Pantheon Report

Generated at 2019-02-05 09:45:44 (UTC).

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

Repeated the test of 21 congestion control schemes 5 times.

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

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

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

Git summary:
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-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 AWS Brazil 2 to Colombia, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

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

3

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	55.40	38.45	31.07	112.29	111.46	111.74	13.13	19.93	27.72
Copa	5	9.43	4.32	0.01	82.18	81.69	82.46	74.16	84.36	90.17
TCP Cubic	5	73.42	17.54	18.16	113.44	113.93	109.79	0.67	0.19	0.24
FillP	5	52.10	44.18	27.38	110.92	111.28	111.83	16.06	25.45	25.00
FillP-Sheep	5	21.87	75.48	20.32	109.35	110.47	108.89	7.58	5.53	12.67
Indigo	5	62.39	28.76	28.77	116.15	116.55	117.77	9.18	25.44	52.51
Indigo-MusesC3	5	49.58	48.89	45.30	109.42	111.67	111.40	1.34	2.17	4.84
Indigo-MusesC5	5	52.35	58.75	7.81	113.12	113.53	114.10	1.53	3.19	5.39
Indigo-MusesD	5	61.43	37.33	27.84	108.42	108.51	109.57	0.80	0.70	2.07
Indigo-MusesT	5	53.28	51.46	26.45	113.09	113.95	113.13	6.32	4.16	7.46
LEDBAT	5	11.87	7.90	3.83	85.60	84.75	84.94	0.01	0.03	0.00
PCC-Allegro	5	78.59	8.25	8.27	116.04	116.08	115.39	2.67	4.08	4.57
PCC-Expr	5	0.01	10.06	5.81	83.23	83.23	82.85	85.71	61.29	37.00
QUIC Cubic	5	46.56	20.68	11.86	109.73	107.65	101.65	0.72	0.36	0.46
SCReAM	5	0.22	0.22	0.22	83.60	83.47	83.58	0.00	0.00	0.00
Sprout	5	2.73	2.69	1.88	89.18	89.47	87.98	0.00	0.00	0.00
TaoVA-100x	5	0.00	8.57	8.34	84.52	94.02	83.56	95.17	36.97	80.27
TCP Vegas	5	52.21	24.67	27.99	94.11	95.00	93.47	1.10	0.56	0.94
Verus	5	22.85	25.87	12.78	126.31	127.64	122.50	30.26	46.53	41.19
PCC-Vivace	5	65.71	13.72	8.17	109.33	109.53	108.81	0.18	0.30	0.39
WebRTC media	5	0.05	0.04	0.04	84.68	83.76	84.46	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-02-05 07:28:00
End at: 2019-02-05 07:28:30
Local clock offset: -7.593 ms
Remote clock offset: 4.388 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.60 Mbit/s
95th percentile per-packet one-way delay: 111.942 ms
Loss rate: 16.38%
-- Flow 1:
Average throughput: 53.17 Mbit/s
95th percentile per-packet one-way delay: 111.994 ms
Loss rate: 11.48%
-- Flow 2:
Average throughput: 39.19 Mbit/s
95th percentile per-packet one-way delay: 110.608 ms
Loss rate: 18.95%
-- Flow 3:
Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 110.610 ms
Loss rate: 28.64%
```
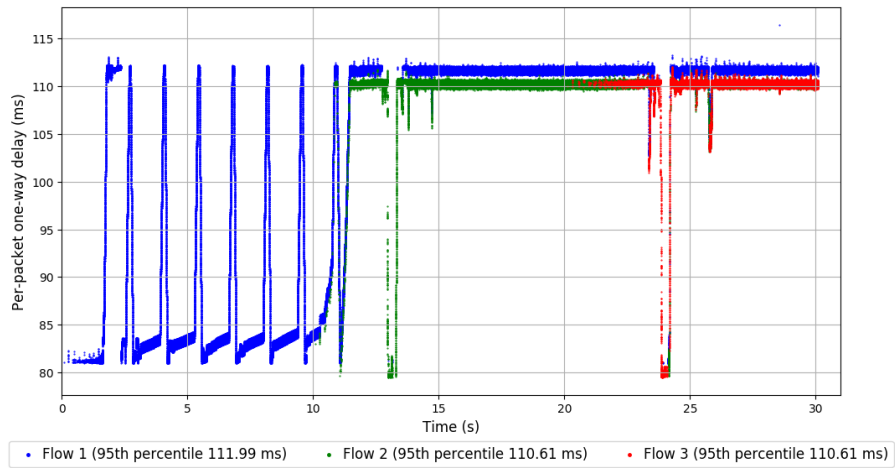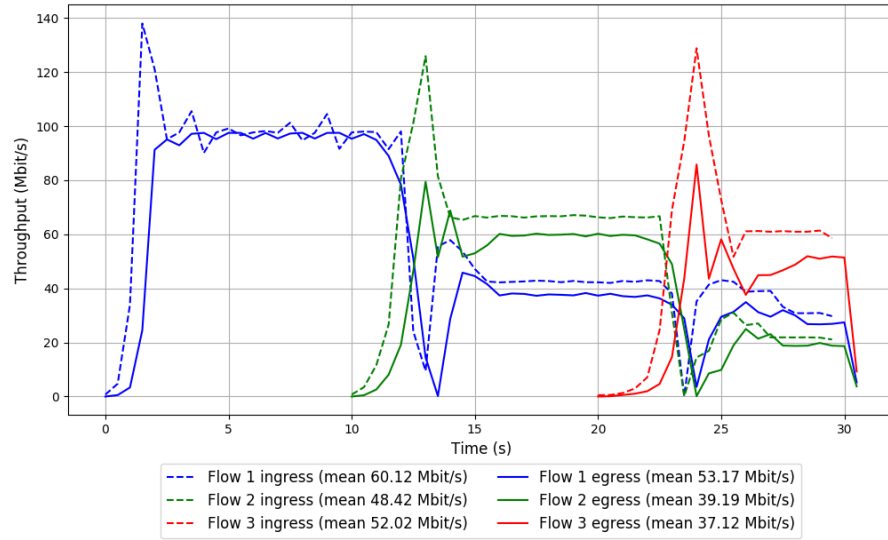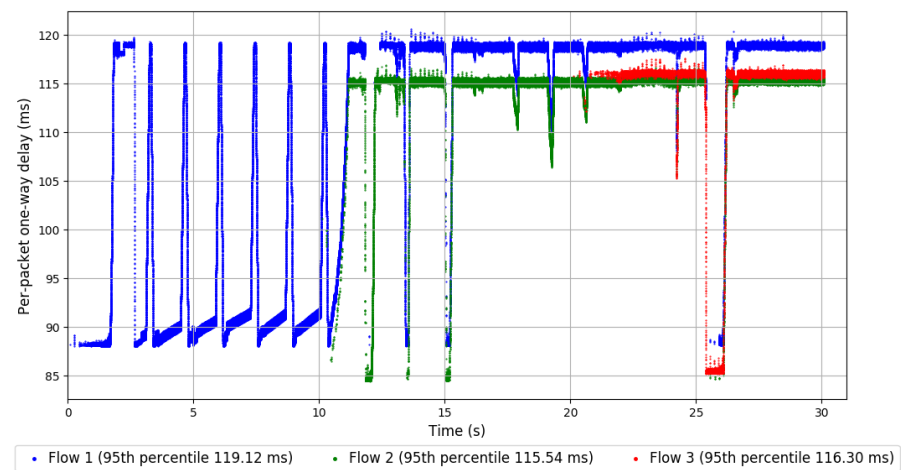
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-02-05 07:54:40
End at: 2019-02-05 07:55:10
Local clock offset: -4.57 ms
Remote clock offset: 6.172 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.00 Mbit/s
95th percentile per-packet one-way delay: 119.076 ms
Loss rate: 18.48%
-- Flow 1:
Average throughput: 57.99 Mbit/s
95th percentile per-packet one-way delay: 119.119 ms
Loss rate: 14.90%
-- Flow 2:
Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 115.543 ms
Loss rate: 23.60%
-- Flow 3:
Average throughput: 24.97 Mbit/s
95th percentile per-packet one-way delay: 116.295 ms
Loss rate: 25.47%
```
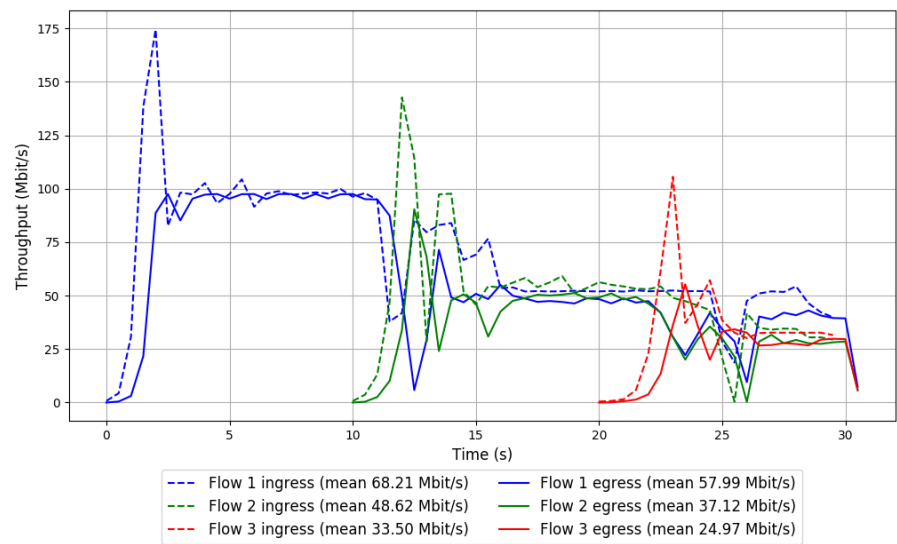
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 68.21 Mbit/s) --- Flow 1 egress (mean 57.99 Mbit/s)
Flow 2 ingress (mean 48.62 Mbit/s) --- Flow 2 egress (mean 37.12 Mbit/s)
Flow 3 ingress (mean 33.50 Mbit/s) --- Flow 3 egress (mean 24.97 Mbit/s)

Flow 1 (95th percentile 119.12 ms) • Flow 2 (95th percentile 115.54 ms) • Flow 3 (95th percentile 116.30 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2019-02-05 08:21:23
End at: 2019-02-05 08:21:53
Local clock offset: -0.616 ms
Remote clock offset: 0.704 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 111.531 ms
Loss rate: 17.40%
-- Flow 1:
Average throughput: 53.05 Mbit/s
95th percentile per-packet one-way delay: 109.538 ms
Loss rate: 12.40%
-- Flow 2:
Average throughput: 43.51 Mbit/s
95th percentile per-packet one-way delay: 109.853 ms
Loss rate: 21.01%
-- Flow 3:
Average throughput: 28.90 Mbit/s
95th percentile per-packet one-way delay: 111.775 ms
Loss rate: 30.99%
```
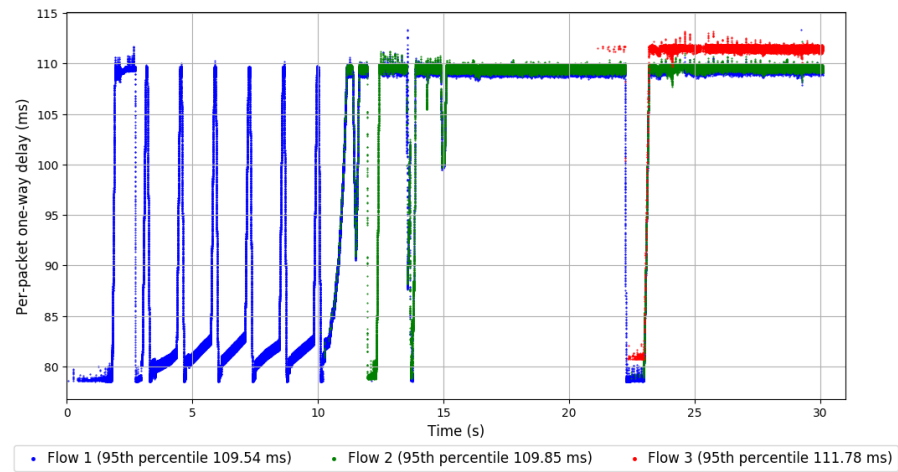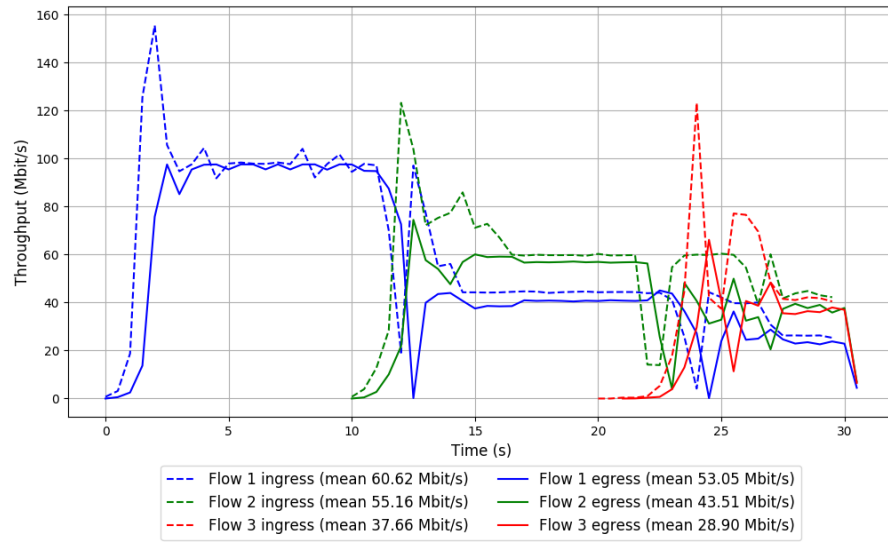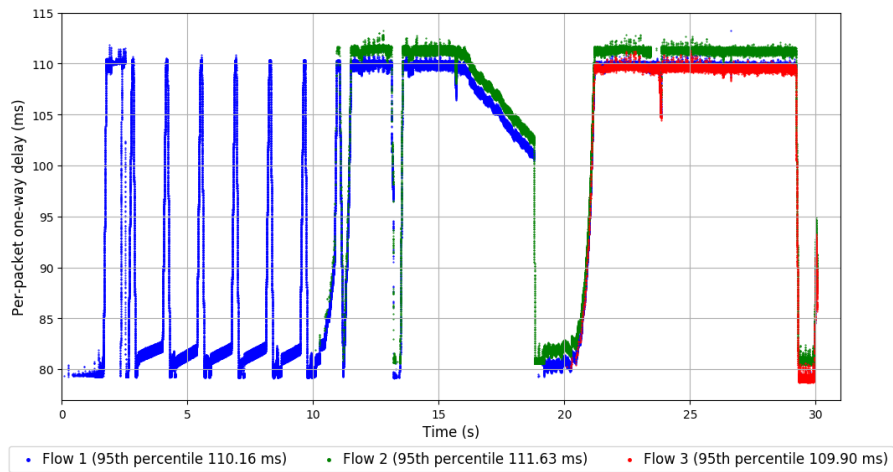
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 60.62 Mbit/s) --- Flow 1 egress (mean 53.05 Mbit/s)
Flow 2 ingress (mean 55.16 Mbit/s) --- Flow 2 egress (mean 43.51 Mbit/s)
Flow 3 ingress (mean 37.66 Mbit/s) --- Flow 3 egress (mean 28.90 Mbit/s)

Flow 1 (95th percentile 109.54 ms) · Flow 2 (95th percentile 109.85 ms) · Flow 3 (95th percentile 111.78 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-02-05 08:47:58
End at: 2019-02-05 08:48:28
Local clock offset: -1.536 ms
Remote clock offset: 0.127 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.95 Mbit/s
95th percentile per-packet one-way delay: 111.479 ms
Loss rate: 16.02%
-- Flow 1:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 110.164 ms
Loss rate: 12.85%
-- Flow 2:
Average throughput: 37.81 Mbit/s
95th percentile per-packet one-way delay: 111.629 ms
Loss rate: 18.05%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 109.903 ms
Loss rate: 25.73%
```
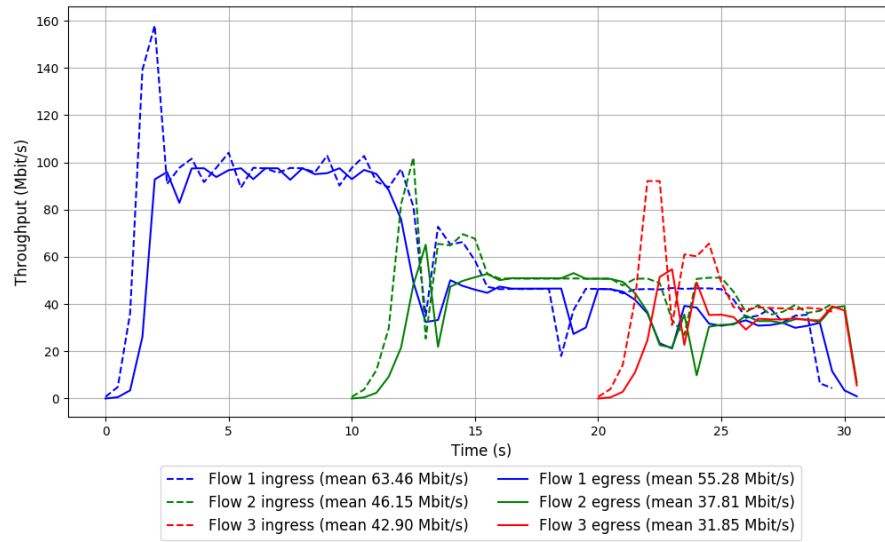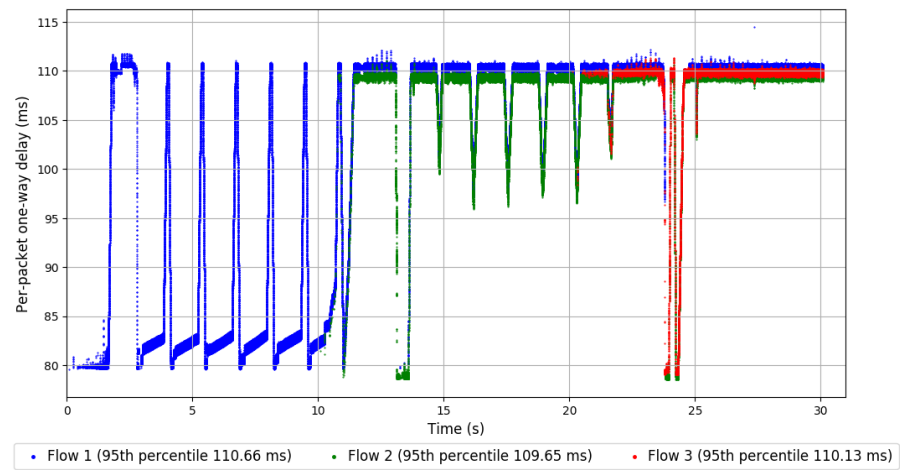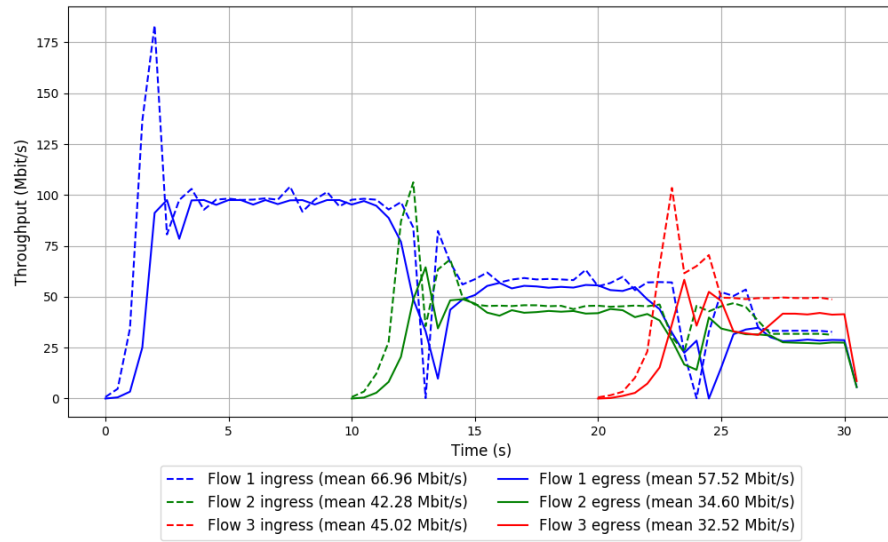
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 63.46 Mbit/s)   Flow 1 egress (mean 55.28 Mbit/s)
Flow 2 ingress (mean 46.15 Mbit/s)   Flow 2 egress (mean 37.81 Mbit/s)
Flow 3 ingress (mean 42.90 Mbit/s)   Flow 3 egress (mean 31.85 Mbit/s)

Flow 1 (95th percentile 110.16 ms)   Flow 2 (95th percentile 111.63 ms)   Flow 3 (95th percentile 109.90 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-02-05 09:14:36
End at: 2019-02-05 09:15:06
Local clock offset: -8.821 ms
Remote clock offset: -2.076 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.38 Mbit/s
95th percentile per-packet one-way delay: 110.611 ms
Loss rate: 16.92%
-- Flow 1:
Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 110.657 ms
Loss rate: 14.01%
-- Flow 2:
Average throughput: 34.60 Mbit/s
95th percentile per-packet one-way delay: 109.648 ms
Loss rate: 18.05%
-- Flow 3:
Average throughput: 32.52 Mbit/s
95th percentile per-packet one-way delay: 110.128 ms
Loss rate: 27.78%
```
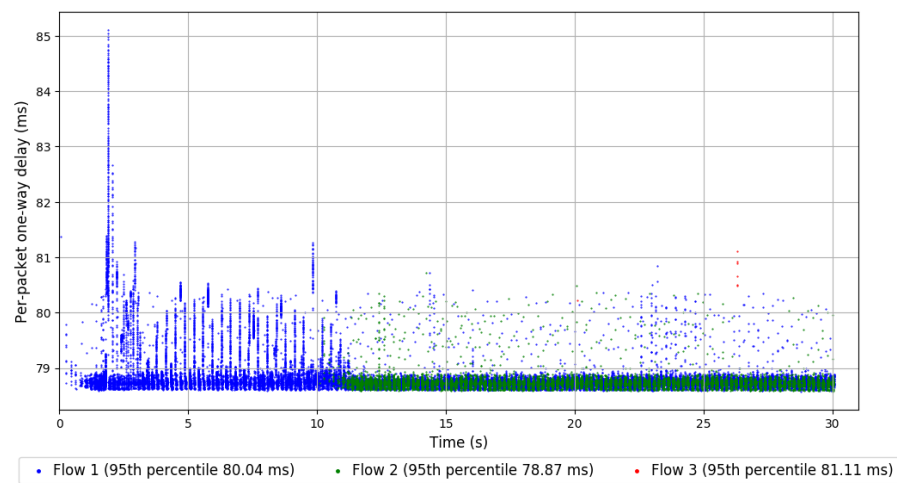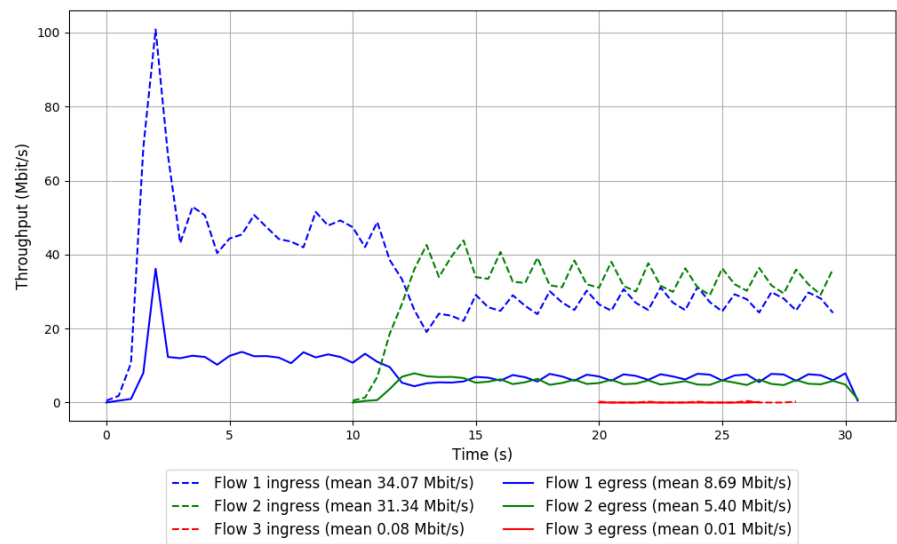
Run 5: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2019-02-05 07:29:19
End at: 2019-02-05 07:29:49
Local clock offset: -6.899 ms
Remote clock offset: 4.496 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.29 Mbit/s
95th percentile per-packet one-way delay: 79.823 ms
Loss rate: 77.63%
-- Flow 1:
Average throughput: 8.69 Mbit/s
95th percentile per-packet one-way delay: 80.039 ms
Loss rate: 74.49%
-- Flow 2:
Average throughput: 5.40 Mbit/s
95th percentile per-packet one-way delay: 78.870 ms
Loss rate: 82.76%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 81.115 ms
Loss rate: 89.34%
```
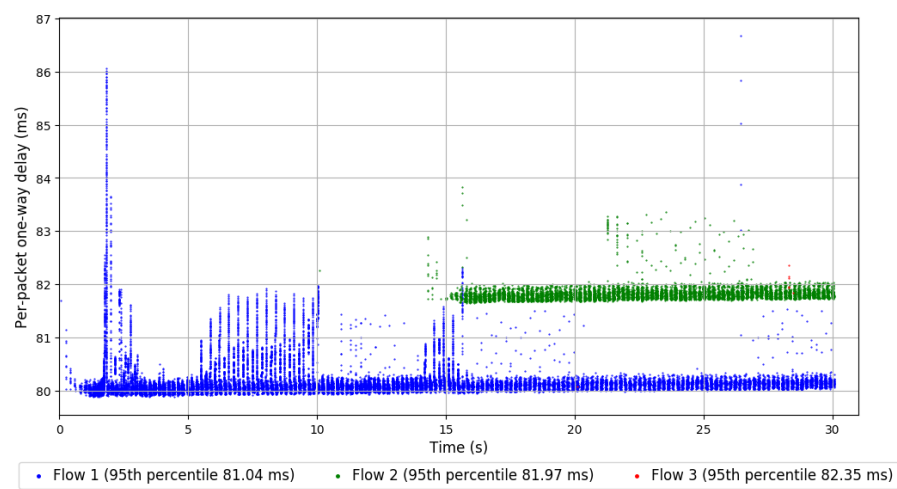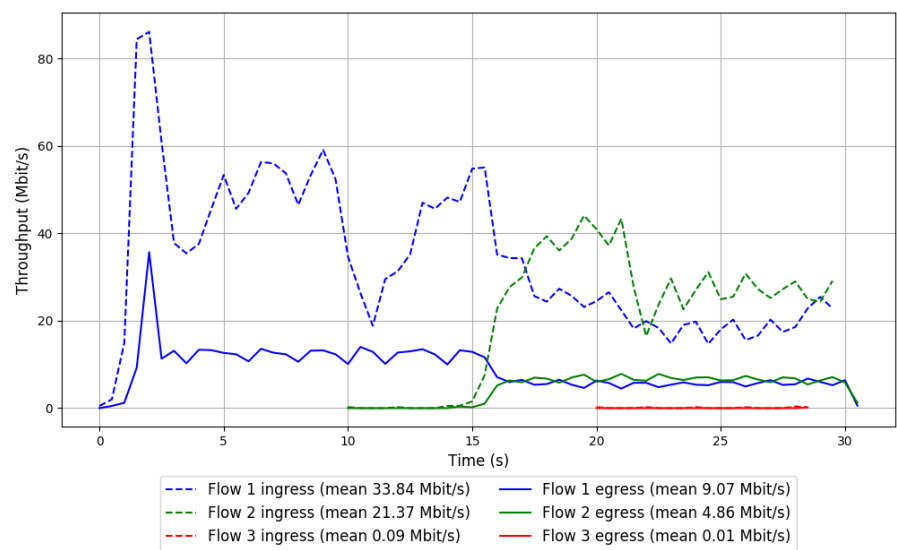
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 34.07 Mbit/s)   Flow 1 egress (mean 8.69 Mbit/s)
Flow 2 ingress (mean 31.34 Mbit/s)   Flow 2 egress (mean 5.40 Mbit/s)
Flow 3 ingress (mean 0.08 Mbit/s)   Flow 3 egress (mean 0.01 Mbit/s)

Flow 1 (95th percentile 80.04 ms)   Flow 2 (95th percentile 78.87 ms)   Flow 3 (95th percentile 81.11 ms)

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```
Run 2: Statistics of Copa

Start at: 2019-02-05 07:55:59
End at: 2019-02-05 07:56:29
Local clock offset: -3.475 ms
Remote clock offset: 2.413 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 81.888 ms
Loss rate: 74.40%
-- Flow 1:
Average throughput: 9.07 Mbit/s
95th percentile per-packet one-way delay: 81.039 ms
Loss rate: 73.18%
-- Flow 2:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 81.968 ms
Loss rate: 77.27%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 82.354 ms
Loss rate: 90.65%
```
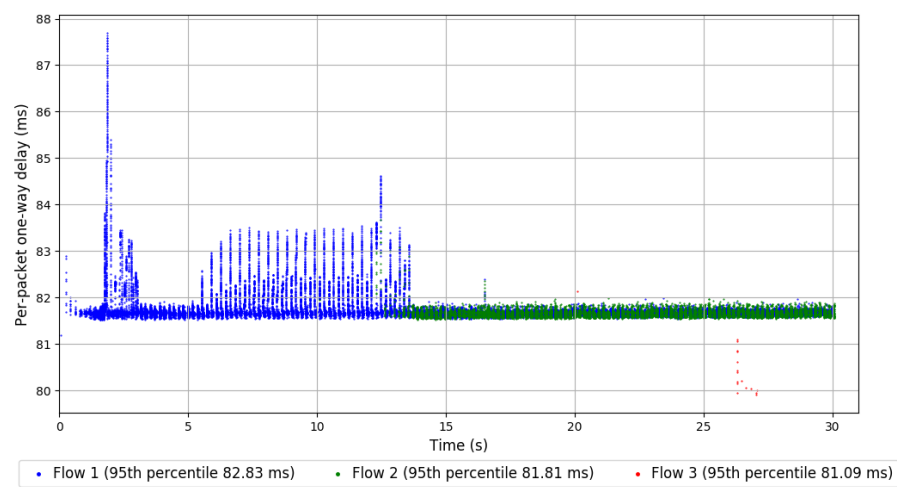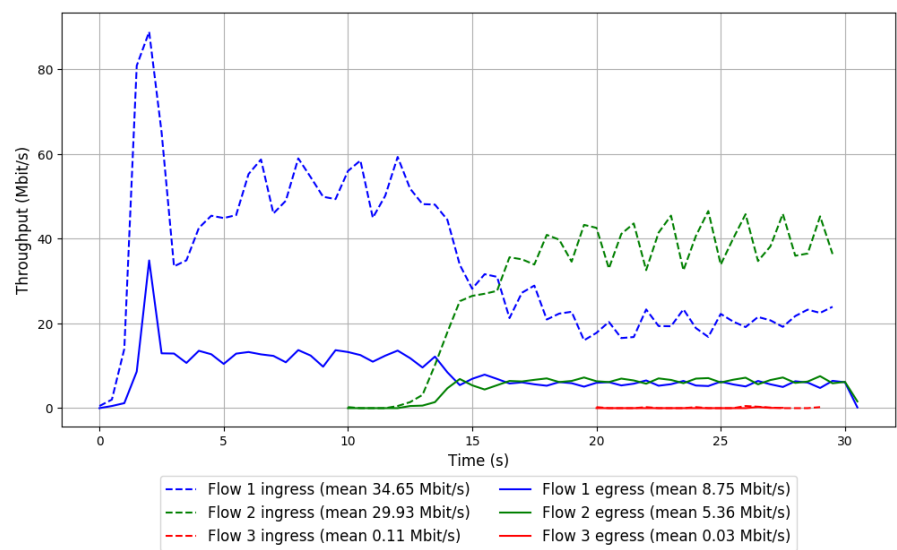
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-02-05 08:22:41
End at: 2019-02-05 08:23:11
Local clock offset: -0.537 ms
Remote clock offset: 2.035 ms


# Below is generated by plot.py at 2019-02-05 09:36:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 82.543 ms
Loss rate: 77.44%
-- Flow 1:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 82.826 ms
Loss rate: 74.74%
-- Flow 2:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 81.807 ms
Loss rate: 82.10%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 81.086 ms
Loss rate: 80.16%
```
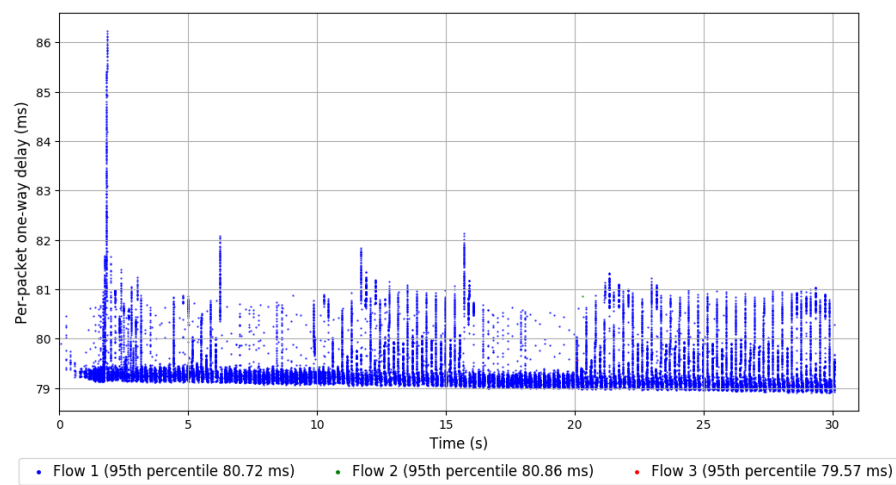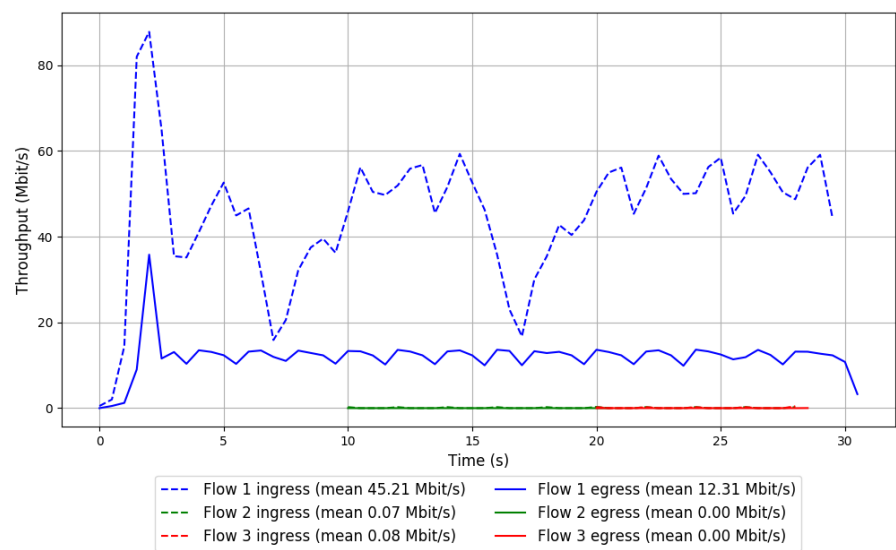
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-02-05 08:49:17
End at: 2019-02-05 08:49:47
Local clock offset: -2.562 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-02-05 09:36:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 80.719 ms
Loss rate: 72.81%
-- Flow 1:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 80.718 ms
Loss rate: 72.77%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 80.864 ms
Loss rate: 98.94%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 79.567 ms
Loss rate: 98.13%
```
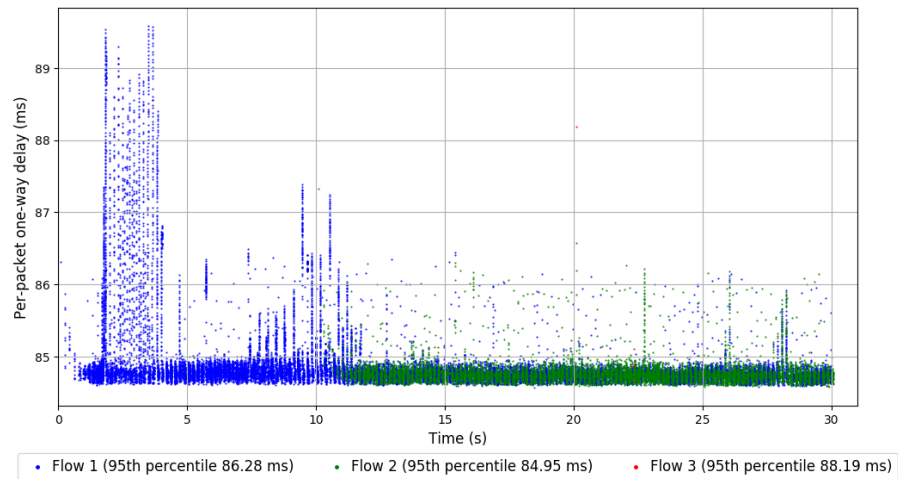
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-02-05 09:15:55
End at: 2019-02-05 09:16:25
Local clock offset: -9.032 ms
Remote clock offset: 4.086 ms


# Below is generated by plot.py at 2019-02-05 09:36:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 85.855 ms
Loss rate: 77.56%
-- Flow 1:
Average throughput: 8.35 Mbit/s
95th percentile per-packet one-way delay: 86.281 ms
Loss rate: 75.62%
-- Flow 2:
Average throughput: 5.97 Mbit/s
95th percentile per-packet one-way delay: 84.954 ms
Loss rate: 80.74%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 88.189 ms
Loss rate: 92.58%
```
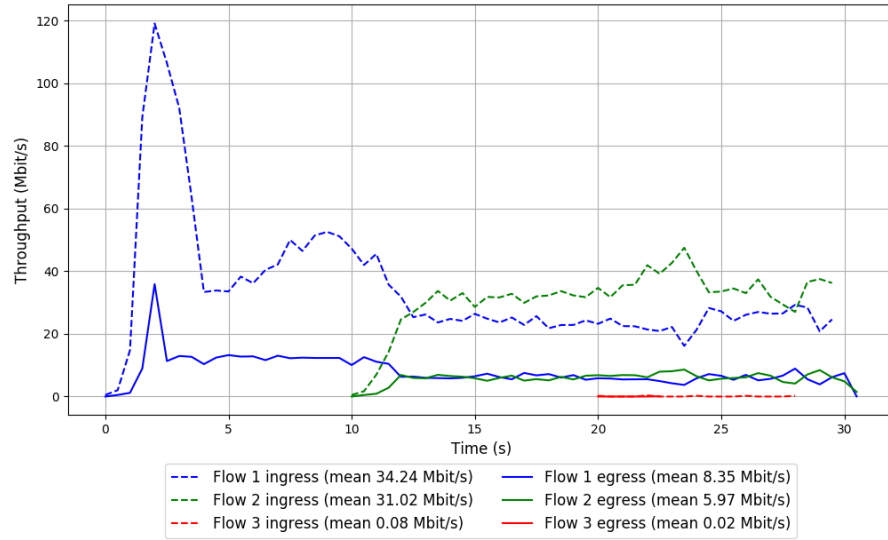
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-02-05 07:22:54
End at: 2019-02-05 07:23:24
Local clock offset: -7.361 ms
Remote clock offset: 4.462 ms


# Below is generated by plot.py at 2019-02-05 09:37:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.89 Mbit/s
95th percentile per-packet one-way delay: 110.040 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 73.73 Mbit/s
95th percentile per-packet one-way delay: 110.327 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 110.594 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 18.47 Mbit/s
95th percentile per-packet one-way delay: 104.382 ms
Loss rate: 0.27%
```
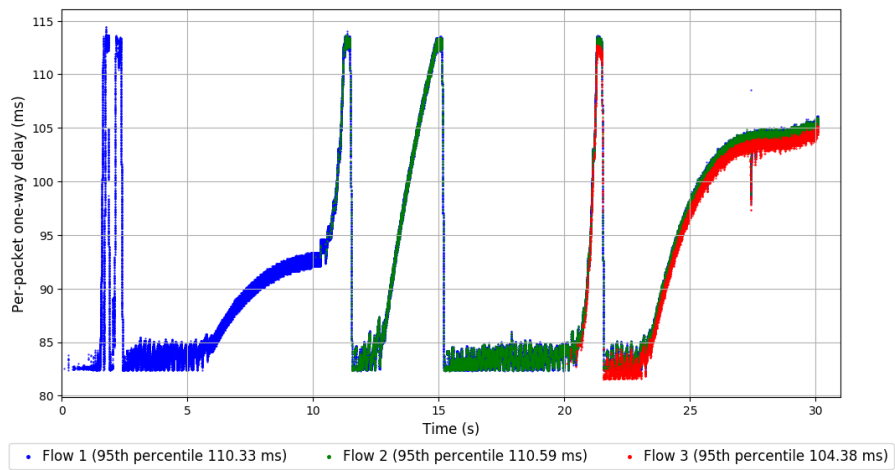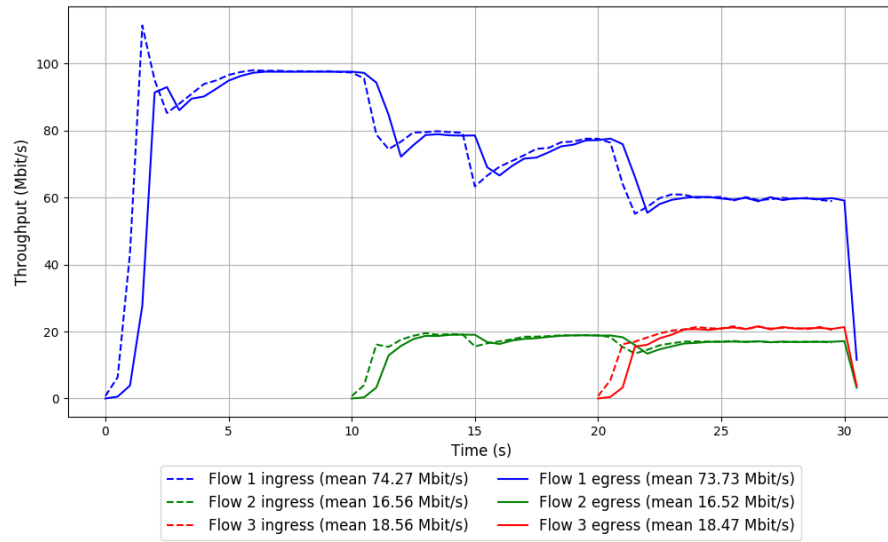
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-02-05 07:49:35
End at: 2019-02-05 07:50:05
Local clock offset: -5.6 ms
Remote clock offset: 7.612 ms


# Below is generated by plot.py at 2019-02-05 09:37:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.82 Mbit/s
95th percentile per-packet one-way delay: 116.369 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 73.46 Mbit/s
95th percentile per-packet one-way delay: 114.749 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 19.04 Mbit/s
95th percentile per-packet one-way delay: 117.762 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 17.05 Mbit/s
95th percentile per-packet one-way delay: 117.176 ms
Loss rate: 0.32%
```
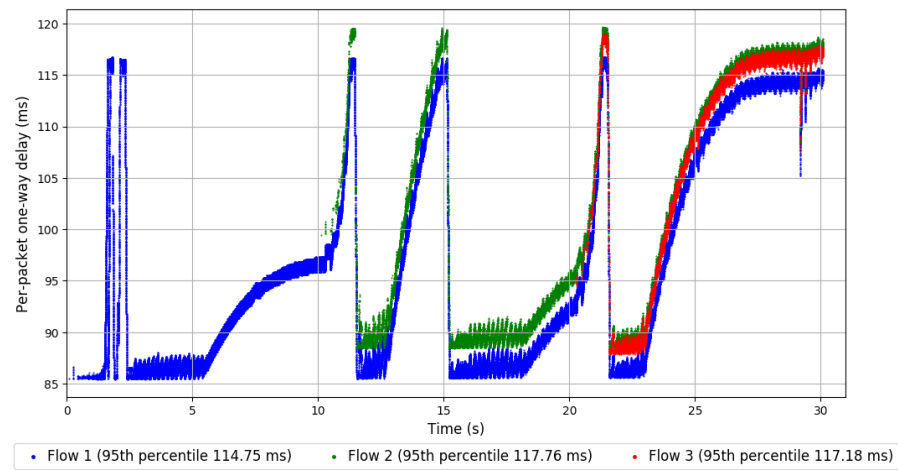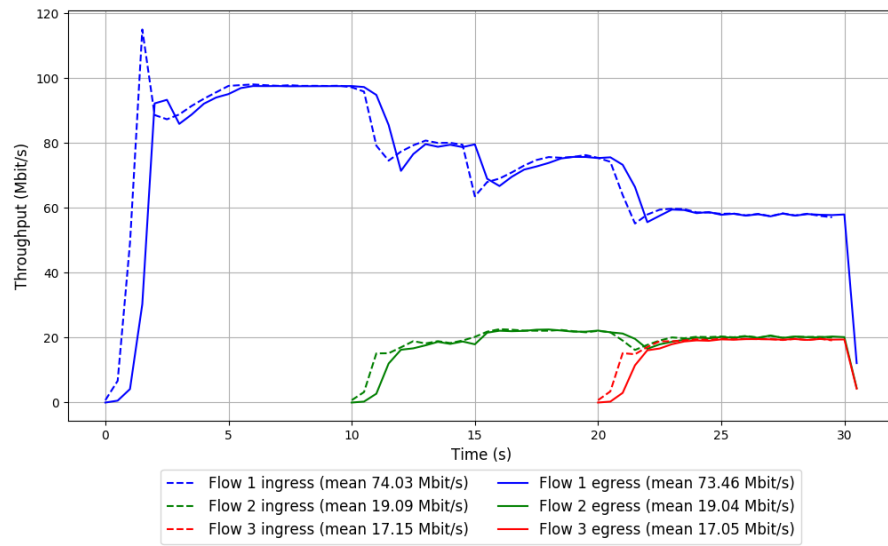
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2019-02-05 08:16:17
End at: 2019-02-05 08:16:47
Local clock offset: -1.708 ms
Remote clock offset: 6.504 ms


