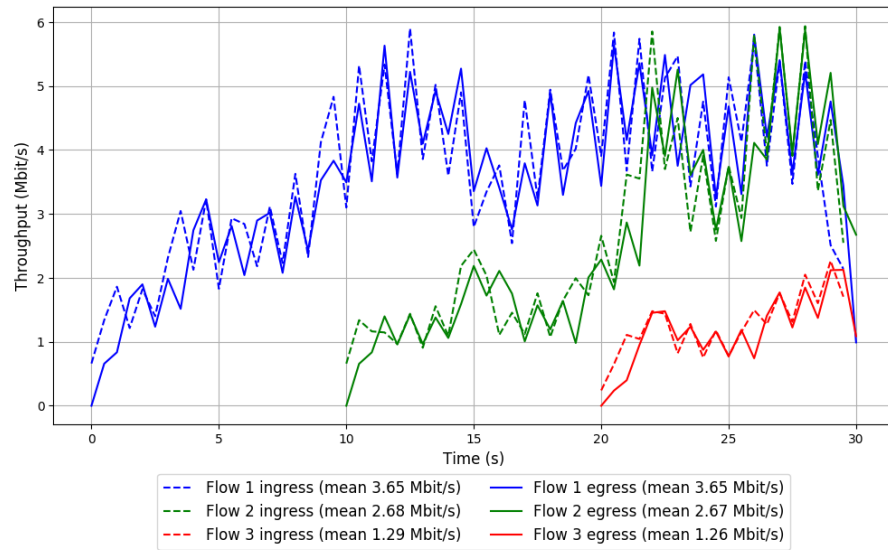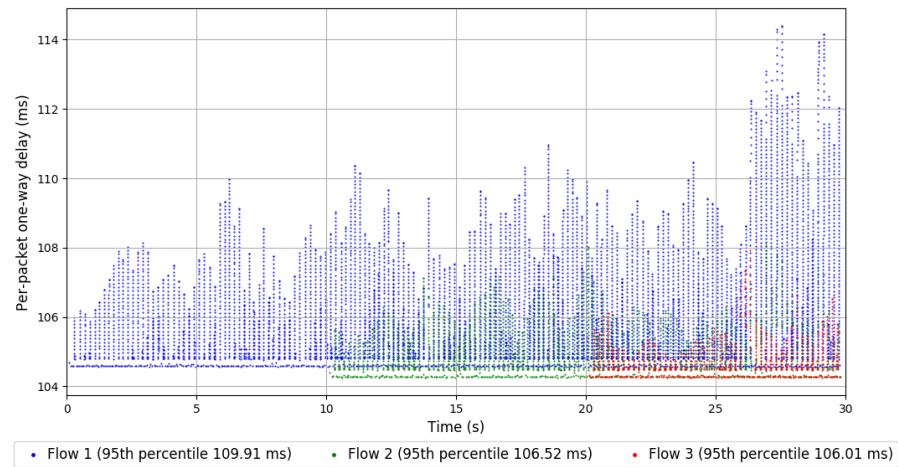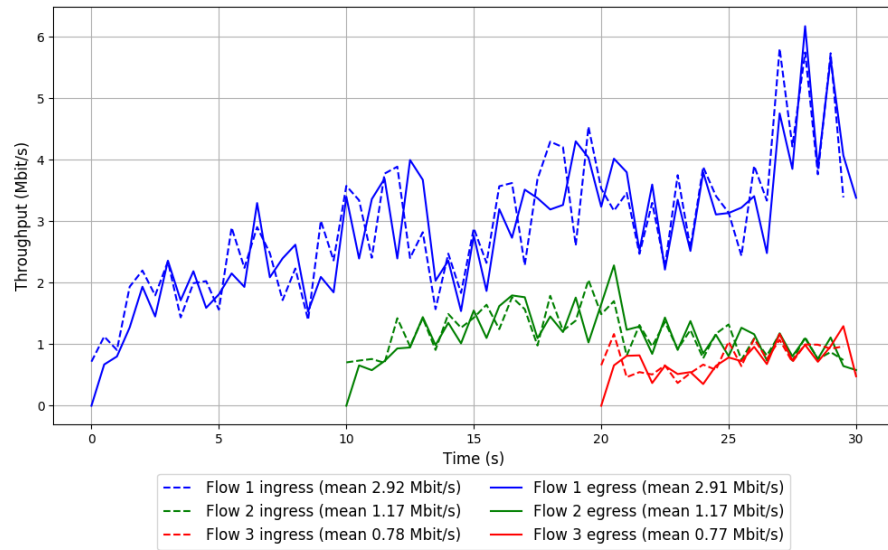
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-07-18 11:29:57
End at: 2019-07-18 11:30:27
Local clock offset: -3.598 ms
Remote clock offset: -10.348 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 109.390 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 109.912 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 106.517 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 106.012 ms
Loss rate: 3.18%
```

Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-07-18 12:01:03
End at: 2019-07-18 12:01:33
Local clock offset: -3.808 ms
Remote clock offset: -1.389 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 107.800 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 108.388 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 104.079 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 103.614 ms
Loss rate: 1.87%
```
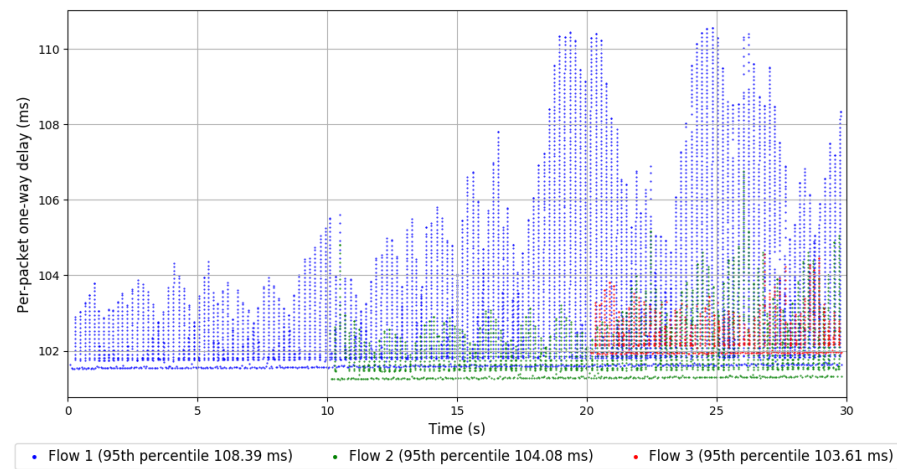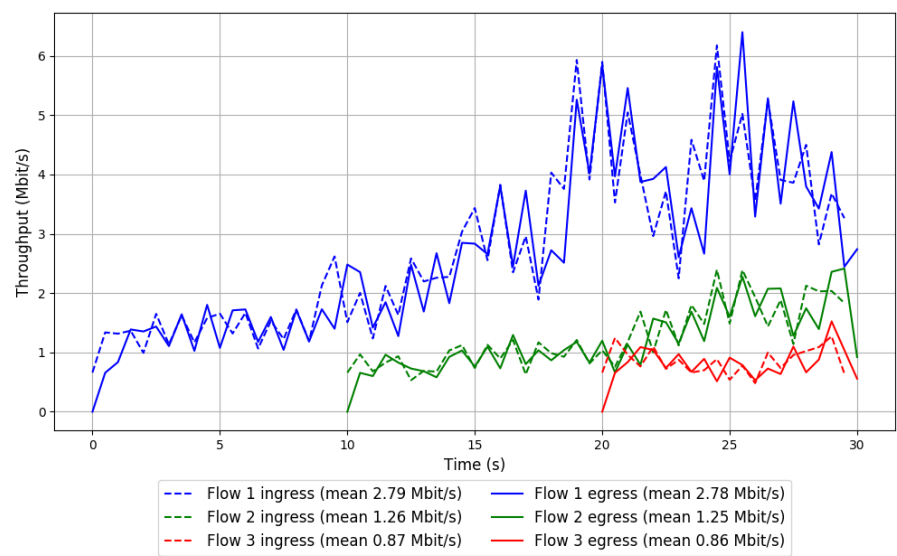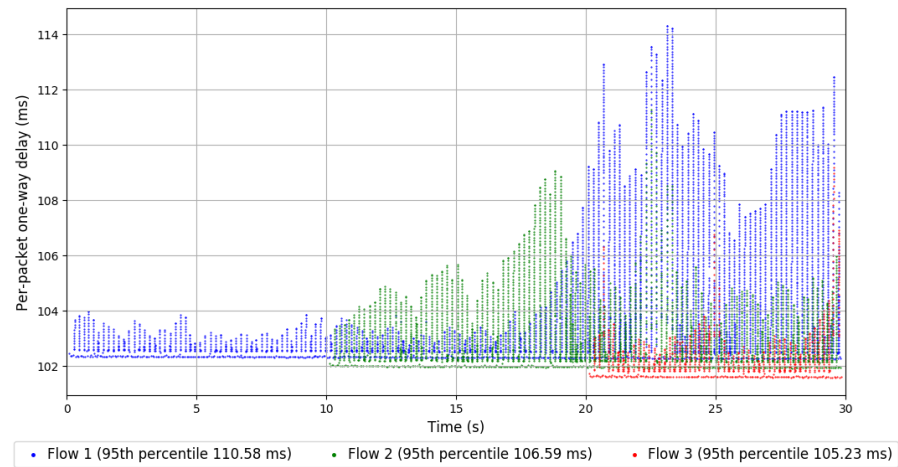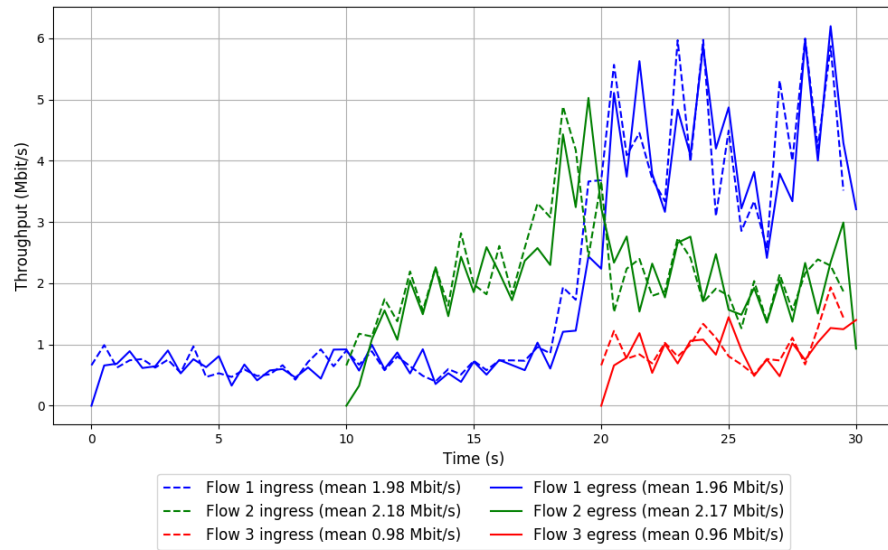
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-07-18 12:32:09
End at: 2019-07-18 12:32:39
Local clock offset: -3.933 ms
Remote clock offset: -9.238 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 109.637 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 110.585 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 106.590 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 105.229 ms
Loss rate: 3.75%
```
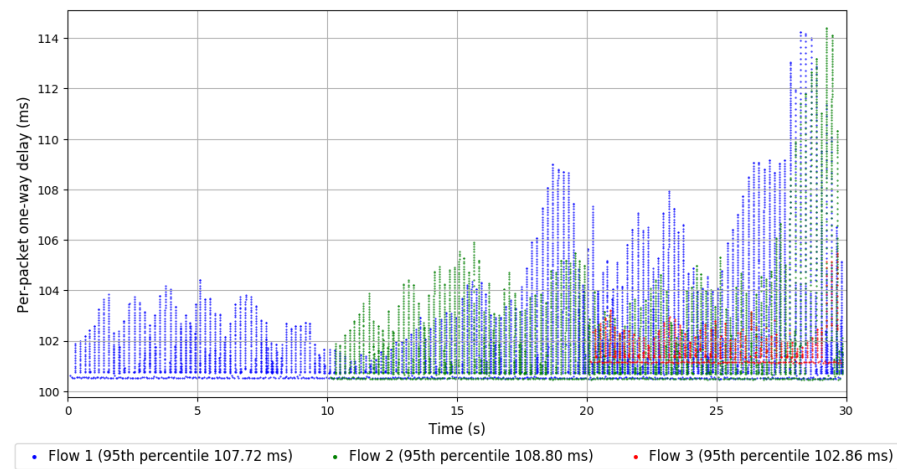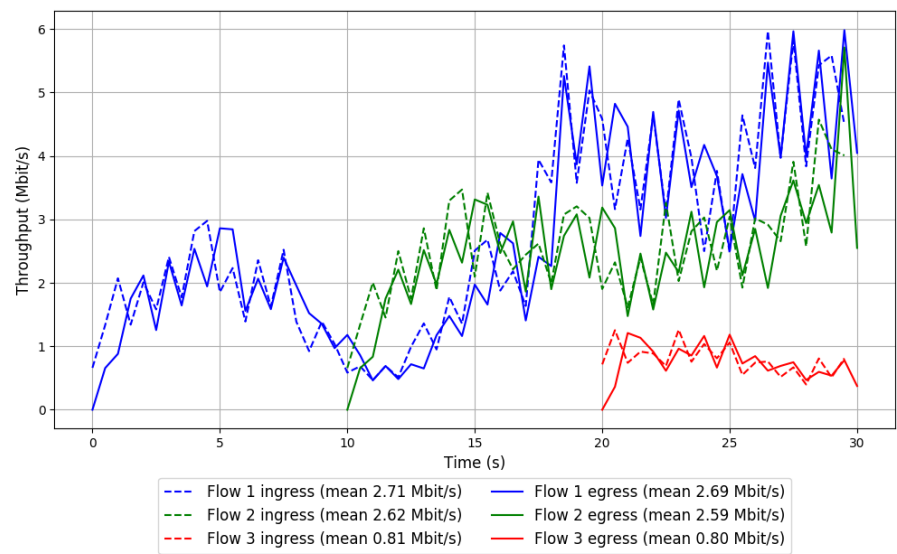
Run 4: Report of Sprout — Data Link

192

```
Run 5: Statistics of Sprout

Start at: 2019-07-18 13:03:17
End at: 2019-07-18 13:03:47
Local clock offset: -3.49 ms
Remote clock offset: -9.549 ms


# Below is generated by plot.py at 2019-07-18 13:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 107.775 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 107.723 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 108.799 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 102.858 ms
Loss rate: 2.77%
```

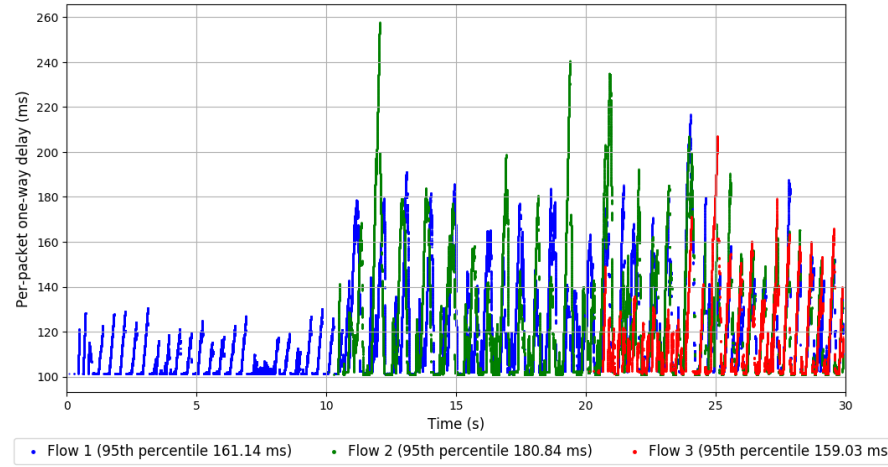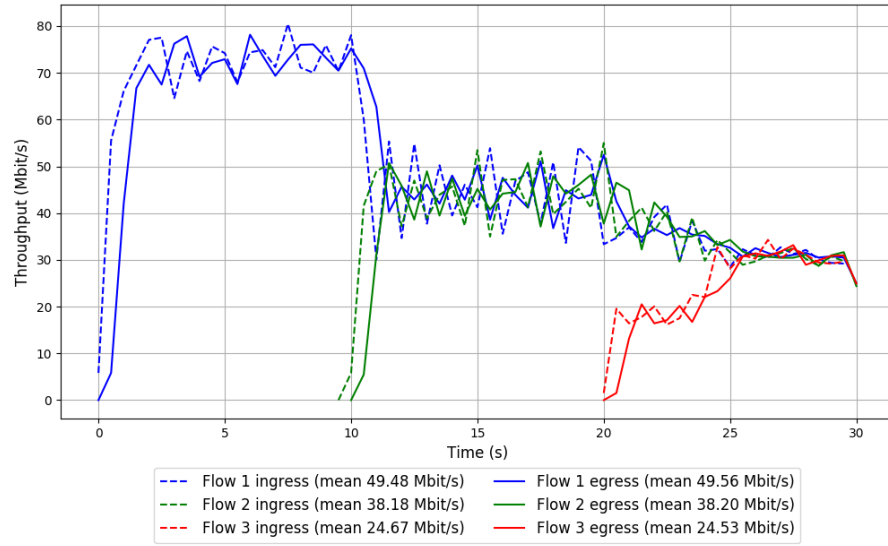# Run 5: Report of Sprout — Data Link

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

Start at: 2019-07-18 10:40:33
End at: 2019-07-18 10:41:03
Local clock offset: -3.958 ms
Remote clock offset: -9.301 ms


# Below is generated by plot.py at 2019-07-18 13:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 169.380 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 49.56 Mbit/s
95th percentile per-packet one-way delay: 161.140 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 38.20 Mbit/s
95th percentile per-packet one-way delay: 180.841 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 159.033 ms
Loss rate: 2.32%
```

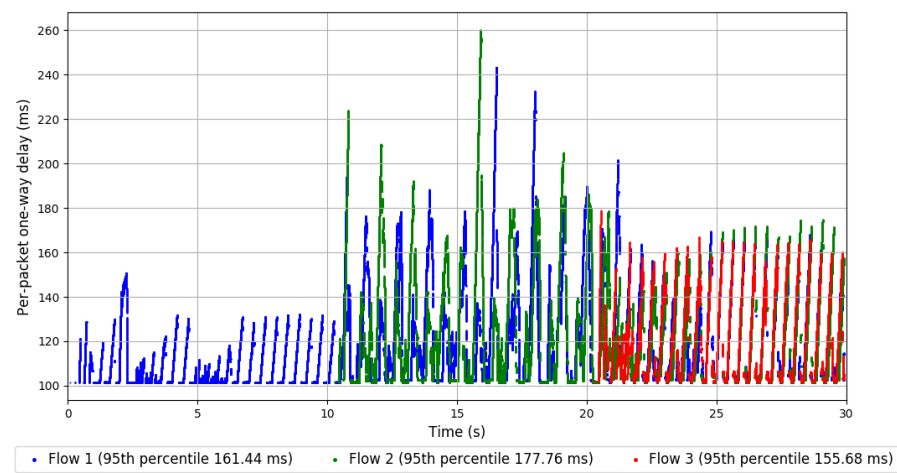Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-07-18 11:11:39
End at: 2019-07-18 11:12:09
Local clock offset: -3.964 ms
Remote clock offset: -8.277 ms


# Below is generated by plot.py at 2019-07-18 13:28:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.13 Mbit/s
95th percentile per-packet one-way delay: 166.934 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 48.90 Mbit/s
95th percentile per-packet one-way delay: 161.438 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 36.89 Mbit/s
95th percentile per-packet one-way delay: 177.759 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 155.677 ms
Loss rate: 2.07%
```

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

Flow 1 ingress (mean 48.82 Mbit/s) --- Flow 1 egress (mean 48.90 Mbit/s)
Flow 2 ingress (mean 36.83 Mbit/s) --- Flow 2 egress (mean 36.89 Mbit/s)
Flow 3 ingress (mean 29.69 Mbit/s) --- Flow 3 egress (mean 29.60 Mbit/s)

Flow 1 (95th percentile 161.44 ms) • Flow 2 (95th percentile 177.76 ms) • Flow 3 (95th percentile 155.68 ms)
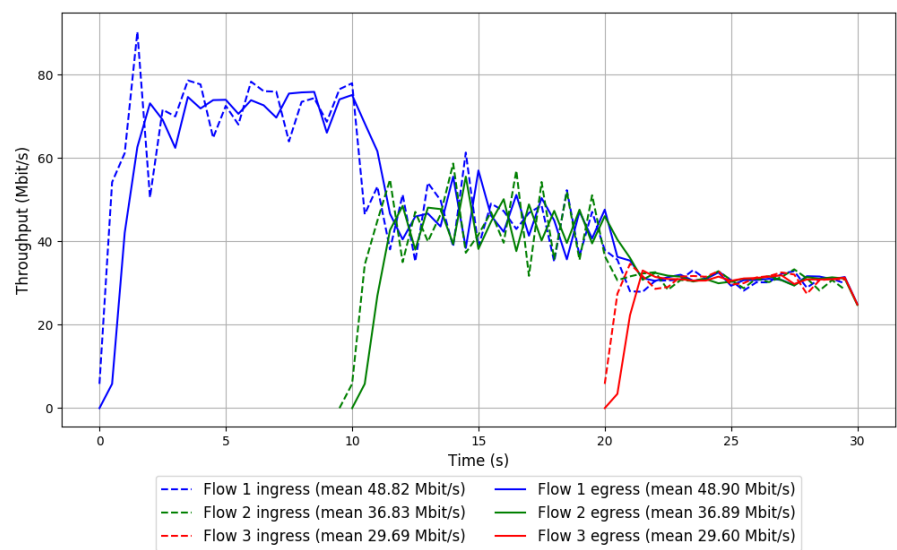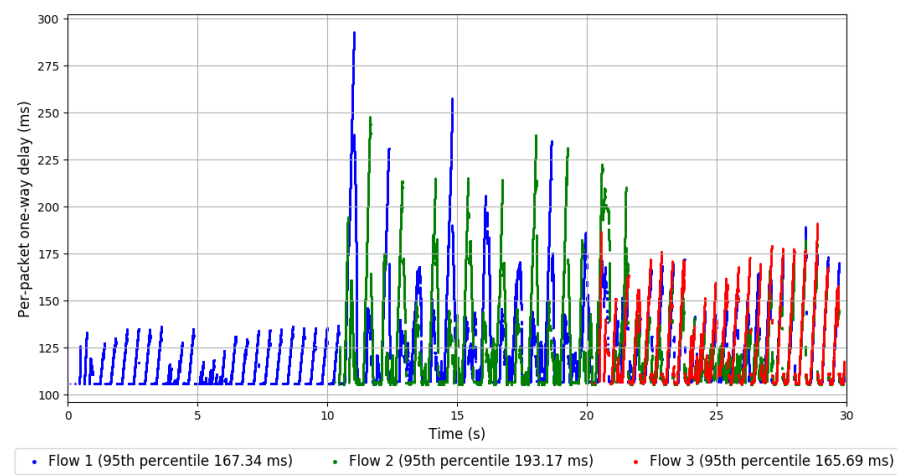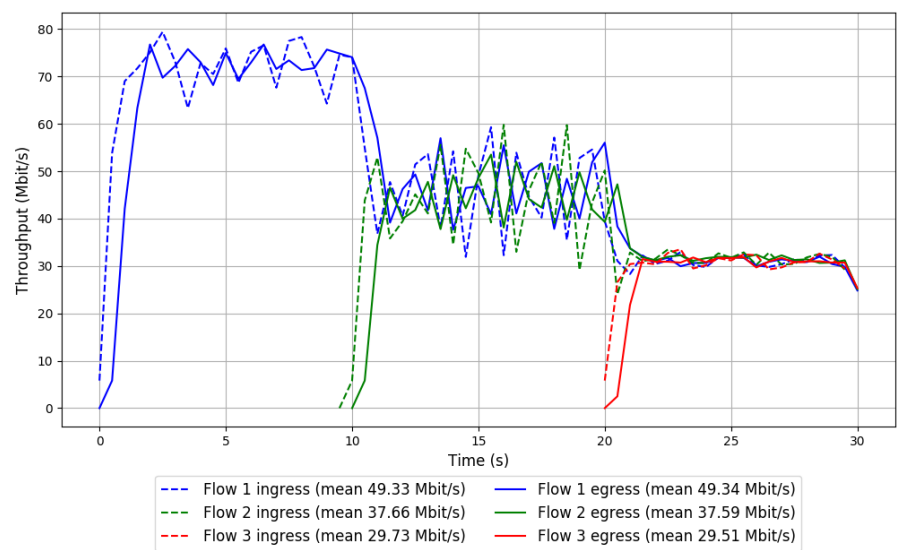
```
Run 3: Statistics of TaoVA-100x

Start at: 2019-07-18 11:42:50
End at: 2019-07-18 11:43:20
Local clock offset: -3.193 ms
Remote clock offset: -9.395 ms