# Below is generated by plot.py at 2019-02-05 09:37:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.55 Mbit/s
95th percentile per-packet one-way delay: 116.924 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 72.41 Mbit/s
95th percentile per-packet one-way delay: 116.943 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 19.64 Mbit/s
95th percentile per-packet one-way delay: 117.082 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 18.19 Mbit/s
95th percentile per-packet one-way delay: 115.533 ms
Loss rate: 0.20%
```
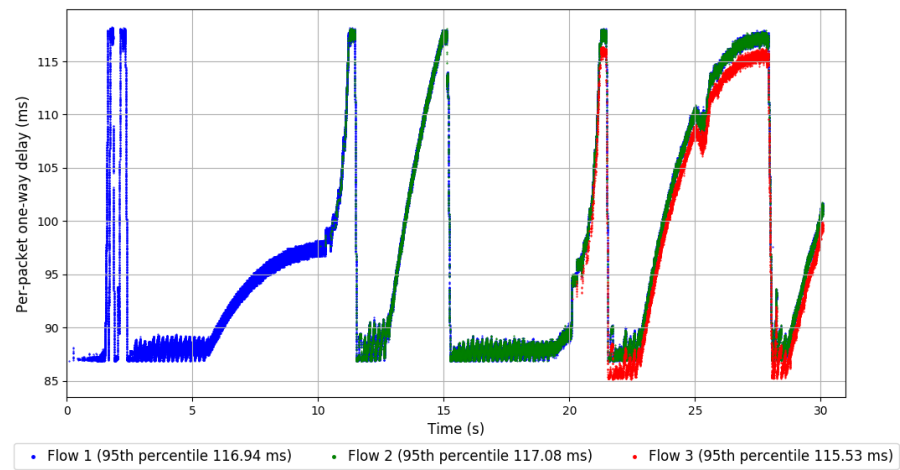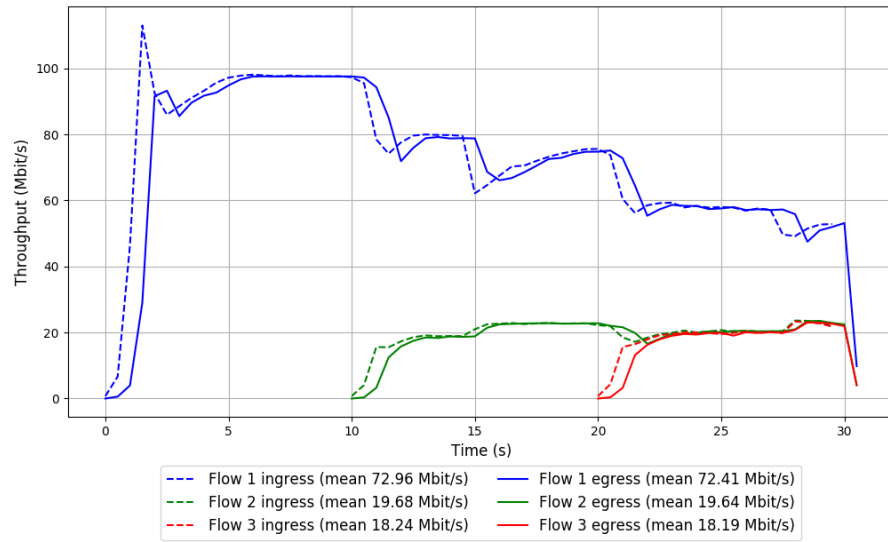
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 72.96 Mbit/s)   Flow 1 egress (mean 72.41 Mbit/s)
Flow 2 ingress (mean 19.68 Mbit/s)   Flow 2 egress (mean 19.64 Mbit/s)
Flow 3 ingress (mean 18.24 Mbit/s)   Flow 3 egress (mean 18.19 Mbit/s)

Flow 1 (95th percentile 116.94 ms)   Flow 2 (95th percentile 117.08 ms)   Flow 3 (95th percentile 115.53 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-02-05 08:42:53
End at: 2019-02-05 08:43:23
Local clock offset: -0.067 ms
Remote clock offset: 6.649 ms


# Below is generated by plot.py at 2019-02-05 09:37:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 116.251 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 73.85 Mbit/s
95th percentile per-packet one-way delay: 116.741 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 15.94 Mbit/s
95th percentile per-packet one-way delay: 115.560 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 18.50 Mbit/s
95th percentile per-packet one-way delay: 110.007 ms
Loss rate: 0.19%
```
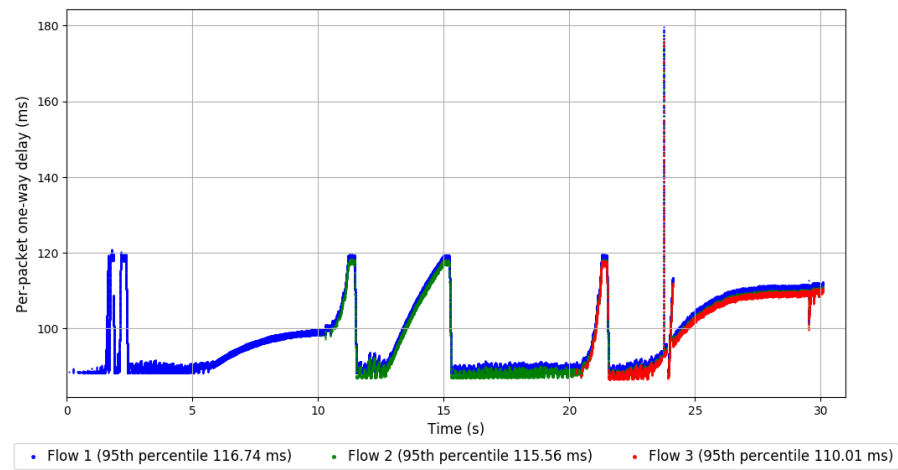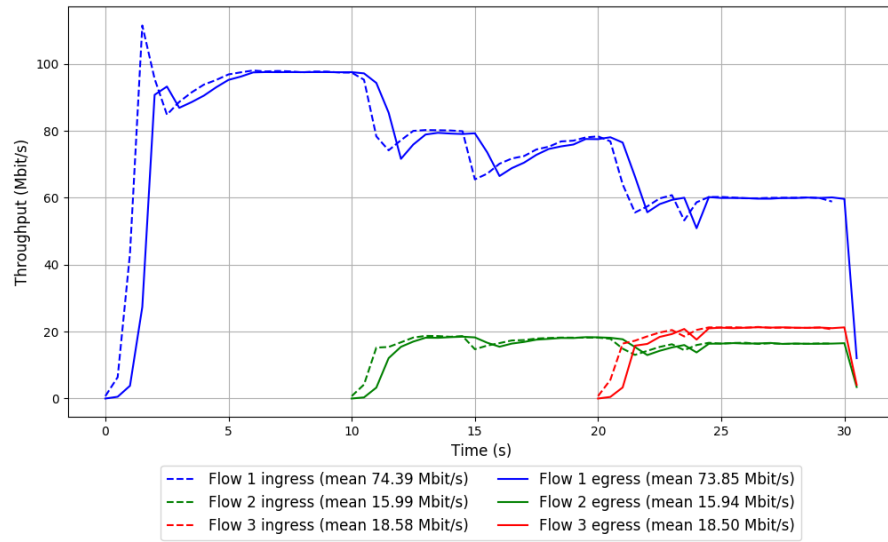
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 74.39 Mbit/s) --- Flow 1 egress (mean 73.85 Mbit/s)
Flow 2 ingress (mean 15.99 Mbit/s) --- Flow 2 egress (mean 15.94 Mbit/s)
Flow 3 ingress (mean 18.58 Mbit/s) --- Flow 3 egress (mean 18.50 Mbit/s)

Flow 1 (95th percentile 116.74 ms)   Flow 2 (95th percentile 115.56 ms)   Flow 3 (95th percentile 110.01 ms)
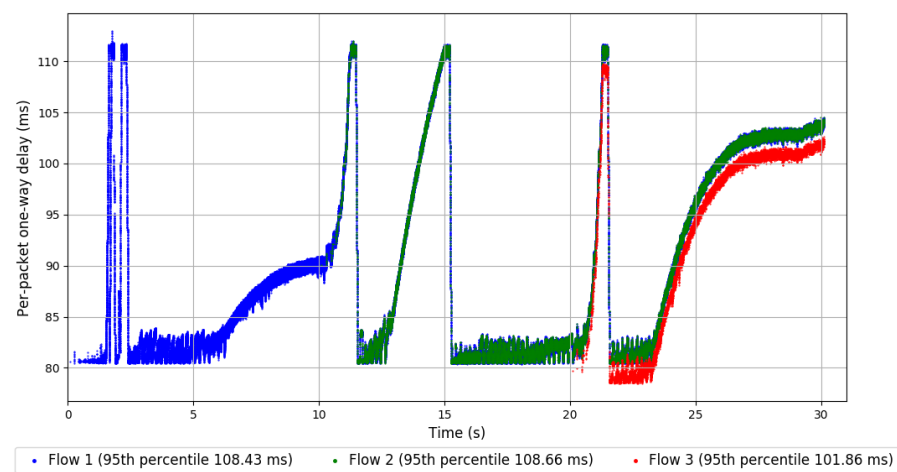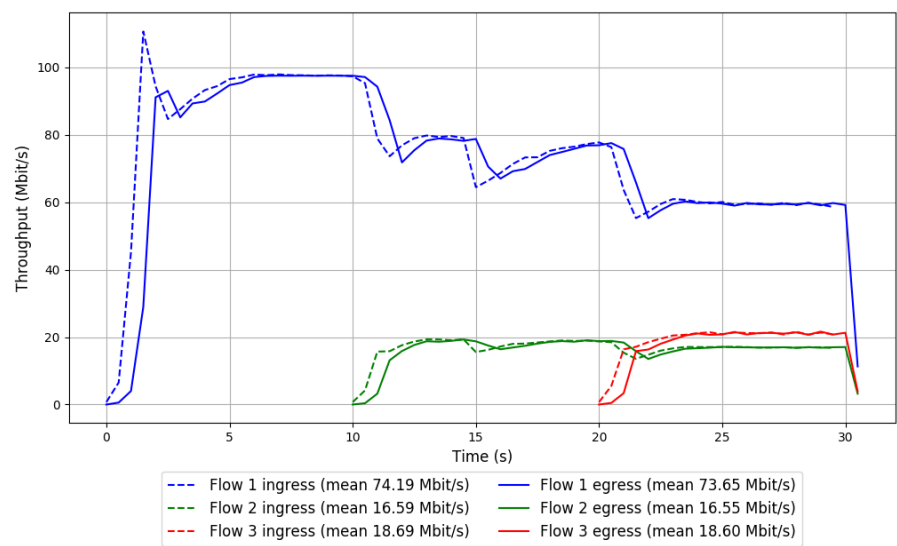
```
Run 5: Statistics of TCP Cubic

Start at: 2019-02-05 09:09:31
End at: 2019-02-05 09:10:01
Local clock offset: -8.187 ms
Remote clock offset: -1.896 ms


# Below is generated by plot.py at 2019-02-05 09:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.87 Mbit/s
95th percentile per-packet one-way delay: 108.125 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 73.65 Mbit/s
95th percentile per-packet one-way delay: 108.433 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 16.55 Mbit/s
95th percentile per-packet one-way delay: 108.656 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 18.60 Mbit/s
95th percentile per-packet one-way delay: 101.860 ms
Loss rate: 0.24%
```

Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-02-05 07:38:02
End at: 2019-02-05 07:38:32
Local clock offset: -7.152 ms
Remote clock offset: 4.077 ms

# Below is generated by plot.py at 2019-02-05 09:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.96 Mbit/s
95th percentile per-packet one-way delay: 108.489 ms
Loss rate: 18.83%
-- Flow 1:
Average throughput: 57.40 Mbit/s
95th percentile per-packet one-way delay: 107.156 ms
Loss rate: 15.07%
-- Flow 2:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 109.079 ms
Loss rate: 24.97%
-- Flow 3:
Average throughput: 27.89 Mbit/s
95th percentile per-packet one-way delay: 108.633 ms
Loss rate: 22.02%
```
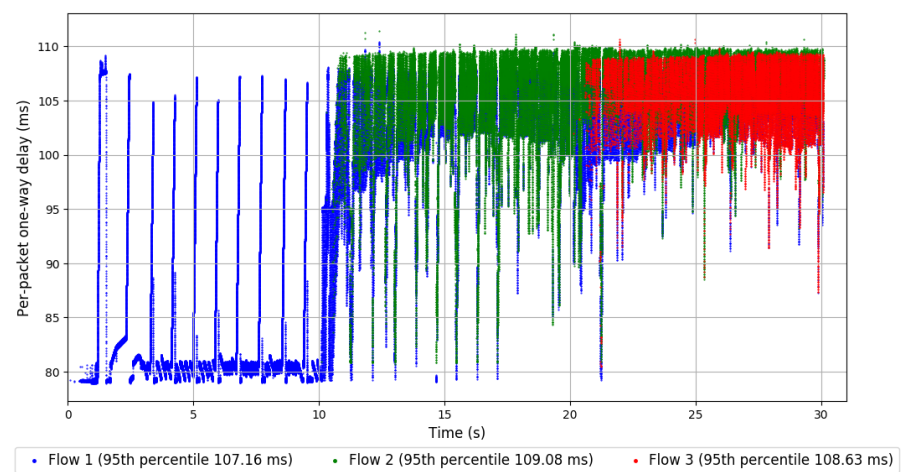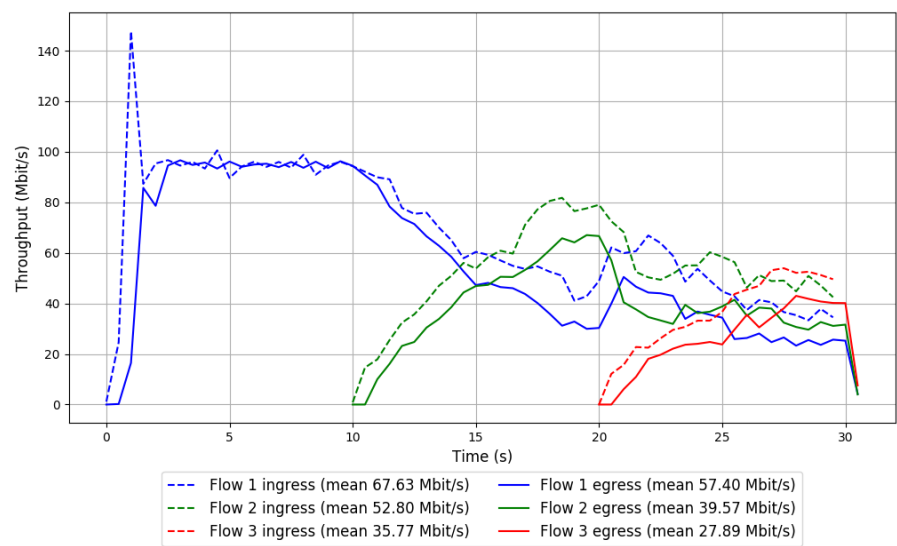
Run 1: Report of FillP — Data Link

Legend:
- Flow 1 ingress (mean 67.63 Mbit/s) — Flow 1 egress (mean 57.40 Mbit/s)
- Flow 2 ingress (mean 52.80 Mbit/s) — Flow 2 egress (mean 39.57 Mbit/s)
- Flow 3 ingress (mean 35.77 Mbit/s) — Flow 3 egress (mean 27.89 Mbit/s)

Legend:
- Flow 1 (95th percentile 107.16 ms)
- Flow 2 (95th percentile 109.08 ms)
- Flow 3 (95th percentile 108.63 ms)

```
Run 2: Statistics of FillP

Start at: 2019-02-05 08:04:46
End at: 2019-02-05 08:05:16
Local clock offset: -2.836 ms
Remote clock offset: 5.696 ms


# Below is generated by plot.py at 2019-02-05 09:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.61 Mbit/s
95th percentile per-packet one-way delay: 114.391 ms
Loss rate: 24.41%
-- Flow 1:
Average throughput: 51.43 Mbit/s
95th percentile per-packet one-way delay: 113.885 ms
Loss rate: 18.84%
-- Flow 2:
Average throughput: 42.69 Mbit/s
95th percentile per-packet one-way delay: 114.526 ms
Loss rate: 32.13%
-- Flow 3:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 115.529 ms
Loss rate: 26.61%
```
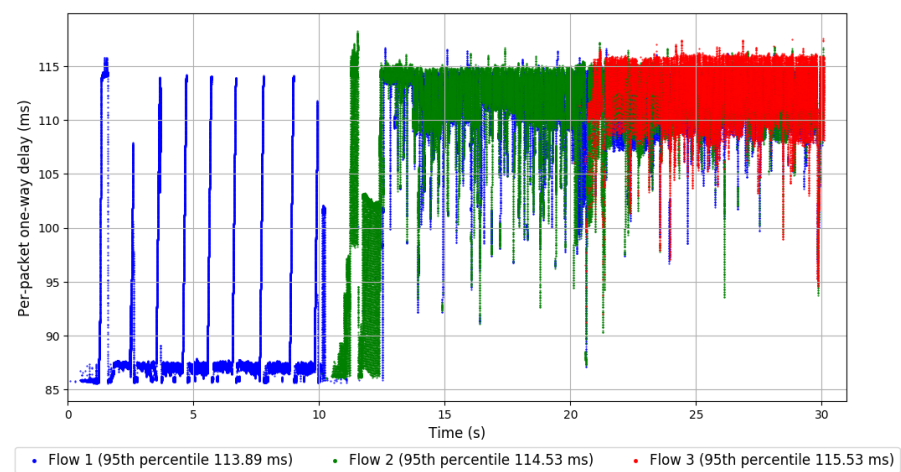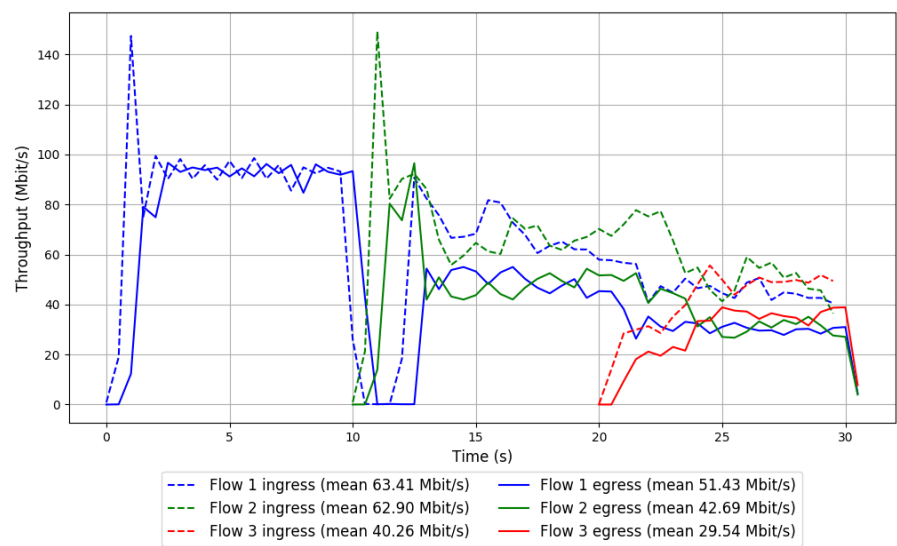
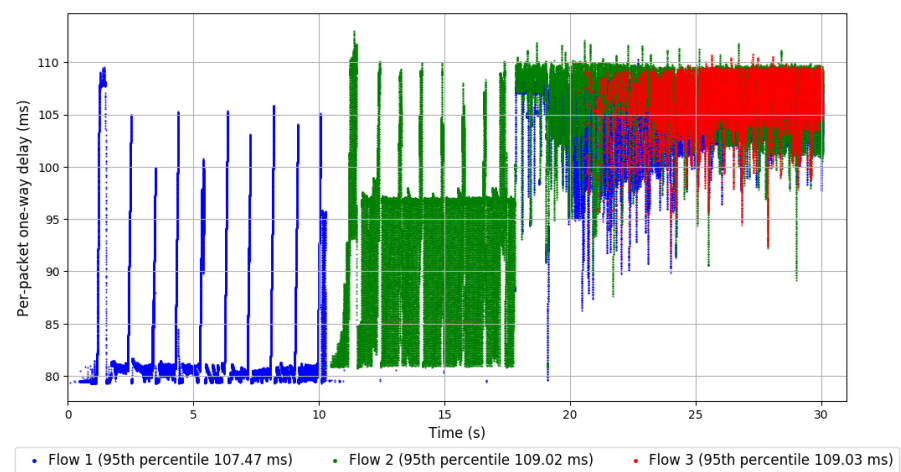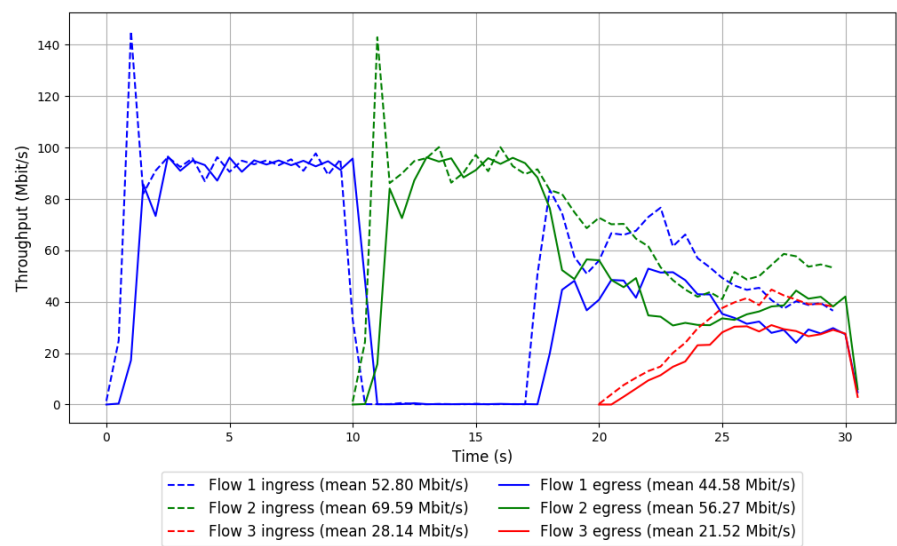## Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-02-05 08:31:24
End at: 2019-02-05 08:31:54
Local clock offset: -0.734 ms
Remote clock offset: 0.665 ms


# Below is generated by plot.py at 2019-02-05 09:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.18 Mbit/s
95th percentile per-packet one-way delay: 108.700 ms
Loss rate: 17.70%
-- Flow 1:
Average throughput: 44.58 Mbit/s
95th percentile per-packet one-way delay: 107.465 ms
Loss rate: 15.50%
-- Flow 2:
Average throughput: 56.27 Mbit/s
95th percentile per-packet one-way delay: 109.018 ms
Loss rate: 19.04%
-- Flow 3:
Average throughput: 21.52 Mbit/s
95th percentile per-packet one-way delay: 109.033 ms
Loss rate: 23.53%
```

Run 3: Report of FillP — Data Link

- - - Flow 1 ingress (mean 52.80 Mbit/s) —— Flow 1 egress (mean 44.58 Mbit/s)
- - - Flow 2 ingress (mean 69.59 Mbit/s) —— Flow 2 egress (mean 56.27 Mbit/s)
- - - Flow 3 ingress (mean 28.14 Mbit/s) —— Flow 3 egress (mean 21.52 Mbit/s)

• Flow 1 (95th percentile 107.47 ms)   • Flow 2 (95th percentile 109.02 ms)   • Flow 3 (95th percentile 109.03 ms)
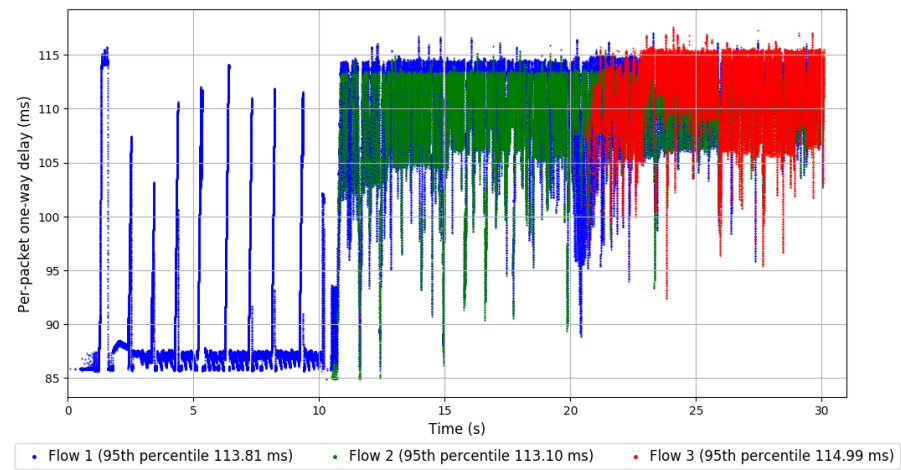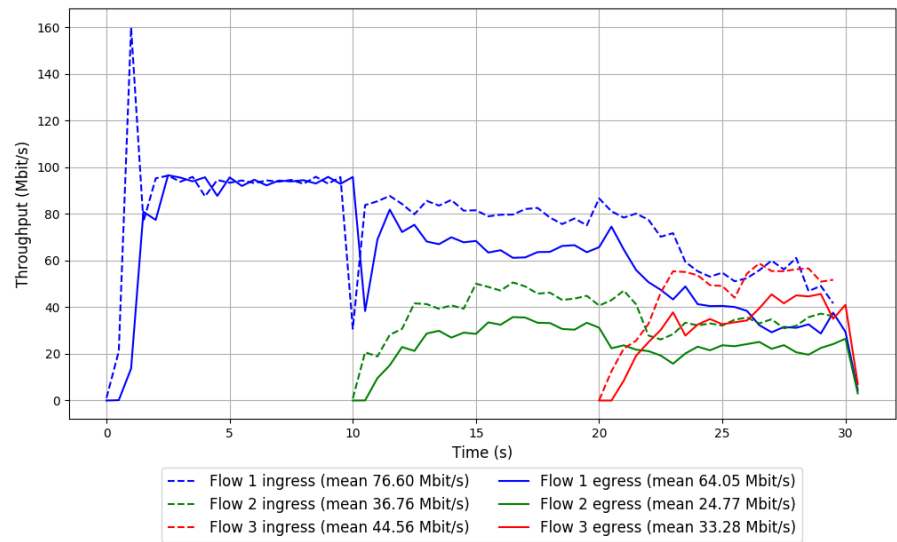
```
Run 4: Statistics of FillP

Start at: 2019-02-05 08:57:59
End at: 2019-02-05 08:58:29
Local clock offset: -6.524 ms
Remote clock offset: 3.913 ms


# Below is generated by plot.py at 2019-02-05 09:38:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.55 Mbit/s
95th percentile per-packet one-way delay: 113.950 ms
Loss rate: 20.89%
-- Flow 1:
Average throughput: 64.05 Mbit/s
95th percentile per-packet one-way delay: 113.805 ms
Loss rate: 16.31%
-- Flow 2:
Average throughput: 24.77 Mbit/s
95th percentile per-packet one-way delay: 113.098 ms
Loss rate: 32.53%
-- Flow 3:
Average throughput: 33.28 Mbit/s
95th percentile per-packet one-way delay: 114.992 ms
Loss rate: 25.32%
```

Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-02-05 09:24:38
End at: 2019-02-05 09:25:08
Local clock offset: -9.895 ms
Remote clock offset: 1.979 ms


# Below is generated by plot.py at 2019-02-05 09:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.56 Mbit/s
95th percentile per-packet one-way delay: 111.613 ms
Loss rate: 17.64%
-- Flow 1:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 112.268 ms
Loss rate: 14.56%
-- Flow 2:
Average throughput: 57.60 Mbit/s
95th percentile per-packet one-way delay: 110.694 ms
Loss rate: 18.58%
-- Flow 3:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 110.973 ms
Loss rate: 27.50%
```
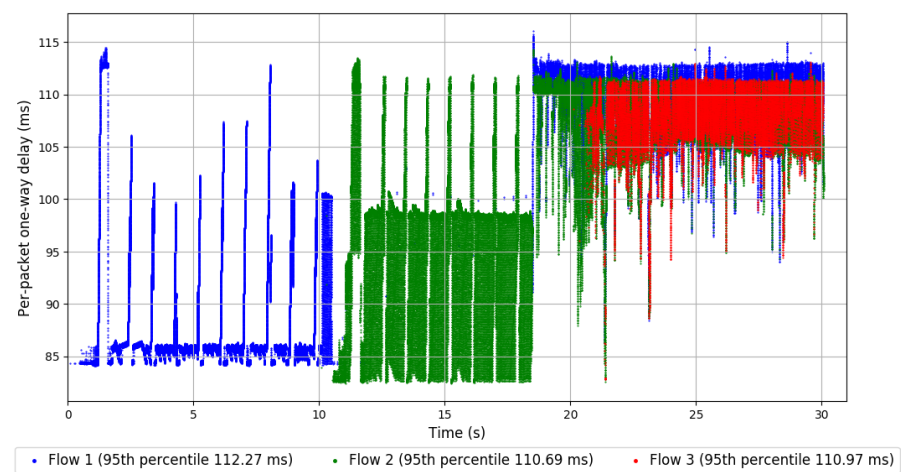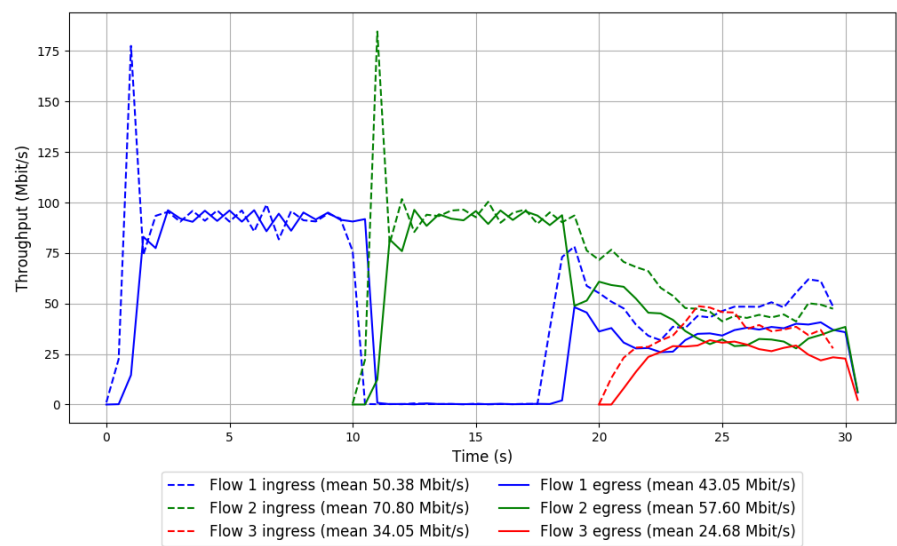
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-02-05 07:40:38
End at: 2019-02-05 07:41:08
Local clock offset: -7.999 ms
Remote clock offset: 4.461 ms


# Below is generated by plot.py at 2019-02-05 09:38:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.01 Mbit/s
95th percentile per-packet one-way delay: 111.012 ms
Loss rate: 5.41%
-- Flow 1:
Average throughput: 28.13 Mbit/s
95th percentile per-packet one-way delay: 108.402 ms
Loss rate: 6.95%
-- Flow 2:
Average throughput: 78.89 Mbit/s
95th percentile per-packet one-way delay: 111.370 ms
Loss rate: 3.22%
-- Flow 3:
Average throughput: 10.38 Mbit/s
95th percentile per-packet one-way delay: 109.645 ms
Loss rate: 21.91%
```
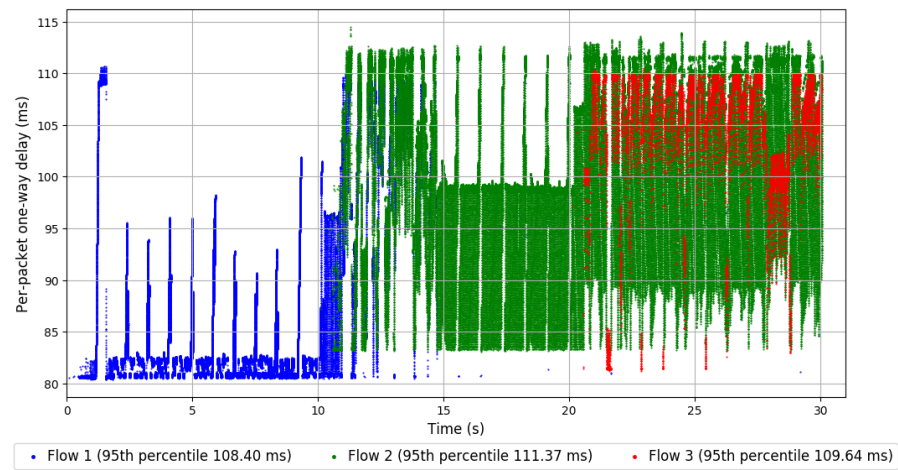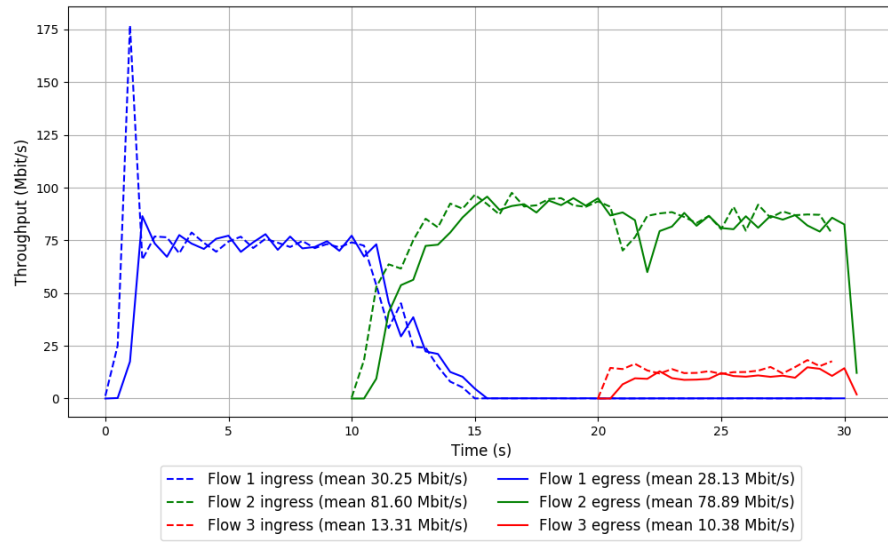
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 30.25 Mbit/s) --- Flow 1 egress (mean 28.13 Mbit/s)
Flow 2 ingress (mean 81.60 Mbit/s) --- Flow 2 egress (mean 78.89 Mbit/s)
Flow 3 ingress (mean 13.31 Mbit/s) --- Flow 3 egress (mean 10.38 Mbit/s)

Flow 1 (95th percentile 108.40 ms)   Flow 2 (95th percentile 111.37 ms)   Flow 3 (95th percentile 109.64 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-02-05 08:07:23
End at: 2019-02-05 08:07:53
Local clock offset: -1.757 ms
Remote clock offset: 1.879 ms


# Below is generated by plot.py at 2019-02-05 09:38:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.05 Mbit/s
95th percentile per-packet one-way delay: 109.256 ms
Loss rate: 6.82%
-- Flow 1:
Average throughput: 25.80 Mbit/s
95th percentile per-packet one-way delay: 110.464 ms
Loss rate: 7.34%
-- Flow 2:
Average throughput: 75.12 Mbit/s
95th percentile per-packet one-way delay: 109.237 ms
Loss rate: 6.07%
-- Flow 3:
Average throughput: 19.08 Mbit/s
95th percentile per-packet one-way delay: 108.739 ms
Loss rate: 10.41%
```
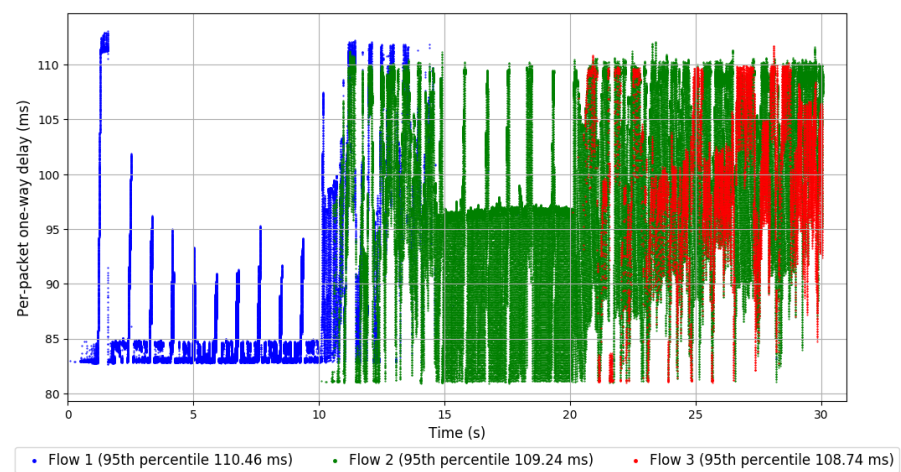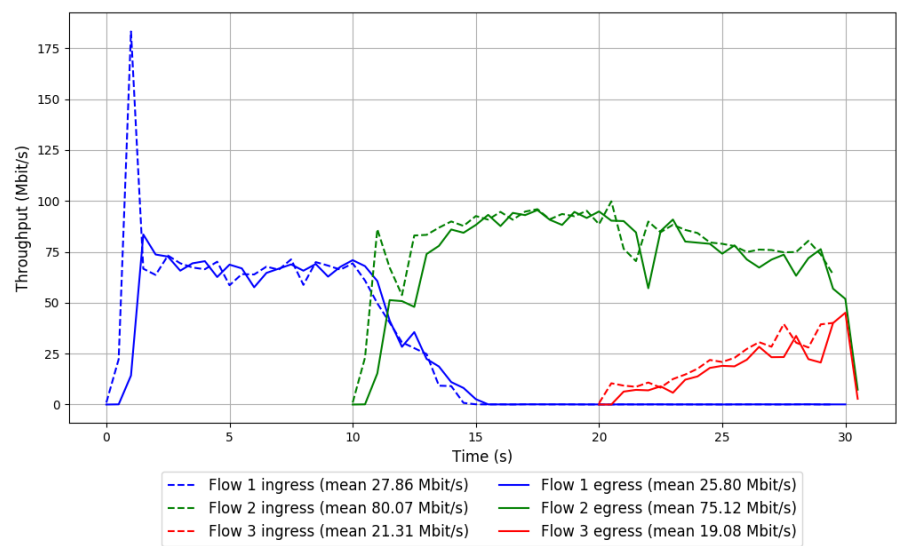
Run 2: Report of FillP-Sheep — Data Link

- - - Flow 1 ingress (mean 27.86 Mbit/s)   —— Flow 1 egress (mean 25.80 Mbit/s)
- - - Flow 2 ingress (mean 80.07 Mbit/s)   —— Flow 2 egress (mean 75.12 Mbit/s)
- - - Flow 3 ingress (mean 21.31 Mbit/s)   —— Flow 3 egress (mean 19.08 Mbit/s)

• Flow 1 (95th percentile 110.46 ms)   • Flow 2 (95th percentile 109.24 ms)   • Flow 3 (95th percentile 108.74 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-02-05 08:34:00
End at: 2019-02-05 08:34:30
Local clock offset: -0.595 ms
Remote clock offset: 0.653 ms


# Below is generated by plot.py at 2019-02-05 09:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.25 Mbit/s
95th percentile per-packet one-way delay: 109.164 ms
Loss rate: 8.56%
-- Flow 1:
Average throughput: 28.37 Mbit/s
95th percentile per-packet one-way delay: 108.025 ms
Loss rate: 5.20%
-- Flow 2:
Average throughput: 64.65 Mbit/s
95th percentile per-packet one-way delay: 109.987 ms
Loss rate: 6.72%
-- Flow 3:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 107.618 ms
Loss rate: 20.04%
```
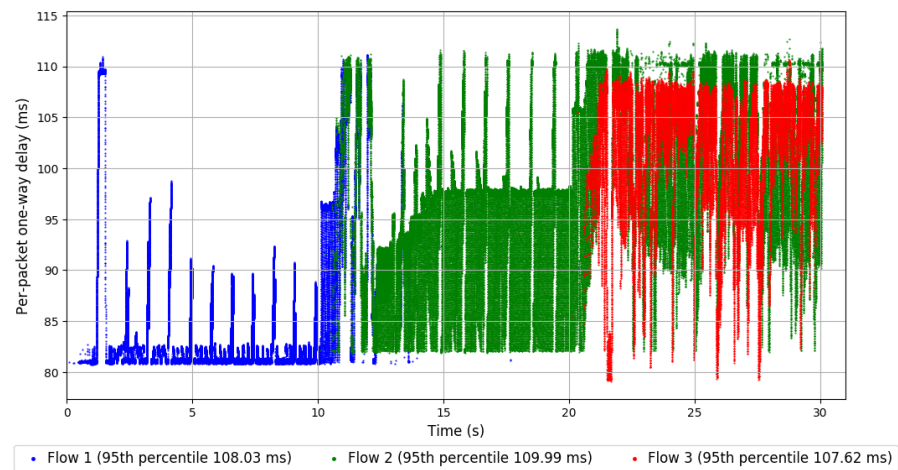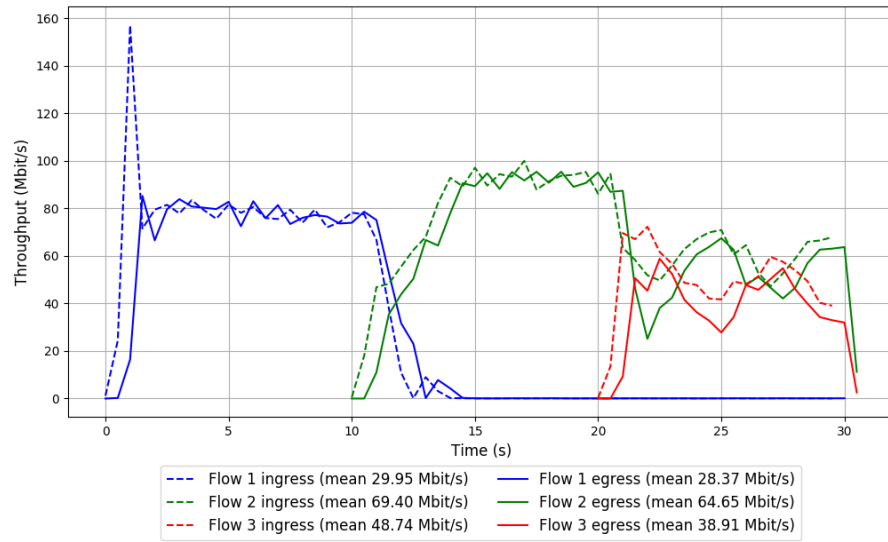
Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-02-05 09:00:35
End at: 2019-02-05 09:01:05
Local clock offset: -7.268 ms
Remote clock offset: 2.822 ms


# Below is generated by plot.py at 2019-02-05 09:39:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.24 Mbit/s
95th percentile per-packet one-way delay: 112.335 ms
Loss rate: 5.33%
-- Flow 1:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 111.675 ms
Loss rate: 8.74%
-- Flow 2:
Average throughput: 81.93 Mbit/s
95th percentile per-packet one-way delay: 112.582 ms
Loss rate: 4.49%
-- Flow 3:
Average throughput: 11.07 Mbit/s
95th percentile per-packet one-way delay: 111.137 ms
Loss rate: 5.34%
```
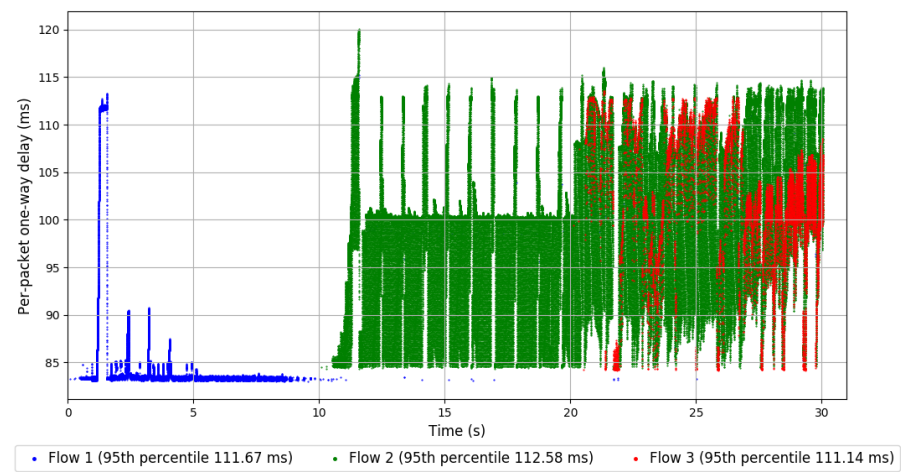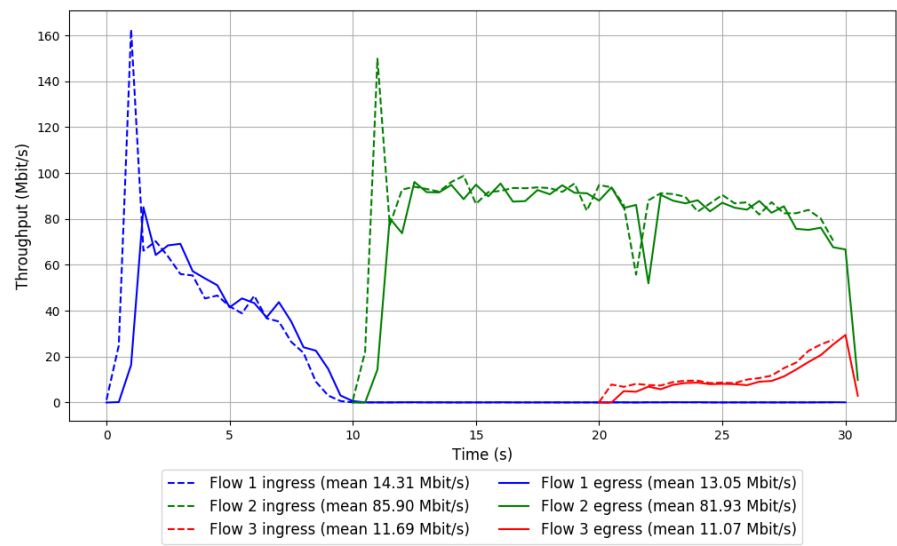
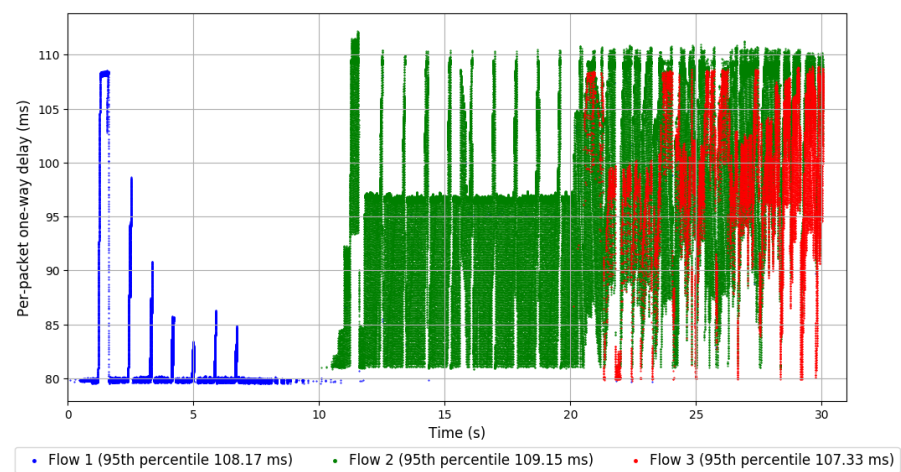Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 14.31 Mbit/s) --- Flow 1 egress (mean 13.05 Mbit/s)
Flow 2 ingress (mean 85.90 Mbit/s) --- Flow 2 egress (mean 81.93 Mbit/s)
Flow 3 ingress (mean 11.69 Mbit/s) --- Flow 3 egress (mean 11.07 Mbit/s)

Flow 1 (95th percentile 111.67 ms)   Flow 2 (95th percentile 112.58 ms)   Flow 3 (95th percentile 111.14 ms)
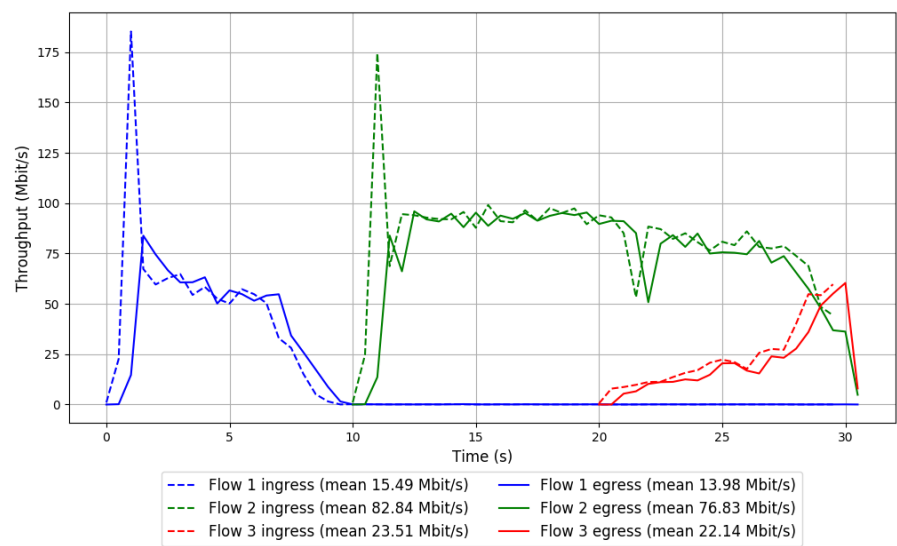
```
Run 5: Statistics of FillP-Sheep

Start at: 2019-02-05 09:27:13
End at: 2019-02-05 09:27:44
Local clock offset: -10.12 ms
Remote clock offset: -0.601 ms


# Below is generated by plot.py at 2019-02-05 09:39:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.49 Mbit/s
95th percentile per-packet one-way delay: 108.896 ms
Loss rate: 7.51%
-- Flow 1:
Average throughput: 13.98 Mbit/s
95th percentile per-packet one-way delay: 108.171 ms
Loss rate: 9.69%
-- Flow 2:
Average throughput: 76.83 Mbit/s
95th percentile per-packet one-way delay: 109.150 ms
Loss rate: 7.16%
-- Flow 3:
Average throughput: 22.14 Mbit/s
95th percentile per-packet one-way delay: 107.334 ms
Loss rate: 5.63%
```

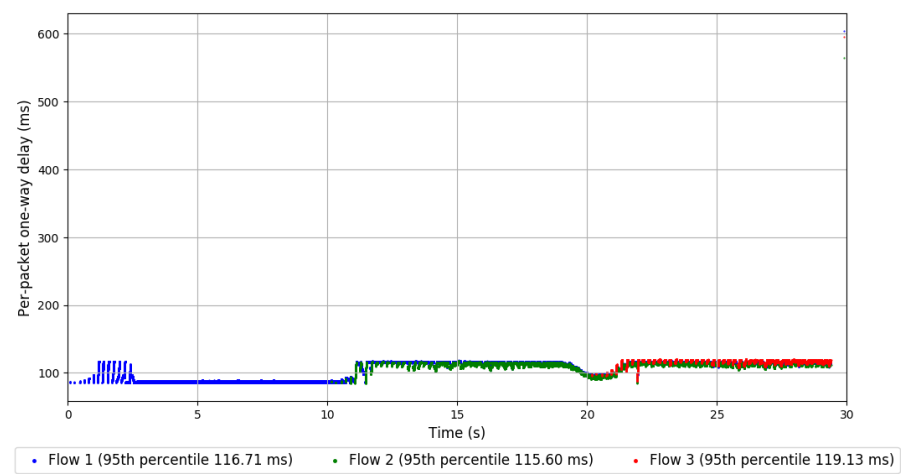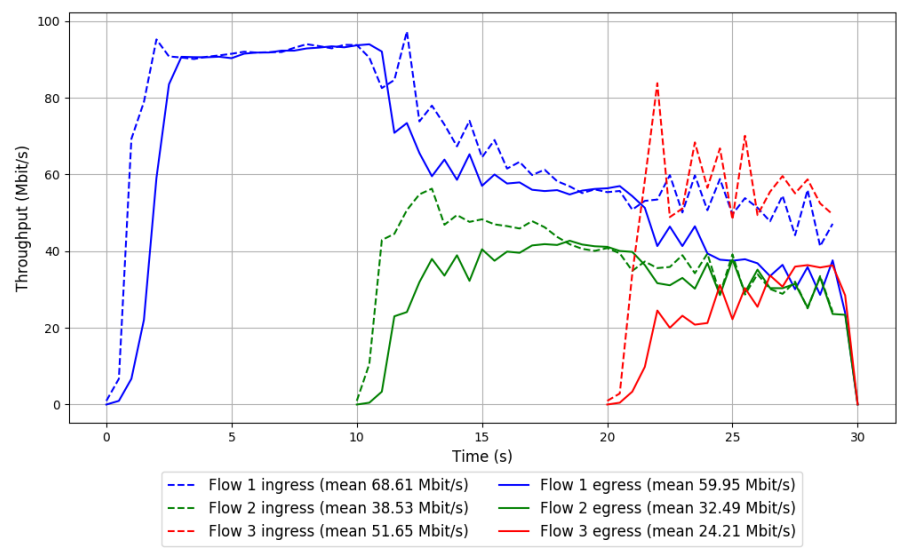## Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 15.49 Mbit/s) --- Flow 1 egress (mean 13.98 Mbit/s)
Flow 2 ingress (mean 82.84 Mbit/s) --- Flow 2 egress (mean 76.83 Mbit/s)
Flow 3 ingress (mean 23.51 Mbit/s) --- Flow 3 egress (mean 22.14 Mbit/s)

Flow 1 (95th percentile 108.17 ms) • Flow 2 (95th percentile 109.15 ms) • Flow 3 (95th percentile 107.33 ms)

54

```
Run 1: Statistics of Indigo

Start at: 2019-02-05 07:21:35
End at: 2019-02-05 07:22:05
Local clock offset: -6.537 ms
Remote clock offset: 10.221 ms


# Below is generated by plot.py at 2019-02-05 09:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.36 Mbit/s
95th percentile per-packet one-way delay: 117.287 ms
Loss rate: 18.20%
-- Flow 1:
Average throughput: 59.95 Mbit/s
95th percentile per-packet one-way delay: 116.709 ms
Loss rate: 11.70%
-- Flow 2:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 115.604 ms
Loss rate: 14.13%
-- Flow 3:
Average throughput: 24.21 Mbit/s
95th percentile per-packet one-way delay: 119.128 ms
Loss rate: 51.58%
```
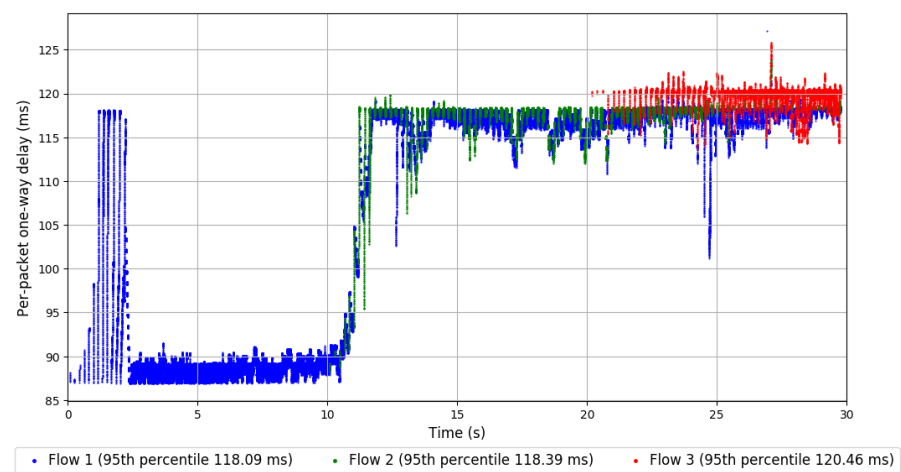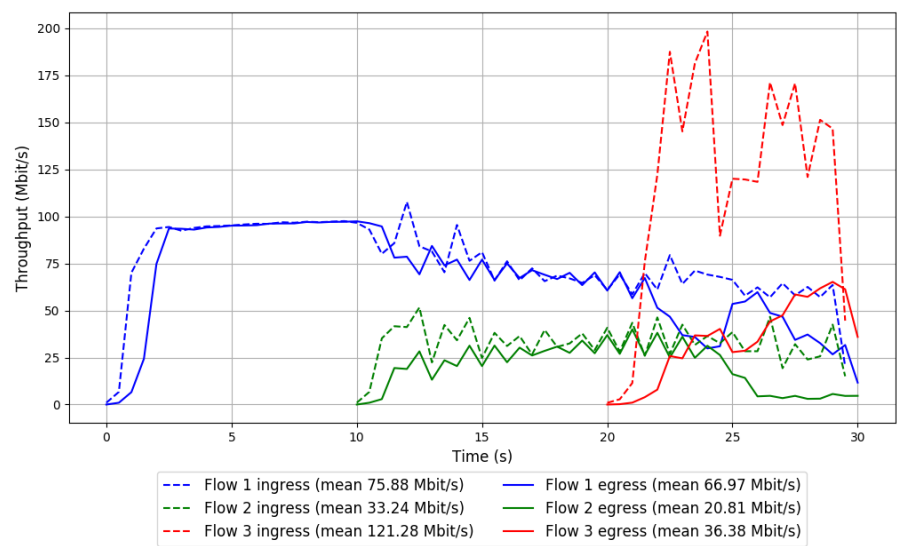
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 68.61 Mbit/s) --- Flow 1 egress (mean 59.95 Mbit/s)
Flow 2 ingress (mean 38.53 Mbit/s) --- Flow 2 egress (mean 32.49 Mbit/s)
Flow 3 ingress (mean 51.65 Mbit/s) --- Flow 3 egress (mean 24.21 Mbit/s)

Flow 1 (95th percentile 116.71 ms)   Flow 2 (95th percentile 115.60 ms)   Flow 3 (95th percentile 119.13 ms)

```
Run 2: Statistics of Indigo

Start at: 2019-02-05 07:48:15
End at: 2019-02-05 07:48:45
Local clock offset: -6.879 ms
Remote clock offset: 7.712 ms


# Below is generated by plot.py at 2019-02-05 09:39:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.49 Mbit/s
95th percentile per-packet one-way delay: 120.210 ms
Loss rate: 32.47%
-- Flow 1:
Average throughput: 66.97 Mbit/s
95th percentile per-packet one-way delay: 118.094 ms
Loss rate: 11.65%
-- Flow 2:
Average throughput: 20.81 Mbit/s
95th percentile per-packet one-way delay: 118.385 ms
Loss rate: 37.29%
-- Flow 3:
Average throughput: 36.38 Mbit/s
95th percentile per-packet one-way delay: 120.458 ms
Loss rate: 70.00%
```
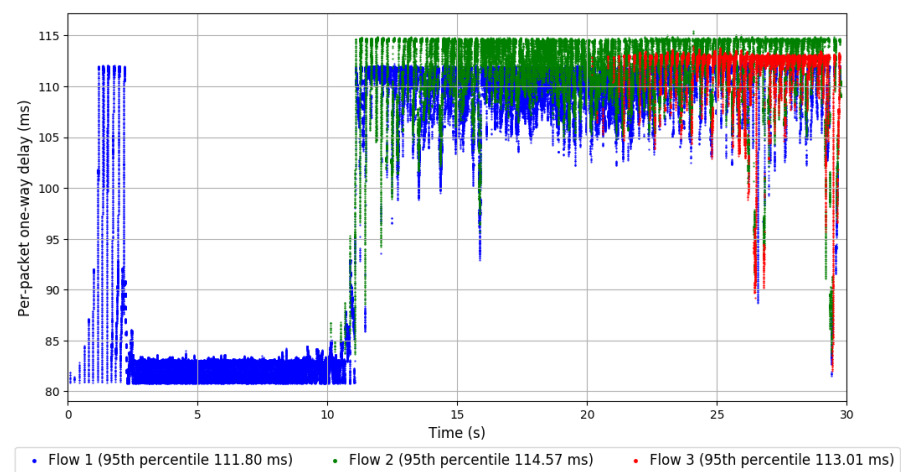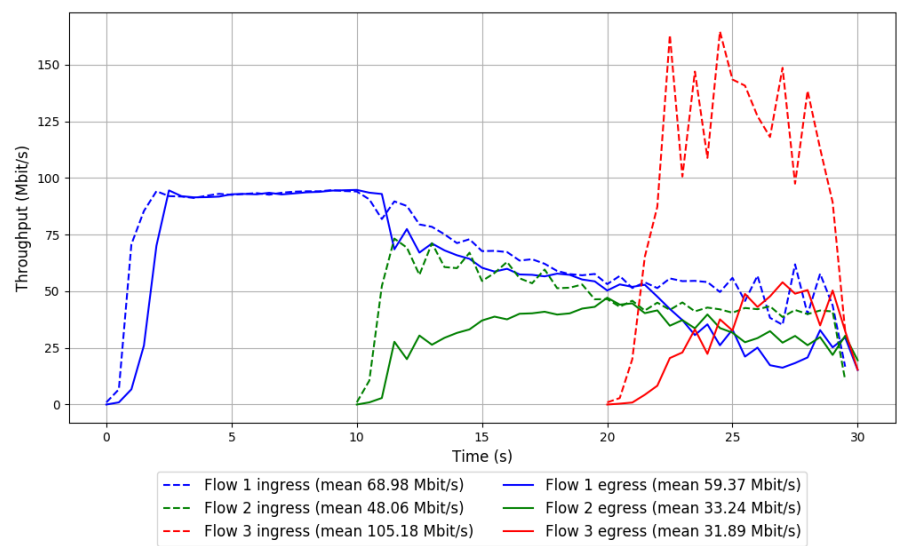
Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 75.88 Mbit/s) — Flow 1 egress (mean 66.97 Mbit/s)
Flow 2 ingress (mean 33.24 Mbit/s) — Flow 2 egress (mean 20.81 Mbit/s)
Flow 3 ingress (mean 121.28 Mbit/s) — Flow 3 egress (mean 36.38 Mbit/s)

Flow 1 (95th percentile 118.09 ms) — Flow 2 (95th percentile 118.39 ms) — Flow 3 (95th percentile 120.46 ms)

```
Run 3: Statistics of Indigo

Start at: 2019-02-05 08:14:57
End at: 2019-02-05 08:15:27
Local clock offset: -1.817 ms
Remote clock offset: 1.852 ms


# Below is generated by plot.py at 2019-02-05 09:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.61 Mbit/s
95th percentile per-packet one-way delay: 114.242 ms
Loss rate: 31.90%
-- Flow 1:
Average throughput: 59.37 Mbit/s
95th percentile per-packet one-way delay: 111.804 ms
Loss rate: 13.84%
-- Flow 2:
Average throughput: 33.24 Mbit/s
95th percentile per-packet one-way delay: 114.574 ms
Loss rate: 30.76%
-- Flow 3:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 113.014 ms
Loss rate: 69.68%
```
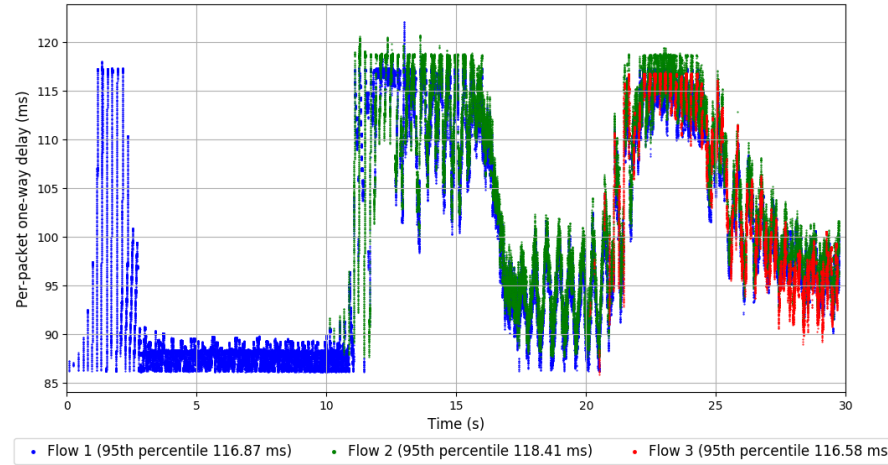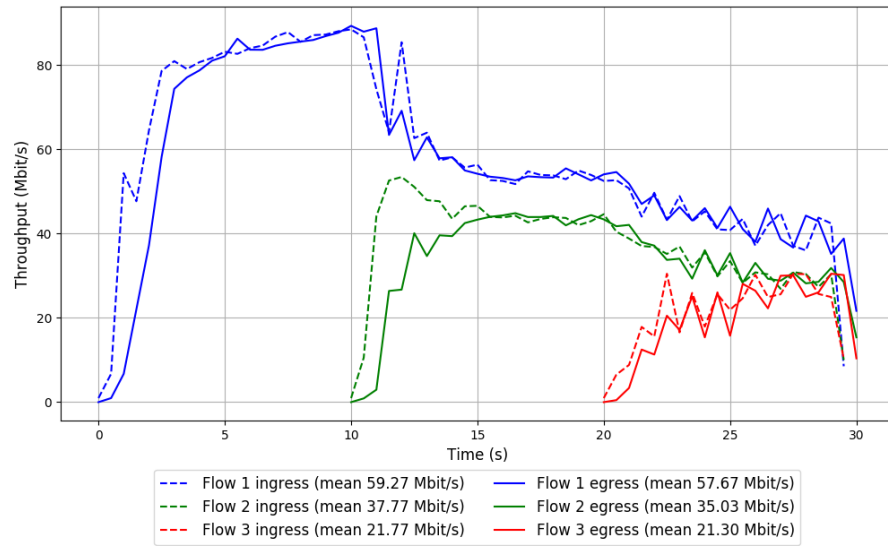
Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 68.98 Mbit/s) --- Flow 1 egress (mean 59.37 Mbit/s)
Flow 2 ingress (mean 48.06 Mbit/s) --- Flow 2 egress (mean 33.24 Mbit/s)
Flow 3 ingress (mean 105.18 Mbit/s) --- Flow 3 egress (mean 31.89 Mbit/s)

Flow 1 (95th percentile 111.80 ms)   Flow 2 (95th percentile 114.57 ms)   Flow 3 (95th percentile 113.01 ms)

```
Run 4: Statistics of Indigo

Start at: 2019-02-05 08:41:34
End at: 2019-02-05 08:42:04
Local clock offset: -0.151 ms
Remote clock offset: 6.837 ms


# Below is generated by plot.py at 2019-02-05 09:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.71 Mbit/s
95th percentile per-packet one-way delay: 117.081 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 57.67 Mbit/s
95th percentile per-packet one-way delay: 116.868 ms
Loss rate: 2.66%
-- Flow 2:
Average throughput: 35.03 Mbit/s
95th percentile per-packet one-way delay: 118.406 ms
Loss rate: 7.19%
-- Flow 3:
Average throughput: 21.30 Mbit/s
95th percentile per-packet one-way delay: 116.580 ms
Loss rate: 2.13%
```
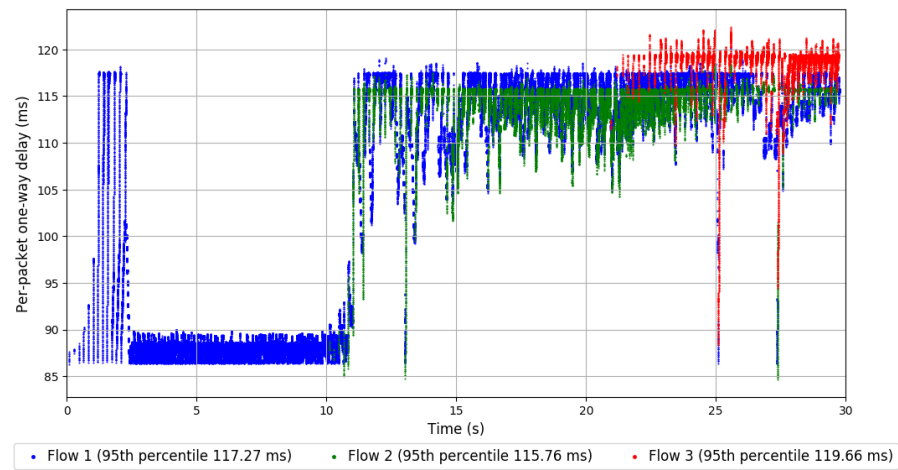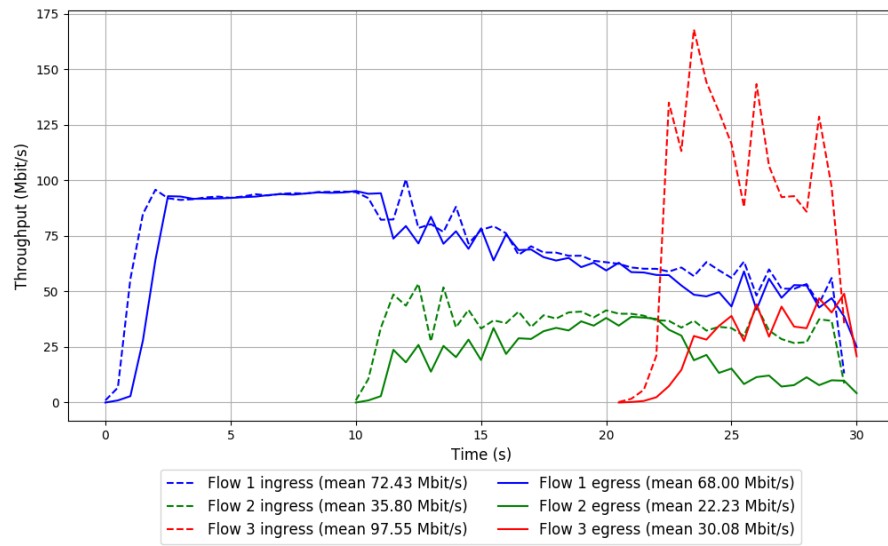
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-02-05 09:08:12
End at: 2019-02-05 09:08:42
Local clock offset: -7.999 ms
Remote clock offset: 4.543 ms


# Below is generated by plot.py at 2019-02-05 09:40:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.54 Mbit/s
95th percentile per-packet one-way delay: 119.204 ms
Loss rate: 26.59%
-- Flow 1:
Average throughput: 68.00 Mbit/s
95th percentile per-packet one-way delay: 117.268 ms
Loss rate: 6.03%
-- Flow 2:
Average throughput: 22.23 Mbit/s
95th percentile per-packet one-way delay: 115.764 ms
Loss rate: 37.81%
-- Flow 3:
Average throughput: 30.08 Mbit/s
95th percentile per-packet one-way delay: 119.663 ms
Loss rate: 69.14%
```
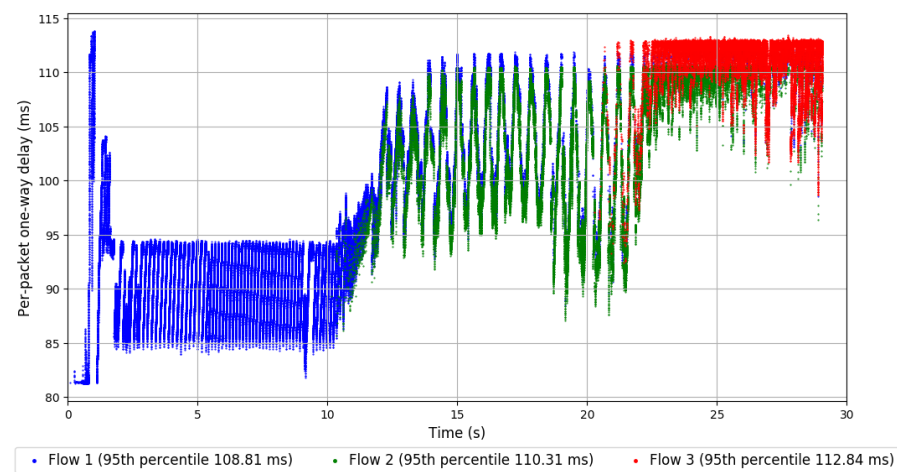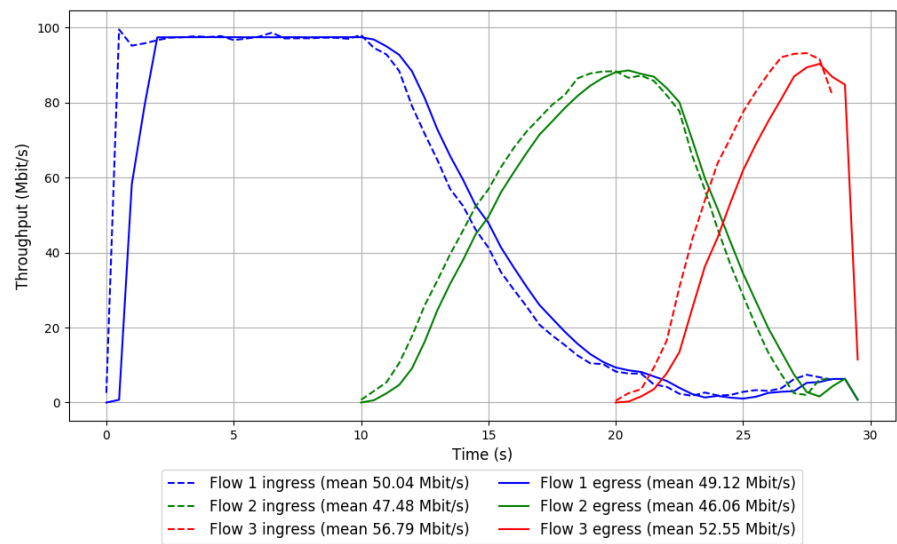
Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 72.43 Mbit/s) --- Flow 1 egress (mean 68.00 Mbit/s)
Flow 2 ingress (mean 35.80 Mbit/s) --- Flow 2 egress (mean 22.23 Mbit/s)
Flow 3 ingress (mean 97.55 Mbit/s) --- Flow 3 egress (mean 30.08 Mbit/s)

Flow 1 (95th percentile 117.27 ms) • Flow 2 (95th percentile 115.76 ms) • Flow 3 (95th percentile 119.66 ms)

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-05 07:45:39
End at: 2019-02-05 07:46:09
Local clock offset: -7.365 ms
Remote clock offset: 3.318 ms


# Below is generated by plot.py at 2019-02-05 09:40:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 112.530 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 49.12 Mbit/s
95th percentile per-packet one-way delay: 108.807 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 46.06 Mbit/s
95th percentile per-packet one-way delay: 110.315 ms
Loss rate: 2.90%
-- Flow 3:
Average throughput: 52.55 Mbit/s
95th percentile per-packet one-way delay: 112.840 ms
Loss rate: 7.33%
```
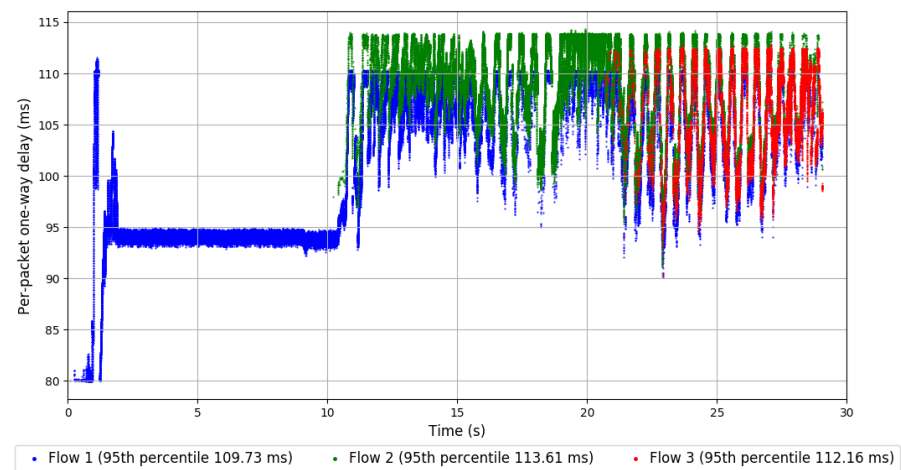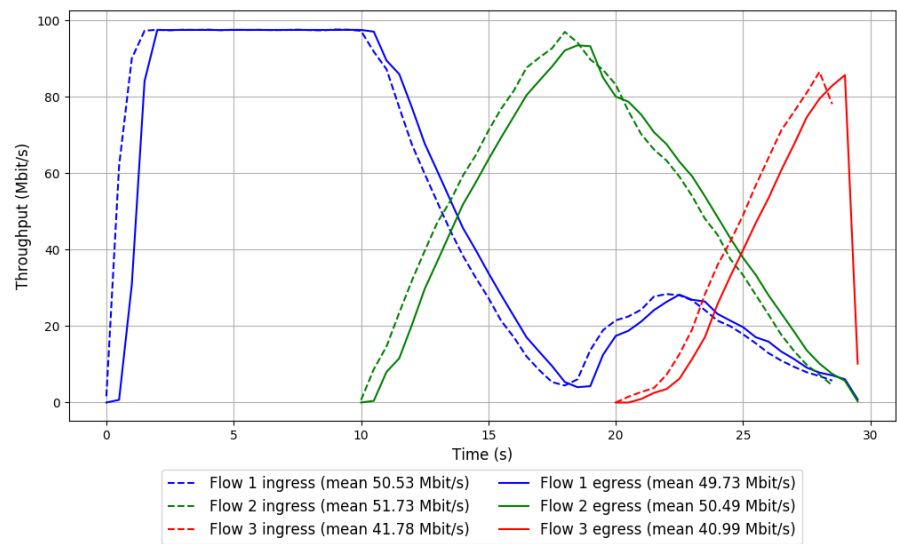
Run 1: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 50.04 Mbit/s) --- Flow 1 egress (mean 49.12 Mbit/s)
Flow 2 ingress (mean 47.48 Mbit/s) --- Flow 2 egress (mean 46.06 Mbit/s)
Flow 3 ingress (mean 56.79 Mbit/s) --- Flow 3 egress (mean 52.55 Mbit/s)

Flow 1 (95th percentile 108.81 ms)   Flow 2 (95th percentile 110.31 ms)   Flow 3 (95th percentile 112.84 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-05 08:12:24
End at: 2019-02-05 08:12:54
Local clock offset: -1.257 ms
Remote clock offset: 1.864 ms

# Below is generated by plot.py at 2019-02-05 09:40:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.68 Mbit/s
95th percentile per-packet one-way delay: 113.316 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 49.73 Mbit/s
95th percentile per-packet one-way delay: 109.733 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 50.49 Mbit/s
95th percentile per-packet one-way delay: 113.615 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 112.155 ms
Loss rate: 2.01%
```
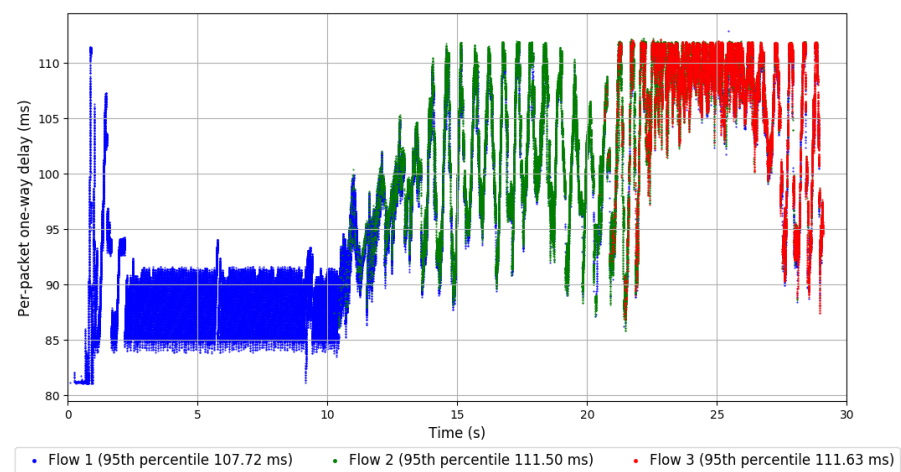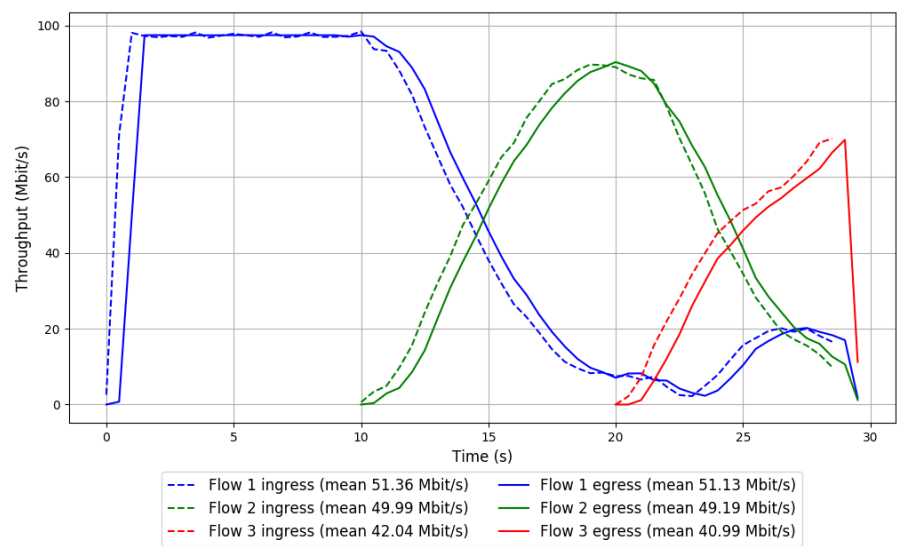
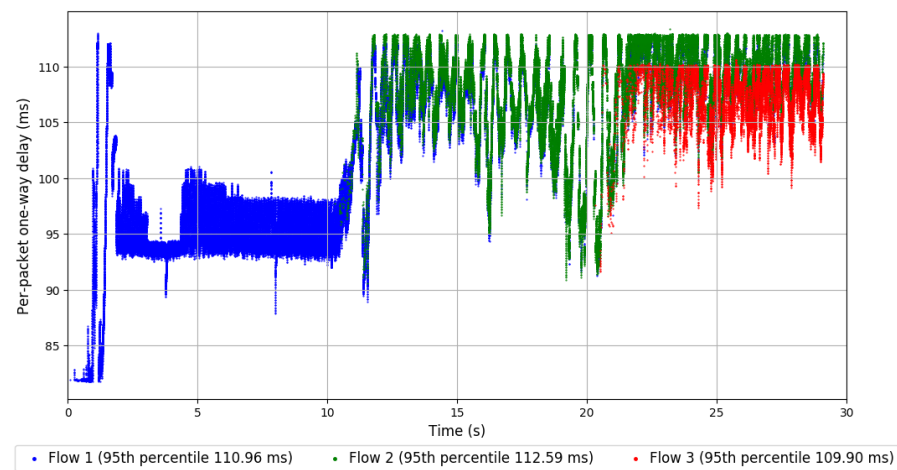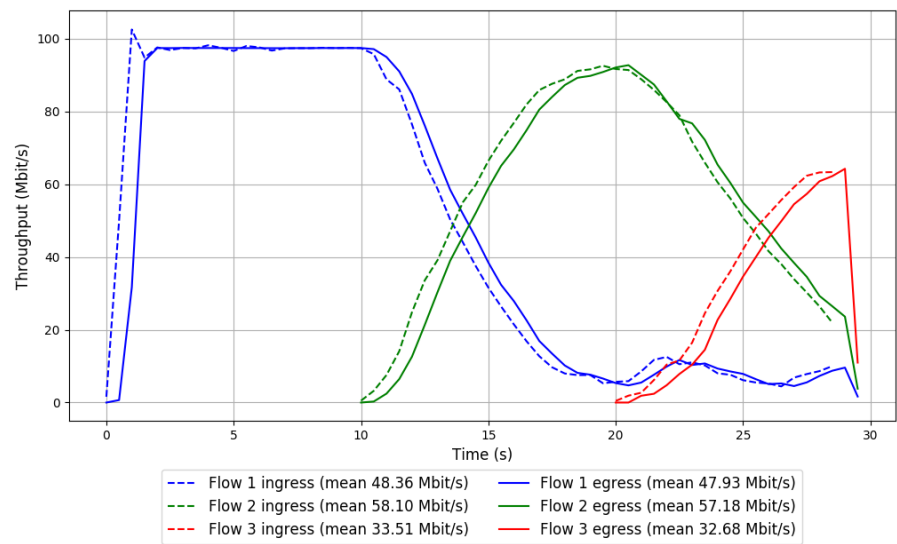Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-05 08:39:00
End at: 2019-02-05 08:39:30
Local clock offset: -0.299 ms
Remote clock offset: 0.737 ms