# Below is generated by plot.py at 2019-07-18 13:28:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.01 Mbit/s
95th percentile per-packet one-way delay: 173.631 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 167.343 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 37.59 Mbit/s
95th percentile per-packet one-way delay: 193.171 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 165.687 ms
Loss rate: 2.26%
```

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

Legend:
- Flow 1 ingress (mean 49.33 Mbit/s)
- Flow 1 egress (mean 49.34 Mbit/s)
- Flow 2 ingress (mean 37.66 Mbit/s)
- Flow 2 egress (mean 37.59 Mbit/s)
- Flow 3 ingress (mean 29.73 Mbit/s)
- Flow 3 egress (mean 29.51 Mbit/s)

Legend:
- Flow 1 (95th percentile 167.34 ms)
- Flow 2 (95th percentile 193.17 ms)
- Flow 3 (95th percentile 165.69 ms)

200

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

Start at: 2019-07-18 12:13:55
End at: 2019-07-18 12:14:25
Local clock offset: -3.997 ms
Remote clock offset: 1.934 ms


# Below is generated by plot.py at 2019-07-18 13:28:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.90 Mbit/s
95th percentile per-packet one-way delay: 164.270 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 49.24 Mbit/s
95th percentile per-packet one-way delay: 160.406 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 37.64 Mbit/s
95th percentile per-packet one-way delay: 170.144 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 158.239 ms
Loss rate: 2.05%
```
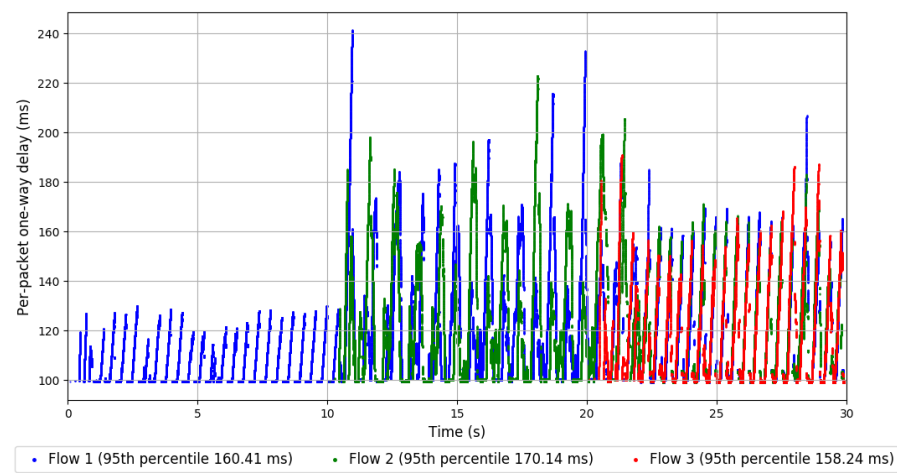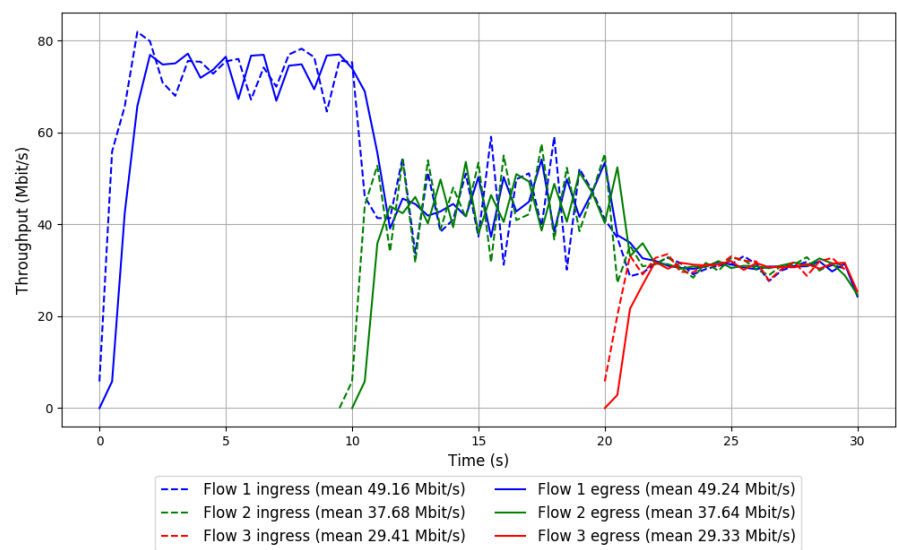
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 49.16 Mbit/s) — — — Flow 1 egress (mean 49.24 Mbit/s) ———
Flow 2 ingress (mean 37.68 Mbit/s) — — — Flow 2 egress (mean 37.64 Mbit/s) ———
Flow 3 ingress (mean 29.41 Mbit/s) — — — Flow 3 egress (mean 29.33 Mbit/s) ———

Flow 1 (95th percentile 160.41 ms) Flow 2 (95th percentile 170.14 ms) Flow 3 (95th percentile 158.24 ms)
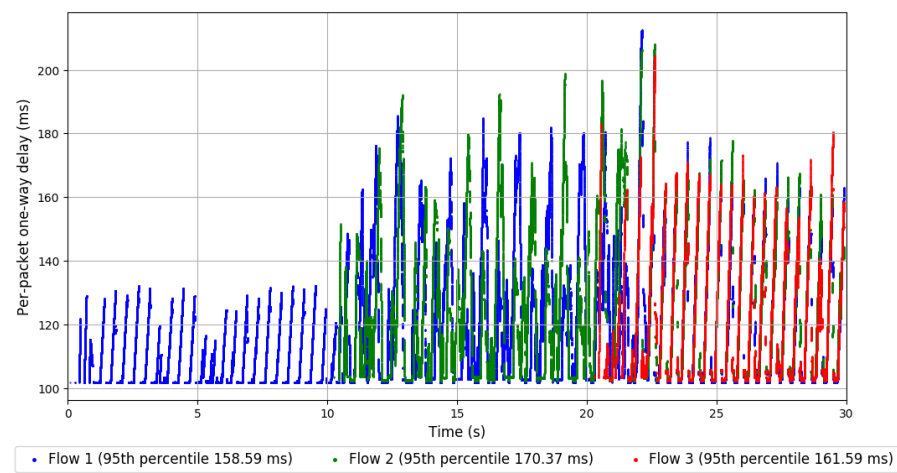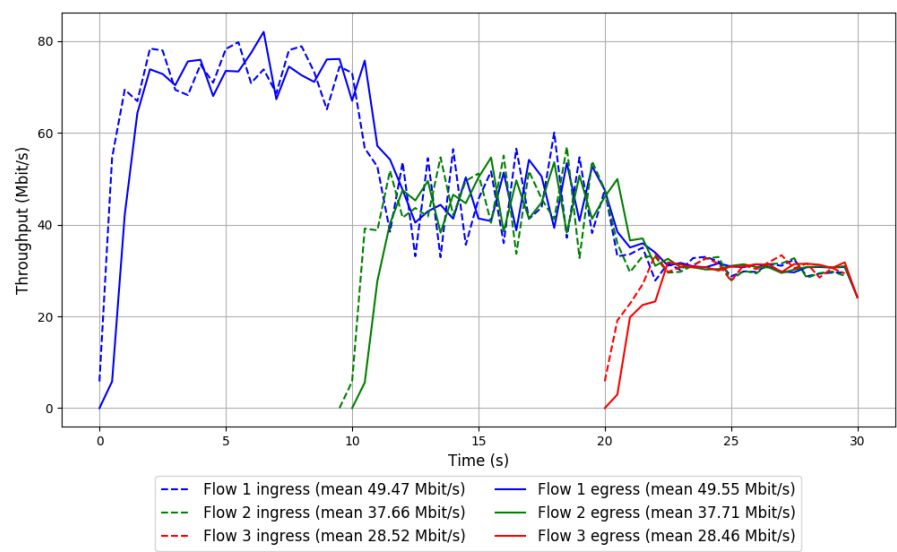
```
Run 5: Statistics of TaoVA-100x

Start at: 2019-07-18 12:44:58
End at: 2019-07-18 12:45:28
Local clock offset: -3.858 ms
Remote clock offset: -10.939 ms


# Below is generated by plot.py at 2019-07-18 13:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.97 Mbit/s
95th percentile per-packet one-way delay: 163.289 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 49.55 Mbit/s
95th percentile per-packet one-way delay: 158.586 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 170.370 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 28.46 Mbit/s
95th percentile per-packet one-way delay: 161.590 ms
Loss rate: 1.92%
```

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

- - - - Flow 1 ingress (mean 49.47 Mbit/s) ——— Flow 1 egress (mean 49.55 Mbit/s)
- - - - Flow 2 ingress (mean 37.66 Mbit/s) ——— Flow 2 egress (mean 37.71 Mbit/s)
- - - - Flow 3 ingress (mean 28.52 Mbit/s) ——— Flow 3 egress (mean 28.46 Mbit/s)

- Flow 1 (95th percentile 158.59 ms)   - Flow 2 (95th percentile 170.37 ms)   - Flow 3 (95th percentile 161.59 ms)
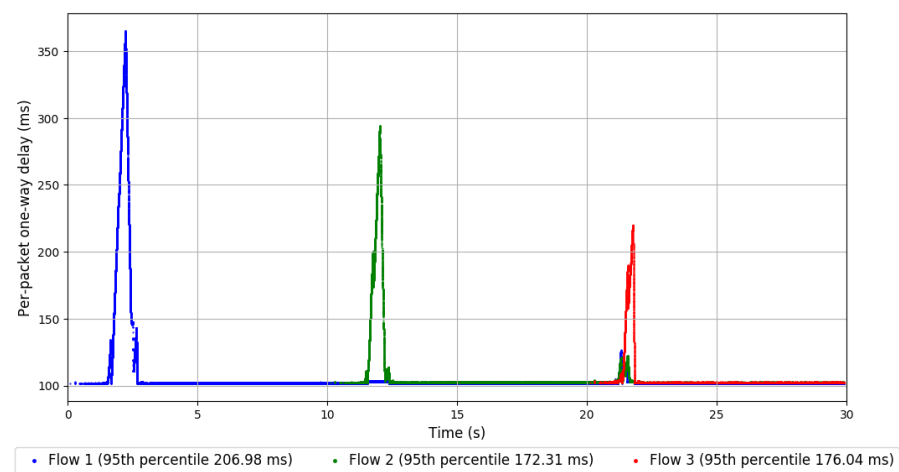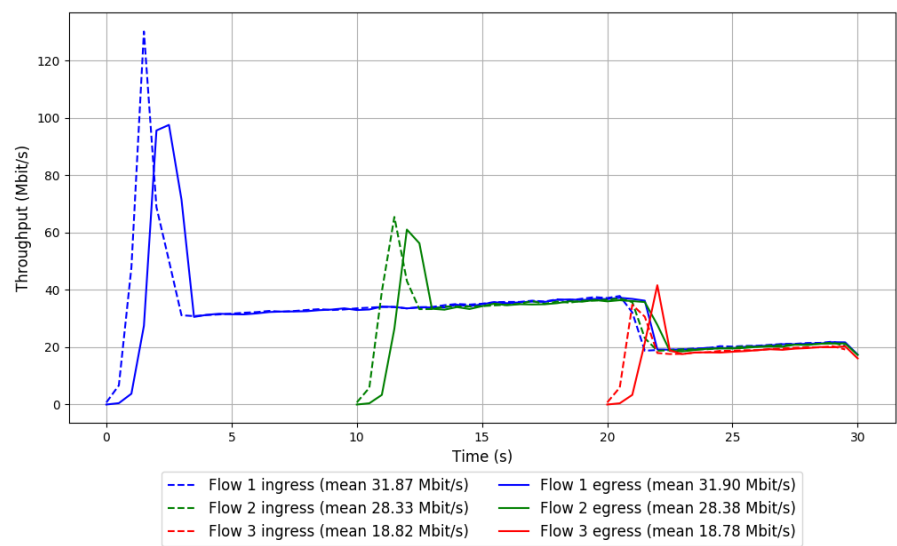
204

```
Run 1: Statistics of TCP Vegas

Start at: 2019-07-18 11:05:21
End at: 2019-07-18 11:05:51
Local clock offset: -3.937 ms
Remote clock offset: -9.671 ms


# Below is generated by plot.py at 2019-07-18 13:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.92 Mbit/s
95th percentile per-packet one-way delay: 183.741 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 206.979 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 28.38 Mbit/s
95th percentile per-packet one-way delay: 172.310 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 18.78 Mbit/s
95th percentile per-packet one-way delay: 176.042 ms
Loss rate: 1.96%
```

Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 31.87 Mbit/s) — Flow 1 egress (mean 31.90 Mbit/s)
Flow 2 ingress (mean 28.33 Mbit/s) — Flow 2 egress (mean 28.38 Mbit/s)
Flow 3 ingress (mean 18.82 Mbit/s) — Flow 3 egress (mean 18.78 Mbit/s)