# Below is generated by plot.py at 2019-02-05 09:40:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.23 Mbit/s
95th percentile per-packet one-way delay: 111.212 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 51.13 Mbit/s
95th percentile per-packet one-way delay: 107.717 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 49.19 Mbit/s
95th percentile per-packet one-way delay: 111.504 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 111.627 ms
Loss rate: 2.57%
```

Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 51.36 Mbit/s)   Flow 1 egress (mean 51.13 Mbit/s)
Flow 2 ingress (mean 49.99 Mbit/s)   Flow 2 egress (mean 49.19 Mbit/s)
Flow 3 ingress (mean 42.04 Mbit/s)   Flow 3 egress (mean 40.99 Mbit/s)

Flow 1 (95th percentile 107.72 ms)   Flow 2 (95th percentile 111.50 ms)   Flow 3 (95th percentile 111.63 ms)
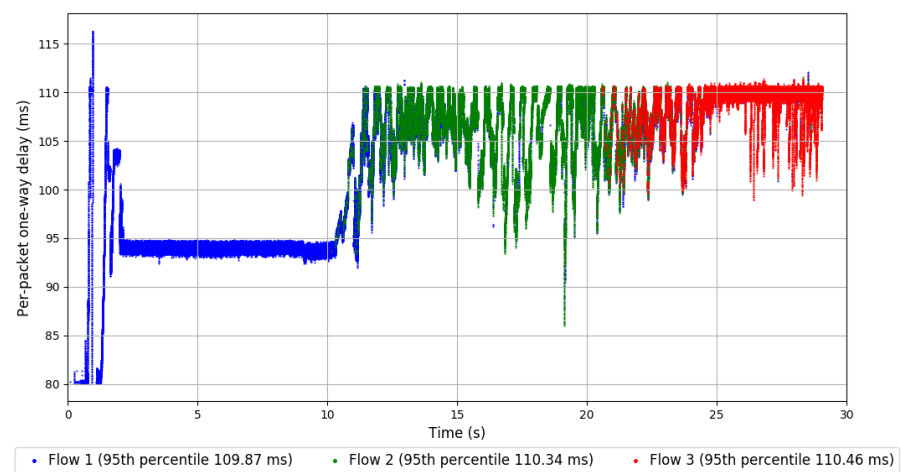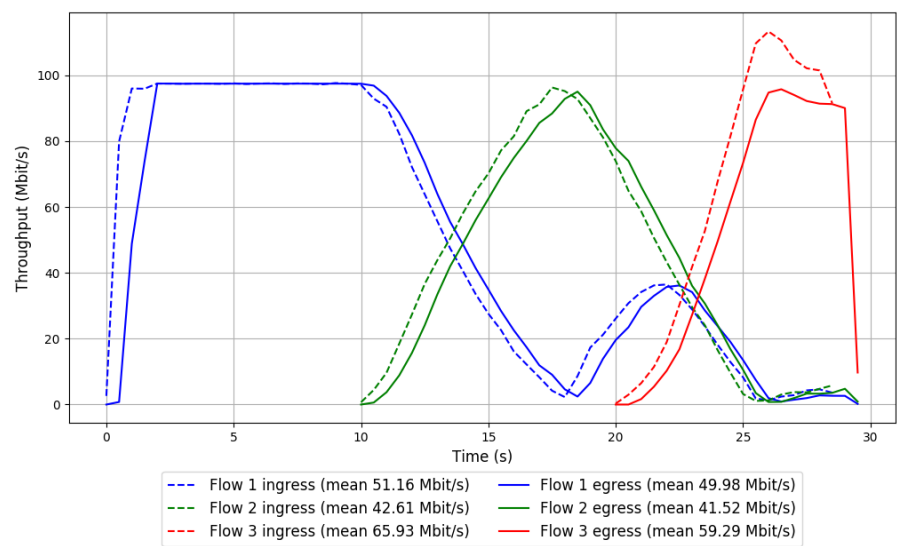
```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-05 09:05:35
End at: 2019-02-05 09:06:05
Local clock offset: -7.544 ms
Remote clock offset: -0.344 ms


# Below is generated by plot.py at 2019-02-05 09:40:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.87 Mbit/s
95th percentile per-packet one-way delay: 112.193 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 47.93 Mbit/s
95th percentile per-packet one-way delay: 110.957 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 57.18 Mbit/s
95th percentile per-packet one-way delay: 112.593 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 32.68 Mbit/s
95th percentile per-packet one-way delay: 109.904 ms
Loss rate: 2.35%
```
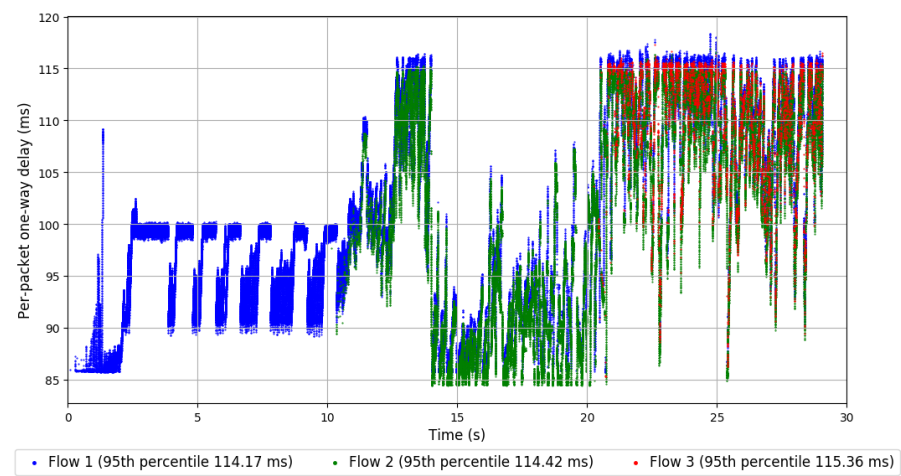
Run 4: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 48.36 Mbit/s) —— Flow 1 egress (mean 47.93 Mbit/s)
- - - Flow 2 ingress (mean 58.10 Mbit/s) —— Flow 2 egress (mean 57.18 Mbit/s)
- - - Flow 3 ingress (mean 33.51 Mbit/s) —— Flow 3 egress (mean 32.68 Mbit/s)

• Flow 1 (95th percentile 110.96 ms)   • Flow 2 (95th percentile 112.59 ms)   • Flow 3 (95th percentile 109.90 ms)

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```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-05 09:32:14
End at: 2019-02-05 09:32:44
Local clock offset: -10.622 ms
Remote clock offset: -0.585 ms


# Below is generated by plot.py at 2019-02-05 09:40:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.82 Mbit/s
95th percentile per-packet one-way delay: 110.337 ms
Loss rate: 3.83%
-- Flow 1:
Average throughput: 49.98 Mbit/s
95th percentile per-packet one-way delay: 109.866 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 41.52 Mbit/s
95th percentile per-packet one-way delay: 110.337 ms
Loss rate: 2.48%
-- Flow 3:
Average throughput: 59.29 Mbit/s
95th percentile per-packet one-way delay: 110.459 ms
Loss rate: 9.93%
```
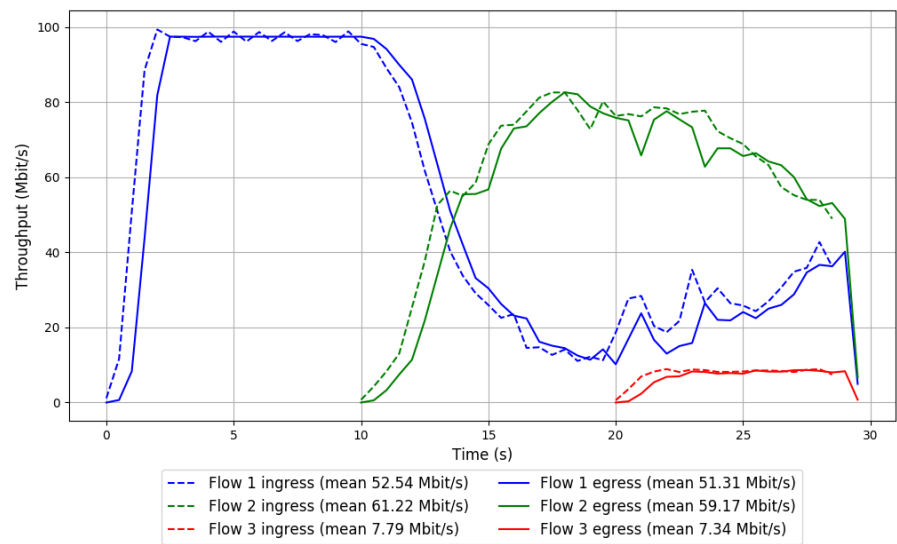
Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-05 07:34:16
End at: 2019-02-05 07:34:46
Local clock offset: -7.053 ms
Remote clock offset: 9.477 ms


# Below is generated by plot.py at 2019-02-05 09:40:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.13 Mbit/s
95th percentile per-packet one-way delay: 114.434 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 51.31 Mbit/s
95th percentile per-packet one-way delay: 114.170 ms
Loss rate: 2.25%
-- Flow 2:
Average throughput: 59.17 Mbit/s
95th percentile per-packet one-way delay: 114.421 ms
Loss rate: 3.25%
-- Flow 3:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 115.356 ms
Loss rate: 5.64%
```
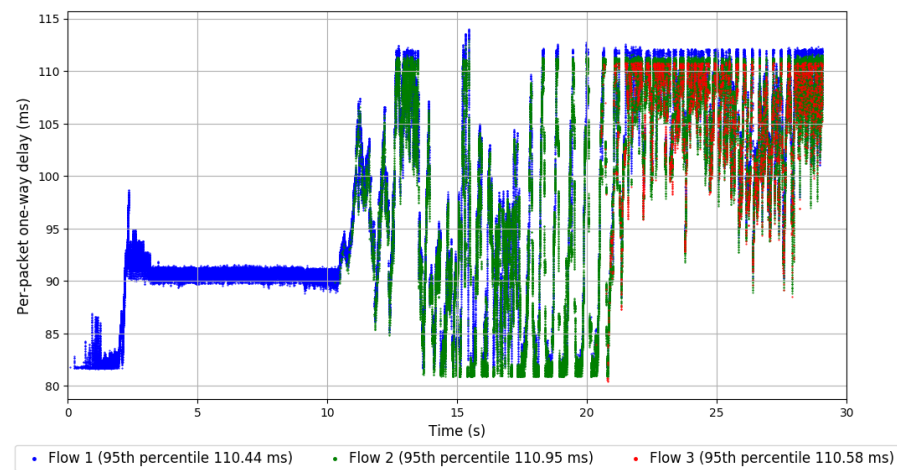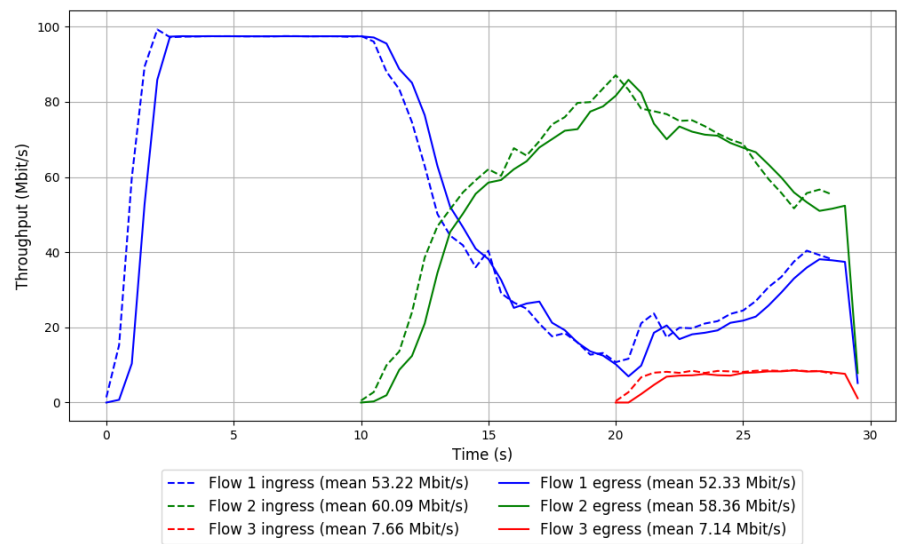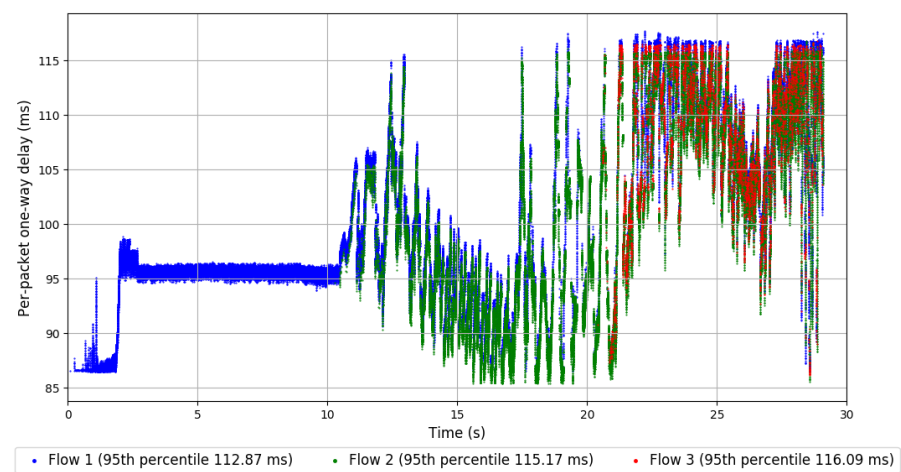
Run 1: Report of Indigo-MusesC5 — Data Link

Legend:
- Flow 1 ingress (mean 52.54 Mbit/s)
- Flow 1 egress (mean 51.31 Mbit/s)
- Flow 2 ingress (mean 61.22 Mbit/s)
- Flow 2 egress (mean 59.17 Mbit/s)
- Flow 3 ingress (mean 7.79 Mbit/s)
- Flow 3 egress (mean 7.34 Mbit/s)

Legend:
- Flow 1 (95th percentile 114.17 ms)
- Flow 2 (95th percentile 114.42 ms)
- Flow 3 (95th percentile 115.36 ms)

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-05 08:00:56
End at: 2019-02-05 08:01:26
Local clock offset: -2.561 ms
Remote clock offset: 0.899 ms


# Below is generated by plot.py at 2019-02-05 09:40:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 110.866 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 52.33 Mbit/s
95th percentile per-packet one-way delay: 110.437 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 110.947 ms
Loss rate: 2.78%
-- Flow 3:
Average throughput: 7.14 Mbit/s
95th percentile per-packet one-way delay: 110.577 ms
Loss rate: 6.56%
```
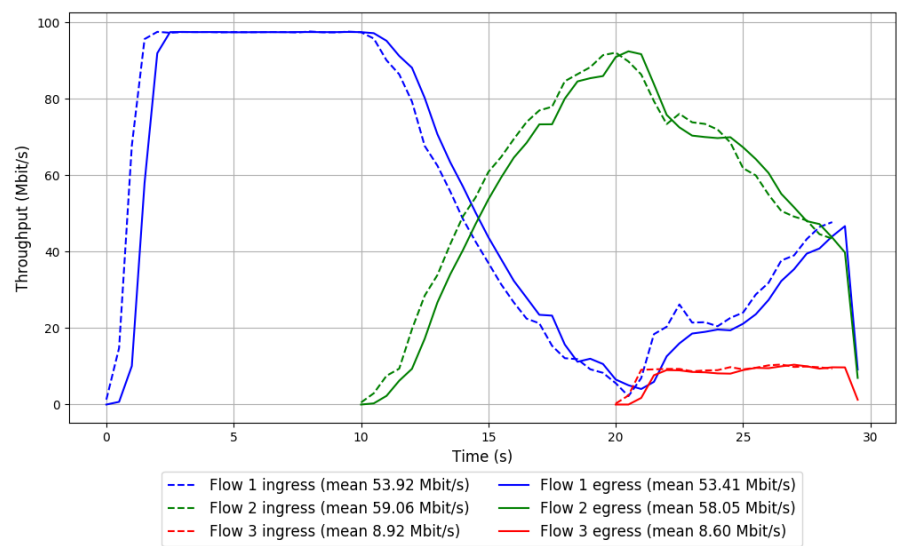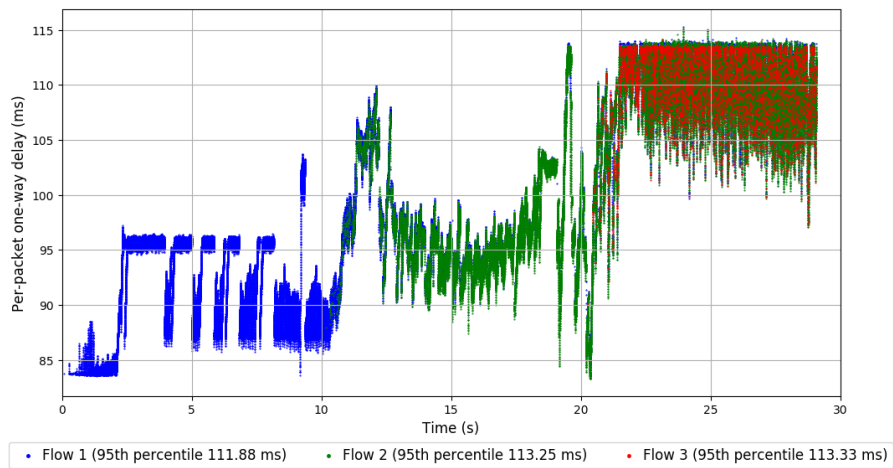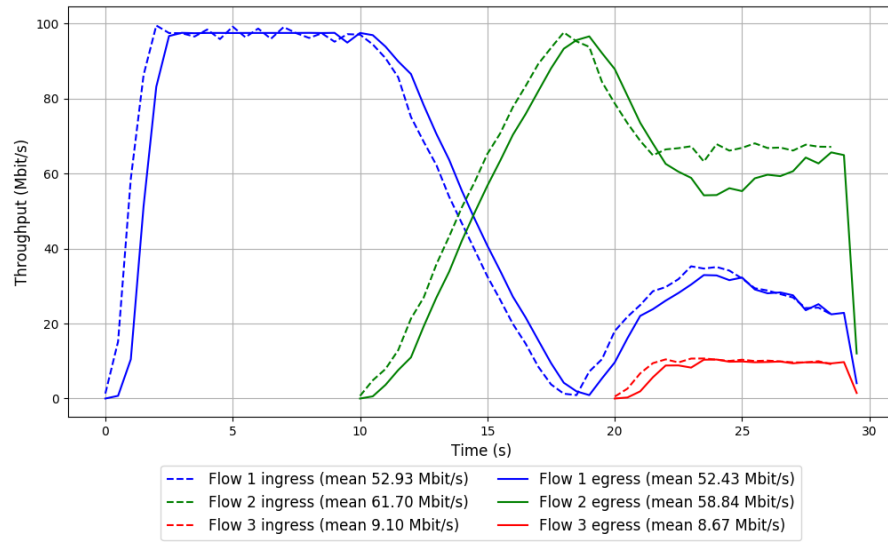
Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 53.22 Mbit/s)   Flow 1 egress (mean 52.33 Mbit/s)
Flow 2 ingress (mean 60.09 Mbit/s)   Flow 2 egress (mean 58.36 Mbit/s)
Flow 3 ingress (mean 7.66 Mbit/s)   Flow 3 egress (mean 7.14 Mbit/s)

Flow 1 (95th percentile 110.44 ms)   Flow 2 (95th percentile 110.95 ms)   Flow 3 (95th percentile 110.58 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-05 08:27:38
End at: 2019-02-05 08:28:08
Local clock offset: -0.208 ms
Remote clock offset: 5.696 ms


# Below is generated by plot.py at 2019-02-05 09:41:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 114.657 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 53.41 Mbit/s
95th percentile per-packet one-way delay: 112.871 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 115.168 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 116.087 ms
Loss rate: 3.37%
```
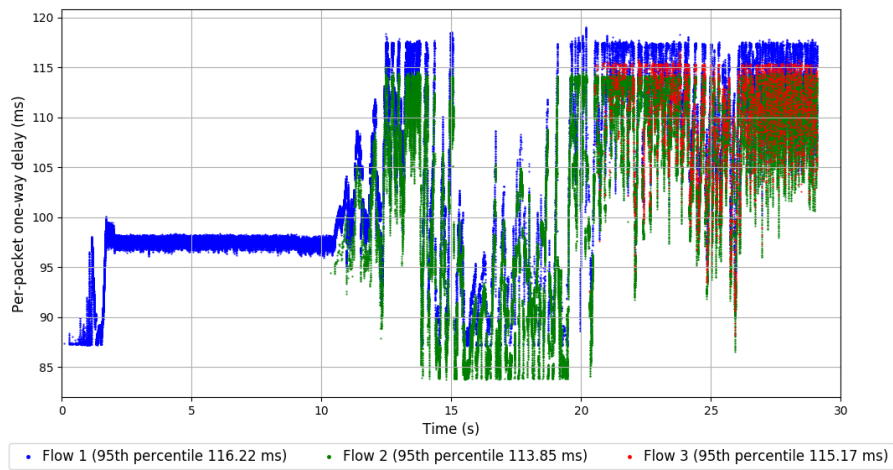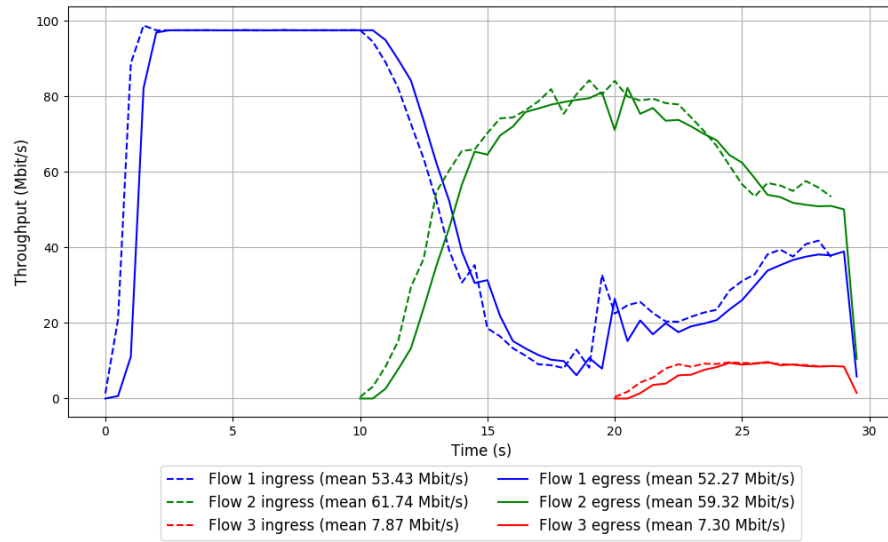
Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 53.92 Mbit/s) --- Flow 1 egress (mean 53.41 Mbit/s)
Flow 2 ingress (mean 59.06 Mbit/s) --- Flow 2 egress (mean 58.05 Mbit/s)
Flow 3 ingress (mean 8.92 Mbit/s) --- Flow 3 egress (mean 8.60 Mbit/s)

Flow 1 (95th percentile 112.87 ms) • Flow 2 (95th percentile 115.17 ms) • Flow 3 (95th percentile 116.09 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-05 08:54:13
End at: 2019-02-05 08:54:43
Local clock offset: -4.416 ms
Remote clock offset: 4.309 ms


# Below is generated by plot.py at 2019-02-05 09:41:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.46 Mbit/s
95th percentile per-packet one-way delay: 113.078 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 52.43 Mbit/s
95th percentile per-packet one-way delay: 111.883 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 58.84 Mbit/s
95th percentile per-packet one-way delay: 113.255 ms
Loss rate: 4.51%
-- Flow 3:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 113.335 ms
Loss rate: 4.44%
```
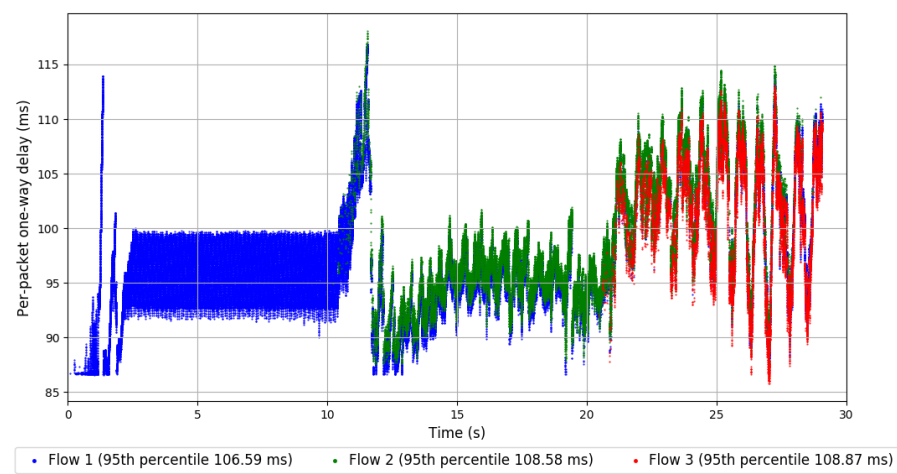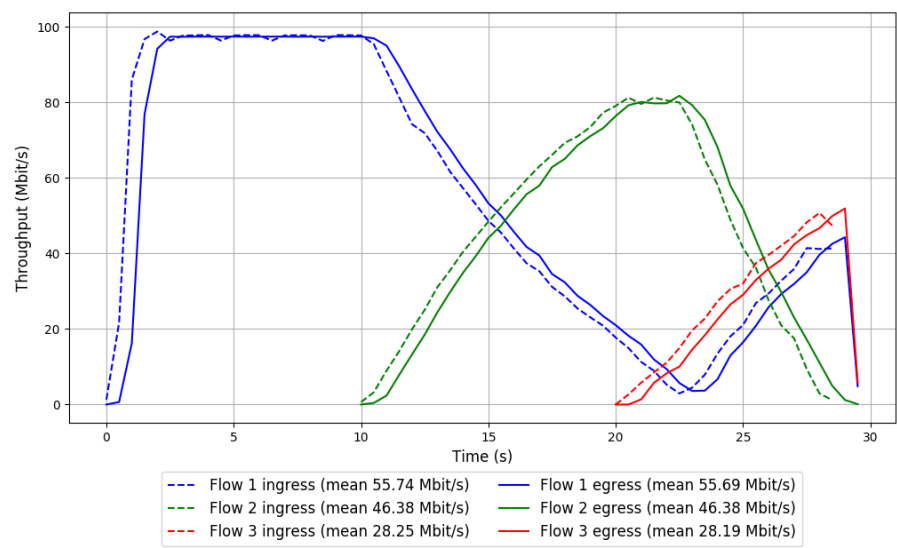
Run 4: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 52.93 Mbit/s)   —— Flow 1 egress (mean 52.43 Mbit/s)
- - - Flow 2 ingress (mean 61.70 Mbit/s)   —— Flow 2 egress (mean 58.84 Mbit/s)
- - - Flow 3 ingress (mean 9.10 Mbit/s)   —— Flow 3 egress (mean 8.67 Mbit/s)

• Flow 1 (95th percentile 111.88 ms)   • Flow 2 (95th percentile 113.25 ms)   • Flow 3 (95th percentile 113.33 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-05 09:20:52
End at: 2019-02-05 09:21:22
Local clock offset: -9.546 ms
Remote clock offset: 3.014 ms


# Below is generated by plot.py at 2019-02-05 09:41:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 114.632 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 52.27 Mbit/s
95th percentile per-packet one-way delay: 116.215 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 59.32 Mbit/s
95th percentile per-packet one-way delay: 113.852 ms
Loss rate: 3.82%
-- Flow 3:
Average throughput: 7.30 Mbit/s
95th percentile per-packet one-way delay: 115.168 ms
Loss rate: 6.96%
```
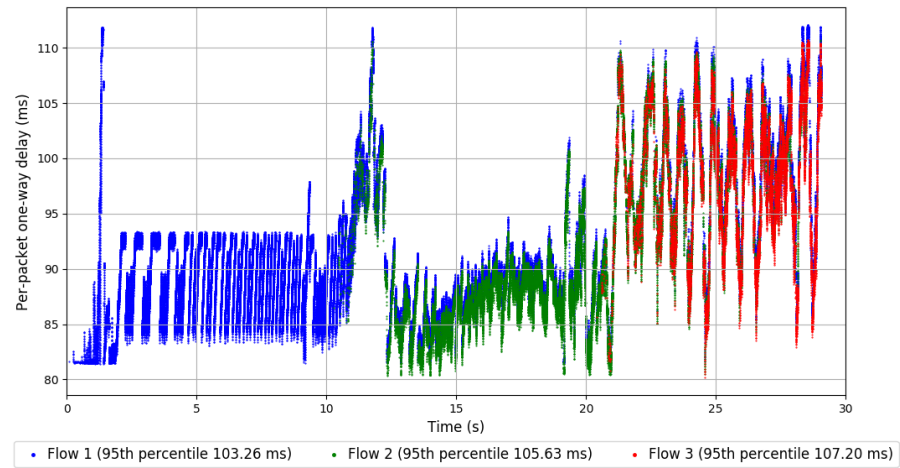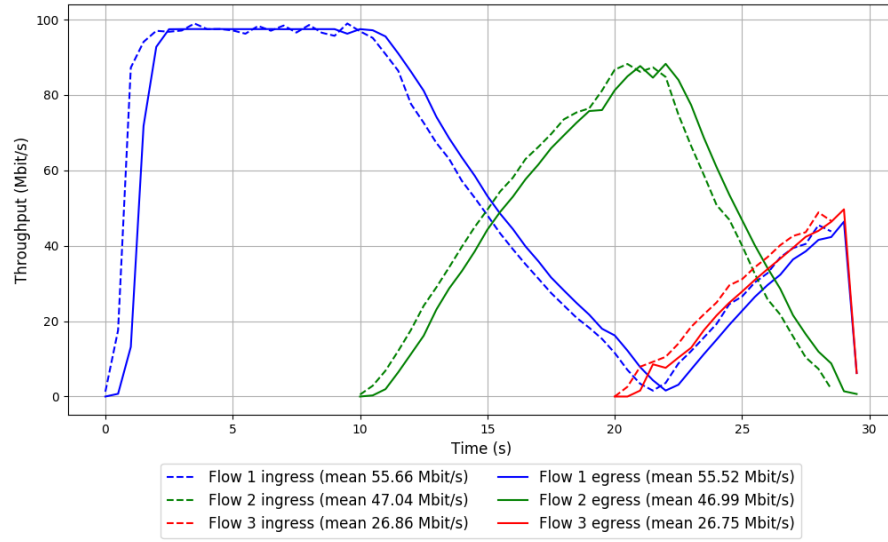
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 53.43 Mbit/s) Flow 1 egress (mean 52.27 Mbit/s)
Flow 2 ingress (mean 61.74 Mbit/s) Flow 2 egress (mean 59.32 Mbit/s)
Flow 3 ingress (mean 7.87 Mbit/s) Flow 3 egress (mean 7.30 Mbit/s)

Flow 1 (95th percentile 116.22 ms) Flow 2 (95th percentile 113.85 ms) Flow 3 (95th percentile 115.17 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-05 07:32:58
End at: 2019-02-05 07:33:28
Local clock offset: -7.746 ms
Remote clock offset: 9.165 ms


# Below is generated by plot.py at 2019-02-05 09:41:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.20 Mbit/s
95th percentile per-packet one-way delay: 107.887 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 55.69 Mbit/s
95th percentile per-packet one-way delay: 106.587 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.38 Mbit/s
95th percentile per-packet one-way delay: 108.577 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 108.866 ms
Loss rate: 0.01%
```
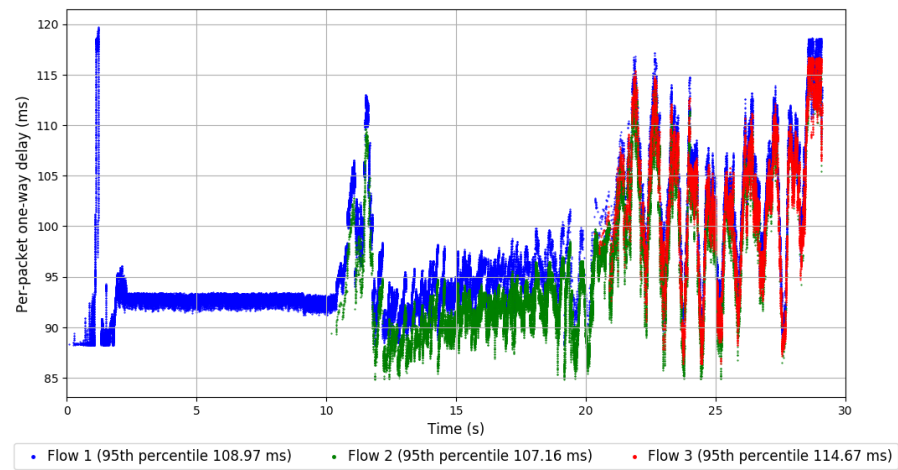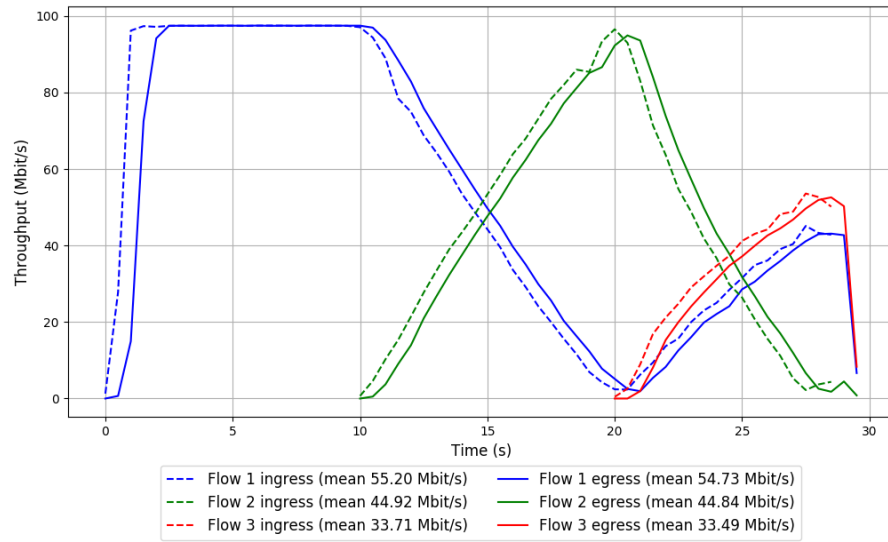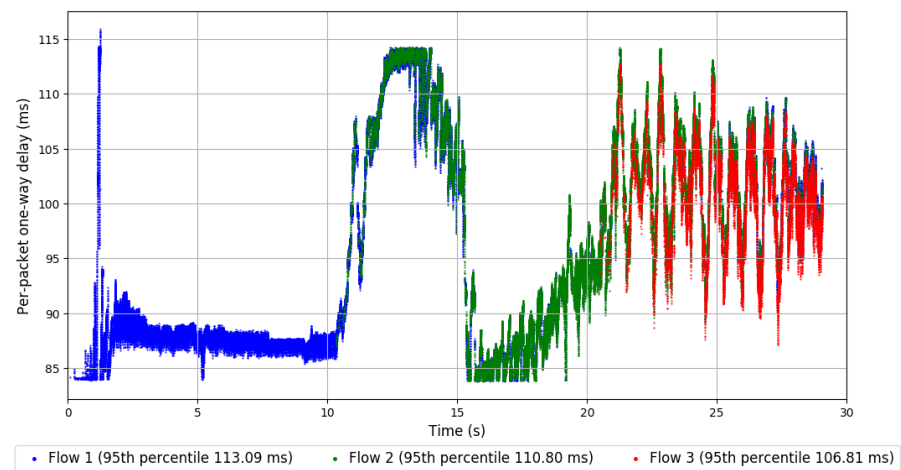
Run 1: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 55.74 Mbit/s)   —— Flow 1 egress (mean 55.69 Mbit/s)
- - - Flow 2 ingress (mean 46.38 Mbit/s)   —— Flow 2 egress (mean 46.38 Mbit/s)
- - - Flow 3 ingress (mean 28.25 Mbit/s)   —— Flow 3 egress (mean 28.19 Mbit/s)

• Flow 1 (95th percentile 106.59 ms)   • Flow 2 (95th percentile 108.58 ms)   • Flow 3 (95th percentile 108.87 ms)

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```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-05 07:59:38
End at: 2019-02-05 08:00:08
Local clock offset: -2.783 ms
Remote clock offset: 0.914 ms


# Below is generated by plot.py at 2019-02-05 09:41:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.95 Mbit/s
95th percentile per-packet one-way delay: 105.289 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 55.52 Mbit/s
95th percentile per-packet one-way delay: 103.263 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 46.99 Mbit/s
95th percentile per-packet one-way delay: 105.631 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.75 Mbit/s
95th percentile per-packet one-way delay: 107.196 ms
Loss rate: 0.21%
```
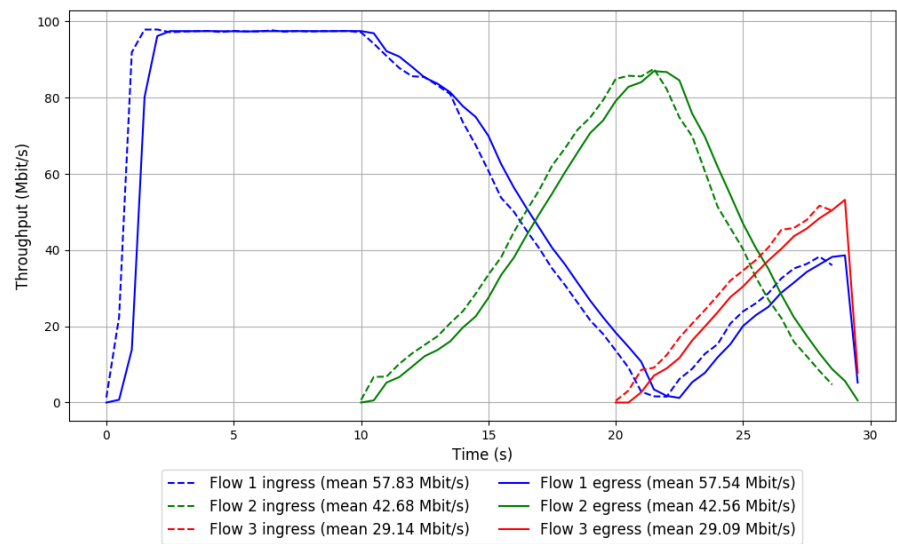
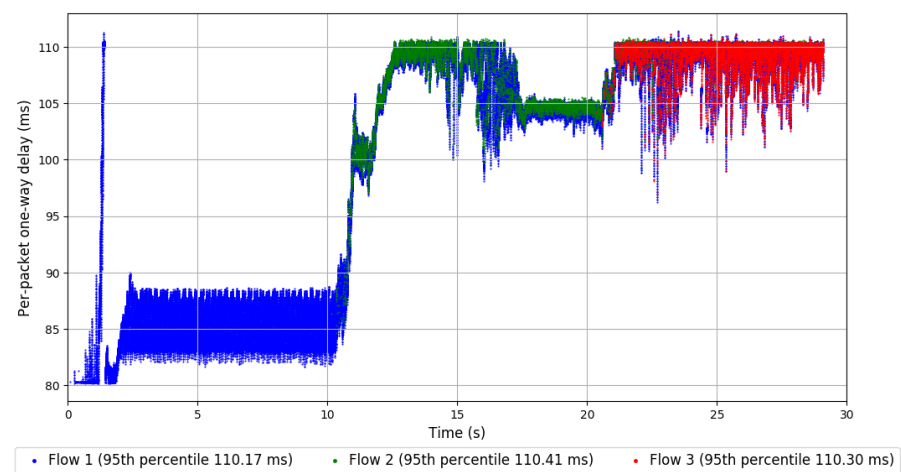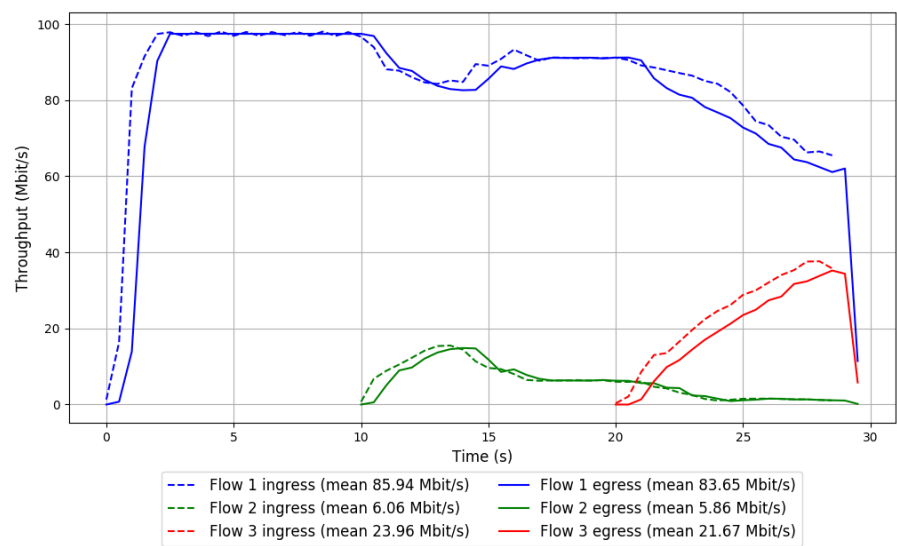Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-05 08:26:21
End at: 2019-02-05 08:26:51
Local clock offset: -0.307 ms
Remote clock offset: 6.793 ms


# Below is generated by plot.py at 2019-02-05 09:41:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.05 Mbit/s
95th percentile per-packet one-way delay: 109.609 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 54.73 Mbit/s
95th percentile per-packet one-way delay: 108.966 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 44.84 Mbit/s
95th percentile per-packet one-way delay: 107.161 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 33.49 Mbit/s
95th percentile per-packet one-way delay: 114.667 ms
Loss rate: 0.50%
```
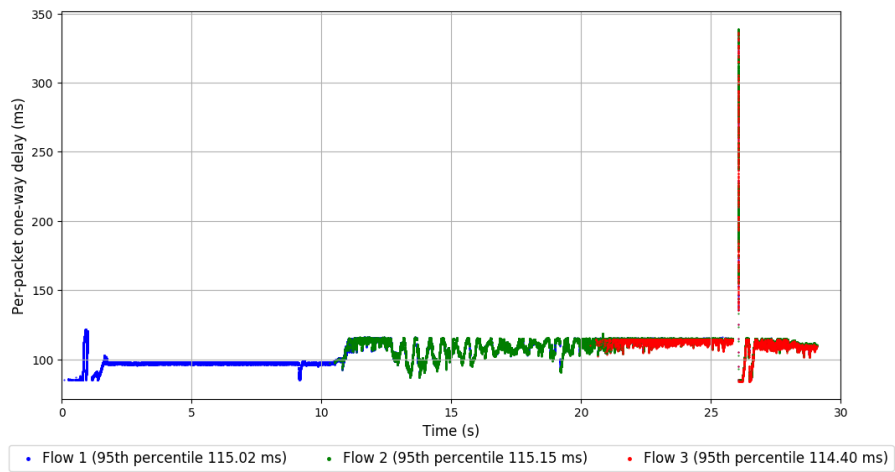
Run 3: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 55.20 Mbit/s) -------- Flow 1 egress (mean 54.73 Mbit/s)
Flow 2 ingress (mean 44.92 Mbit/s) -------- Flow 2 egress (mean 44.84 Mbit/s)
Flow 3 ingress (mean 33.71 Mbit/s) -------- Flow 3 egress (mean 33.49 Mbit/s)

Flow 1 (95th percentile 108.97 ms)   Flow 2 (95th percentile 107.16 ms)   Flow 3 (95th percentile 114.67 ms)

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-05 08:52:56
End at: 2019-02-05 08:53:26
Local clock offset: -3.889 ms
Remote clock offset: 3.286 ms


# Below is generated by plot.py at 2019-02-05 09:41:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.07 Mbit/s
95th percentile per-packet one-way delay: 112.474 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 57.54 Mbit/s
95th percentile per-packet one-way delay: 113.094 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 42.56 Mbit/s
95th percentile per-packet one-way delay: 110.795 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 106.806 ms
Loss rate: 0.10%
```
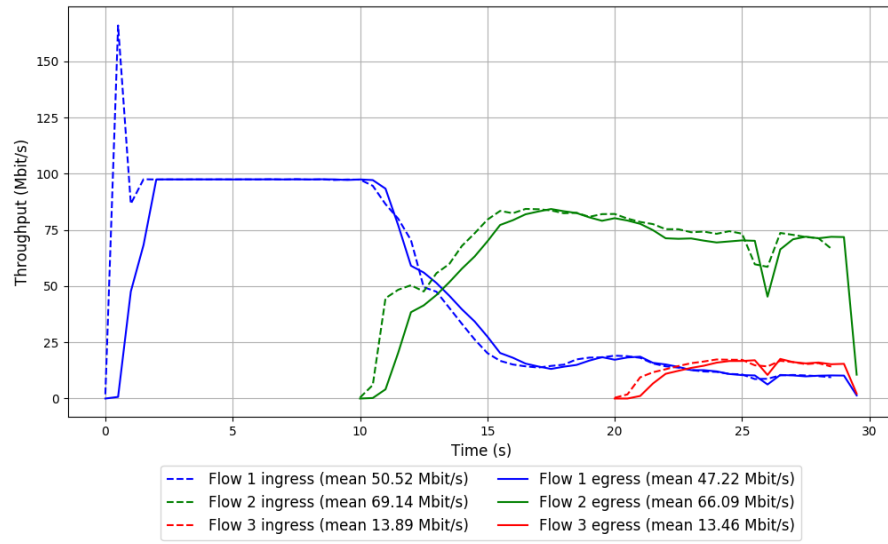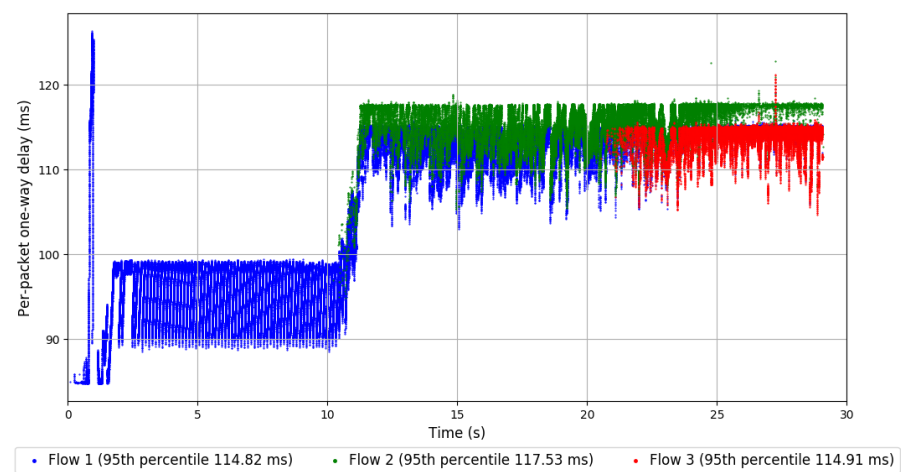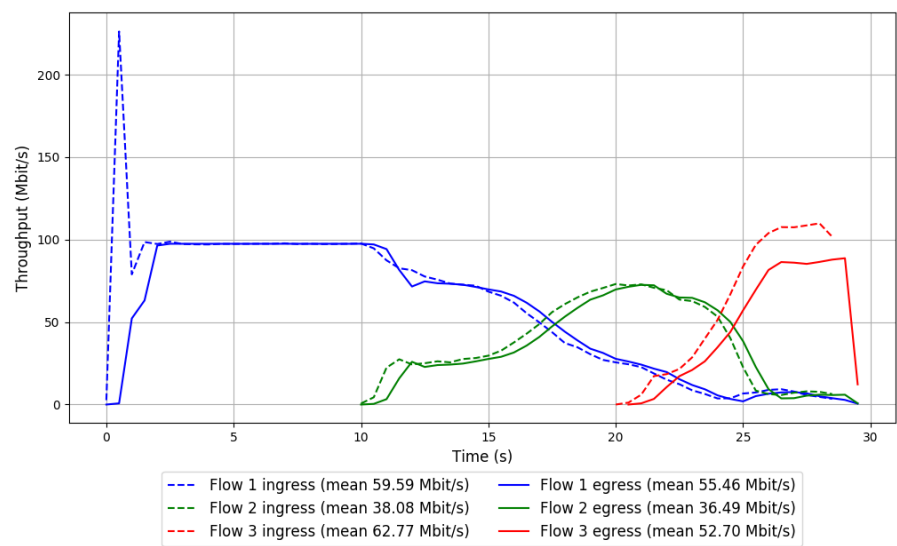
Run 4: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 57.83 Mbit/s) ——— Flow 1 egress (mean 57.54 Mbit/s)
- - - Flow 2 ingress (mean 42.68 Mbit/s) ——— Flow 2 egress (mean 42.56 Mbit/s)
- - - Flow 3 ingress (mean 29.14 Mbit/s) ——— Flow 3 egress (mean 29.09 Mbit/s)

· Flow 1 (95th percentile 113.09 ms)   · Flow 2 (95th percentile 110.80 ms)   · Flow 3 (95th percentile 106.81 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-05 09:19:35
End at: 2019-02-05 09:20:05
Local clock offset: -9.349 ms
Remote clock offset: -2.106 ms


# Below is generated by plot.py at 2019-02-05 09:41:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.99 Mbit/s
95th percentile per-packet one-way delay: 110.197 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 83.65 Mbit/s
95th percentile per-packet one-way delay: 110.170 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 110.406 ms
Loss rate: 3.23%
-- Flow 3:
Average throughput: 21.67 Mbit/s
95th percentile per-packet one-way delay: 110.298 ms
Loss rate: 9.53%
```
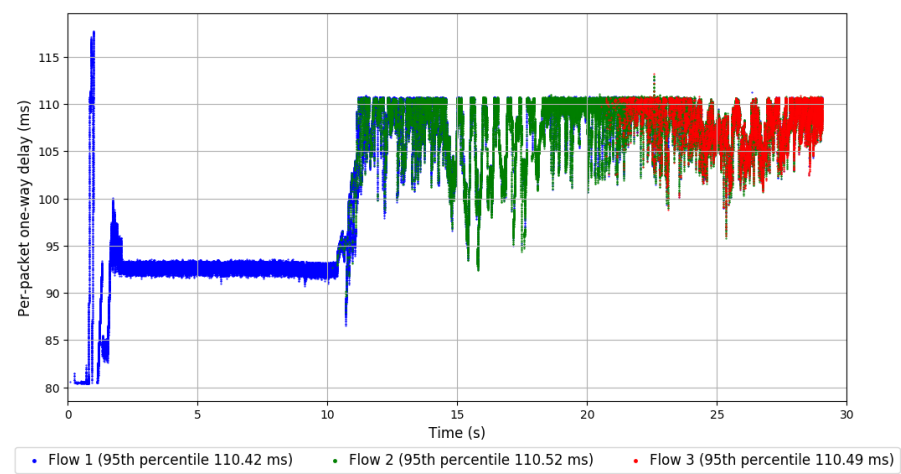
Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-05 07:24:11
End at: 2019-02-05 07:24:41
Local clock offset: -6.673 ms
Remote clock offset: 9.15 ms

# Below is generated by plot.py at 2019-02-05 09:42:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.03 Mbit/s
95th percentile per-packet one-way delay: 115.100 ms
Loss rate: 5.36%
-- Flow 1:
Average throughput: 47.22 Mbit/s
95th percentile per-packet one-way delay: 115.017 ms
Loss rate: 6.45%
-- Flow 2:
Average throughput: 66.09 Mbit/s
95th percentile per-packet one-way delay: 115.152 ms
Loss rate: 4.33%
-- Flow 3:
Average throughput: 13.46 Mbit/s
95th percentile per-packet one-way delay: 114.398 ms
Loss rate: 3.13%
```
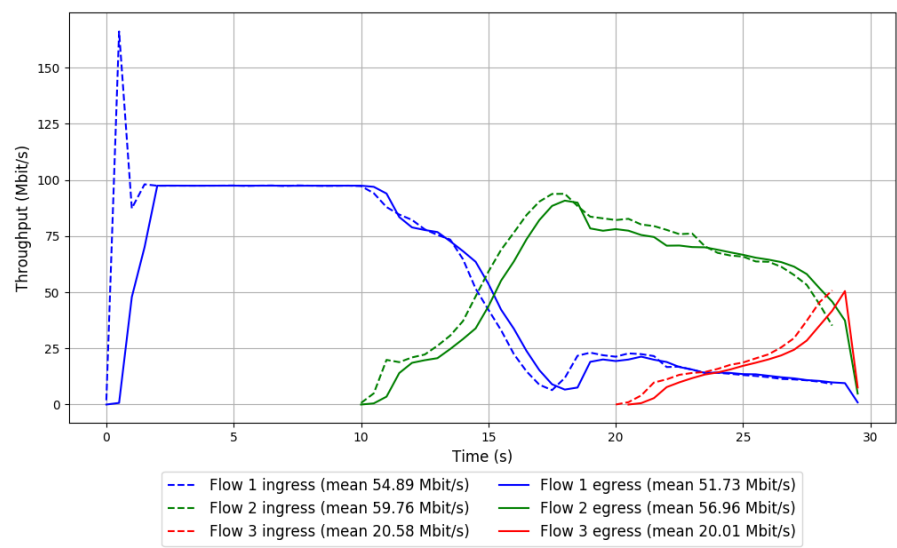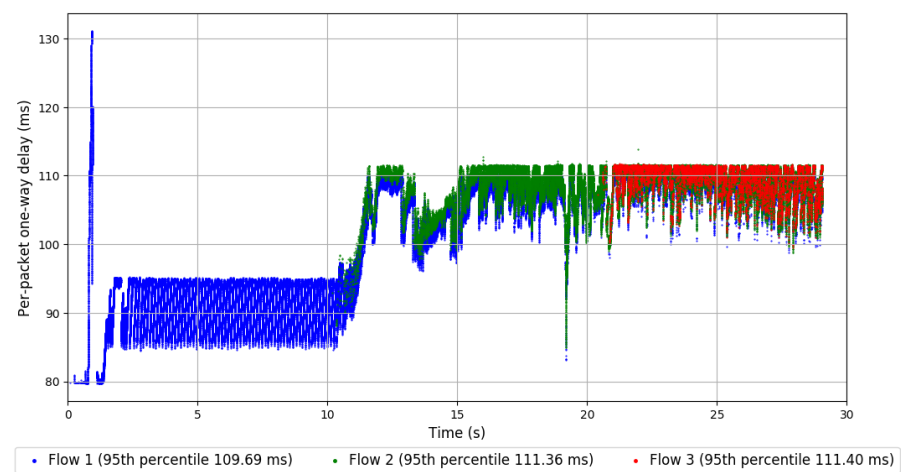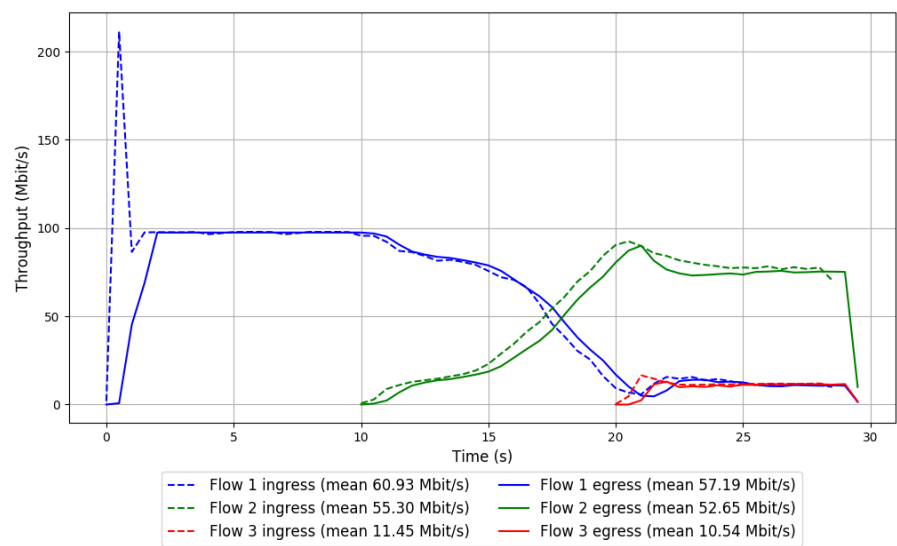
Run 1: Report of Indigo-MusesT — Data Link

- Flow 1 ingress (mean 50.52 Mbit/s)
- Flow 1 egress (mean 47.22 Mbit/s)
- Flow 2 ingress (mean 69.14 Mbit/s)
- Flow 2 egress (mean 66.09 Mbit/s)
- Flow 3 ingress (mean 13.89 Mbit/s)
- Flow 3 egress (mean 13.46 Mbit/s)

- Flow 1 (95th percentile 115.02 ms)
- Flow 2 (95th percentile 115.15 ms)
- Flow 3 (95th percentile 114.40 ms)

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-05 07:50:53
End at: 2019-02-05 07:51:23
Local clock offset: -5.763 ms
Remote clock offset: 6.536 ms


# Below is generated by plot.py at 2019-02-05 09:42:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.68 Mbit/s
95th percentile per-packet one-way delay: 117.164 ms
Loss rate: 7.84%
-- Flow 1:
Average throughput: 55.46 Mbit/s
95th percentile per-packet one-way delay: 114.821 ms
Loss rate: 6.85%
-- Flow 2:
Average throughput: 36.49 Mbit/s
95th percentile per-packet one-way delay: 117.531 ms
Loss rate: 4.10%
-- Flow 3:
Average throughput: 52.70 Mbit/s
95th percentile per-packet one-way delay: 114.913 ms
Loss rate: 16.03%
```
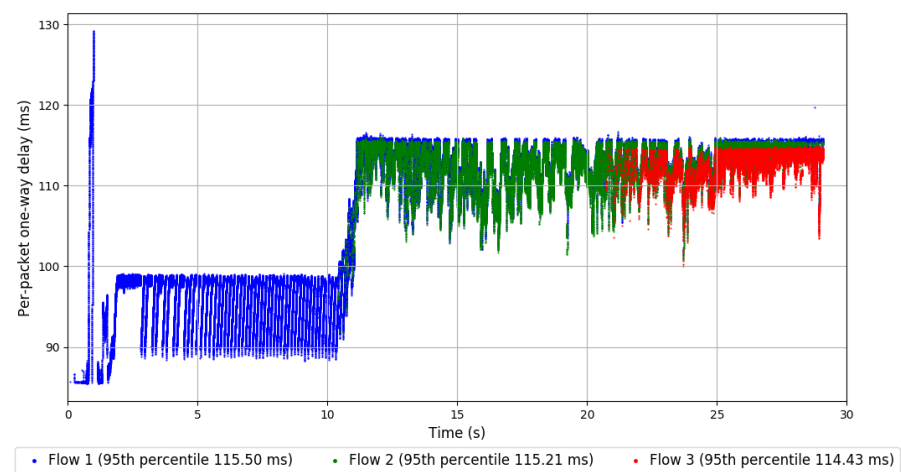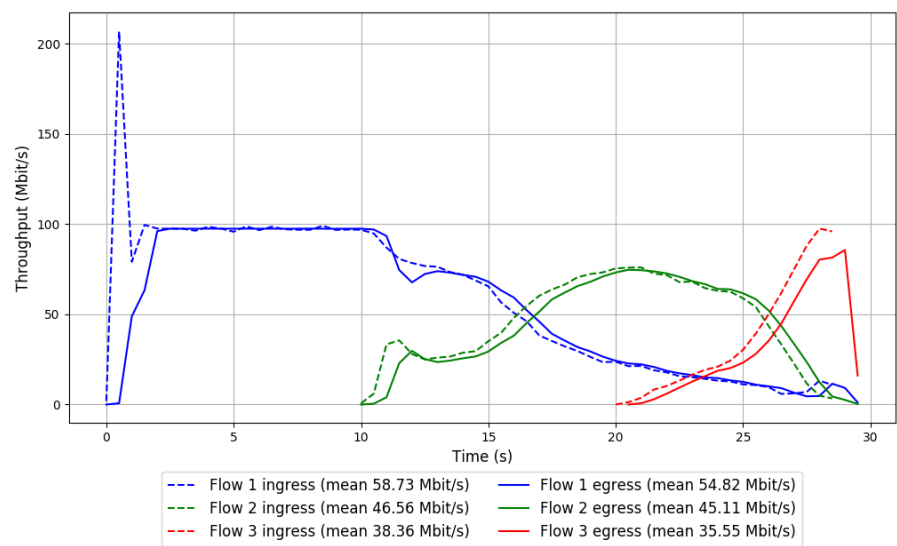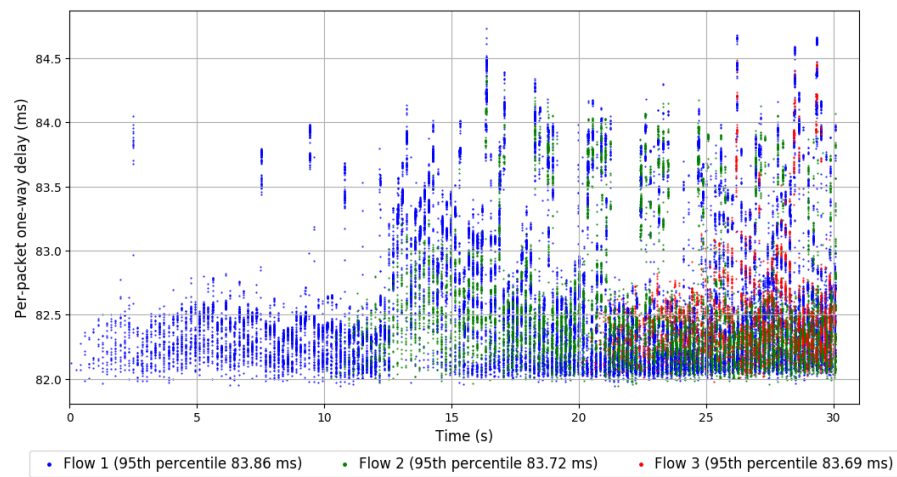
Run 2: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 59.59 Mbit/s) --- Flow 1 egress (mean 55.46 Mbit/s)
Flow 2 ingress (mean 38.08 Mbit/s) --- Flow 2 egress (mean 36.49 Mbit/s)
Flow 3 ingress (mean 62.77 Mbit/s) --- Flow 3 egress (mean 52.70 Mbit/s)

Flow 1 (95th percentile 114.82 ms)   Flow 2 (95th percentile 117.53 ms)   Flow 3 (95th percentile 114.91 ms)

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-05 08:17:34
End at: 2019-02-05 08:18:04
Local clock offset: -0.906 ms
Remote clock offset: 0.767 ms


# Below is generated by plot.py at 2019-02-05 09:42:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.73 Mbit/s
95th percentile per-packet one-way delay: 110.481 ms
Loss rate: 5.08%
-- Flow 1:
Average throughput: 51.73 Mbit/s
95th percentile per-packet one-way delay: 110.419 ms
Loss rate: 5.65%
-- Flow 2:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 110.517 ms
Loss rate: 4.62%
-- Flow 3:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 110.489 ms
Loss rate: 2.80%
```

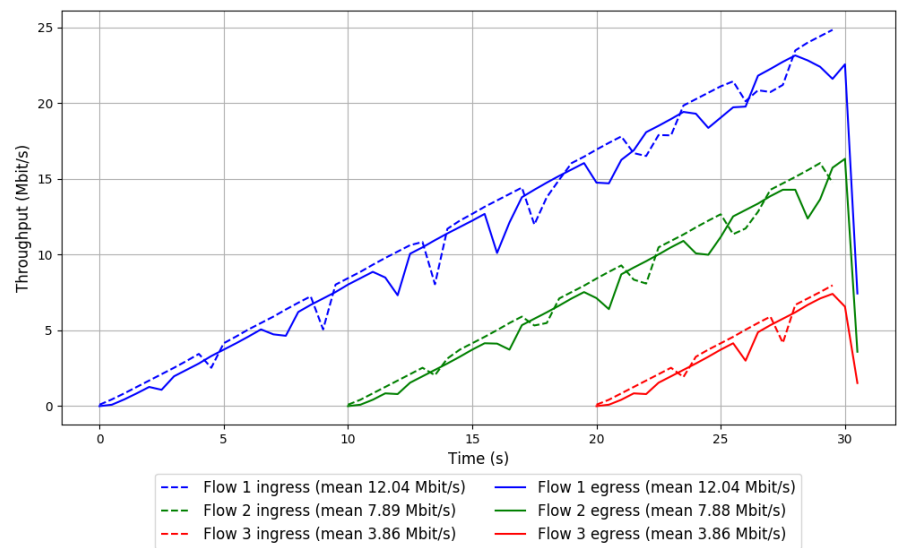# Run 3: Report of Indigo-MusesT — Data Link
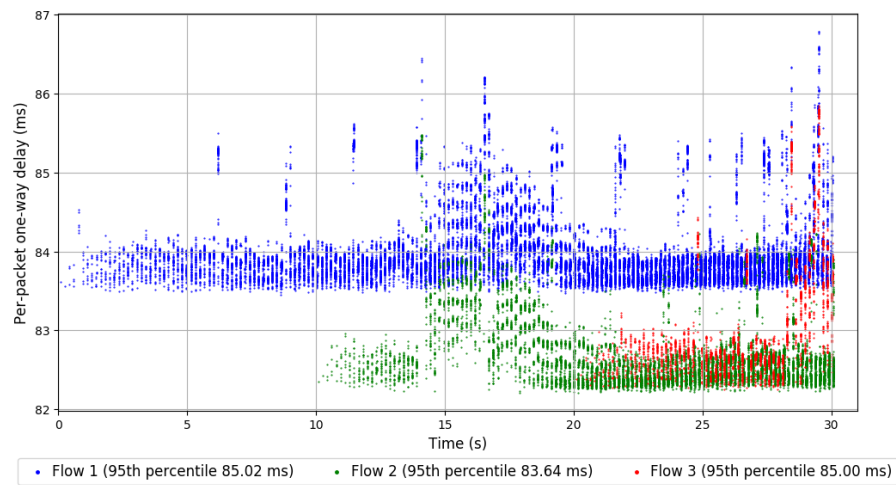
```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-05 08:44:10
End at: 2019-02-05 08:44:40
Local clock offset: -0.049 ms
Remote clock offset: 0.776 ms


# Below is generated by plot.py at 2019-02-05 09:42:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.66 Mbit/s
95th percentile per-packet one-way delay: 111.259 ms
Loss rate: 5.65%
-- Flow 1:
Average throughput: 57.19 Mbit/s
95th percentile per-packet one-way delay: 109.692 ms
Loss rate: 6.06%
-- Flow 2:
Average throughput: 52.65 Mbit/s
95th percentile per-packet one-way delay: 111.363 ms
Loss rate: 4.74%
-- Flow 3:
Average throughput: 10.54 Mbit/s
95th percentile per-packet one-way delay: 111.400 ms
Loss rate: 8.00%
```

Run 4: Report of Indigo-MusesT — Data Link
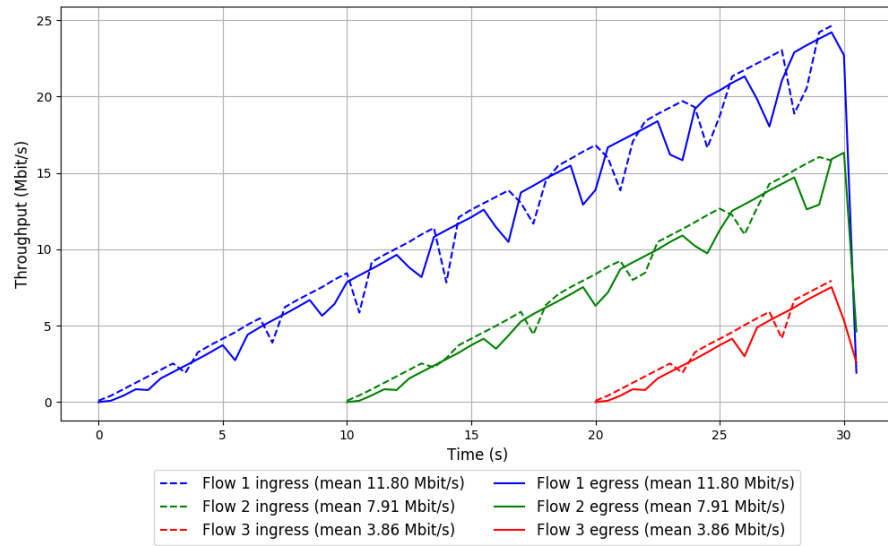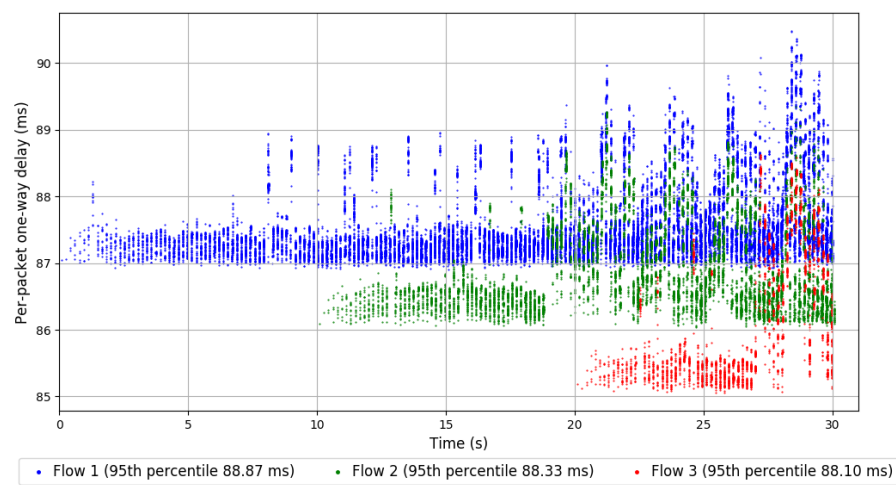

- - - - Flow 1 ingress (mean 60.93 Mbit/s)   —— Flow 1 egress (mean 57.19 Mbit/s)
- - - - Flow 2 ingress (mean 55.30 Mbit/s)   —— Flow 2 egress (mean 52.65 Mbit/s)
- - - - Flow 3 ingress (mean 11.45 Mbit/s)   —— Flow 3 egress (mean 10.54 Mbit/s)

• Flow 1 (95th percentile 109.69 ms)   • Flow 2 (95th percentile 111.36 ms)   • Flow 3 (95th percentile 111.40 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-05 09:10:49
End at: 2019-02-05 09:11:19
Local clock offset: -9.097 ms
Remote clock offset: 3.218 ms


# Below is generated by plot.py at 2019-02-05 09:42:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.62 Mbit/s
95th percentile per-packet one-way delay: 115.315 ms
Loss rate: 5.58%
-- Flow 1:
Average throughput: 54.82 Mbit/s
95th percentile per-packet one-way delay: 115.495 ms
Loss rate: 6.57%
-- Flow 2:
Average throughput: 45.11 Mbit/s
95th percentile per-packet one-way delay: 115.209 ms
Loss rate: 3.00%
-- Flow 3:
Average throughput: 35.55 Mbit/s
95th percentile per-packet one-way delay: 114.427 ms
Loss rate: 7.33%
```

Run 5: Report of Indigo-MusesT — Data Link
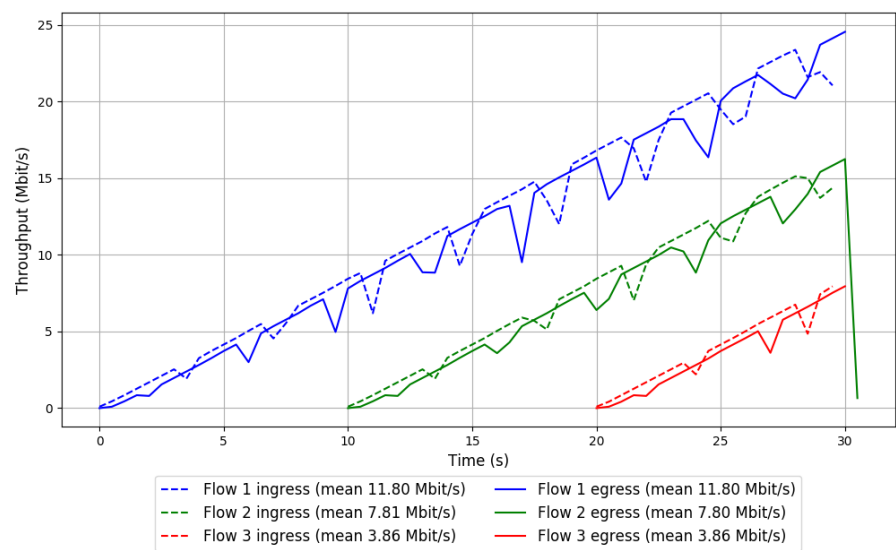

Flow 1 ingress (mean 58.73 Mbit/s) --- Flow 1 egress (mean 54.82 Mbit/s) ---
Flow 2 ingress (mean 46.56 Mbit/s) --- Flow 2 egress (mean 45.11 Mbit/s) ---
Flow 3 ingress (mean 38.36 Mbit/s) --- Flow 3 egress (mean 35.55 Mbit/s) ---

Flow 1 (95th percentile 115.50 ms) · Flow 2 (95th percentile 115.21 ms) · Flow 3 (95th percentile 114.43 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2019-02-05 07:43:08
End at: 2019-02-05 07:43:38
Local clock offset: -7.997 ms
Remote clock offset: 3.588 ms

# Below is generated by plot.py at 2019-02-05 09:42:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.56 Mbit/s
95th percentile per-packet one-way delay: 83.811 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 12.04 Mbit/s
95th percentile per-packet one-way delay: 83.860 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 83.716 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 83.692 ms
Loss rate: 0.00%
```
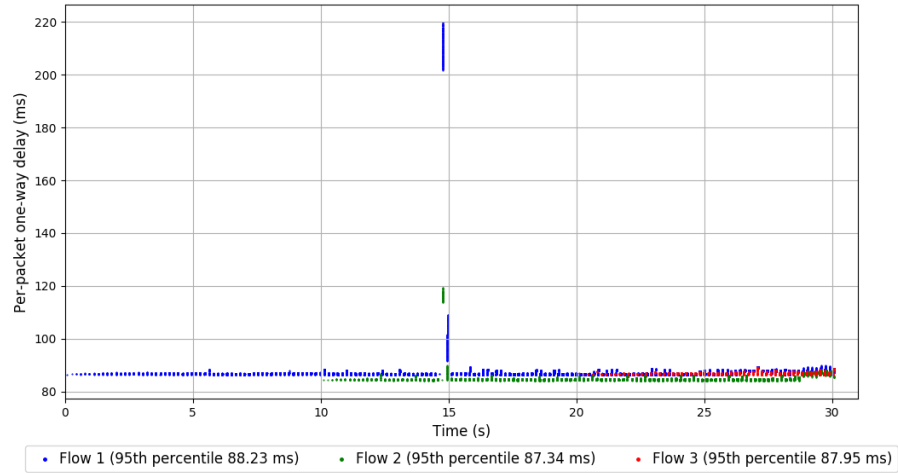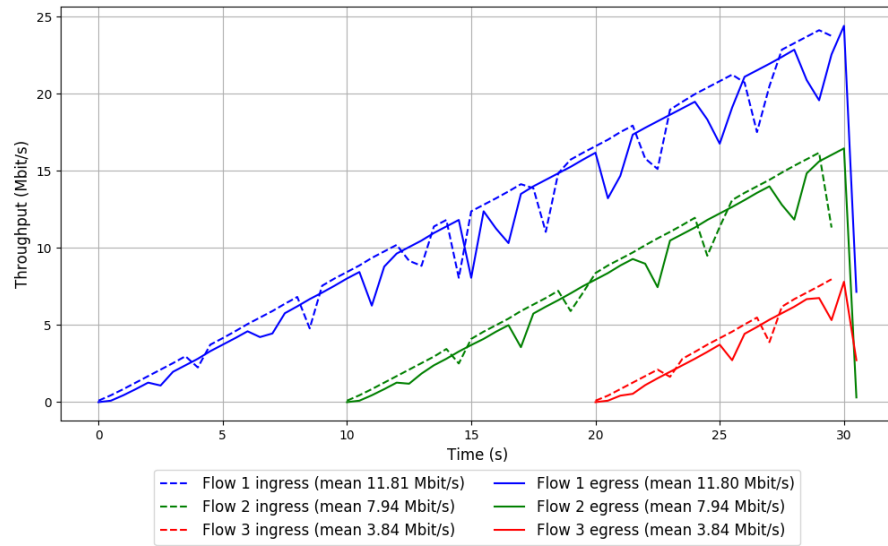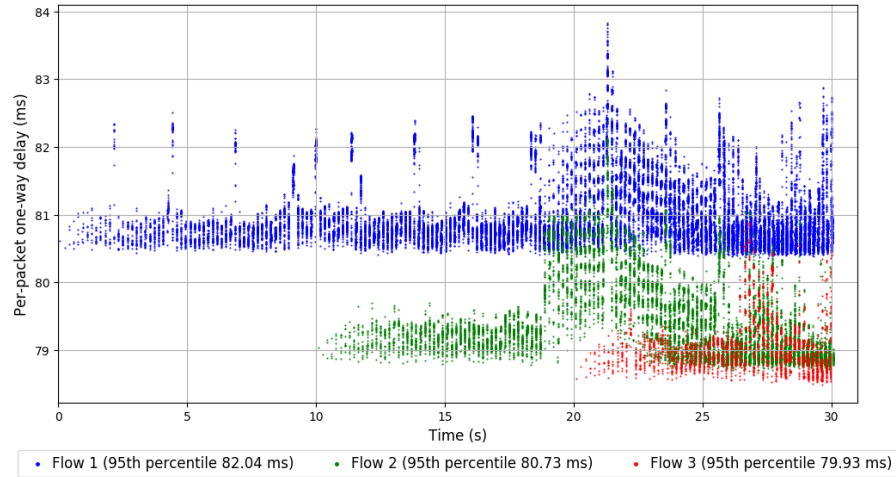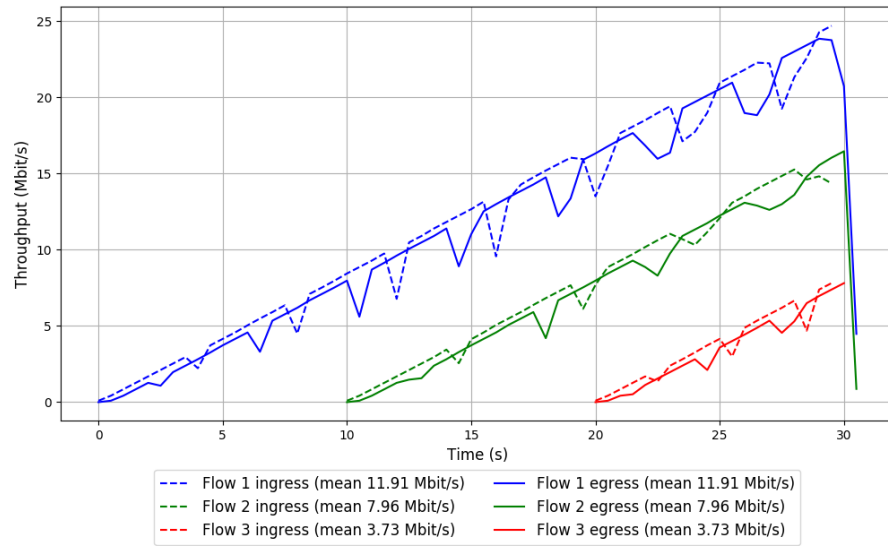
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-02-05 08:09:53
End at: 2019-02-05 08:10:23
Local clock offset: -2.231 ms
Remote clock offset: 1.64 ms


# Below is generated by plot.py at 2019-02-05 09:42:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.32 Mbit/s
95th percentile per-packet one-way delay: 84.750 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 85.018 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 83.642 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 85.003 ms
Loss rate: 0.00%
```
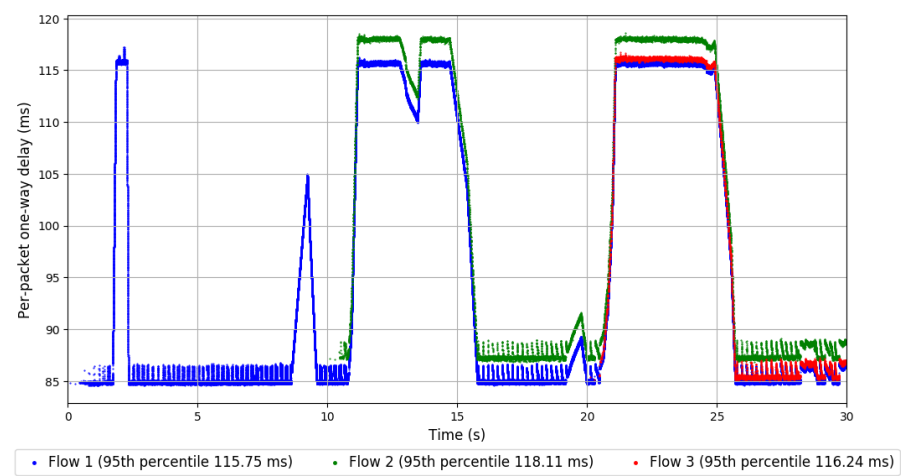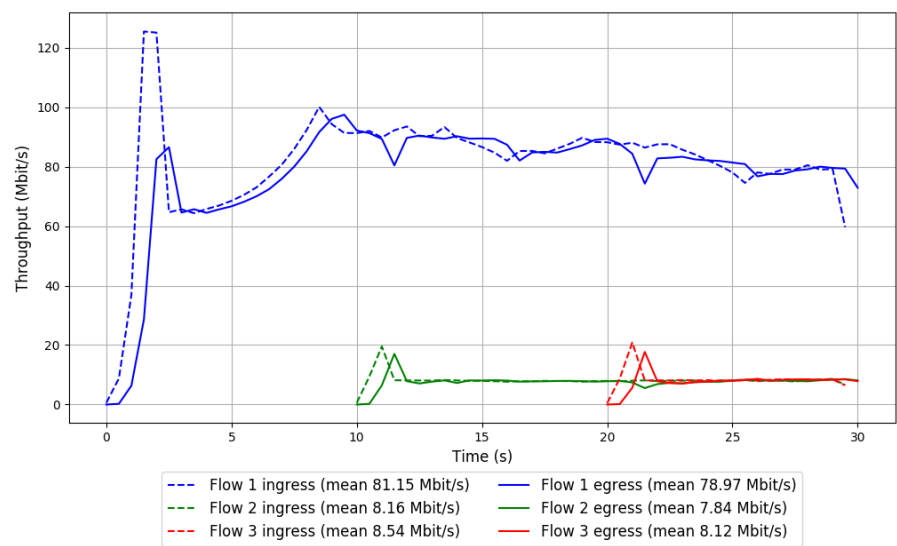
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-02-05 08:36:30
End at: 2019-02-05 08:37:00
Local clock offset: -0.444 ms
Remote clock offset: 5.748 ms


# Below is generated by plot.py at 2019-02-05 09:42:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.23 Mbit/s
95th percentile per-packet one-way delay: 88.732 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 88.866 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 88.335 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 88.104 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-02-05 09:03:04
End at: 2019-02-05 09:03:34
Local clock offset: -7.867 ms
Remote clock offset: 3.542 ms


# Below is generated by plot.py at 2019-02-05 09:42:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.37 Mbit/s
95th percentile per-packet one-way delay: 88.087 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 88.235 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 87.337 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.84 Mbit/s
95th percentile per-packet one-way delay: 87.955 ms
Loss rate: 0.00%
```
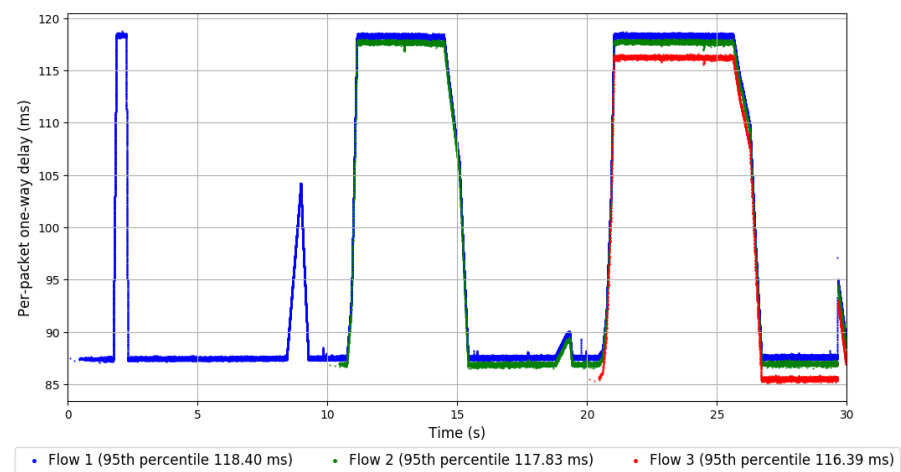
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-02-05 09:29:43
End at: 2019-02-05 09:30:13
Local clock offset: -10.354 ms
Remote clock offset: -1.786 ms

# Below is generated by plot.py at 2019-02-05 09:42:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.42 Mbit/s
95th percentile per-packet one-way delay: 81.859 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 82.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 80.730 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 79.927 ms
Loss rate: 0.00%
```
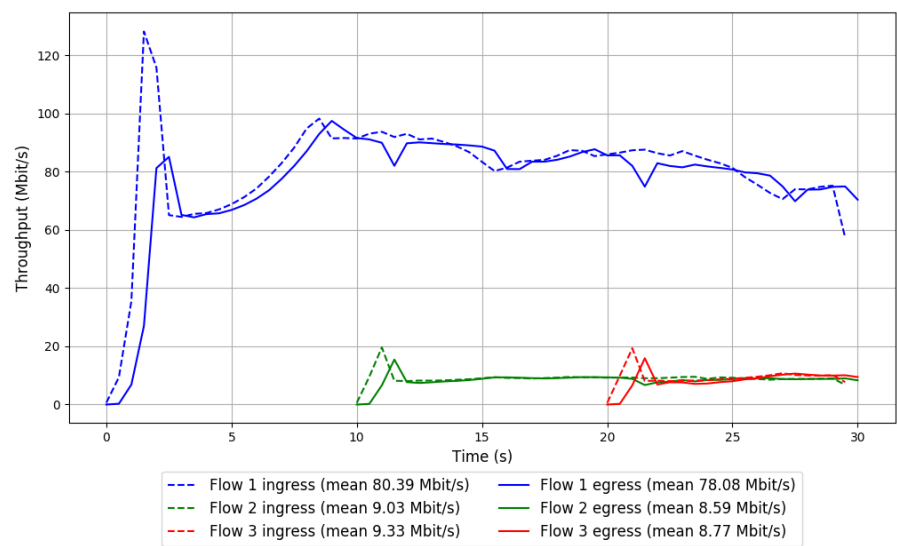
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-02-05 07:35:34
End at: 2019-02-05 07:36:04
Local clock offset: -7.839 ms
Remote clock offset: 9.685 ms