Flow 1 (95th percentile 206.98 ms)   Flow 2 (95th percentile 172.31 ms)   Flow 3 (95th percentile 176.04 ms)
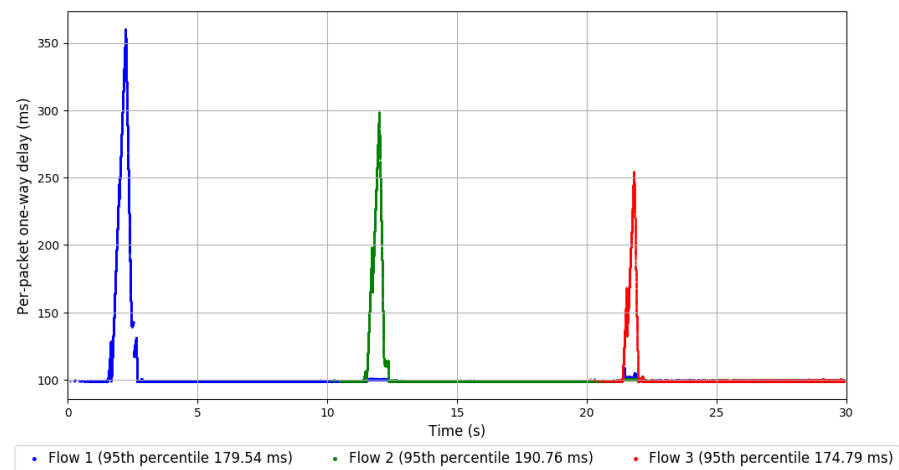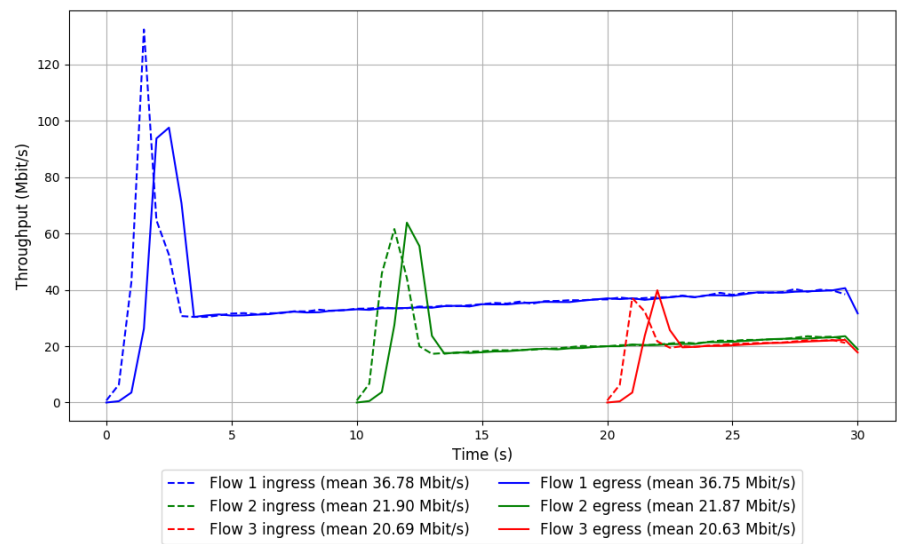
```
Run 2: Statistics of TCP Vegas

Start at: 2019-07-18 11:36:30
End at: 2019-07-18 11:37:00
Local clock offset: -3.604 ms
Remote clock offset: -5.047 ms


# Below is generated by plot.py at 2019-07-18 13:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 183.796 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 36.75 Mbit/s
95th percentile per-packet one-way delay: 179.543 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 190.757 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 20.63 Mbit/s
95th percentile per-packet one-way delay: 174.795 ms
Loss rate: 2.06%
```

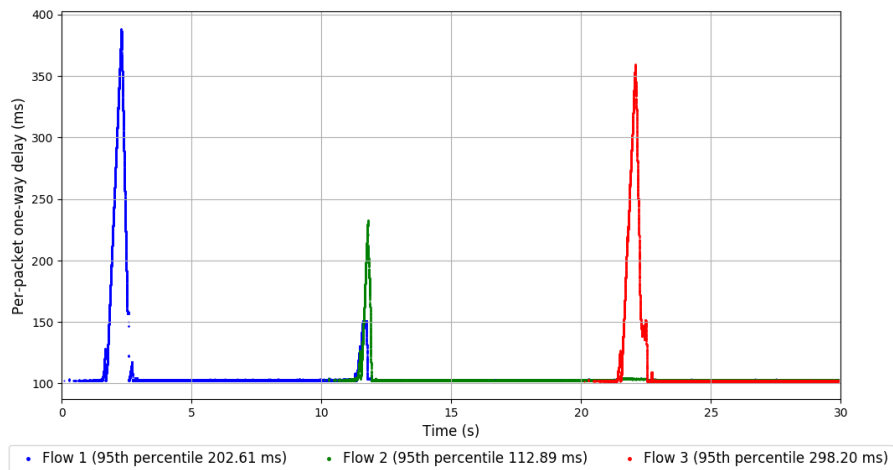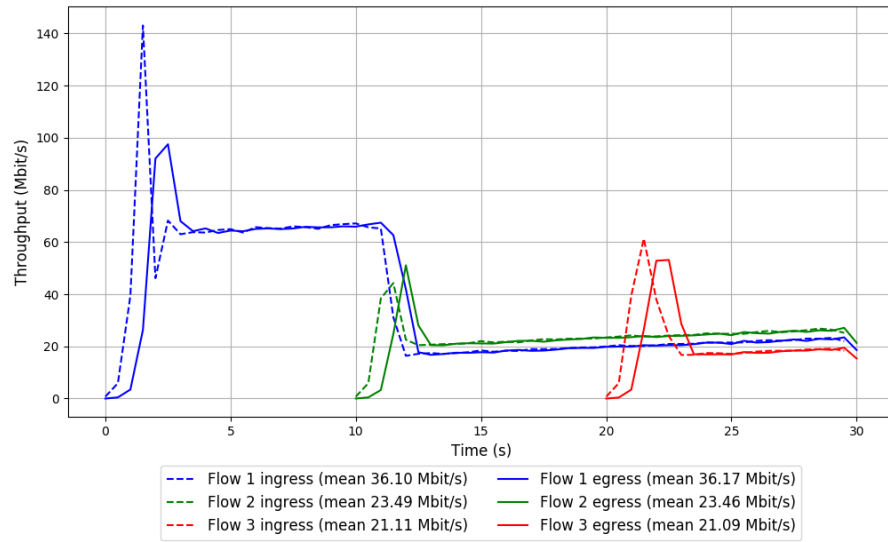## Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-07-18 12:07:36
End at: 2019-07-18 12:08:06
Local clock offset: -4.08 ms
Remote clock offset: -1.018 ms


# Below is generated by plot.py at 2019-07-18 13:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.67 Mbit/s
95th percentile per-packet one-way delay: 200.324 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 202.612 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 23.46 Mbit/s
95th percentile per-packet one-way delay: 112.889 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 21.09 Mbit/s
95th percentile per-packet one-way delay: 298.201 ms
Loss rate: 1.84%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 36.10 Mbit/s)   Flow 1 egress (mean 36.17 Mbit/s)
Flow 2 ingress (mean 23.49 Mbit/s)   Flow 2 egress (mean 23.46 Mbit/s)
Flow 3 ingress (mean 21.11 Mbit/s)   Flow 3 egress (mean 21.09 Mbit/s)

Flow 1 (95th percentile 202.61 ms)   Flow 2 (95th percentile 112.89 ms)   Flow 3 (95th percentile 298.20 ms)
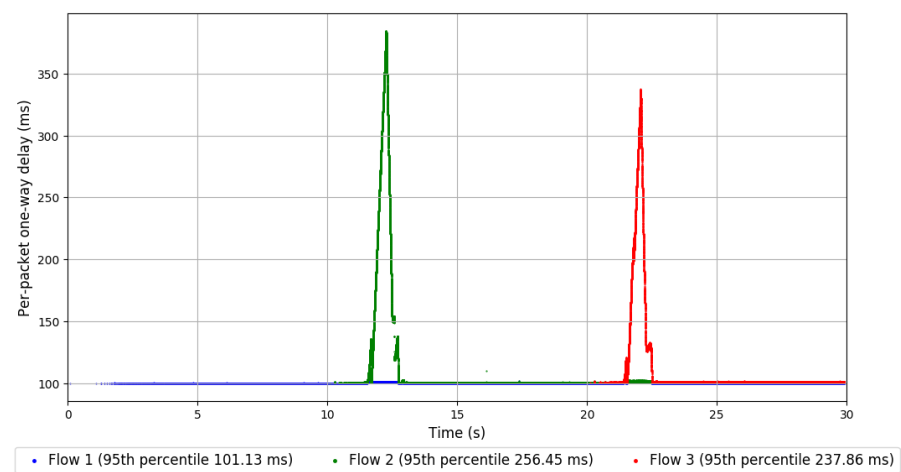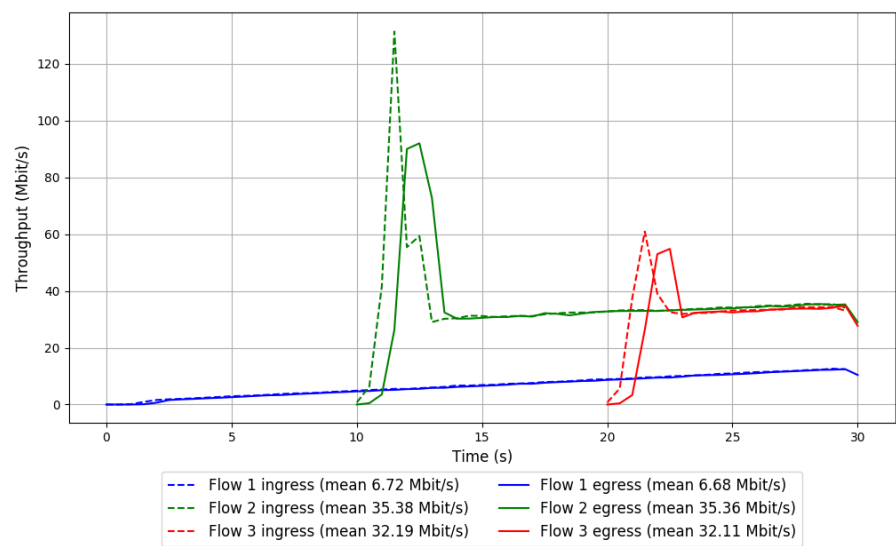
210

```
Run 4: Statistics of TCP Vegas

Start at: 2019-07-18 12:38:40
End at: 2019-07-18 12:39:10
Local clock offset: -4.097 ms
Remote clock offset: -8.469 ms


# Below is generated by plot.py at 2019-07-18 13:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.73 Mbit/s
95th percentile per-packet one-way delay: 225.612 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 101.130 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 35.36 Mbit/s
95th percentile per-packet one-way delay: 256.448 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 237.861 ms
Loss rate: 2.00%
```

Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 6.72 Mbit/s) --- Flow 1 egress (mean 6.68 Mbit/s)
Flow 2 ingress (mean 35.38 Mbit/s) --- Flow 2 egress (mean 35.36 Mbit/s)
Flow 3 ingress (mean 32.19 Mbit/s) --- Flow 3 egress (mean 32.11 Mbit/s)

Flow 1 (95th percentile 101.13 ms)   Flow 2 (95th percentile 256.45 ms)   Flow 3 (95th percentile 237.86 ms)
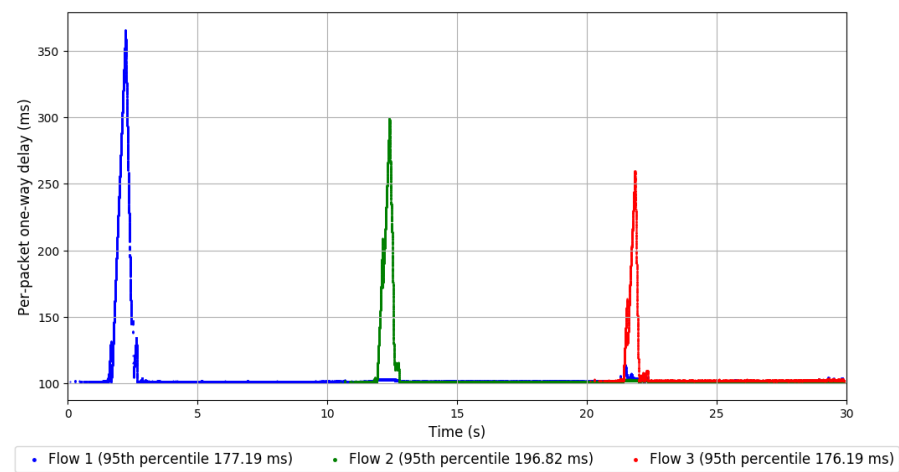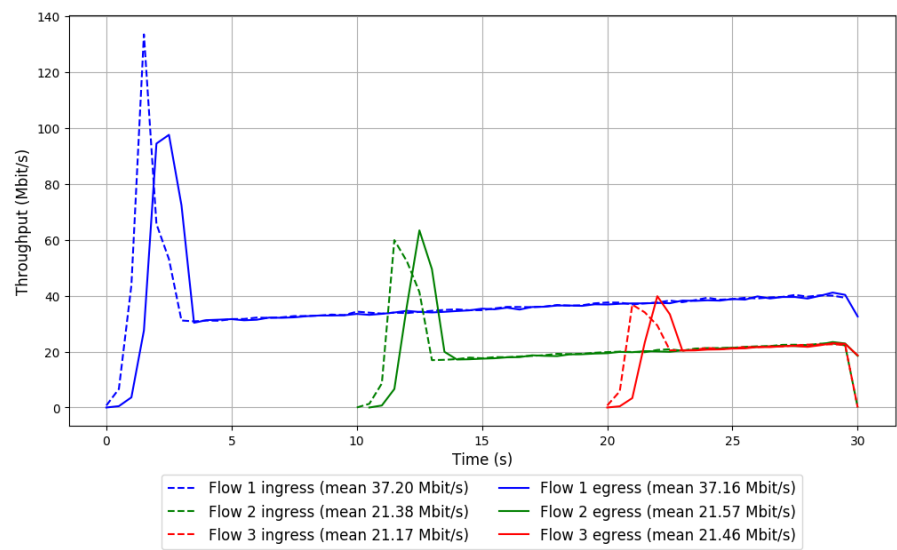
```
Run 5: Statistics of TCP Vegas

Start at: 2019-07-18 13:09:51
End at: 2019-07-18 13:10:21
Local clock offset: -2.983 ms
Remote clock offset: -9.634 ms


# Below is generated by plot.py at 2019-07-18 13:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.26 Mbit/s
95th percentile per-packet one-way delay: 185.869 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 37.16 Mbit/s
95th percentile per-packet one-way delay: 177.185 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 21.57 Mbit/s
95th percentile per-packet one-way delay: 196.823 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 21.46 Mbit/s
95th percentile per-packet one-way delay: 176.189 ms
Loss rate: 2.43%
```

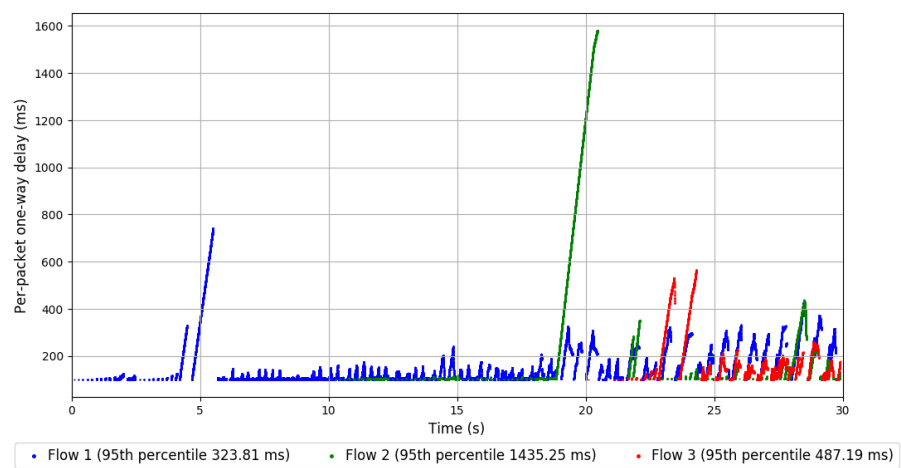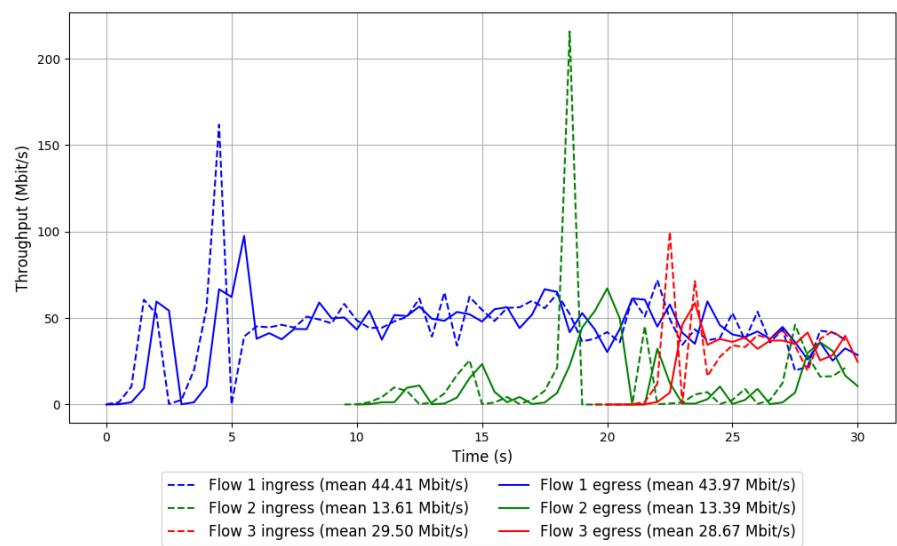# Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-07-18 10:45:50
End at: 2019-07-18 10:46:20
Local clock offset: -3.911 ms
Remote clock offset: -8.946 ms


# Below is generated by plot.py at 2019-07-18 13:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.30 Mbit/s
95th percentile per-packet one-way delay: 547.235 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 43.97 Mbit/s
95th percentile per-packet one-way delay: 323.811 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 13.39 Mbit/s
95th percentile per-packet one-way delay: 1435.251 ms
Loss rate: 2.48%
-- Flow 3:
Average throughput: 28.67 Mbit/s
95th percentile per-packet one-way delay: 487.188 ms
Loss rate: 4.47%
```

Run 1: Report of Verus — Data Link

- Flow 1 ingress (mean 44.41 Mbit/s)
- Flow 1 egress (mean 43.97 Mbit/s)
- Flow 2 ingress (mean 13.61 Mbit/s)
- Flow 2 egress (mean 13.39 Mbit/s)
- Flow 3 ingress (mean 29.50 Mbit/s)
- Flow 3 egress (mean 28.67 Mbit/s)

- Flow 1 (95th percentile 323.81 ms)
- Flow 2 (95th percentile 1435.25 ms)
- Flow 3 (95th percentile 487.19 ms)

```
Run 2: Statistics of Verus

Start at: 2019-07-18 11:16:59
End at: 2019-07-18 11:17:29
Local clock offset: -3.942 ms
Remote clock offset: -8.59 ms


# Below is generated by plot.py at 2019-07-18 13:29:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.96 Mbit/s
95th percentile per-packet one-way delay: 740.514 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 49.71 Mbit/s
95th percentile per-packet one-way delay: 798.261 ms
Loss rate: 2.14%
-- Flow 2:
Average throughput: 28.66 Mbit/s
95th percentile per-packet one-way delay: 203.013 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 323.025 ms
Loss rate: 0.47%
```
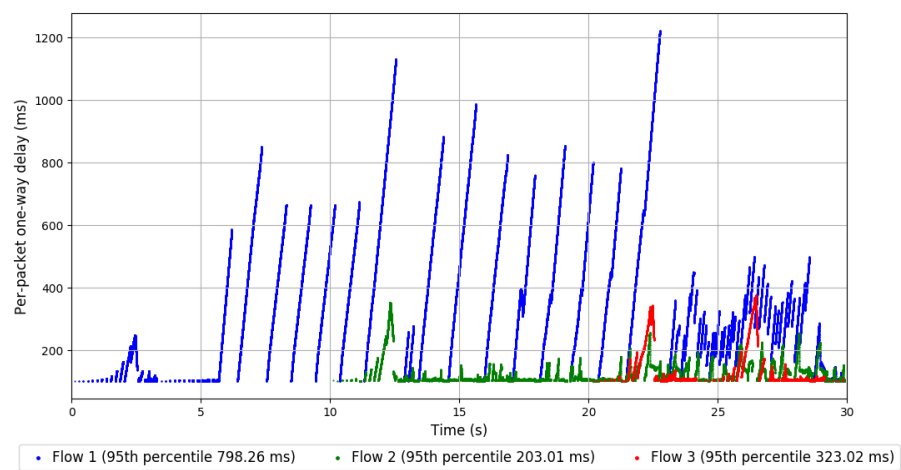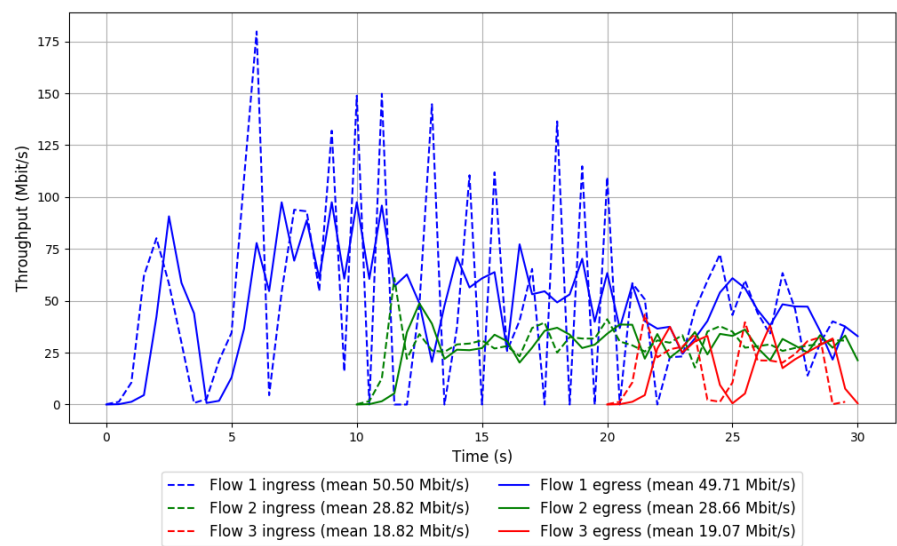
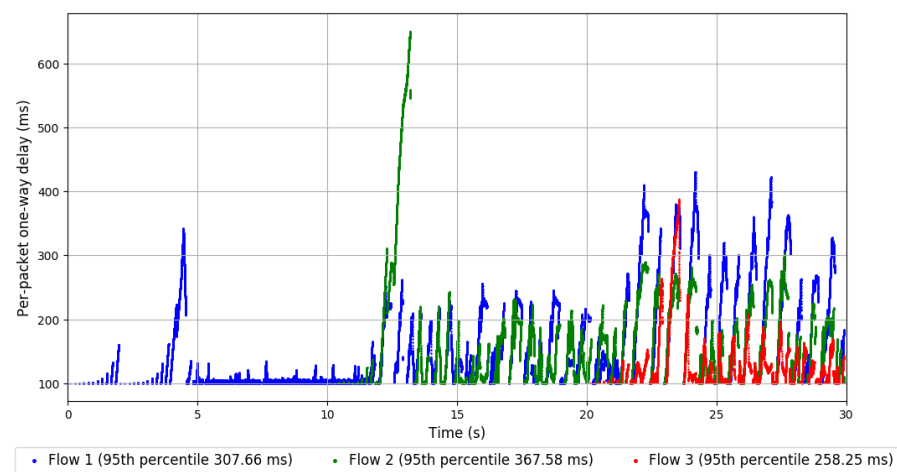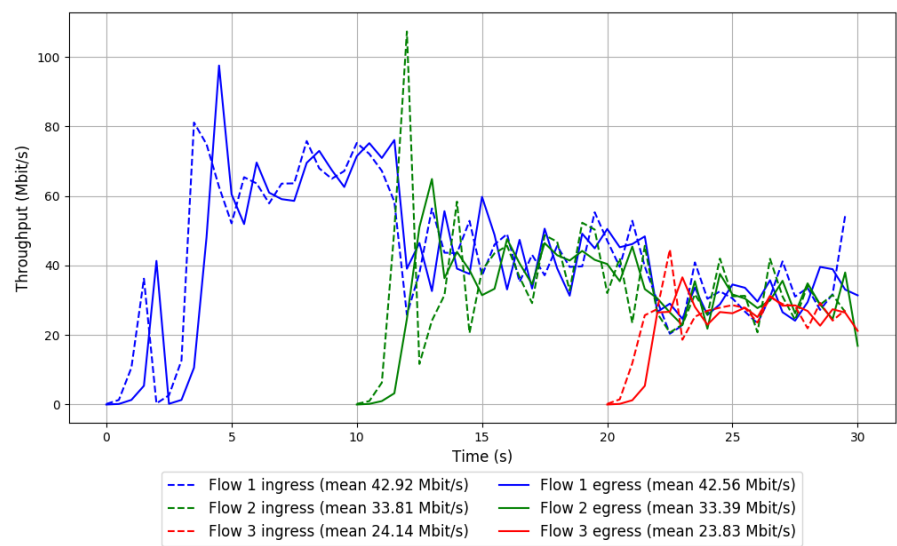# Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-07-18 11:48:05
End at: 2019-07-18 11:48:35
Local clock offset: -3.157 ms
Remote clock offset: -1.533 ms


# Below is generated by plot.py at 2019-07-18 13:29:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.56 Mbit/s
95th percentile per-packet one-way delay: 306.465 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 42.56 Mbit/s
95th percentile per-packet one-way delay: 307.663 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 33.39 Mbit/s
95th percentile per-packet one-way delay: 367.581 ms
Loss rate: 2.09%
-- Flow 3:
Average throughput: 23.83 Mbit/s
95th percentile per-packet one-way delay: 258.250 ms
Loss rate: 2.96%
```
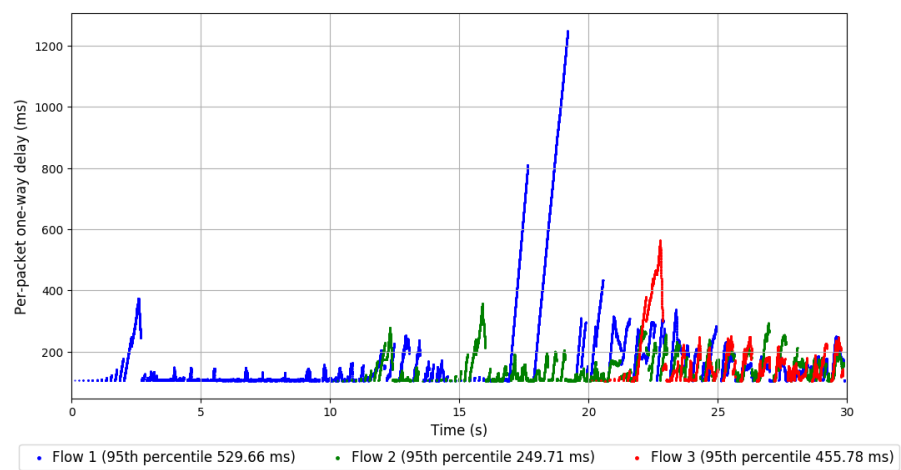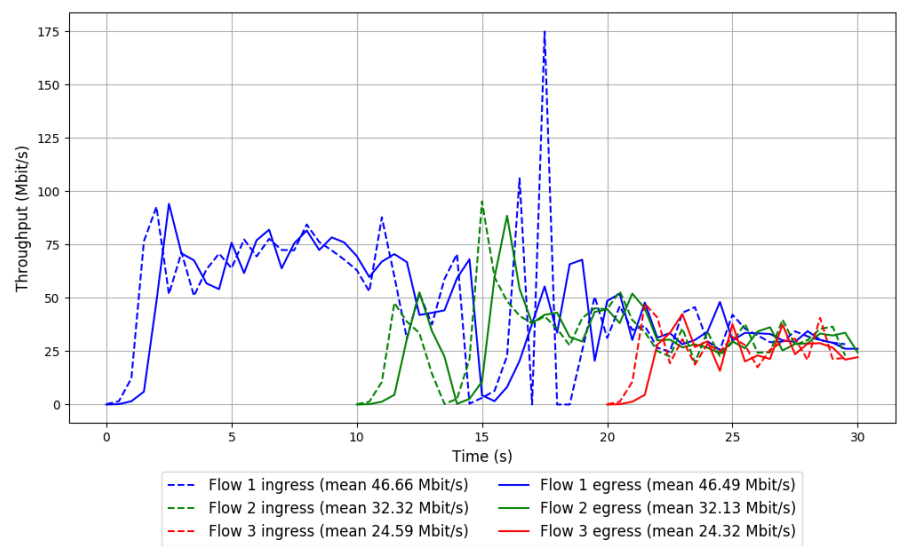
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-07-18 12:19:10
End at: 2019-07-18 12:19:40
Local clock offset: -4.048 ms
Remote clock offset: -7.507 ms