# Below is generated by plot.py at 2019-02-05 09:43:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.86 Mbit/s
95th percentile per-packet one-way delay: 115.811 ms
Loss rate: 2.83%
-- Flow 1:
Average throughput: 78.97 Mbit/s
95th percentile per-packet one-way delay: 115.749 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 118.112 ms
Loss rate: 3.96%
-- Flow 3:
Average throughput: 8.12 Mbit/s
95th percentile per-packet one-way delay: 116.236 ms
Loss rate: 4.94%
```
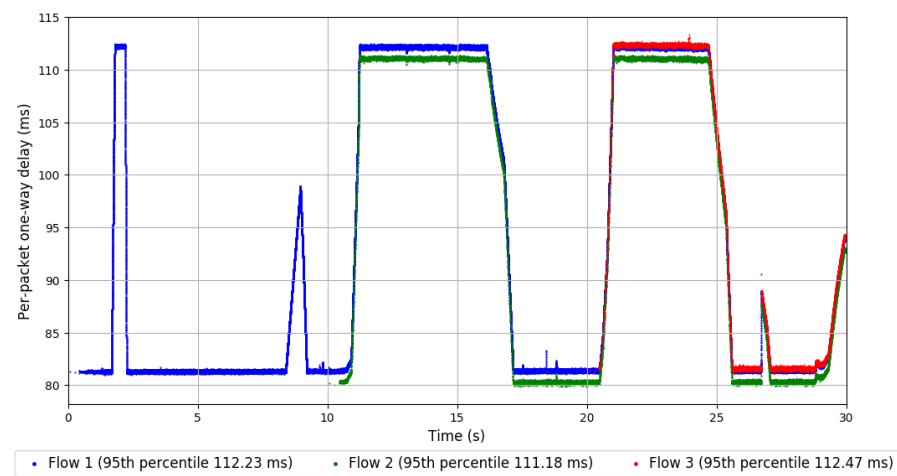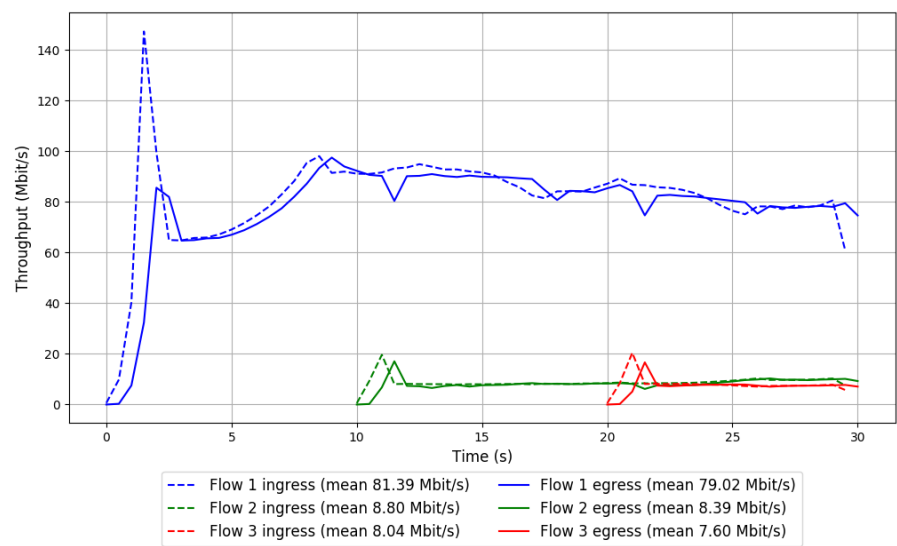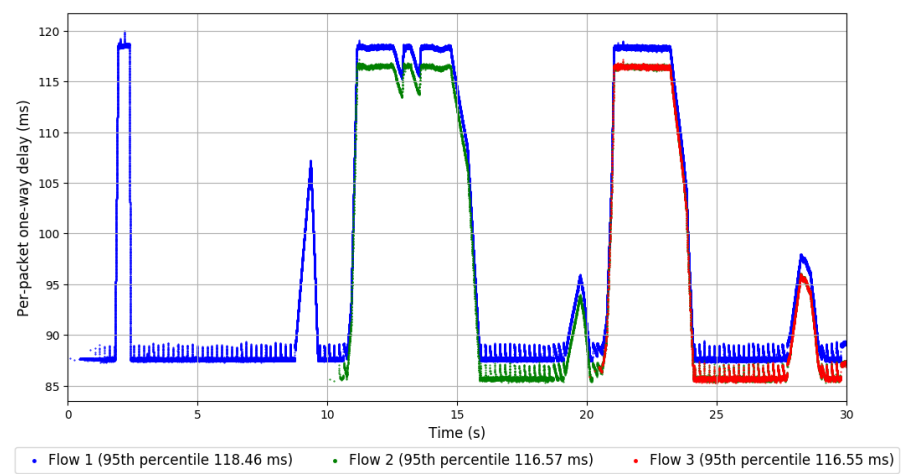
Run 1: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 81.15 Mbit/s)   —— Flow 1 egress (mean 78.97 Mbit/s)
- - - Flow 2 ingress (mean 8.16 Mbit/s)   —— Flow 2 egress (mean 7.84 Mbit/s)
- - - Flow 3 ingress (mean 8.54 Mbit/s)   —— Flow 3 egress (mean 8.12 Mbit/s)

• Flow 1 (95th percentile 115.75 ms)   • Flow 2 (95th percentile 118.11 ms)   • Flow 3 (95th percentile 116.24 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-02-05 08:02:13
End at: 2019-02-05 08:02:43
Local clock offset: -3.102 ms
Remote clock offset: 5.96 ms


# Below is generated by plot.py at 2019-02-05 09:43:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.68 Mbit/s
95th percentile per-packet one-way delay: 118.396 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 78.08 Mbit/s
95th percentile per-packet one-way delay: 118.403 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 117.832 ms
Loss rate: 4.85%
-- Flow 3:
Average throughput: 8.77 Mbit/s
95th percentile per-packet one-way delay: 116.395 ms
Loss rate: 5.99%
```
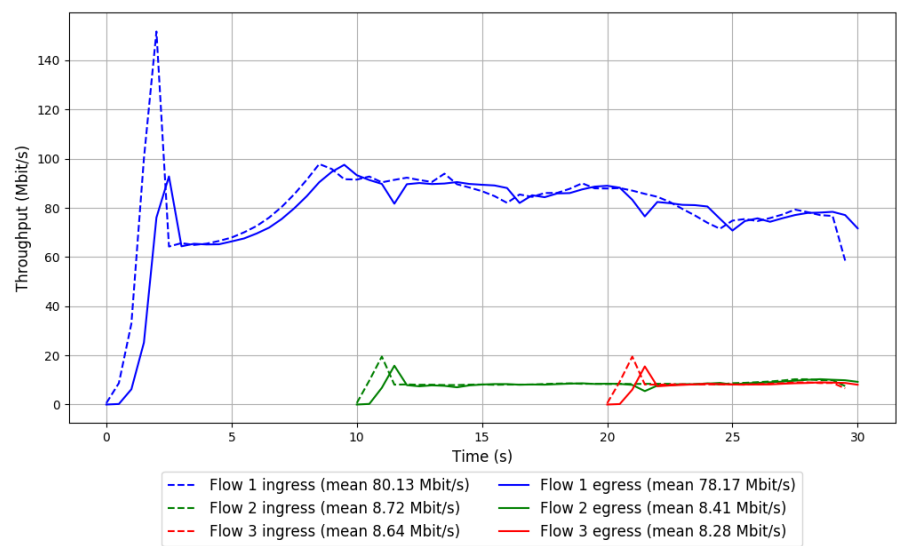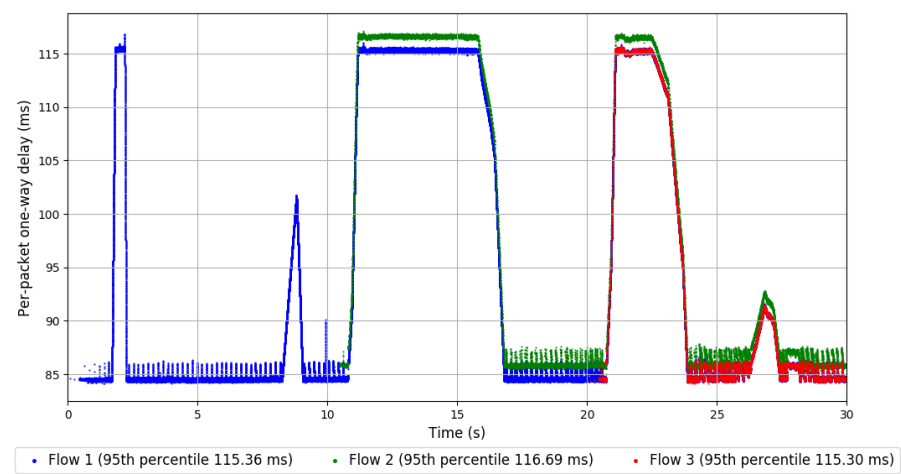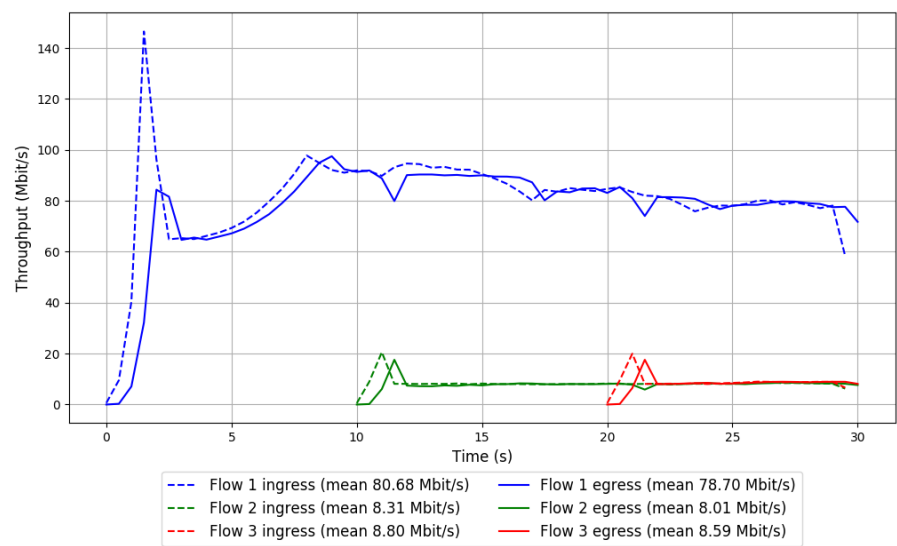
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 80.39 Mbit/s) — — — Flow 1 egress (mean 78.08 Mbit/s)
Flow 2 ingress (mean 9.03 Mbit/s) — — — Flow 2 egress (mean 8.59 Mbit/s)
Flow 3 ingress (mean 9.33 Mbit/s) — — — Flow 3 egress (mean 8.77 Mbit/s)

Flow 1 (95th percentile 118.40 ms) Flow 2 (95th percentile 117.83 ms) Flow 3 (95th percentile 116.39 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-02-05 08:28:56
End at: 2019-02-05 08:29:26
Local clock offset: -0.144 ms
Remote clock offset: 0.581 ms


# Below is generated by plot.py at 2019-02-05 09:43:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.11 Mbit/s
95th percentile per-packet one-way delay: 112.238 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 79.02 Mbit/s
95th percentile per-packet one-way delay: 112.231 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 8.39 Mbit/s
95th percentile per-packet one-way delay: 111.176 ms
Loss rate: 4.53%
-- Flow 3:
Average throughput: 7.60 Mbit/s
95th percentile per-packet one-way delay: 112.473 ms
Loss rate: 5.41%
```
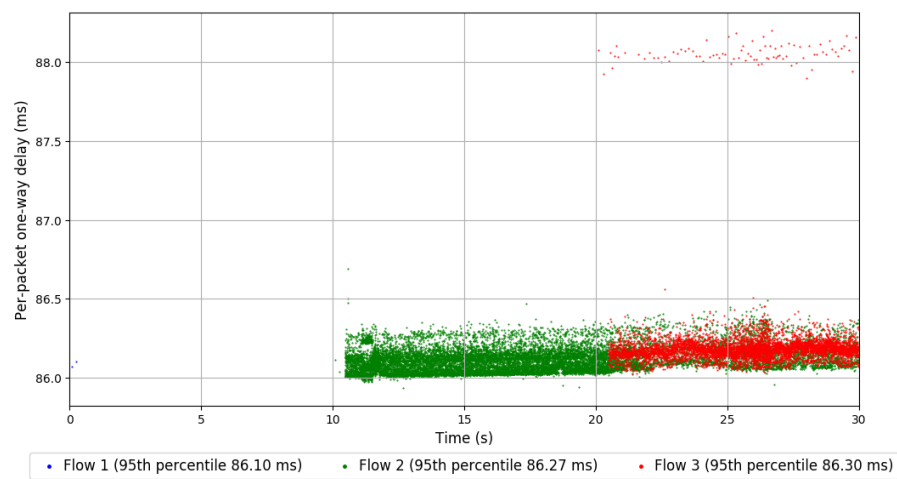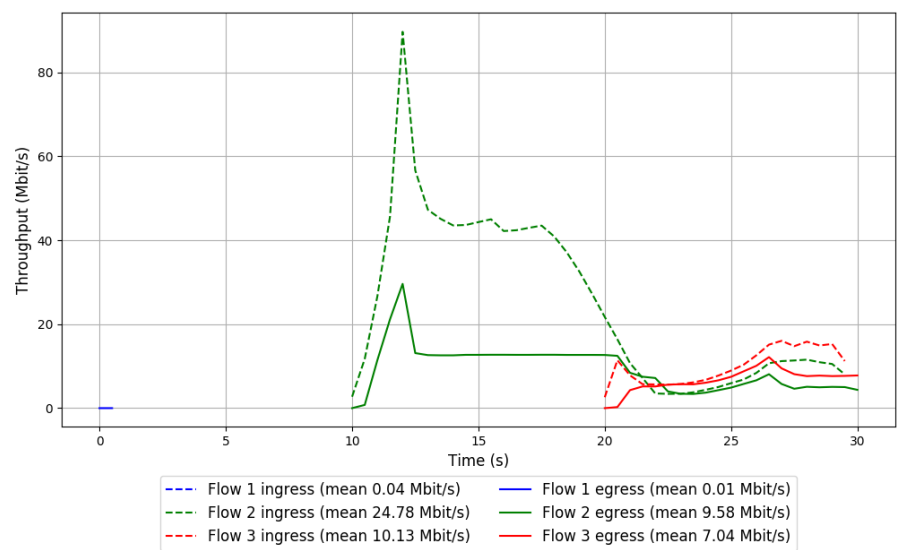
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 81.39 Mbit/s) — Flow 1 egress (mean 79.02 Mbit/s)
Flow 2 ingress (mean 8.80 Mbit/s) — Flow 2 egress (mean 8.39 Mbit/s)
Flow 3 ingress (mean 8.04 Mbit/s) — Flow 3 egress (mean 7.60 Mbit/s)

Flow 1 (95th percentile 112.23 ms) • Flow 2 (95th percentile 111.18 ms) • Flow 3 (95th percentile 112.47 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-02-05 08:55:31
End at: 2019-02-05 08:56:01
Local clock offset: -5.743 ms
Remote clock offset: 5.339 ms


# Below is generated by plot.py at 2019-02-05 09:43:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.49 Mbit/s
95th percentile per-packet one-way delay: 118.446 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 78.17 Mbit/s
95th percentile per-packet one-way delay: 118.456 ms
Loss rate: 2.45%
-- Flow 2:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 116.570 ms
Loss rate: 3.52%
-- Flow 3:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 116.546 ms
Loss rate: 4.15%
```
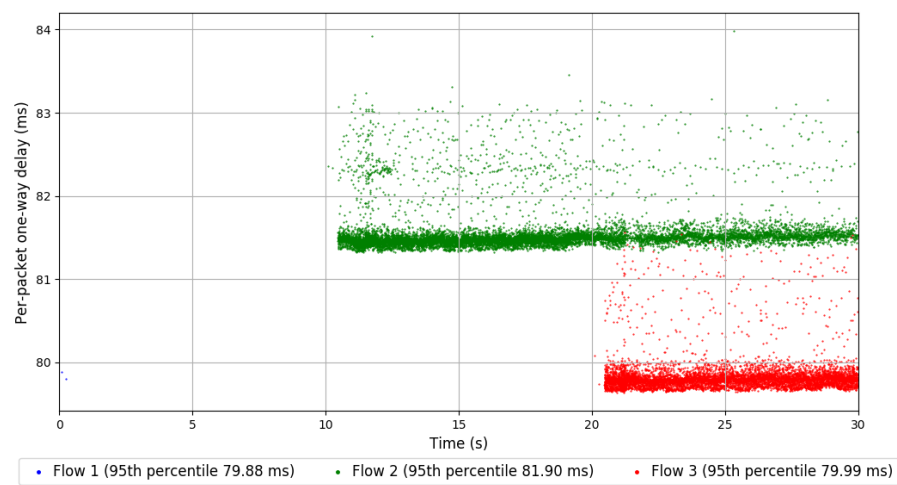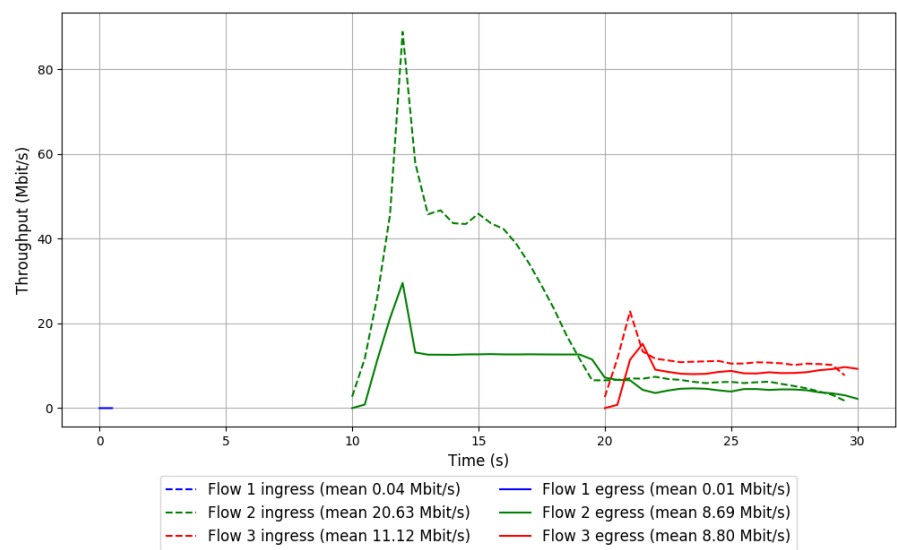
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-02-05 09:22:10
End at: 2019-02-05 09:22:40
Local clock offset: -10.346 ms
Remote clock offset: 3.174 ms


# Below is generated by plot.py at 2019-02-05 09:43:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.86 Mbit/s
95th percentile per-packet one-way delay: 115.385 ms
Loss rate: 2.51%
-- Flow 1:
Average throughput: 78.70 Mbit/s
95th percentile per-packet one-way delay: 115.356 ms
Loss rate: 2.45%
-- Flow 2:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 116.692 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 115.304 ms
Loss rate: 2.38%
```
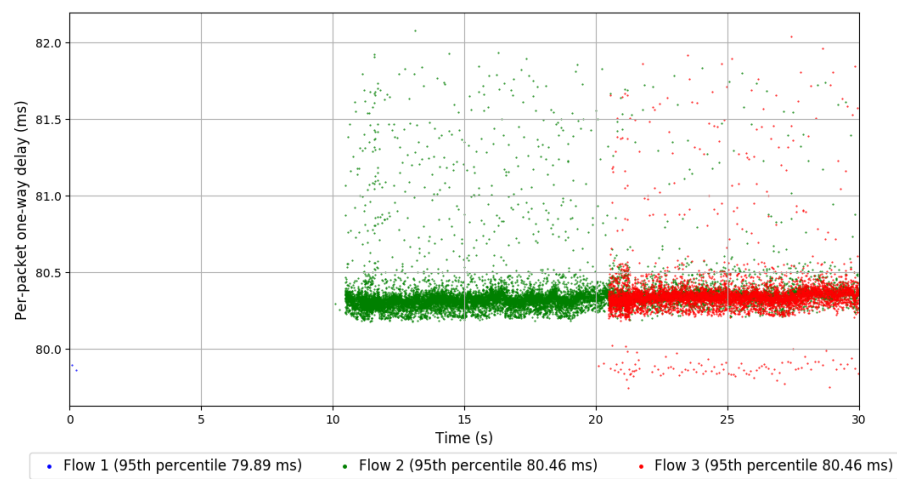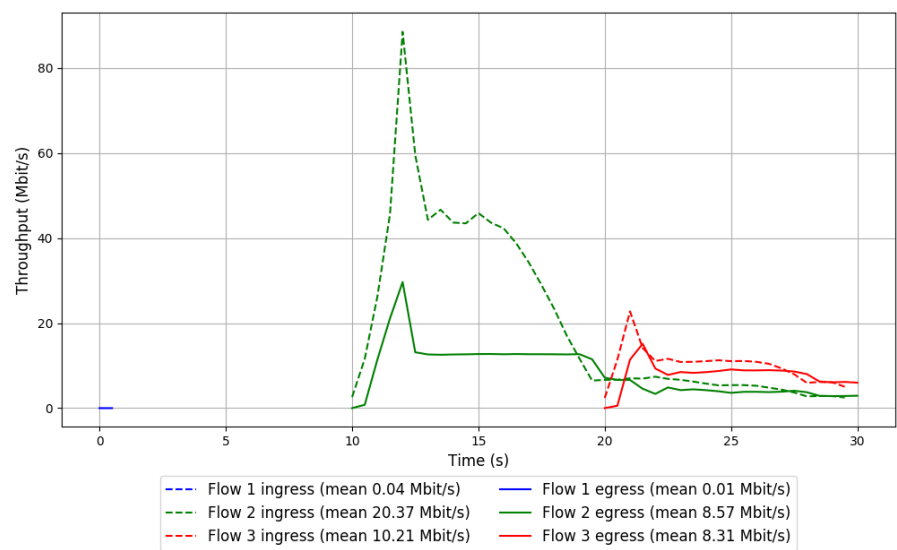
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 80.68 Mbit/s) --- Flow 1 egress (mean 78.70 Mbit/s)
Flow 2 ingress (mean 8.31 Mbit/s) --- Flow 2 egress (mean 8.01 Mbit/s)
Flow 3 ingress (mean 8.80 Mbit/s) --- Flow 3 egress (mean 8.59 Mbit/s)

Flow 1 (95th percentile 115.36 ms) · Flow 2 (95th percentile 116.69 ms) · Flow 3 (95th percentile 115.30 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-05 07:41:54
End at: 2019-02-05 07:42:24
Local clock offset: -7.97 ms
Remote clock offset: 7.872 ms


# Below is generated by plot.py at 2019-02-05 09:43:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.70 Mbit/s
95th percentile per-packet one-way delay: 86.277 ms
Loss rate: 56.15%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 86.104 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 86.270 ms
Loss rate: 61.36%
-- Flow 3:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 86.298 ms
Loss rate: 30.54%
```
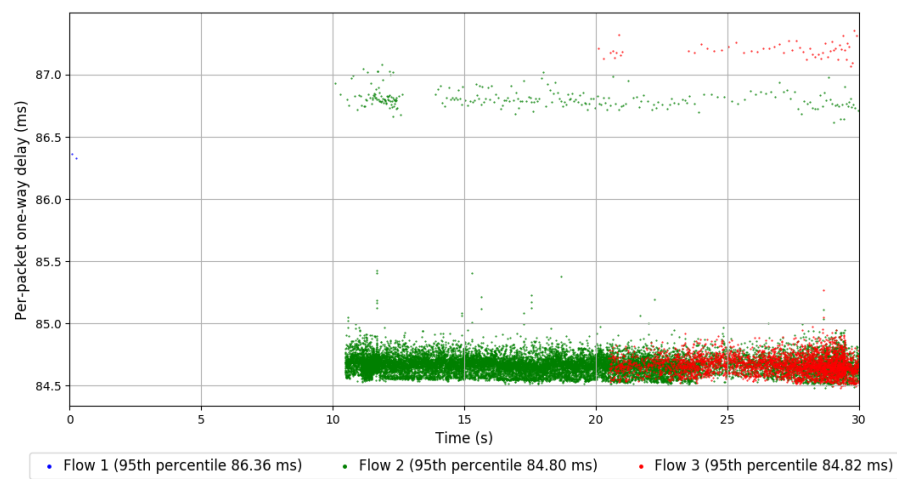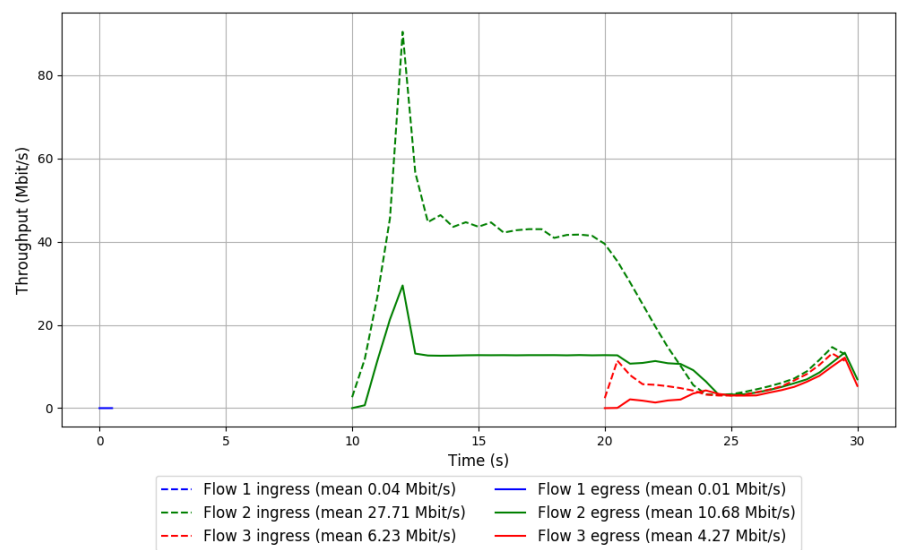
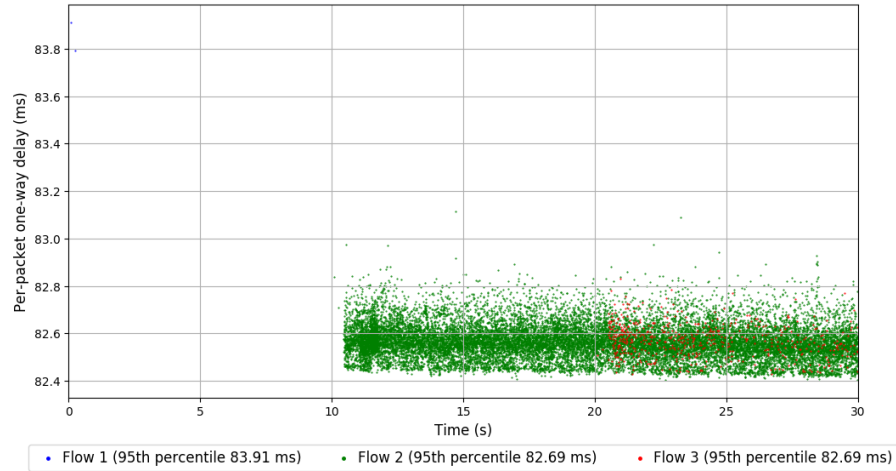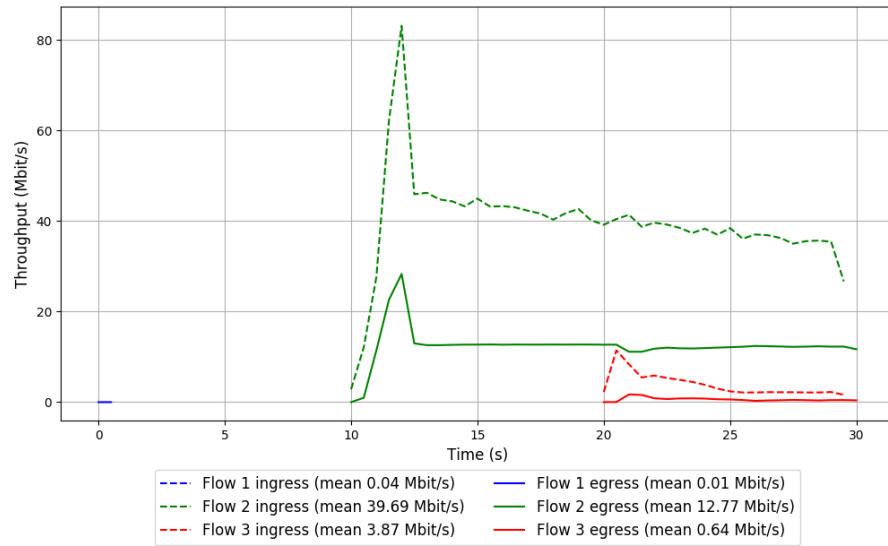## Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-02-05 08:08:39
End at: 2019-02-05 08:09:09
Local clock offset: -1.67 ms
Remote clock offset: 1.468 ms


# Below is generated by plot.py at 2019-02-05 09:43:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.69 Mbit/s
95th percentile per-packet one-way delay: 81.636 ms
Loss rate: 50.05%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 79.883 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 8.69 Mbit/s
95th percentile per-packet one-way delay: 81.902 ms
Loss rate: 57.85%
-- Flow 3:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 79.991 ms
Loss rate: 20.93%
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-02-05 08:35:16
End at: 2019-02-05 08:35:46
Local clock offset: 0.213 ms
Remote clock offset: 0.624 ms


# Below is generated by plot.py at 2019-02-05 09:43:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 80.462 ms
Loss rate: 50.11%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 79.895 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 80.464 ms
Loss rate: 57.94%
-- Flow 3:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 80.457 ms
Loss rate: 18.62%
```

Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-02-05 09:01:51
End at: 2019-02-05 09:02:21
Local clock offset: -6.862 ms
Remote clock offset: 4.777 ms


# Below is generated by plot.py at 2019-02-05 09:43:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 84.804 ms
Loss rate: 58.47%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 86.358 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 84.801 ms
Loss rate: 61.48%
-- Flow 3:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 84.816 ms
Loss rate: 31.51%
```
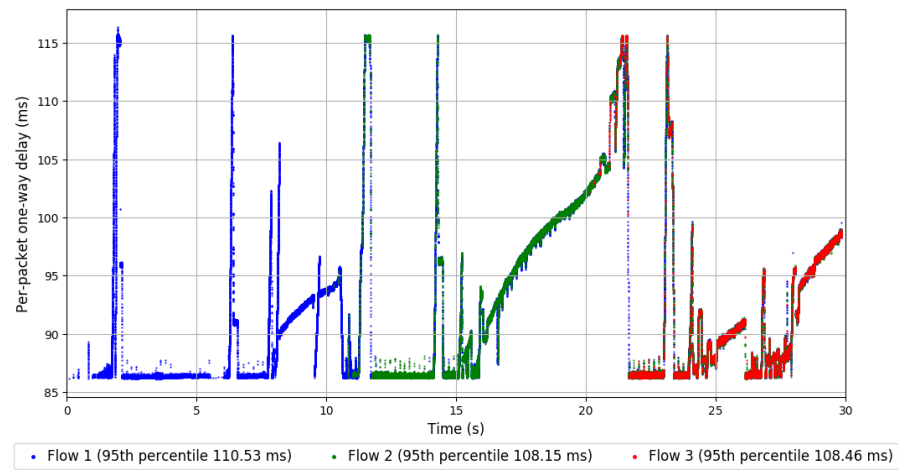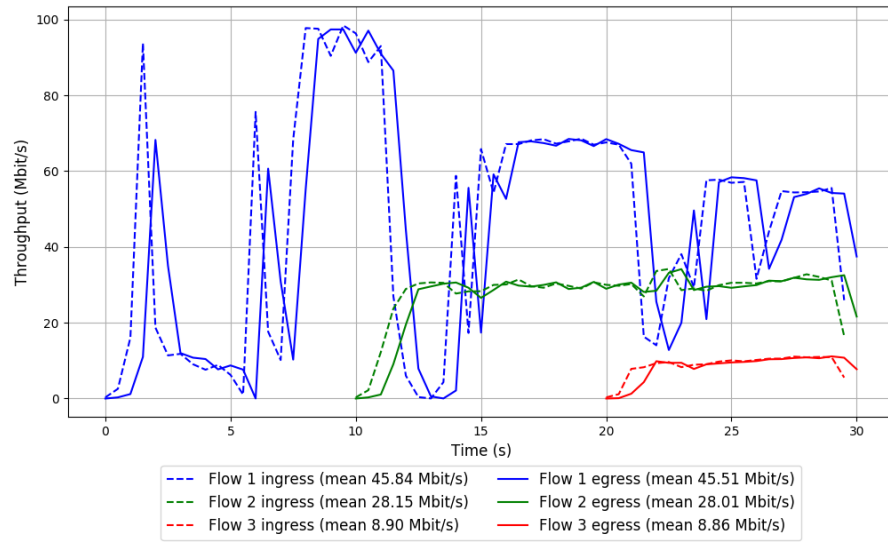
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-02-05 09:28:30
End at: 2019-02-05 09:29:00
Local clock offset: -10.251 ms
Remote clock offset: 2.114 ms


# Below is generated by plot.py at 2019-02-05 09:43:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.70 Mbit/s
95th percentile per-packet one-way delay: 82.695 ms
Loss rate: 68.56%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 83.910 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 82.695 ms
Loss rate: 67.84%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 82.689 ms
Loss rate: 83.39%
```
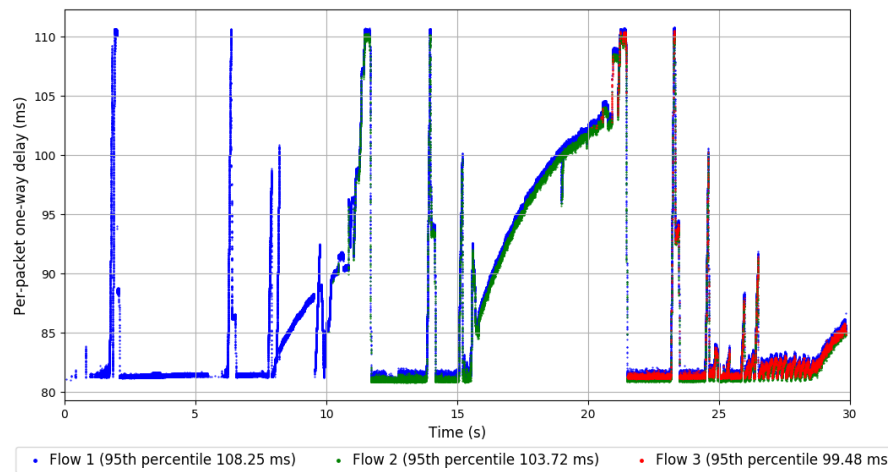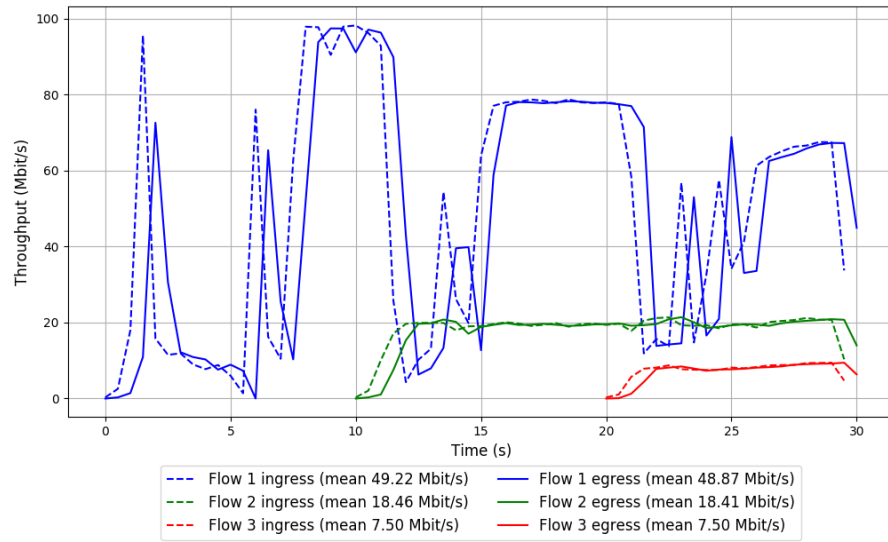
Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-02-05 07:26:44
End at: 2019-02-05 07:27:14
Local clock offset: -7.544 ms
Remote clock offset: 9.643 ms


# Below is generated by plot.py at 2019-02-05 09:43:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.99 Mbit/s
95th percentile per-packet one-way delay: 110.211 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 45.51 Mbit/s
95th percentile per-packet one-way delay: 110.528 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 28.01 Mbit/s
95th percentile per-packet one-way delay: 108.149 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 108.457 ms
Loss rate: 0.50%
```
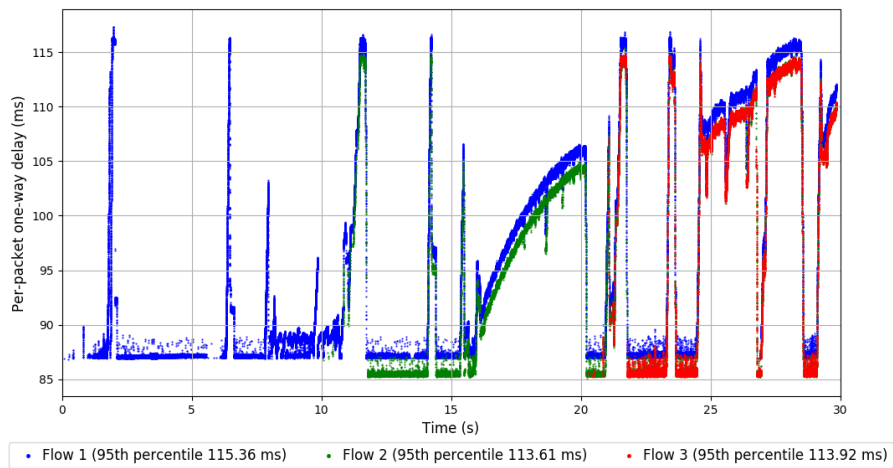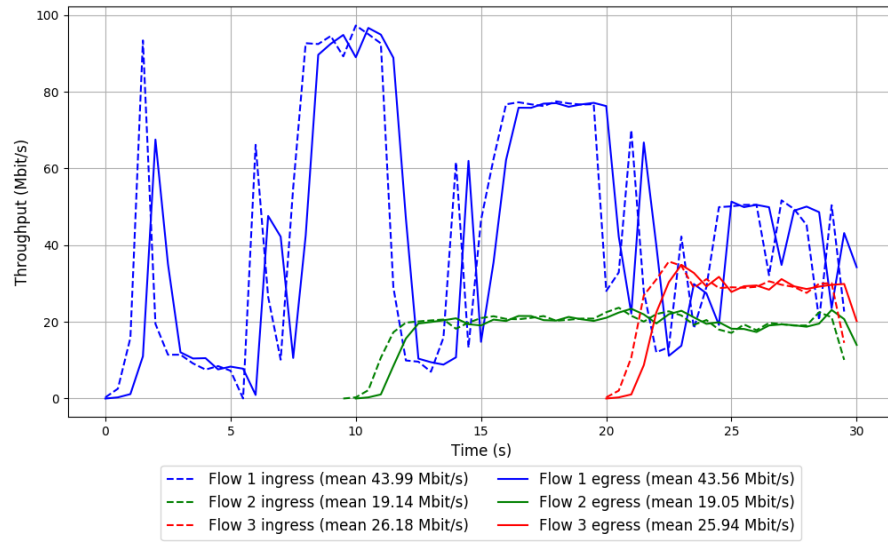
Run 1: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 45.84 Mbit/s) --- Flow 1 egress (mean 45.51 Mbit/s)
Flow 2 ingress (mean 28.15 Mbit/s) --- Flow 2 egress (mean 28.01 Mbit/s)
Flow 3 ingress (mean 8.90 Mbit/s) --- Flow 3 egress (mean 8.86 Mbit/s)

Flow 1 (95th percentile 110.53 ms)   Flow 2 (95th percentile 108.15 ms)   Flow 3 (95th percentile 108.46 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-02-05 07:53:24
End at: 2019-02-05 07:53:54
Local clock offset: -4.91 ms
Remote clock offset: 2.653 ms