# Below is generated by plot.py at 2019-07-18 13:29:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.73 Mbit/s
95th percentile per-packet one-way delay: 381.008 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 46.49 Mbit/s
95th percentile per-packet one-way delay: 529.662 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 249.706 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 455.777 ms
Loss rate: 3.45%
```
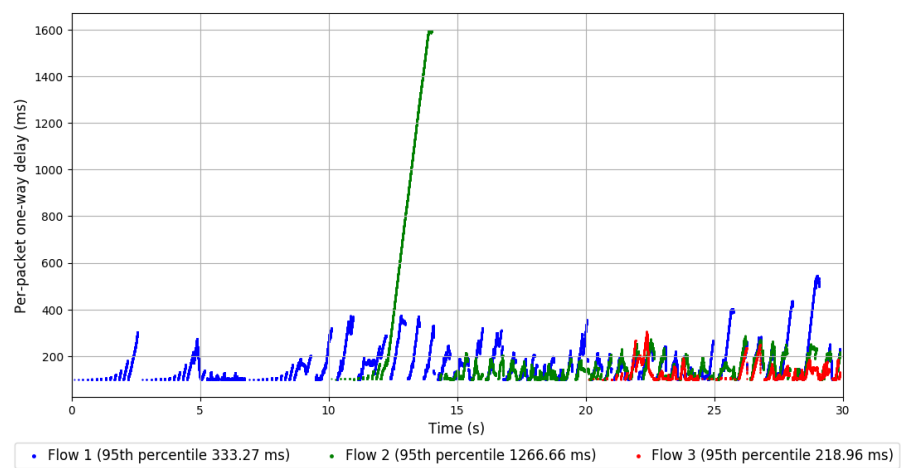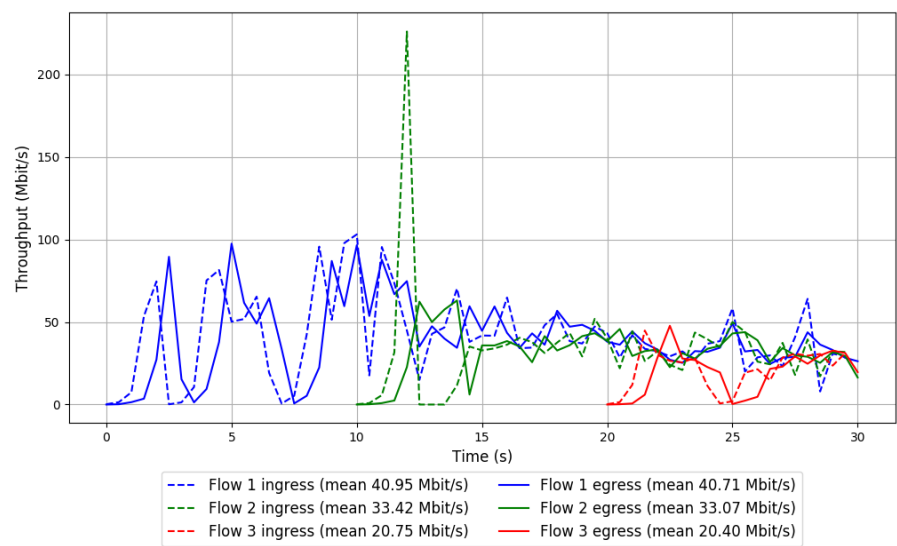
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-07-18 12:50:12
End at: 2019-07-18 12:50:42
Local clock offset: -4.076 ms
Remote clock offset: -9.221 ms


# Below is generated by plot.py at 2019-07-18 13:29:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.36 Mbit/s
95th percentile per-packet one-way delay: 402.098 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 40.71 Mbit/s
95th percentile per-packet one-way delay: 333.271 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 33.07 Mbit/s
95th percentile per-packet one-way delay: 1266.656 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 20.40 Mbit/s
95th percentile per-packet one-way delay: 218.963 ms
Loss rate: 3.34%
```

Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 40.95 Mbit/s) --- Flow 1 egress (mean 40.71 Mbit/s)
Flow 2 ingress (mean 33.42 Mbit/s) --- Flow 2 egress (mean 33.07 Mbit/s)
Flow 3 ingress (mean 20.75 Mbit/s) --- Flow 3 egress (mean 20.40 Mbit/s)

Flow 1 (95th percentile 333.27 ms)   Flow 2 (95th percentile 1266.66 ms)   Flow 3 (95th percentile 218.96 ms)
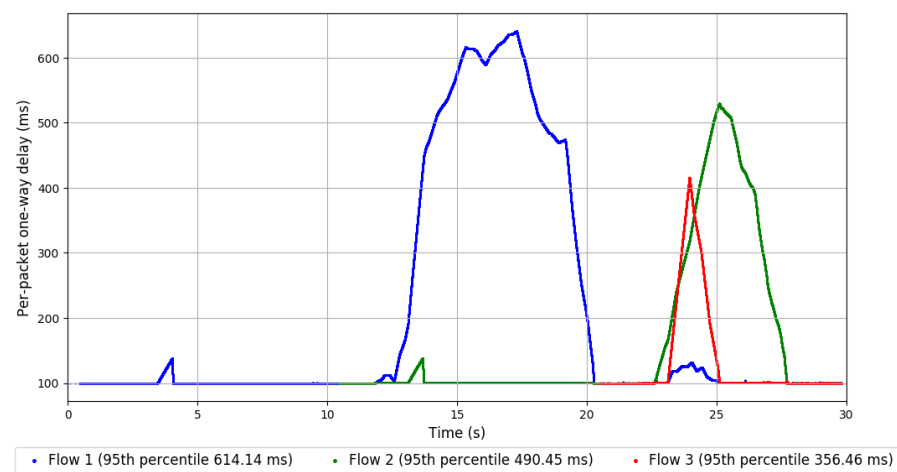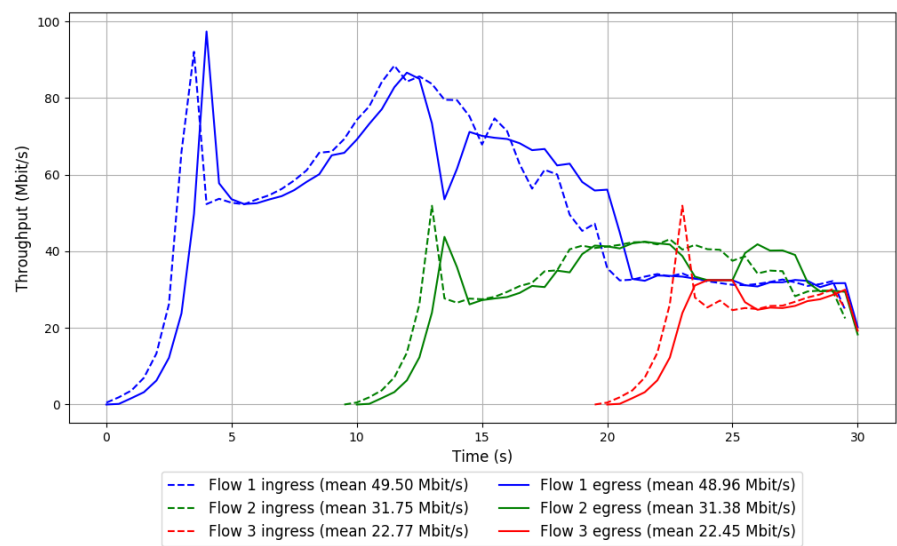
224

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-07-18 10:49:45
End at: 2019-07-18 10:50:15
Local clock offset: -3.9 ms
Remote clock offset: -8.371 ms


# Below is generated by plot.py at 2019-07-18 13:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.12 Mbit/s
95th percentile per-packet one-way delay: 607.229 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 48.96 Mbit/s
95th percentile per-packet one-way delay: 614.144 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 490.455 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 22.45 Mbit/s
95th percentile per-packet one-way delay: 356.460 ms
Loss rate: 3.14%
```

Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 49.50 Mbit/s) — — — Flow 1 egress (mean 48.96 Mbit/s)
Flow 2 ingress (mean 31.75 Mbit/s) — — — Flow 2 egress (mean 31.38 Mbit/s)
Flow 3 ingress (mean 22.77 Mbit/s) — — — Flow 3 egress (mean 22.45 Mbit/s)

Flow 1 (95th percentile 614.14 ms)   Flow 2 (95th percentile 490.45 ms)   Flow 3 (95th percentile 356.46 ms)
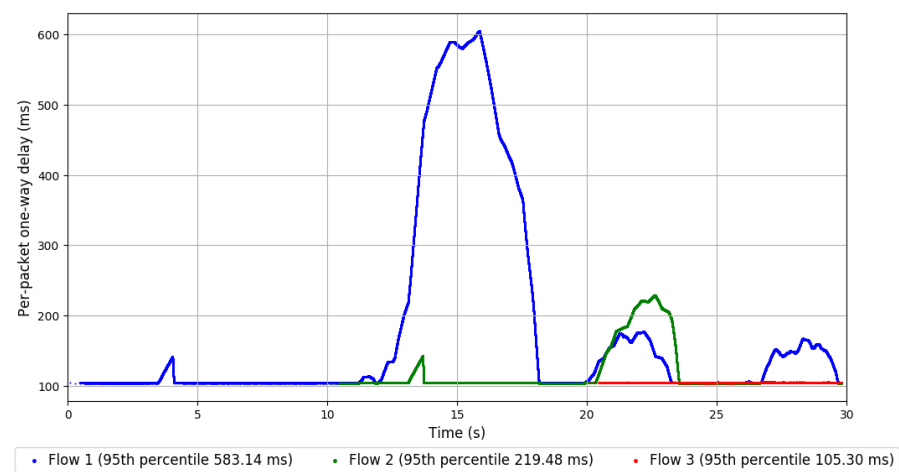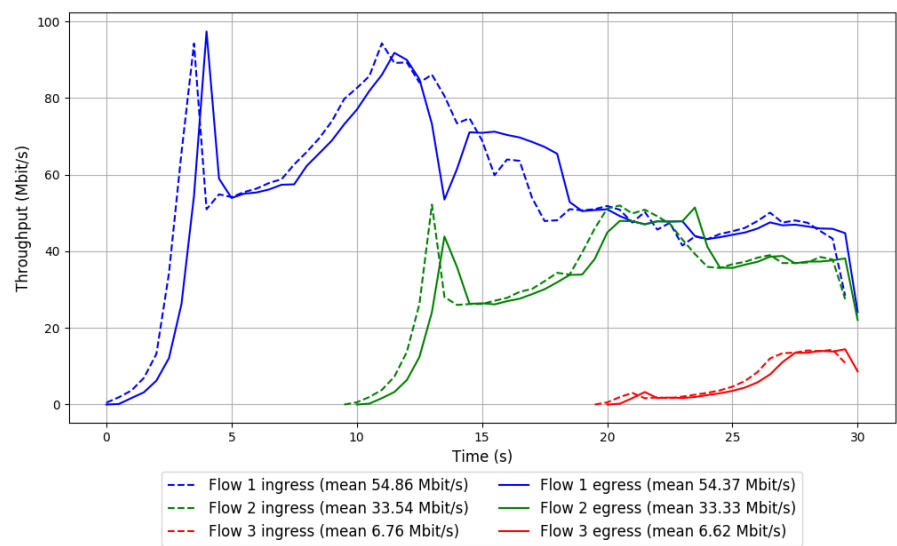
226

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-07-18 11:20:54
End at: 2019-07-18 11:21:24
Local clock offset: -4.022 ms
Remote clock offset: -9.896 ms


# Below is generated by plot.py at 2019-07-18 13:29:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.66 Mbit/s
95th percentile per-packet one-way delay: 564.976 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 54.37 Mbit/s
95th percentile per-packet one-way delay: 583.140 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 219.479 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 105.303 ms
Loss rate: 3.88%
```

Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 54.86 Mbit/s) --- Flow 1 egress (mean 54.37 Mbit/s)
Flow 2 ingress (mean 33.54 Mbit/s) --- Flow 2 egress (mean 33.33 Mbit/s)
Flow 3 ingress (mean 6.76 Mbit/s) --- Flow 3 egress (mean 6.62 Mbit/s)