# Below is generated by plot.py at 2019-02-05 09:43:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.52 Mbit/s
95th percentile per-packet one-way delay: 107.224 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 48.87 Mbit/s
95th percentile per-packet one-way delay: 108.249 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 18.41 Mbit/s
95th percentile per-packet one-way delay: 103.725 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 99.485 ms
Loss rate: 0.22%
```
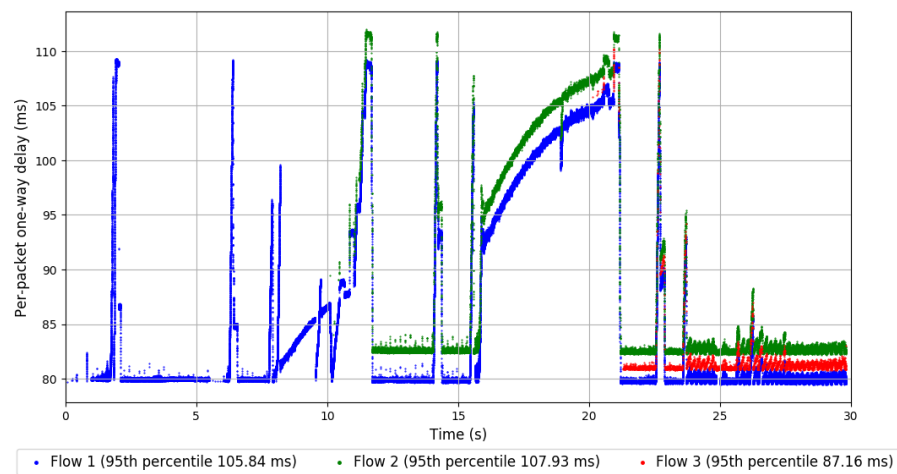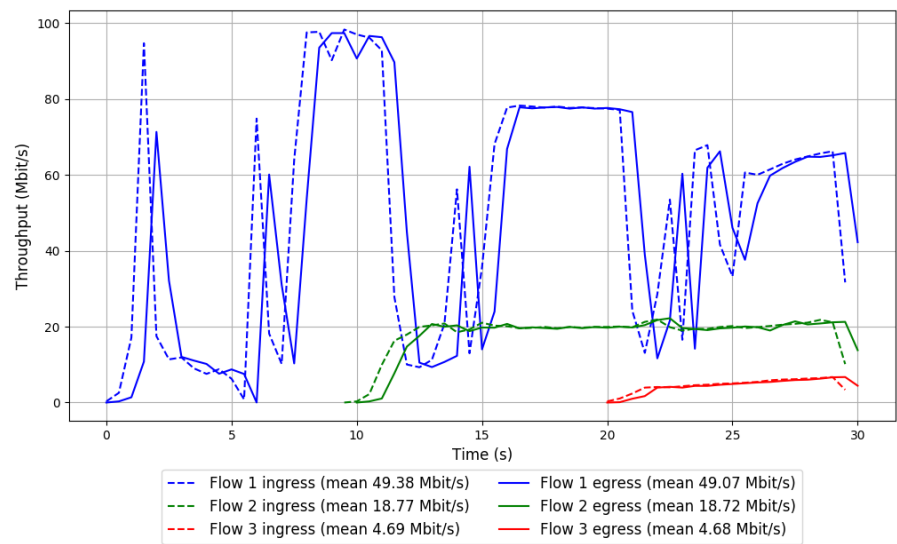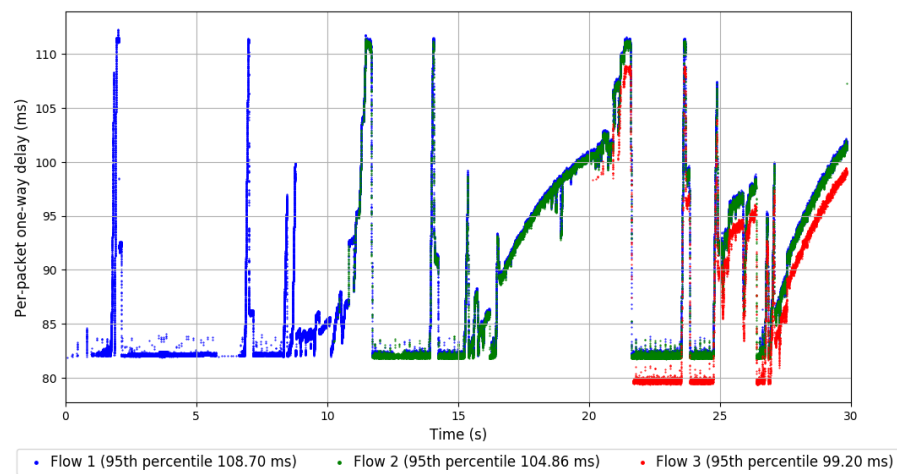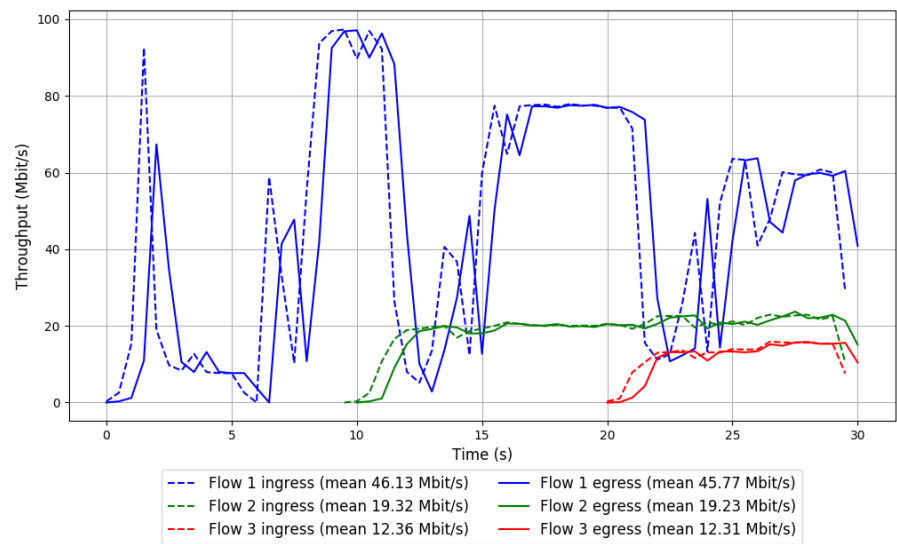
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 49.22 Mbit/s) --- Flow 1 egress (mean 48.87 Mbit/s)
Flow 2 ingress (mean 18.46 Mbit/s) --- Flow 2 egress (mean 18.41 Mbit/s)
Flow 3 ingress (mean 7.50 Mbit/s) --- Flow 3 egress (mean 7.50 Mbit/s)

Flow 1 (95th percentile 108.25 ms)   Flow 2 (95th percentile 103.72 ms)   Flow 3 (95th percentile 99.48 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-02-05 08:20:06
End at: 2019-02-05 08:20:36
Local clock offset: -1.435 ms
Remote clock offset: 6.674 ms


# Below is generated by plot.py at 2019-02-05 09:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.68 Mbit/s
95th percentile per-packet one-way delay: 114.665 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 43.56 Mbit/s
95th percentile per-packet one-way delay: 115.358 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 19.05 Mbit/s
95th percentile per-packet one-way delay: 113.612 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 25.94 Mbit/s
95th percentile per-packet one-way delay: 113.920 ms
Loss rate: 0.85%
```
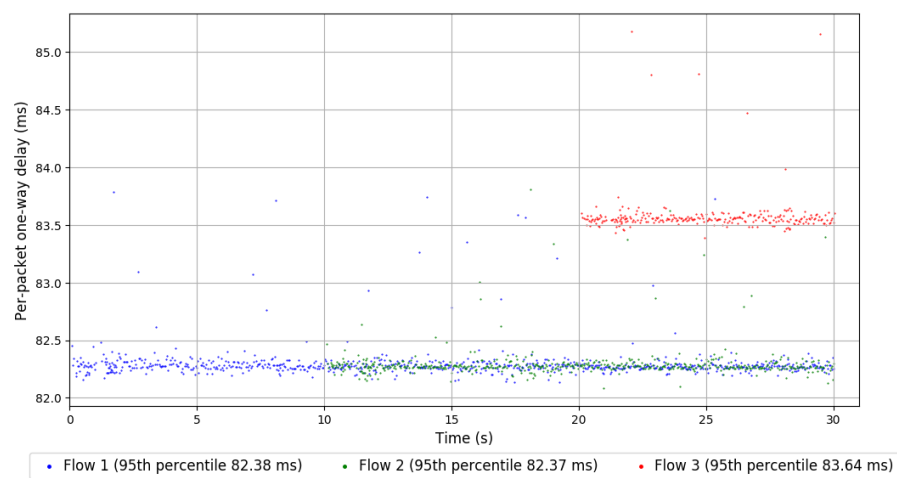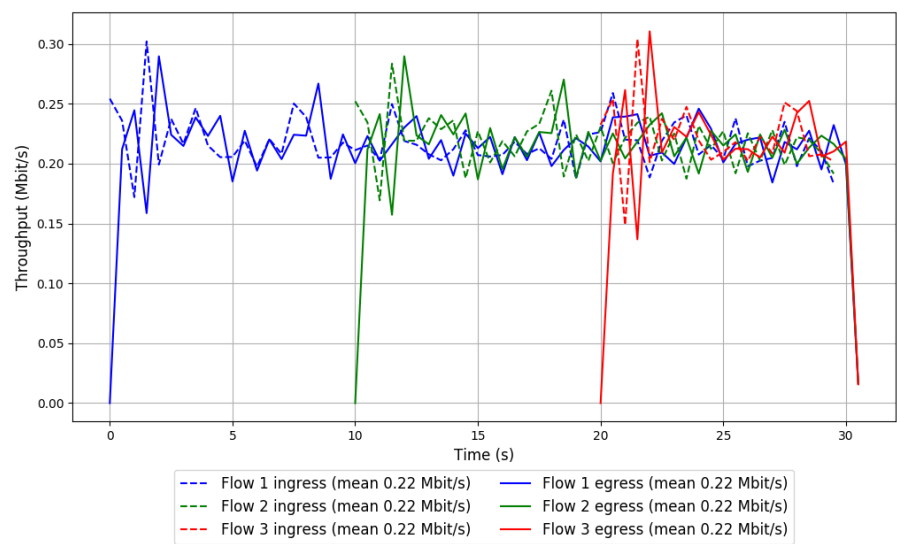
Run 3: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 43.99 Mbit/s) —— Flow 1 egress (mean 43.56 Mbit/s)
- - - Flow 2 ingress (mean 19.14 Mbit/s) —— Flow 2 egress (mean 19.05 Mbit/s)
- - - Flow 3 ingress (mean 26.18 Mbit/s) —— Flow 3 egress (mean 25.94 Mbit/s)

• Flow 1 (95th percentile 115.36 ms)   • Flow 2 (95th percentile 113.61 ms)   • Flow 3 (95th percentile 113.92 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-02-05 08:46:42
End at: 2019-02-05 08:47:12
Local clock offset: -0.38 ms
Remote clock offset: 0.366 ms


# Below is generated by plot.py at 2019-02-05 09:44:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.01 Mbit/s
95th percentile per-packet one-way delay: 106.689 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 49.07 Mbit/s
95th percentile per-packet one-way delay: 105.837 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 107.926 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 87.163 ms
Loss rate: 0.30%
```
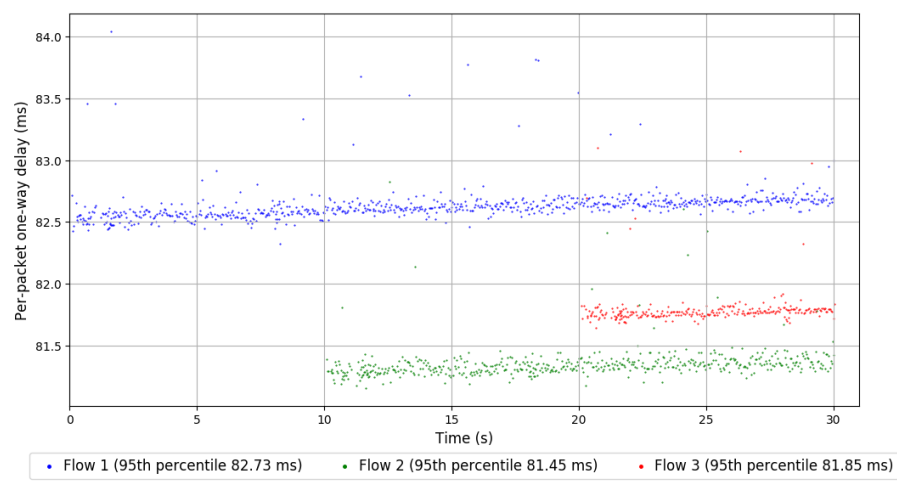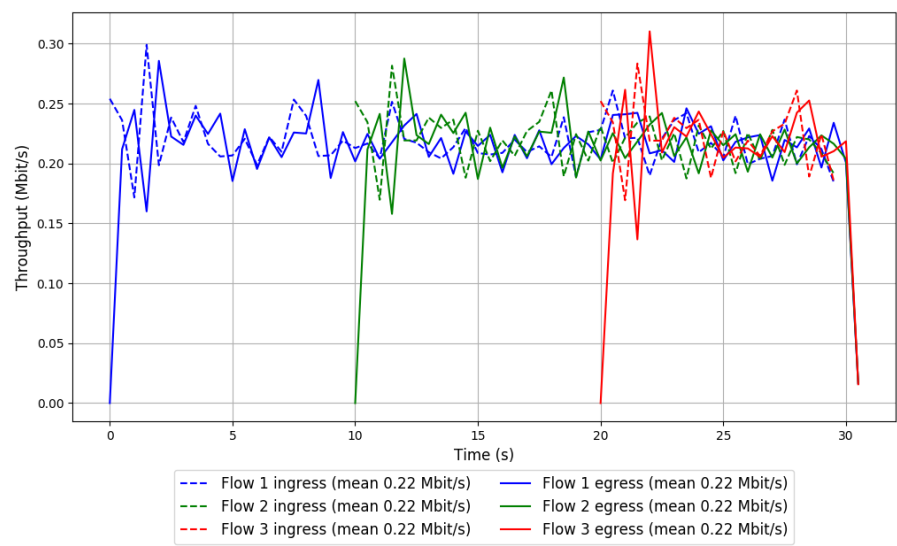
Run 4: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 49.38 Mbit/s) —— Flow 1 egress (mean 49.07 Mbit/s)
- - - Flow 2 ingress (mean 18.77 Mbit/s) —— Flow 2 egress (mean 18.72 Mbit/s)
- - - Flow 3 ingress (mean 4.69 Mbit/s) —— Flow 3 egress (mean 4.68 Mbit/s)

- Flow 1 (95th percentile 105.84 ms)   • Flow 2 (95th percentile 107.93 ms)   • Flow 3 (95th percentile 87.16 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-02-05 09:13:20
End at: 2019-02-05 09:13:50
Local clock offset: -9.419 ms
Remote clock offset: -1.882 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.55 Mbit/s
95th percentile per-packet one-way delay: 107.312 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 45.77 Mbit/s
95th percentile per-packet one-way delay: 108.698 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 19.23 Mbit/s
95th percentile per-packet one-way delay: 104.855 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 99.200 ms
Loss rate: 0.41%
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 46.13 Mbit/s) --- Flow 1 egress (mean 45.77 Mbit/s)
Flow 2 ingress (mean 19.32 Mbit/s) --- Flow 2 egress (mean 19.23 Mbit/s)
Flow 3 ingress (mean 12.36 Mbit/s) --- Flow 3 egress (mean 12.31 Mbit/s)

Flow 1 (95th percentile 108.70 ms)   Flow 2 (95th percentile 104.86 ms)   Flow 3 (95th percentile 99.20 ms)
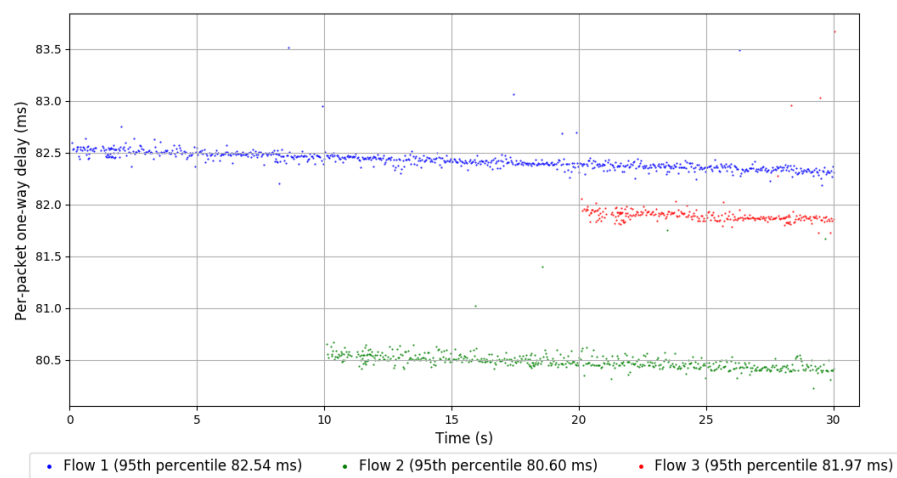
```
Run 1: Statistics of SCReAM

Start at: 2019-02-05 07:30:33
End at: 2019-02-05 07:31:03
Local clock offset: -7.677 ms
Remote clock offset: 5.623 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 83.572 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.376 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.368 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.644 ms
Loss rate: 0.00%
```
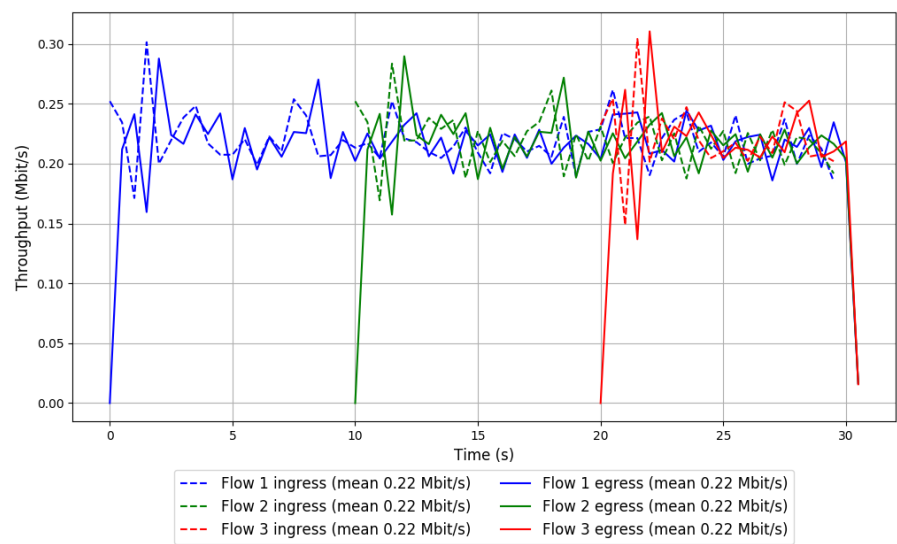
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-02-05 07:57:13
End at: 2019-02-05 07:57:43
Local clock offset: -3.204 ms
Remote clock offset: 2.289 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 82.704 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.732 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.451 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.850 ms
Loss rate: 0.00%
```
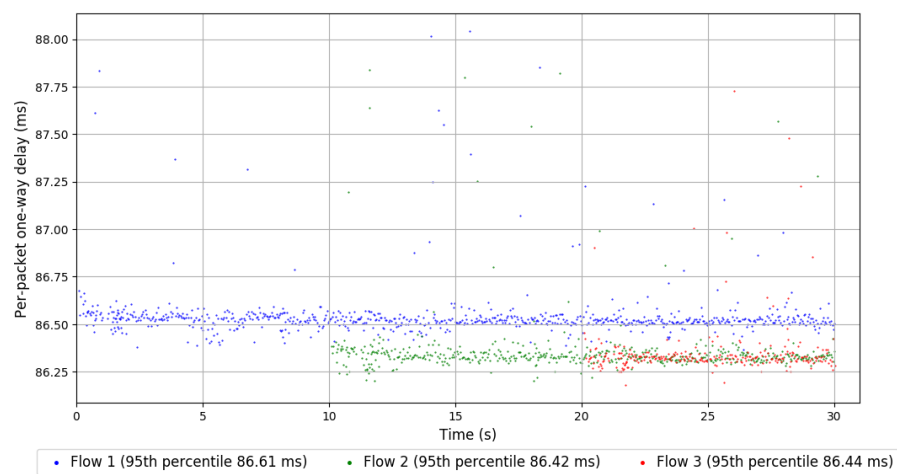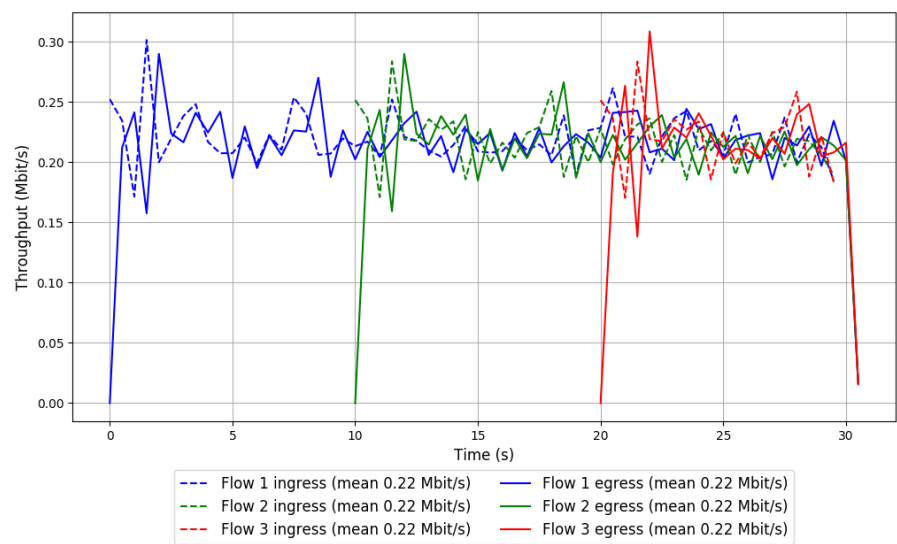
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-02-05 08:23:55
End at: 2019-02-05 08:24:25
Local clock offset: -0.457 ms
Remote clock offset: 5.723 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.724 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.503 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.988 ms
Loss rate: 0.00%
```
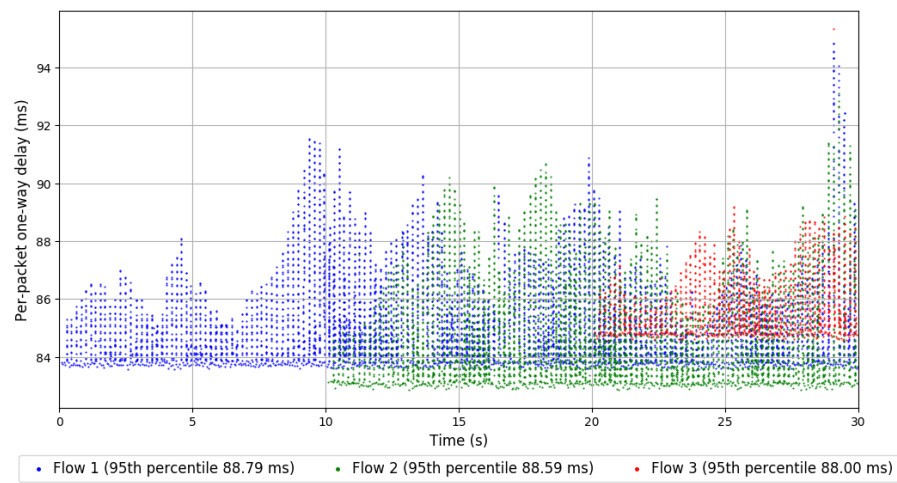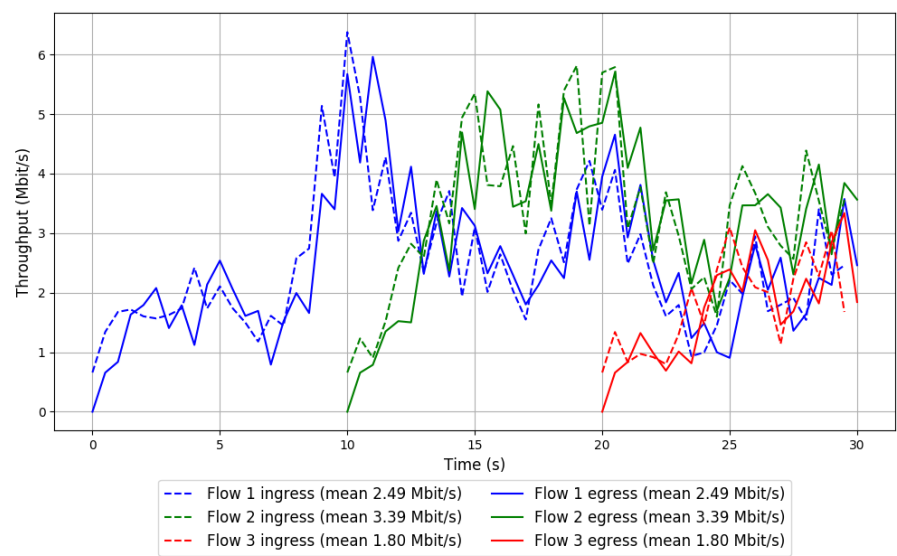
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-02-05 08:50:31
End at: 2019-02-05 08:51:01
Local clock offset: -3.258 ms
Remote clock offset: 0.962 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 82.519 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.541 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.596 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.967 ms
Loss rate: 0.00%
```
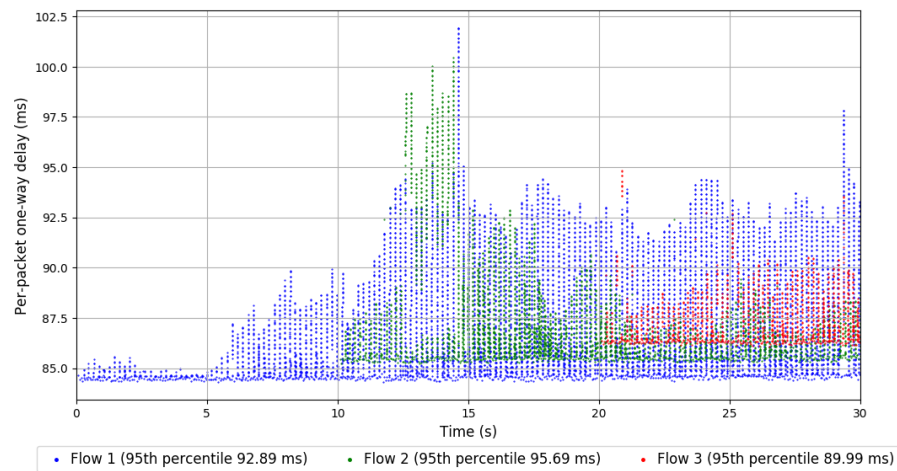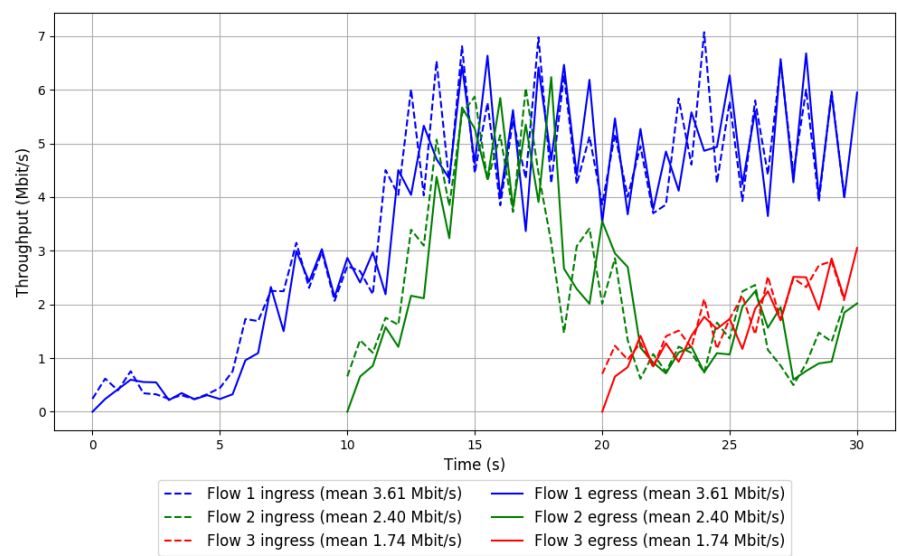
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-02-05 09:17:10
End at: 2019-02-05 09:17:40
Local clock offset: -9.101 ms
Remote clock offset: 3.109 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.590 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.610 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.417 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.435 ms
Loss rate: 0.00%
```
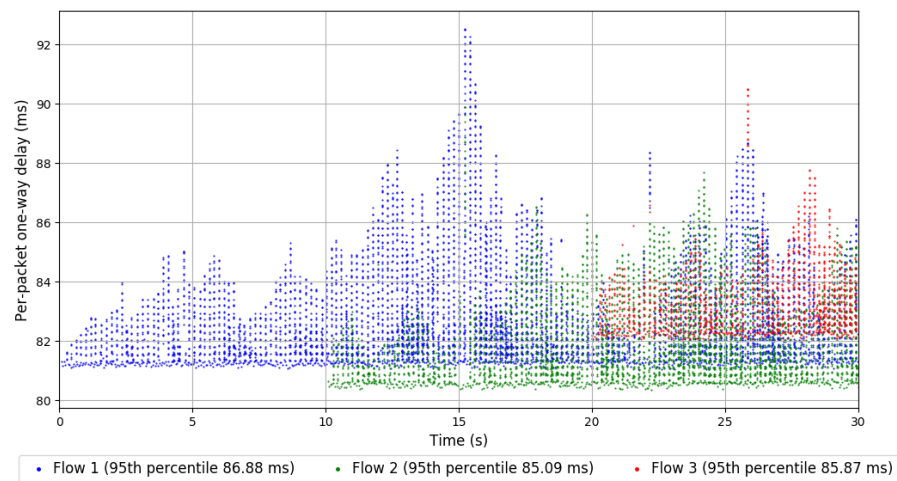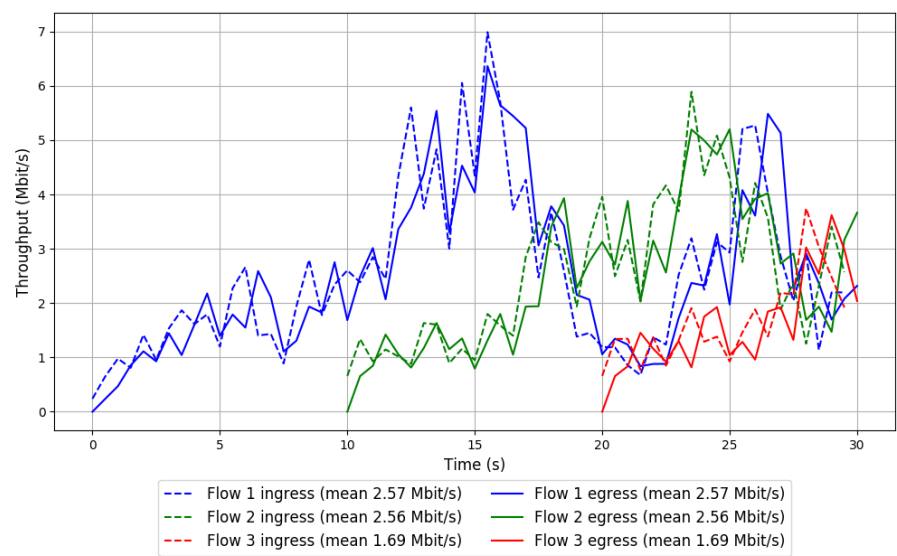
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-02-05 07:31:45
End at: 2019-02-05 07:32:15
Local clock offset: -7.705 ms
Remote clock offset: 8.245 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 88.564 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 88.787 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 88.594 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 88.004 ms
Loss rate: 0.00%
```
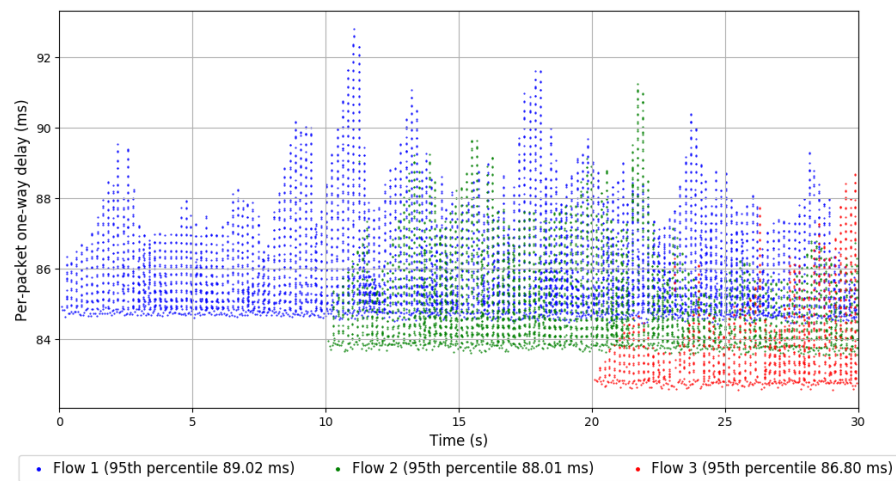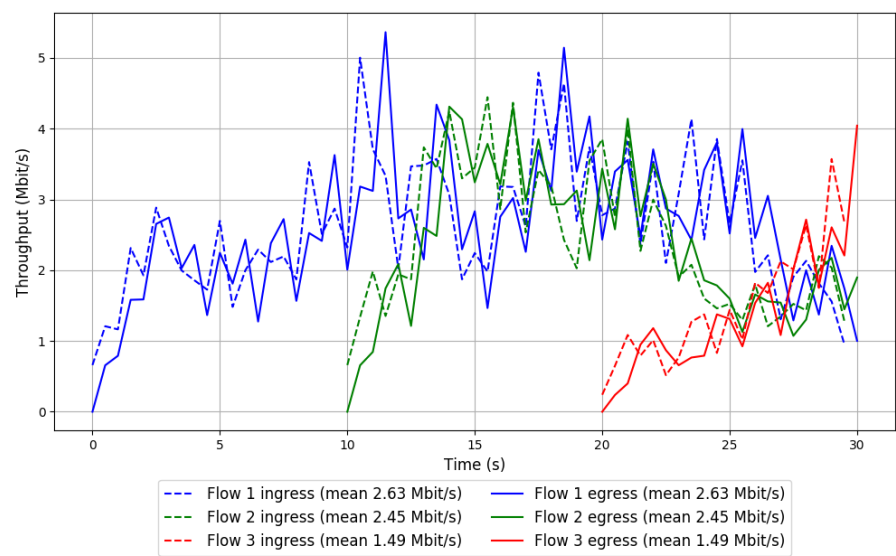
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-02-05 07:58:25
End at: 2019-02-05 07:58:55
Local clock offset: -3.792 ms
Remote clock offset: 6.032 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.78 Mbit/s
95th percentile per-packet one-way delay: 93.167 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 92.888 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 95.694 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 89.992 ms
Loss rate: 0.00%
```
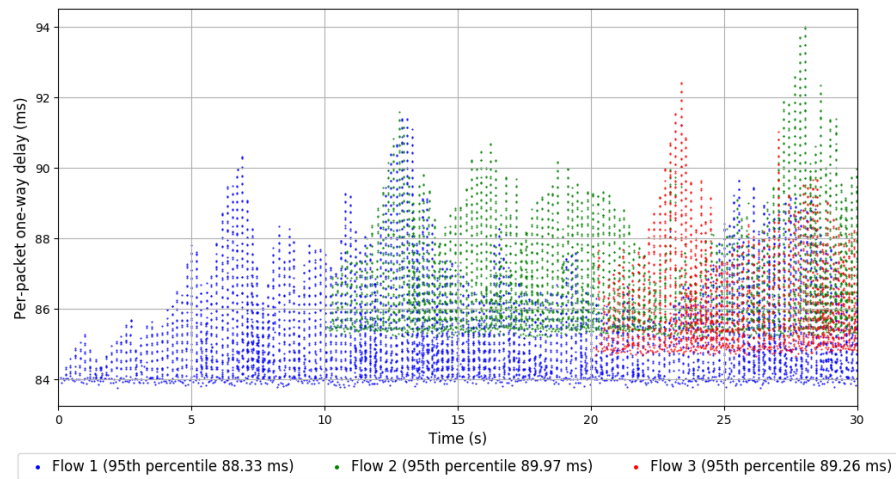
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-02-05 08:25:08
End at: 2019-02-05 08:25:38
Local clock offset: -1.208 ms
Remote clock offset: 1.898 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 86.098 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 86.881 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 85.086 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 85.866 ms
Loss rate: 0.00%
```
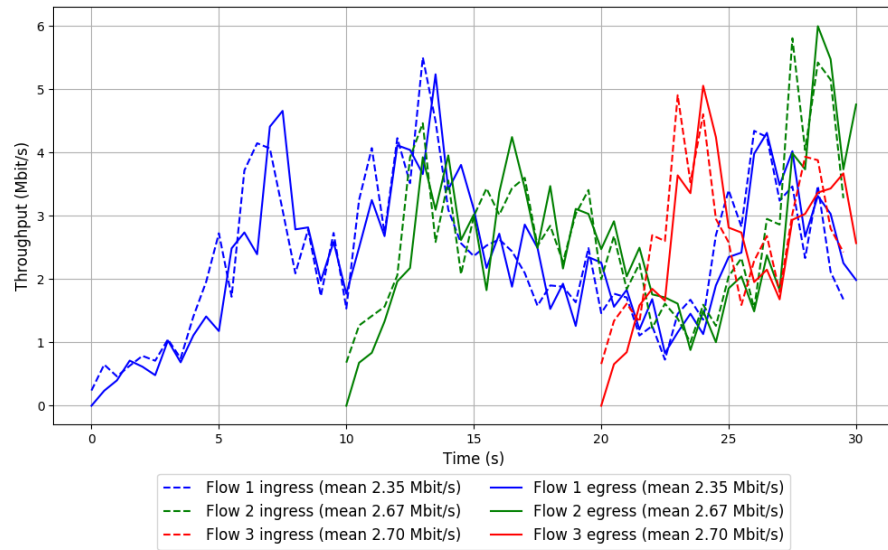
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-02-05 08:51:43
End at: 2019-02-05 08:52:13
Local clock offset: -3.257 ms
Remote clock offset: 3.407 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.75 Mbit/s
95th percentile per-packet one-way delay: 88.566 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 89.018 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 88.008 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 86.797 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-02-05 09:18:22
End at: 2019-02-05 09:18:52
Local clock offset: -9.242 ms
Remote clock offset: 3.104 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 89.287 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 88.332 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.67 Mbit/s
95th percentile per-packet one-way delay: 89.973 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.70 Mbit/s
95th percentile per-packet one-way delay: 89.261 ms
Loss rate: 0.00%
```
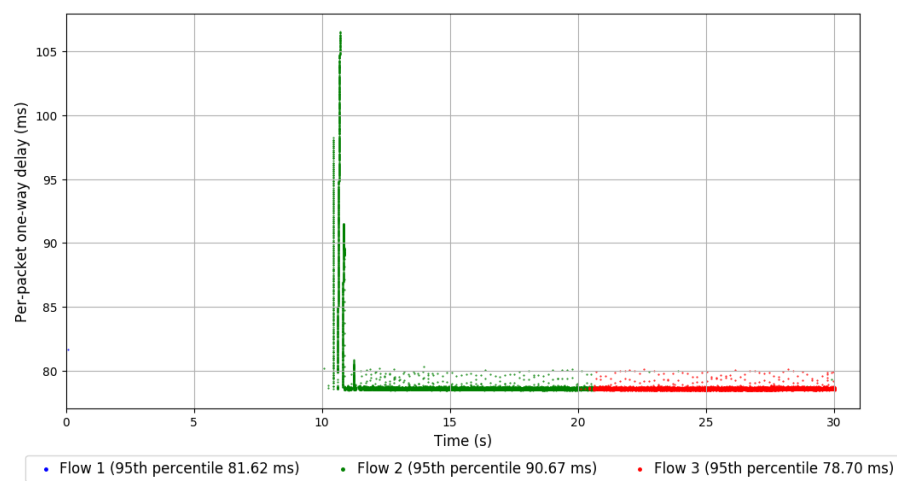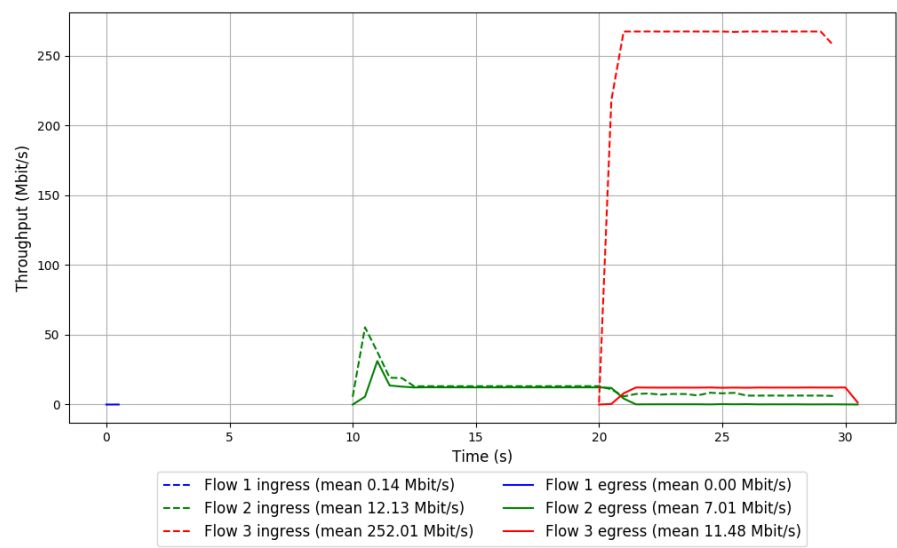
Run 5: Report of Sprout — Data Link

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

Start at: 2019-02-05 07:25:29
End at: 2019-02-05 07:25:59
Local clock offset: -6.804 ms
Remote clock offset: 4.249 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 85.017 ms
Loss rate: 90.77%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 81.624 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 7.01 Mbit/s
95th percentile per-packet one-way delay: 90.670 ms
Loss rate: 42.31%
-- Flow 3:
Average throughput: 11.48 Mbit/s
95th percentile per-packet one-way delay: 78.699 ms
Loss rate: 95.44%
```
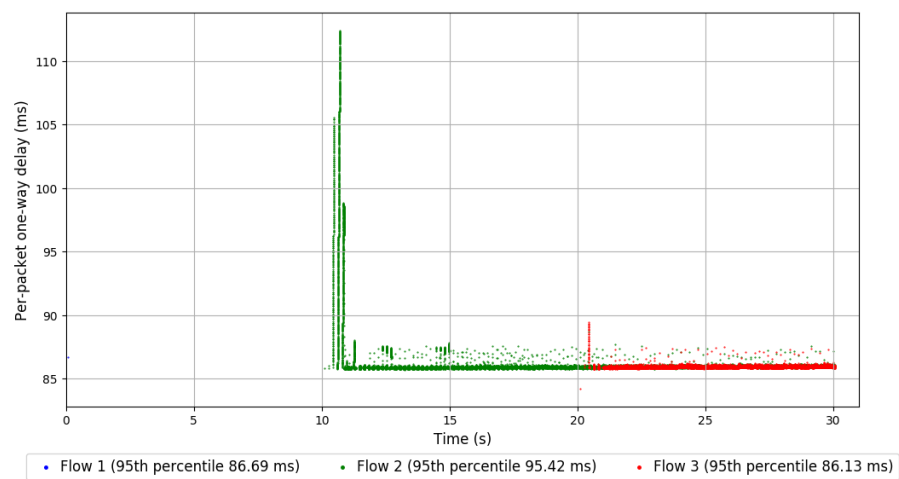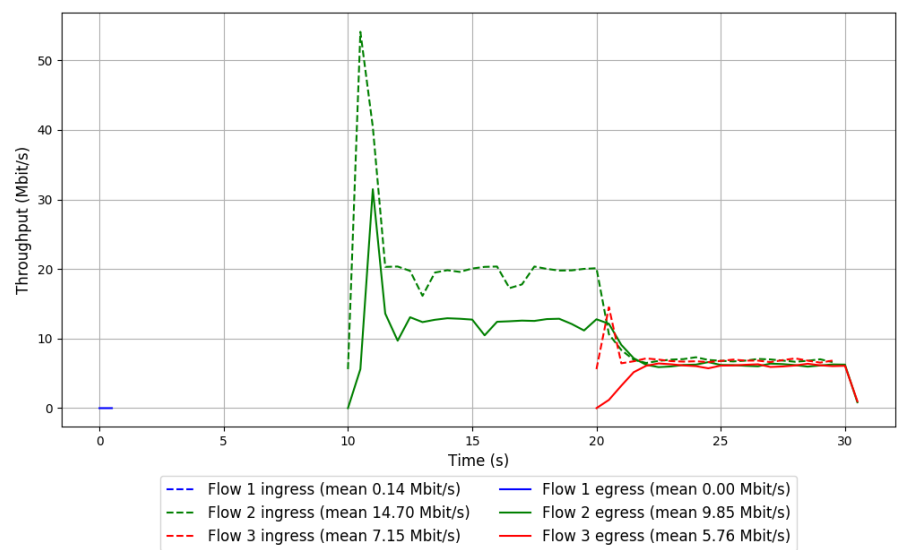
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-02-05 07:52:10
End at: 2019-02-05 07:52:40
Local clock offset: -4.585 ms
Remote clock offset: 6.667 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 91.766 ms
Loss rate: 30.34%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.695 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 95.419 ms
Loss rate: 32.97%
-- Flow 3:
Average throughput: 5.76 Mbit/s
95th percentile per-packet one-way delay: 86.127 ms
Loss rate: 19.48%
```
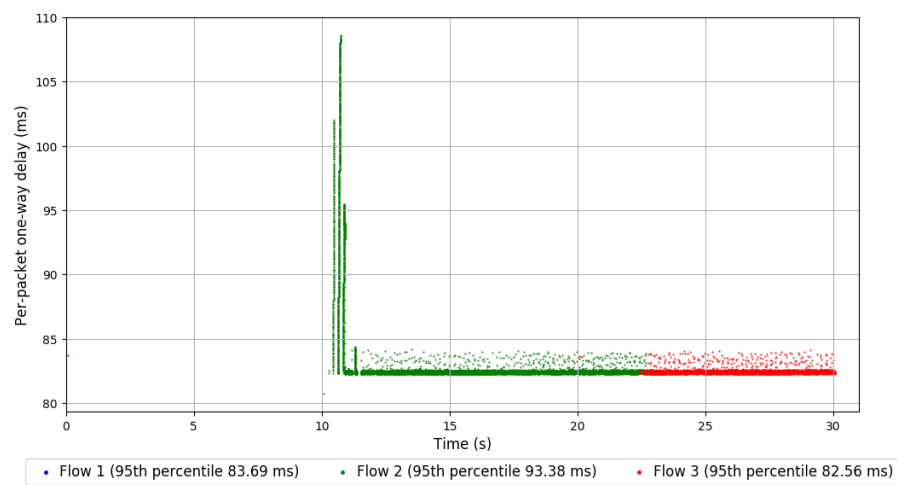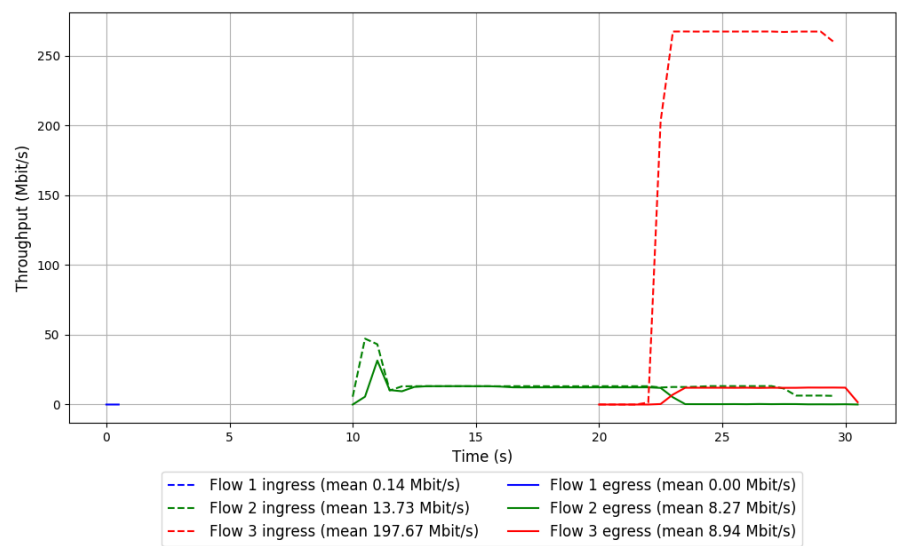
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-02-05 08:18:52
End at: 2019-02-05 08:19:22
Local clock offset: -1.586 ms
Remote clock offset: 1.915 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 88.359 ms
Loss rate: 88.68%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 83.692 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 93.378 ms
Loss rate: 39.81%
-- Flow 3:
Average throughput: 8.94 Mbit/s
95th percentile per-packet one-way delay: 82.558 ms
Loss rate: 95.48%
```
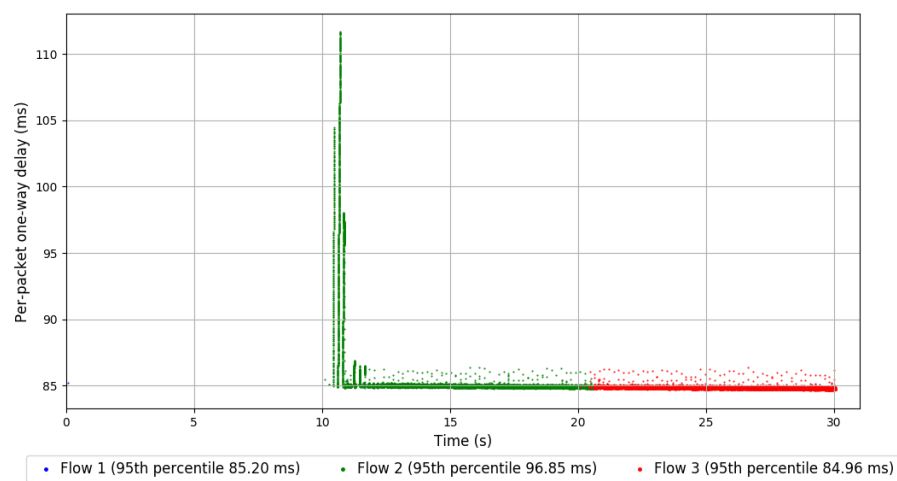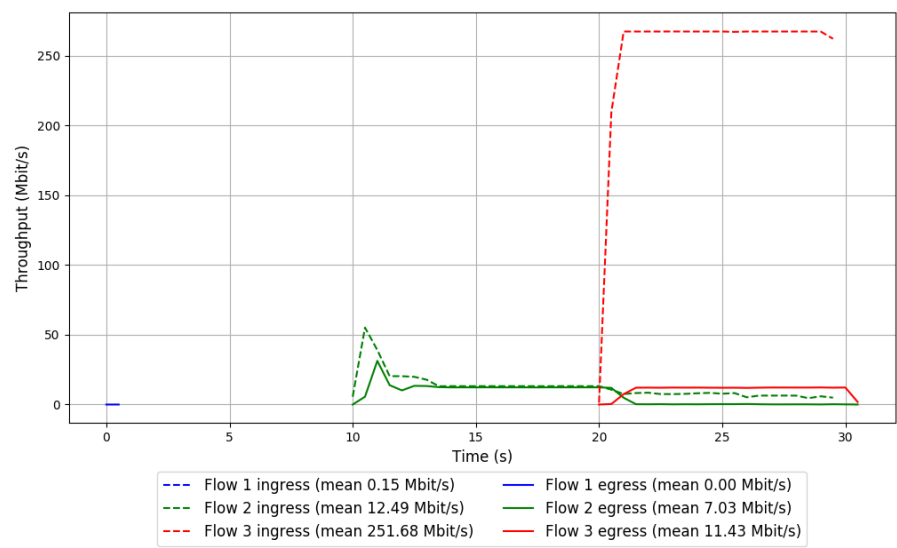
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 0.14 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 13.73 Mbit/s)   Flow 2 egress (mean 8.27 Mbit/s)
Flow 3 ingress (mean 197.67 Mbit/s)   Flow 3 egress (mean 8.94 Mbit/s)