Flow 1 (95th percentile 583.14 ms)   Flow 2 (95th percentile 219.48 ms)   Flow 3 (95th percentile 105.30 ms)

228

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-07-18 11:52:00
End at: 2019-07-18 11:52:30
Local clock offset: -3.039 ms
Remote clock offset: -0.51 ms


# Below is generated by plot.py at 2019-07-18 13:29:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.33 Mbit/s
95th percentile per-packet one-way delay: 1734.052 ms
Loss rate: 3.40%
-- Flow 1:
Average throughput: 57.25 Mbit/s
95th percentile per-packet one-way delay: 1871.296 ms
Loss rate: 3.87%
-- Flow 2:
Average throughput: 22.26 Mbit/s
95th percentile per-packet one-way delay: 182.994 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 22.41 Mbit/s
95th percentile per-packet one-way delay: 365.208 ms
Loss rate: 3.11%
```
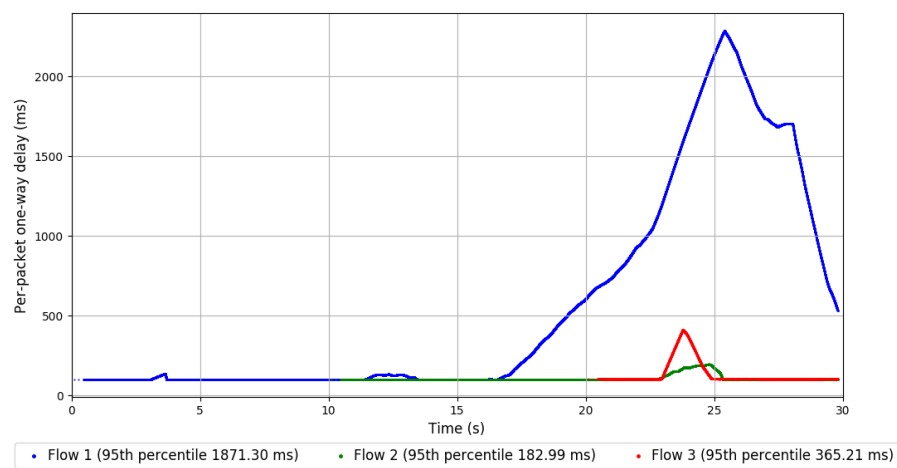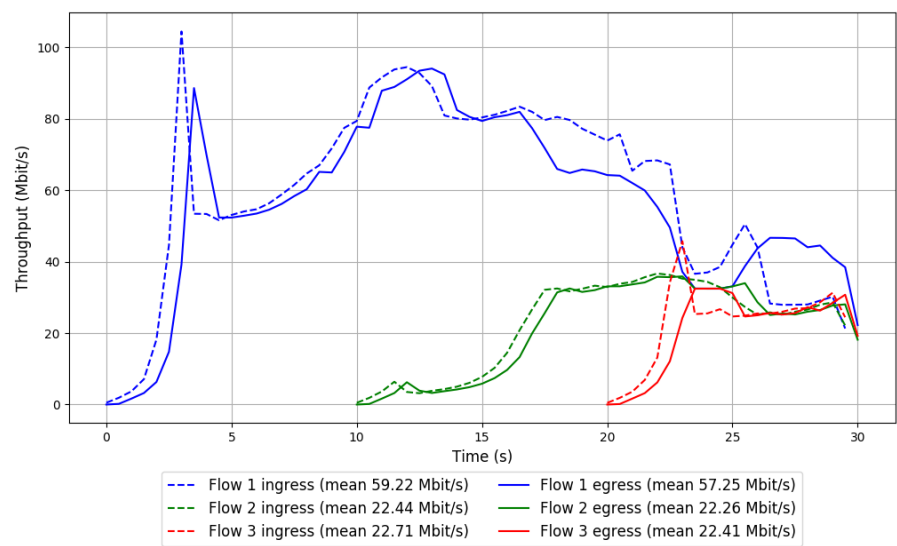
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 59.22 Mbit/s)   Flow 1 egress (mean 57.25 Mbit/s)
Flow 2 ingress (mean 22.44 Mbit/s)   Flow 2 egress (mean 22.26 Mbit/s)
Flow 3 ingress (mean 22.71 Mbit/s)   Flow 3 egress (mean 22.41 Mbit/s)

Flow 1 (95th percentile 1871.30 ms)   Flow 2 (95th percentile 182.99 ms)   Flow 3 (95th percentile 365.21 ms)
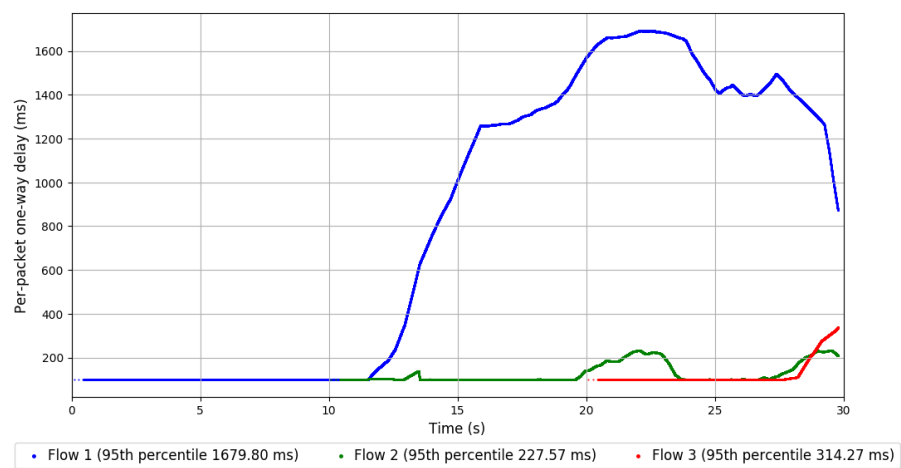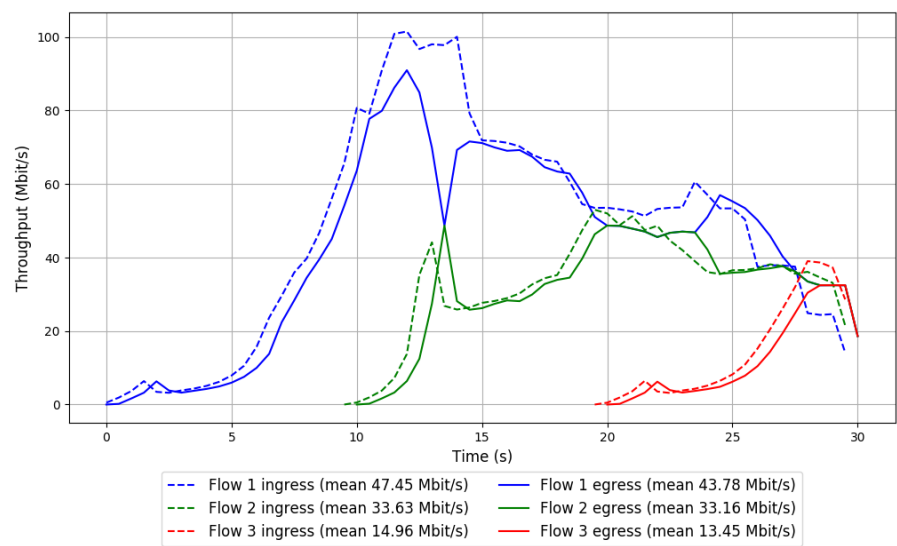
```
Run 4: Statistics of PCC-Vivace

Start at: 2019-07-18 12:23:05
End at: 2019-07-18 12:23:35
Local clock offset: -4.082 ms
Remote clock offset: -4.796 ms


# Below is generated by plot.py at 2019-07-18 13:29:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.18 Mbit/s
95th percentile per-packet one-way delay: 1664.792 ms
Loss rate: 6.71%
-- Flow 1:
Average throughput: 43.78 Mbit/s
95th percentile per-packet one-way delay: 1679.796 ms
Loss rate: 8.29%
-- Flow 2:
Average throughput: 33.16 Mbit/s
95th percentile per-packet one-way delay: 227.575 ms
Loss rate: 2.26%
-- Flow 3:
Average throughput: 13.45 Mbit/s
95th percentile per-packet one-way delay: 314.269 ms
Loss rate: 11.68%
```

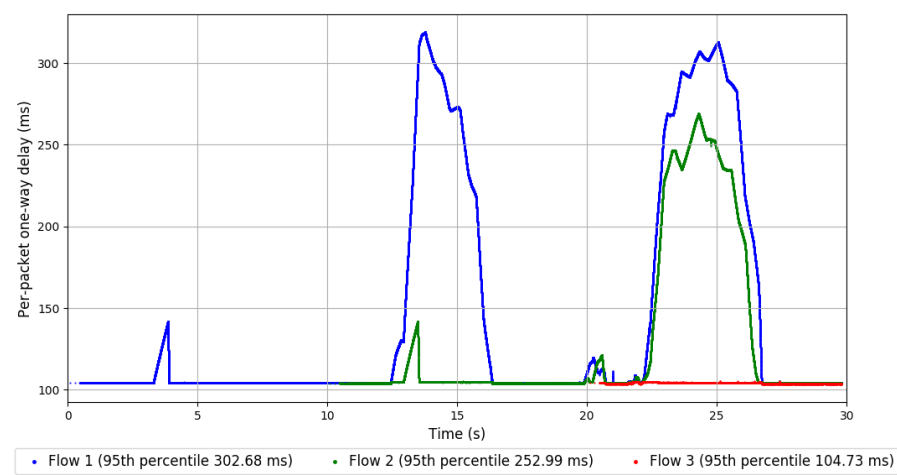# Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 47.45 Mbit/s) --- Flow 1 egress (mean 43.78 Mbit/s)
Flow 2 ingress (mean 33.63 Mbit/s) --- Flow 2 egress (mean 33.16 Mbit/s)
Flow 3 ingress (mean 14.96 Mbit/s) --- Flow 3 egress (mean 13.45 Mbit/s)

Flow 1 (95th percentile 1679.80 ms) ⋅ Flow 2 (95th percentile 227.57 ms) ⋅ Flow 3 (95th percentile 314.27 ms)
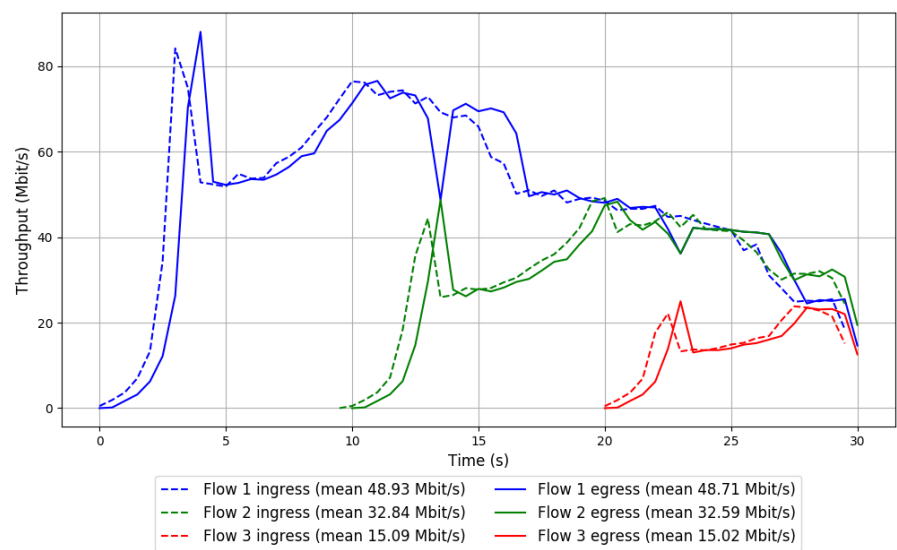
```
Run 5: Statistics of PCC-Vivace

Start at: 2019-07-18 12:54:07
End at: 2019-07-18 12:54:37
Local clock offset: -3.84 ms
Remote clock offset: -12.245 ms


# Below is generated by plot.py at 2019-07-18 13:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.23 Mbit/s
95th percentile per-packet one-way delay: 294.542 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 48.71 Mbit/s
95th percentile per-packet one-way delay: 302.678 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 32.59 Mbit/s
95th percentile per-packet one-way delay: 252.986 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 15.02 Mbit/s
95th percentile per-packet one-way delay: 104.728 ms
Loss rate: 2.24%
```

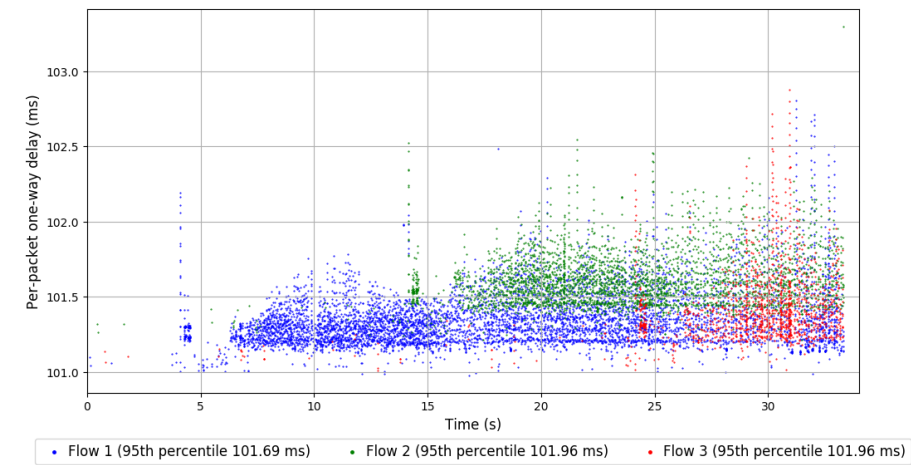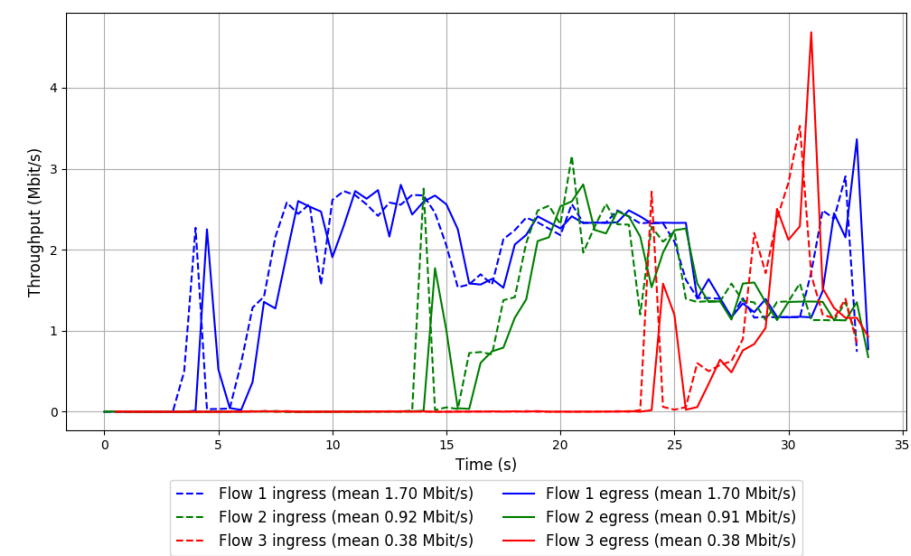Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-07-18 10:39:19
End at: 2019-07-18 10:39:49
Local clock offset: -4.115 ms
Remote clock offset: -9.177 ms

# Below is generated by plot.py at 2019-07-18 13:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 101.854 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 101.687 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 101.964 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 101.960 ms
Loss rate: 1.54%
```

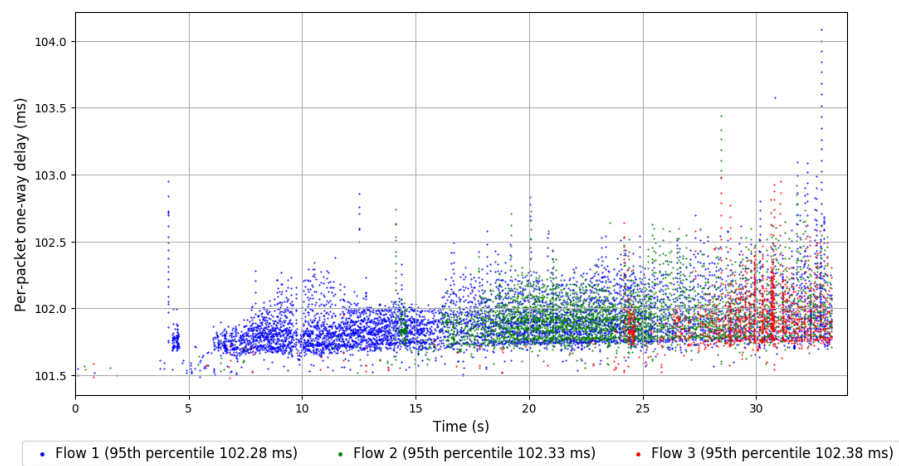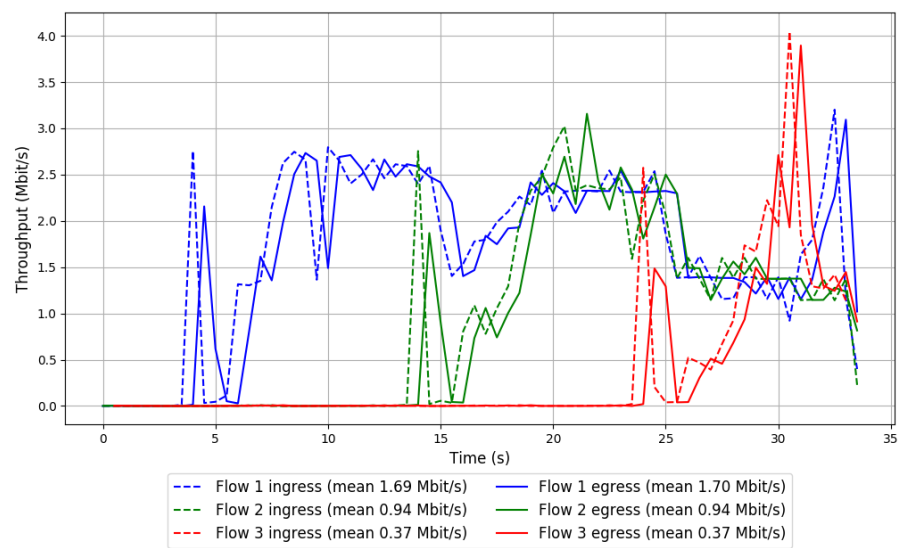Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-07-18 11:10:25
End at: 2019-07-18 11:10:55
Local clock offset: -3.942 ms
Remote clock offset: -8.439 ms


# Below is generated by plot.py at 2019-07-18 13:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 102.306 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 102.278 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 102.331 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 102.376 ms
Loss rate: 1.86%
```

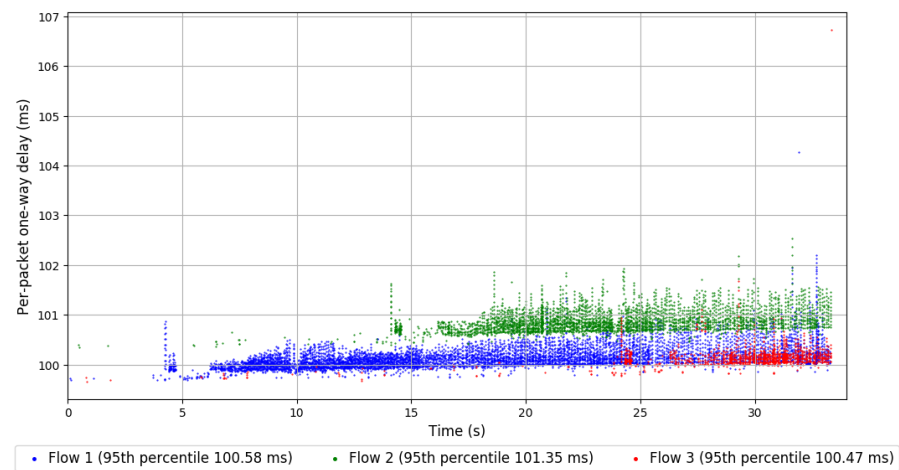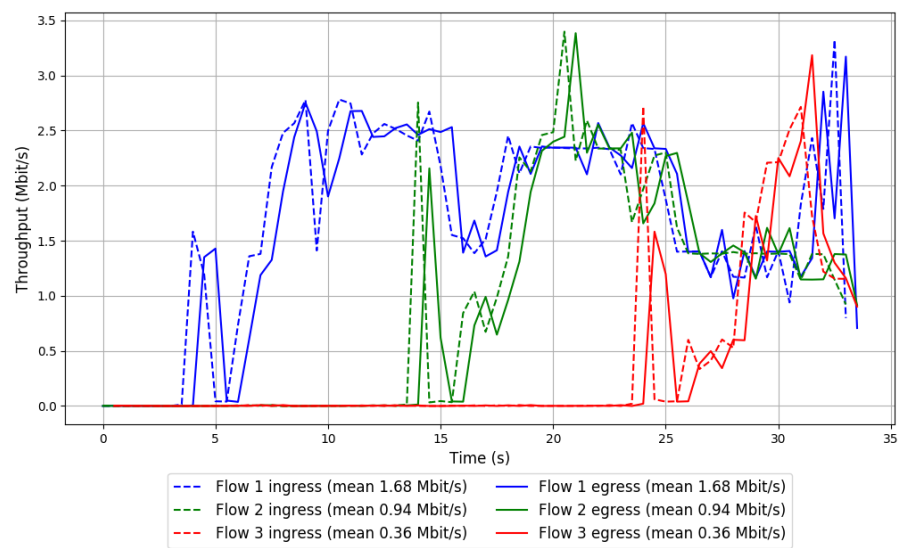Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-07-18 11:41:36
End at: 2019-07-18 11:42:06
Local clock offset: -3.214 ms
Remote clock offset: -4.268 ms


# Below is generated by plot.py at 2019-07-18 13:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 101.120 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 100.579 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 101.350 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 100.471 ms
Loss rate: 2.02%
```

Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-07-18 12:12:42
End at: 2019-07-18 12:13:12
Local clock offset: -3.982 ms
Remote clock offset: 2.309 ms


# Below is generated by plot.py at 2019-07-18 13:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 100.544 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 100.558 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 100.400 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 100.733 ms
Loss rate: 1.91%
```
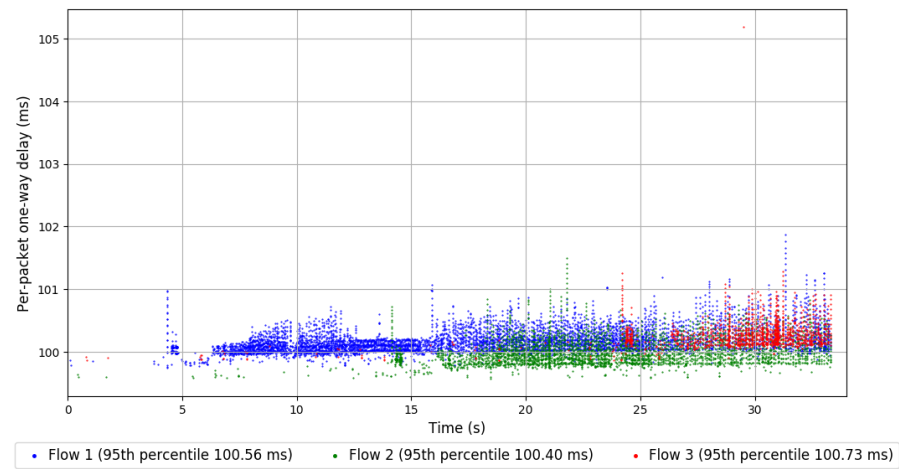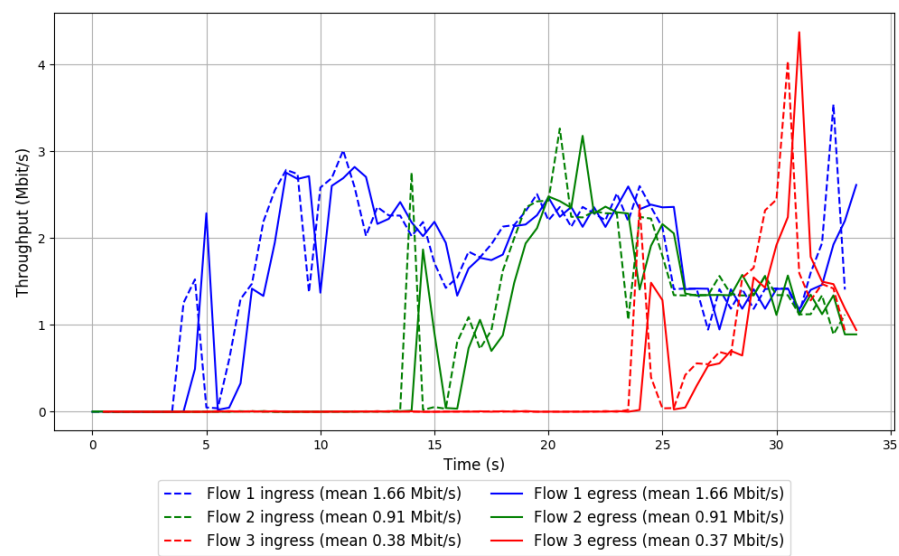
Run 4: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.66 Mbit/s)   Flow 1 egress (mean 1.66 Mbit/s)
Flow 2 ingress (mean 0.91 Mbit/s)   Flow 2 egress (mean 0.91 Mbit/s)
Flow 3 ingress (mean 0.38 Mbit/s)   Flow 3 egress (mean 0.37 Mbit/s)

Flow 1 (95th percentile 100.56 ms)   Flow 2 (95th percentile 100.40 ms)   Flow 3 (95th percentile 100.73 ms)

```
Run 5: Statistics of WebRTC media

Start at: 2019-07-18 12:43:44
End at: 2019-07-18 12:44:14
Local clock offset: -3.879 ms
Remote clock offset: -11.29 ms


# Below is generated by plot.py at 2019-07-18 13:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 103.367 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 102.835 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 103.451 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 103.619 ms
Loss rate: 1.90%
```

Run 5: Report of WebRTC media — Data Link