Flow 1 (95th percentile 83.69 ms)   Flow 2 (95th percentile 93.38 ms)   Flow 3 (95th percentile 82.56 ms)

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

Start at: 2019-02-05 08:45:28
End at: 2019-02-05 08:45:58
Local clock offset: 0.769 ms
Remote clock offset: 6.688 ms

# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 90.851 ms
Loss rate: 90.78%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 85.202 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 96.852 ms
Loss rate: 43.75%
-- Flow 3:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 84.964 ms
Loss rate: 95.46%
```
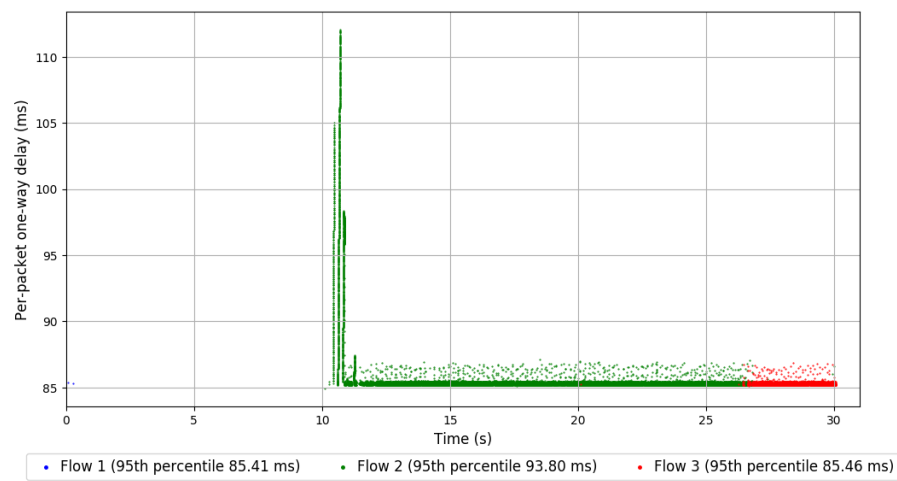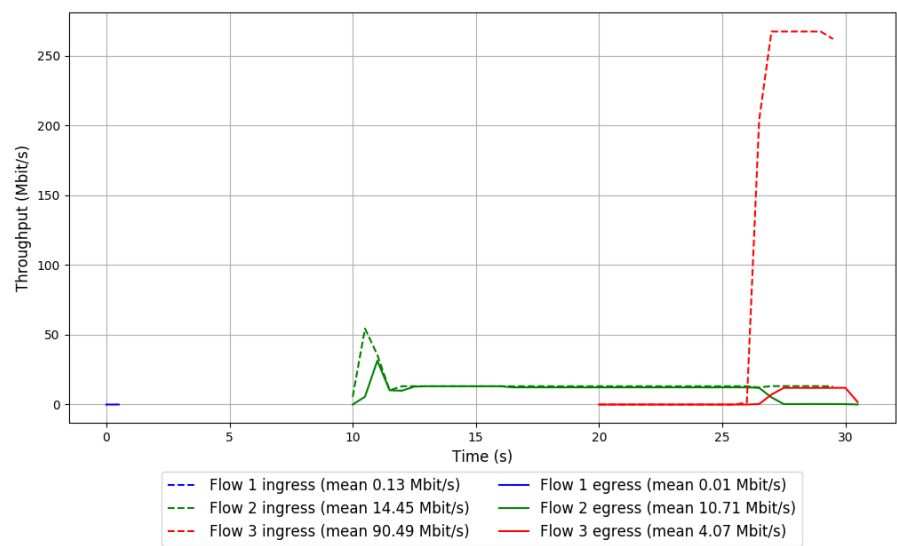
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2019-02-05 09:12:06
End at: 2019-02-05 09:12:36
Local clock offset: -8.589 ms
Remote clock offset: 3.119 ms


# Below is generated by plot.py at 2019-02-05 09:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 91.244 ms
Loss rate: 78.65%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 85.409 ms
Loss rate: 92.16%
-- Flow 2:
Average throughput: 10.71 Mbit/s
95th percentile per-packet one-way delay: 93.797 ms
Loss rate: 26.01%
-- Flow 3:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 85.456 ms
Loss rate: 95.50%
```
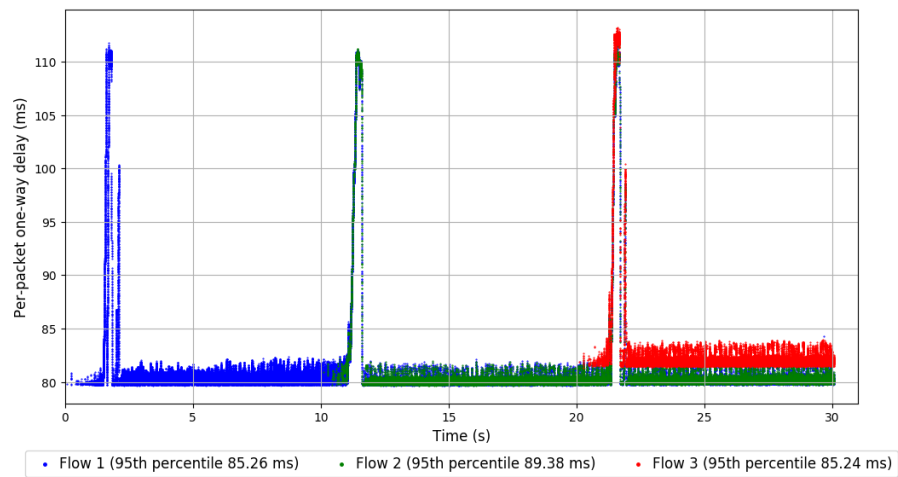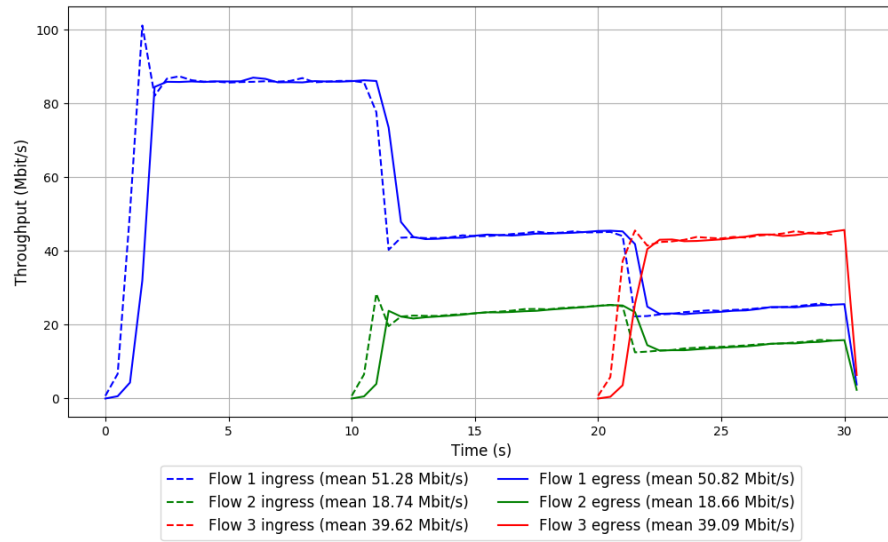
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 0.13 Mbit/s) --- Flow 1 egress (mean 0.01 Mbit/s)
Flow 2 ingress (mean 14.45 Mbit/s) --- Flow 2 egress (mean 10.71 Mbit/s)
Flow 3 ingress (mean 90.49 Mbit/s) --- Flow 3 egress (mean 4.07 Mbit/s)

Flow 1 (95th percentile 85.41 ms)   Flow 2 (95th percentile 93.80 ms)   Flow 3 (95th percentile 85.46 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-02-05 07:44:22
End at: 2019-02-05 07:44:52
Local clock offset: -7.279 ms
Remote clock offset: 3.539 ms


# Below is generated by plot.py at 2019-02-05 09:44:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.24 Mbit/s
95th percentile per-packet one-way delay: 85.642 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 50.82 Mbit/s
95th percentile per-packet one-way delay: 85.259 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 18.66 Mbit/s
95th percentile per-packet one-way delay: 89.379 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 85.241 ms
Loss rate: 1.36%
```
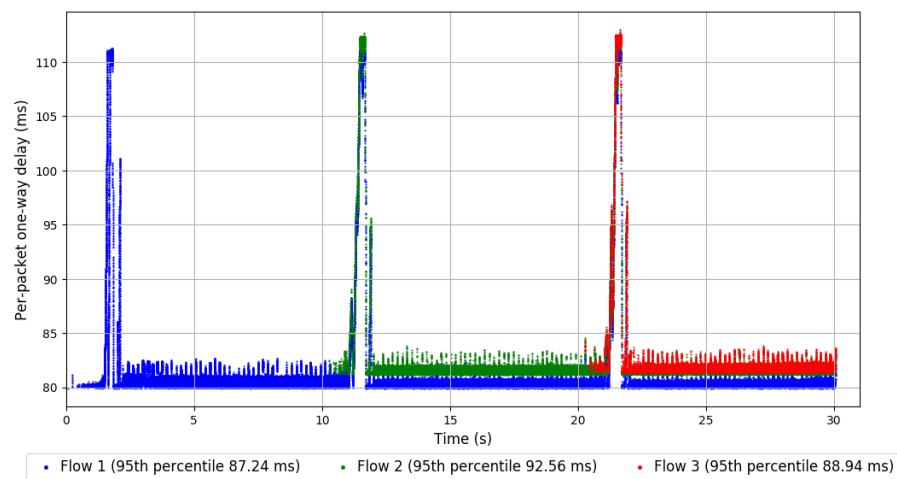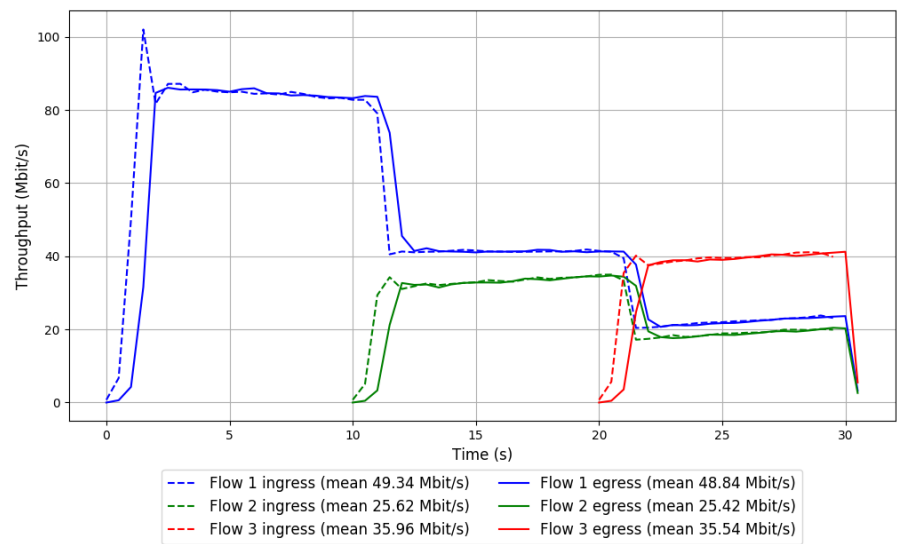
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-02-05 08:11:07
End at: 2019-02-05 08:11:37
Local clock offset: -2.191 ms
Remote clock offset: 0.54 ms


# Below is generated by plot.py at 2019-02-05 09:44:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.58 Mbit/s
95th percentile per-packet one-way delay: 88.521 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 48.84 Mbit/s
95th percentile per-packet one-way delay: 87.236 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 25.42 Mbit/s
95th percentile per-packet one-way delay: 92.561 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 35.54 Mbit/s
95th percentile per-packet one-way delay: 88.945 ms
Loss rate: 1.16%
```
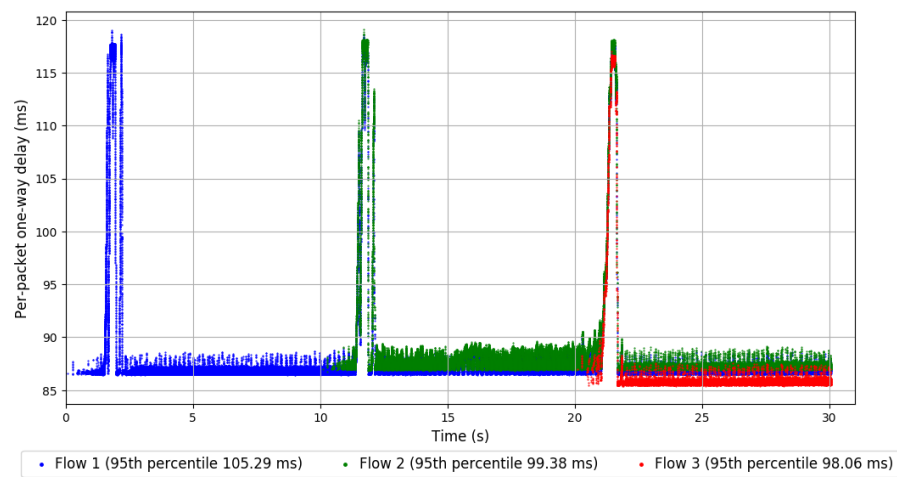
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-02-05 08:37:44
End at: 2019-02-05 08:38:14
Local clock offset: -0.38 ms
Remote clock offset: 5.692 ms


# Below is generated by plot.py at 2019-02-05 09:44:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.75 Mbit/s
95th percentile per-packet one-way delay: 102.525 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 105.293 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 43.35 Mbit/s
95th percentile per-packet one-way delay: 99.380 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 19.86 Mbit/s
95th percentile per-packet one-way delay: 98.059 ms
Loss rate: 0.81%
```
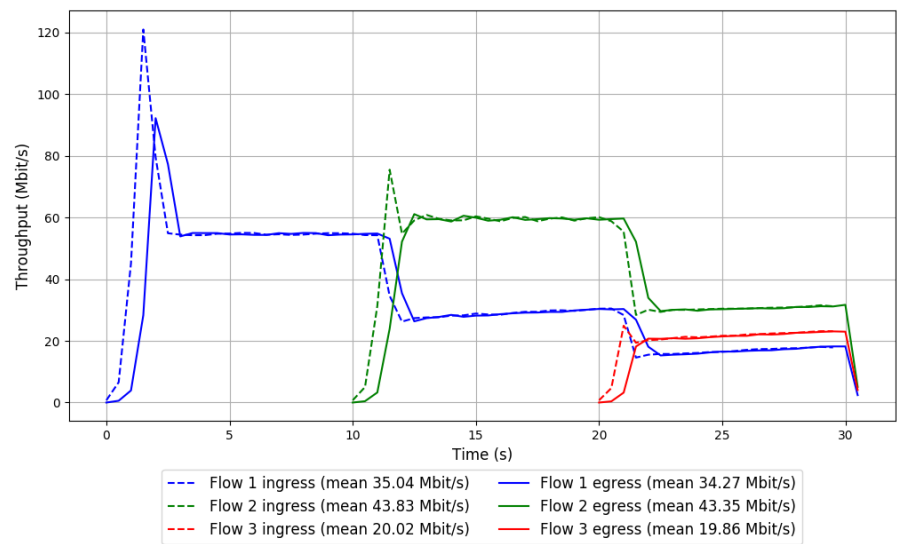
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-02-05 09:04:19
End at: 2019-02-05 09:04:49
Local clock offset: -7.319 ms
Remote clock offset: 2.384 ms


# Below is generated by plot.py at 2019-02-05 09:44:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.57 Mbit/s
95th percentile per-packet one-way delay: 90.389 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 51.69 Mbit/s
95th percentile per-packet one-way delay: 90.213 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 18.73 Mbit/s
95th percentile per-packet one-way delay: 90.820 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 37.28 Mbit/s
95th percentile per-packet one-way delay: 91.344 ms
Loss rate: 1.37%
```
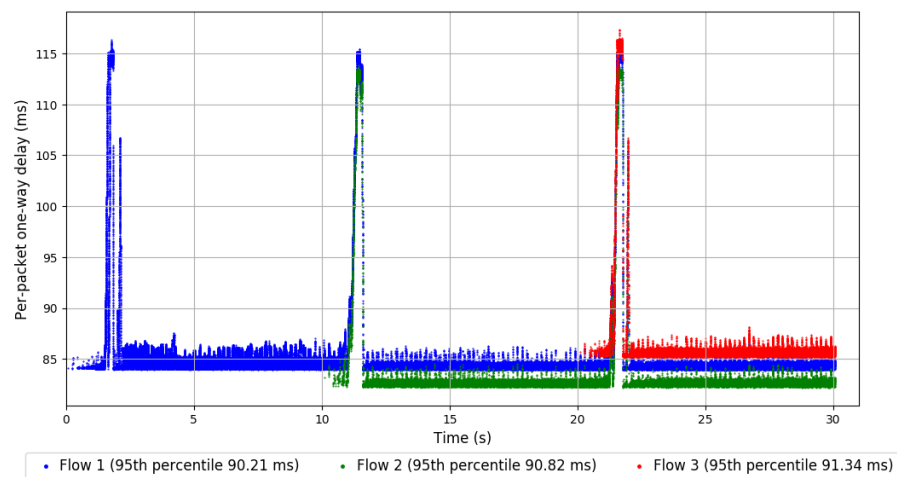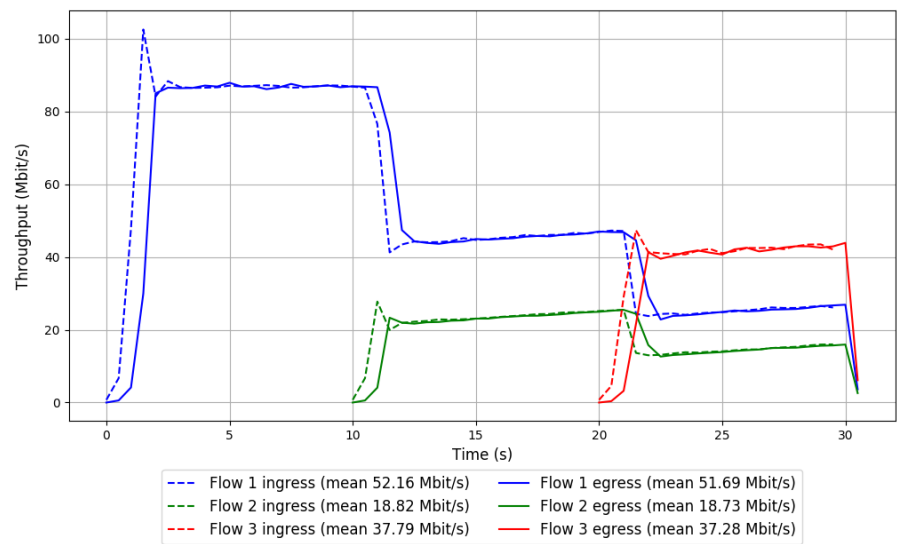
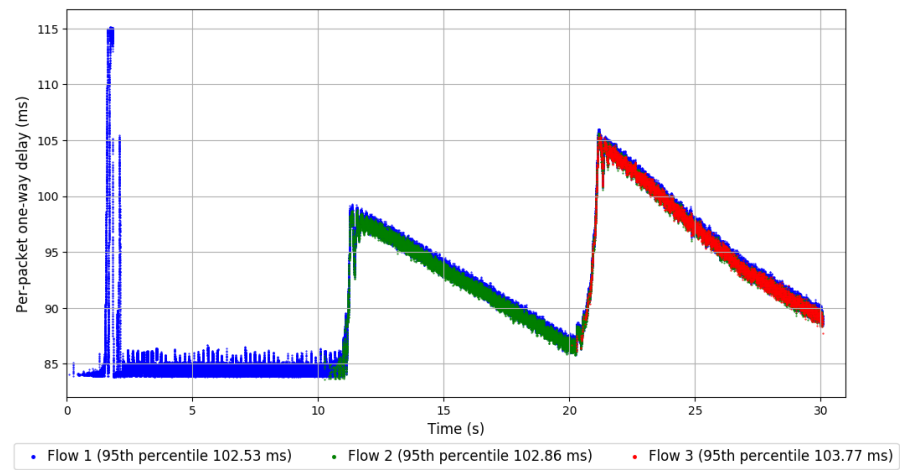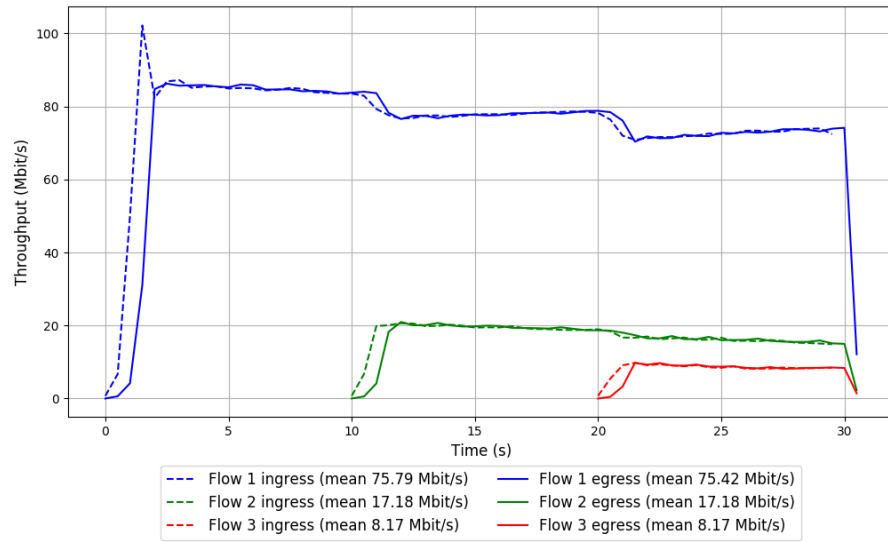Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-02-05 09:30:57
End at: 2019-02-05 09:31:27
Local clock offset: -10.465 ms
Remote clock offset: 3.266 ms


# Below is generated by plot.py at 2019-02-05 09:44:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.57 Mbit/s
95th percentile per-packet one-way delay: 102.750 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 75.42 Mbit/s
95th percentile per-packet one-way delay: 102.531 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 17.18 Mbit/s
95th percentile per-packet one-way delay: 102.862 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.17 Mbit/s
95th percentile per-packet one-way delay: 103.766 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 75.79 Mbit/s) --- Flow 1 egress (mean 75.42 Mbit/s)
Flow 2 ingress (mean 17.18 Mbit/s) --- Flow 2 egress (mean 17.18 Mbit/s)
Flow 3 ingress (mean 8.17 Mbit/s) --- Flow 3 egress (mean 8.17 Mbit/s)

Flow 1 (95th percentile 102.53 ms) • Flow 2 (95th percentile 102.86 ms) • Flow 3 (95th percentile 103.77 ms)

```
Run 1: Statistics of Verus

Start at: 2019-02-05 07:46:57
End at: 2019-02-05 07:47:27
Local clock offset: -6.89 ms
Remote clock offset: 7.056 ms

# Below is generated by plot.py at 2019-02-05 09:45:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.06 Mbit/s
95th percentile per-packet one-way delay: 171.788 ms
Loss rate: 81.54%
-- Flow 1:
Average throughput: 14.28 Mbit/s
95th percentile per-packet one-way delay: 115.667 ms
Loss rate: 10.52%
-- Flow 2:
Average throughput: 45.10 Mbit/s
95th percentile per-packet one-way delay: 174.784 ms
Loss rate: 86.57%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 131.840 ms
Loss rate: 57.14%
```
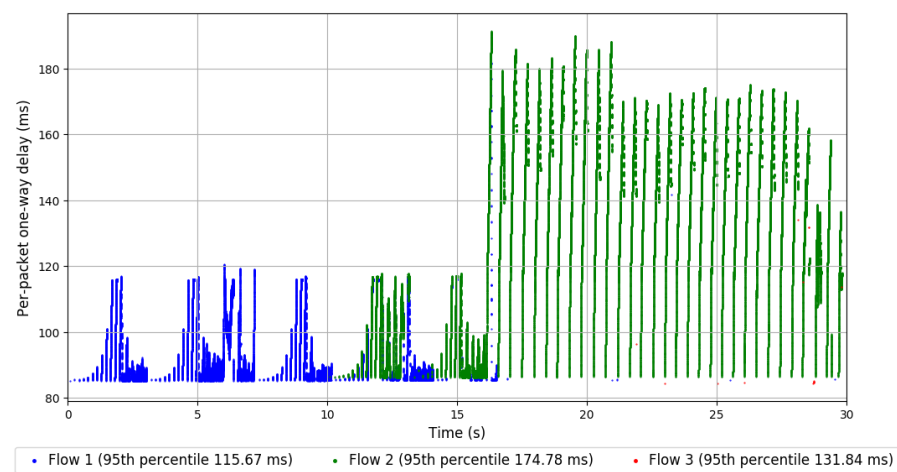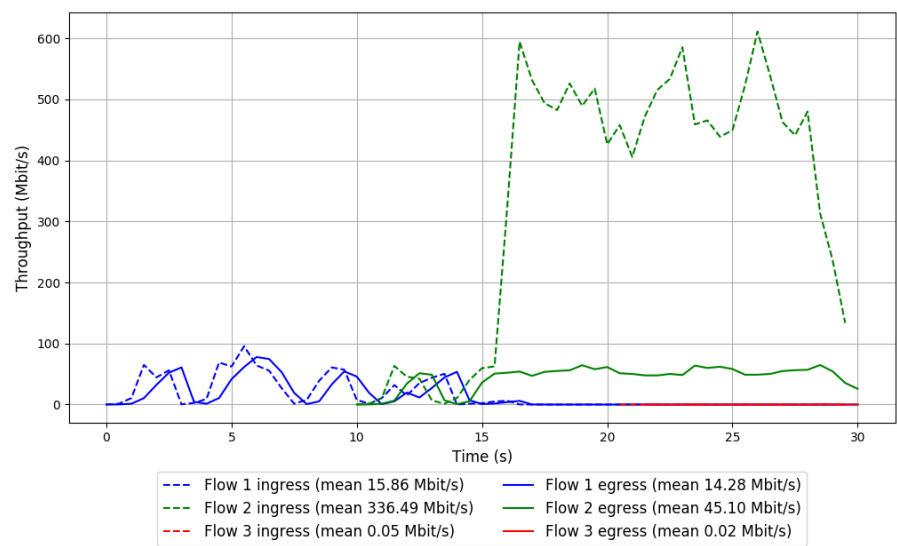
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-02-05 08:13:41
End at: 2019-02-05 08:14:11
Local clock offset: -1.165 ms
Remote clock offset: 5.561 ms


# Below is generated by plot.py at 2019-02-05 09:45:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.46 Mbit/s
95th percentile per-packet one-way delay: 115.821 ms
Loss rate: 14.37%
-- Flow 1:
Average throughput: 25.48 Mbit/s
95th percentile per-packet one-way delay: 115.765 ms
Loss rate: 12.54%
-- Flow 2:
Average throughput: 19.23 Mbit/s
95th percentile per-packet one-way delay: 116.274 ms
Loss rate: 13.84%
-- Flow 3:
Average throughput: 19.28 Mbit/s
95th percentile per-packet one-way delay: 114.146 ms
Loss rate: 21.98%
```
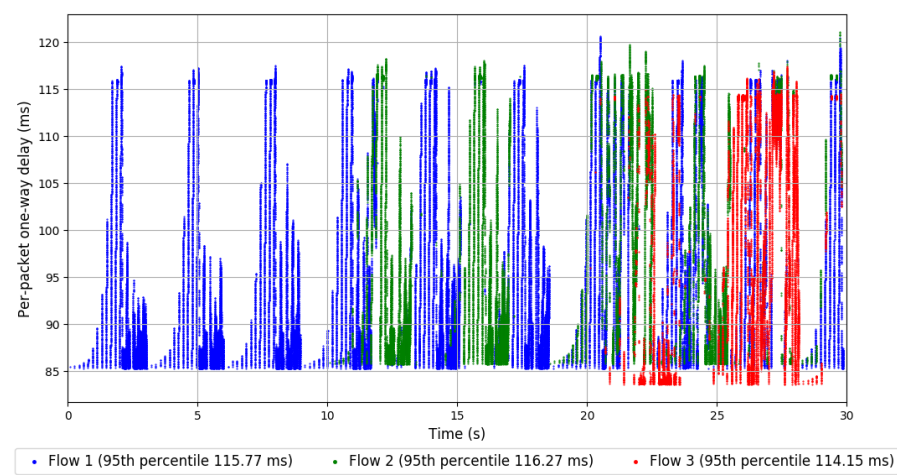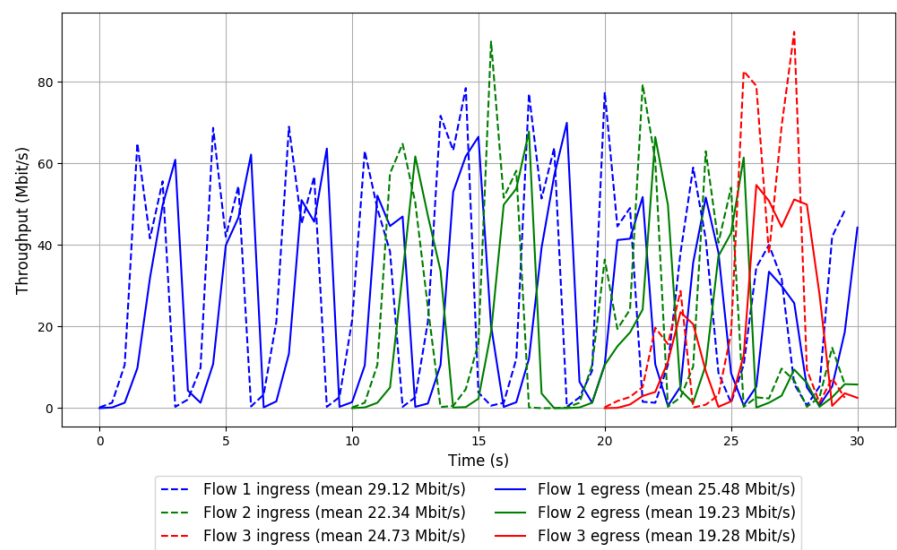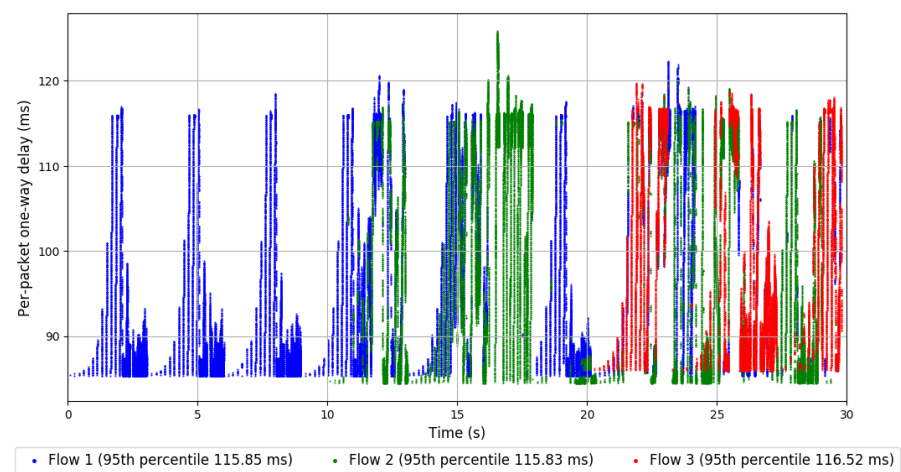
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 29.12 Mbit/s) --- Flow 1 egress (mean 25.48 Mbit/s)
Flow 2 ingress (mean 22.34 Mbit/s) --- Flow 2 egress (mean 19.23 Mbit/s)
Flow 3 ingress (mean 24.73 Mbit/s) --- Flow 3 egress (mean 19.28 Mbit/s)

Flow 1 (95th percentile 115.77 ms)   Flow 2 (95th percentile 116.27 ms)   Flow 3 (95th percentile 114.15 ms)
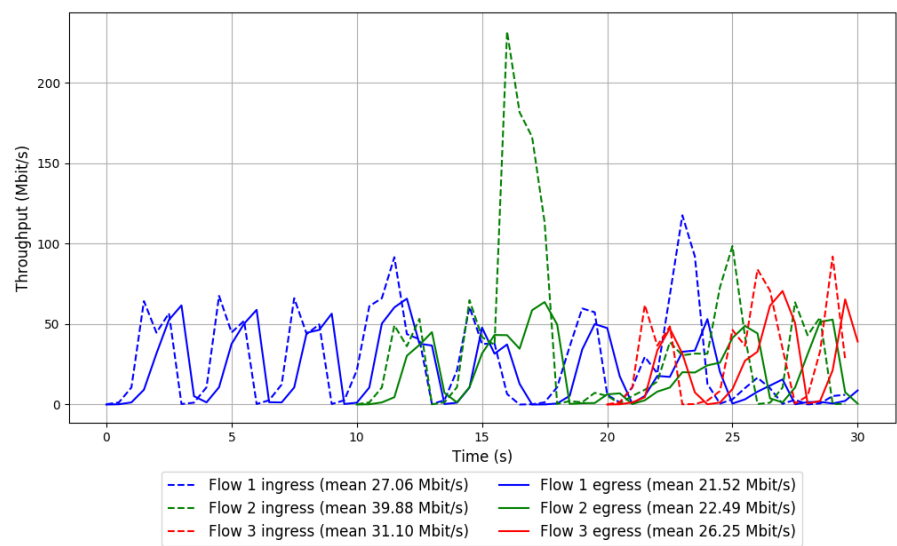
```
Run 3: Statistics of Verus

Start at: 2019-02-05 08:40:18
End at: 2019-02-05 08:40:48
Local clock offset: -0.218 ms
Remote clock offset: 4.505 ms


# Below is generated by plot.py at 2019-02-05 09:45:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.94 Mbit/s
95th percentile per-packet one-way delay: 115.955 ms
Loss rate: 29.21%
-- Flow 1:
Average throughput: 21.52 Mbit/s
95th percentile per-packet one-way delay: 115.853 ms
Loss rate: 20.36%
-- Flow 2:
Average throughput: 22.49 Mbit/s
95th percentile per-packet one-way delay: 115.834 ms
Loss rate: 43.54%
-- Flow 3:
Average throughput: 26.25 Mbit/s
95th percentile per-packet one-way delay: 116.515 ms
Loss rate: 15.52%
```
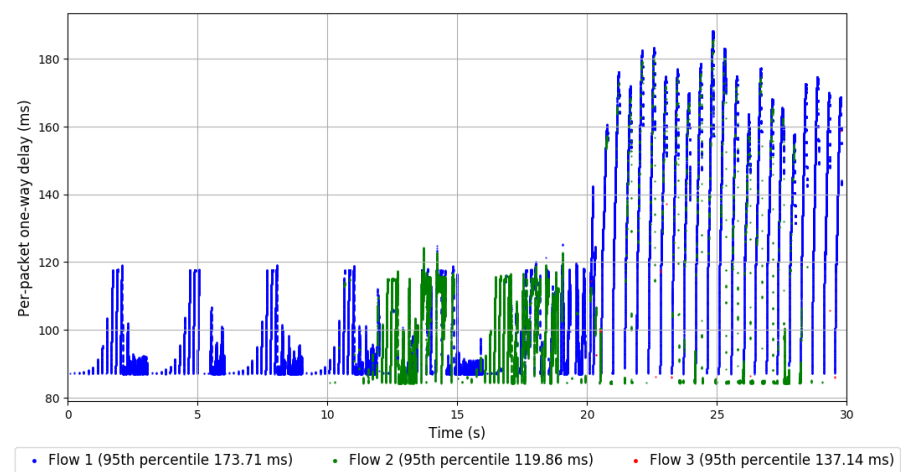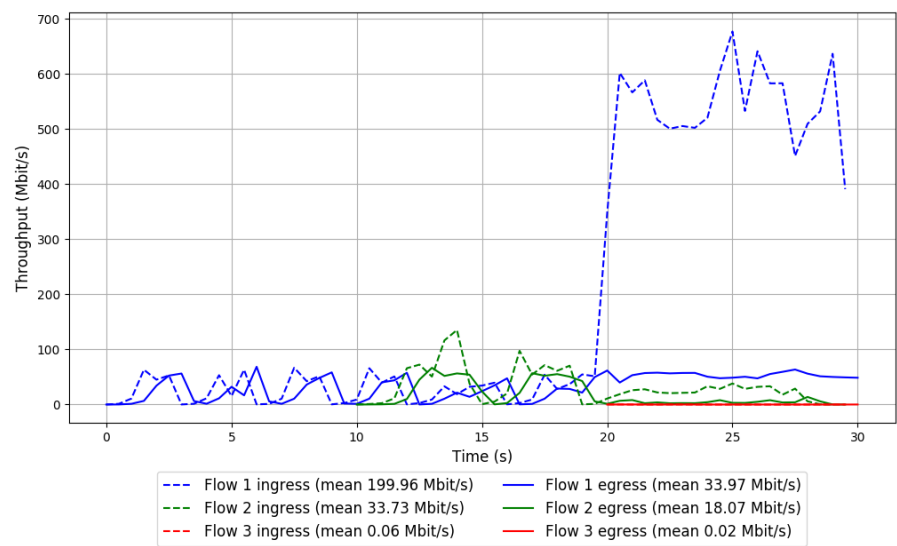
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 27.06 Mbit/s)   Flow 1 egress (mean 21.52 Mbit/s)
Flow 2 ingress (mean 39.88 Mbit/s)   Flow 2 egress (mean 22.49 Mbit/s)
Flow 3 ingress (mean 31.10 Mbit/s)   Flow 3 egress (mean 26.25 Mbit/s)

Flow 1 (95th percentile 115.85 ms)   Flow 2 (95th percentile 115.83 ms)   Flow 3 (95th percentile 116.52 ms)

```
Run 4: Statistics of Verus

Start at: 2019-02-05 09:06:53
End at: 2019-02-05 09:07:23
Local clock offset: -7.774 ms
Remote clock offset: 3.363 ms


# Below is generated by plot.py at 2019-02-05 09:45:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 171.559 ms
Loss rate: 79.43%
-- Flow 1:
Average throughput: 33.97 Mbit/s
95th percentile per-packet one-way delay: 173.710 ms
Loss rate: 82.98%
-- Flow 2:
Average throughput: 18.07 Mbit/s
95th percentile per-packet one-way delay: 119.860 ms
Loss rate: 46.90%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 137.138 ms
Loss rate: 57.45%
```

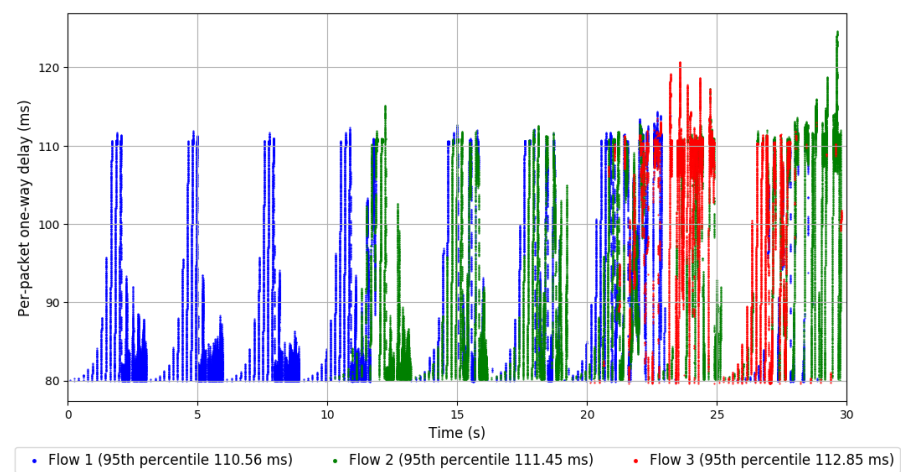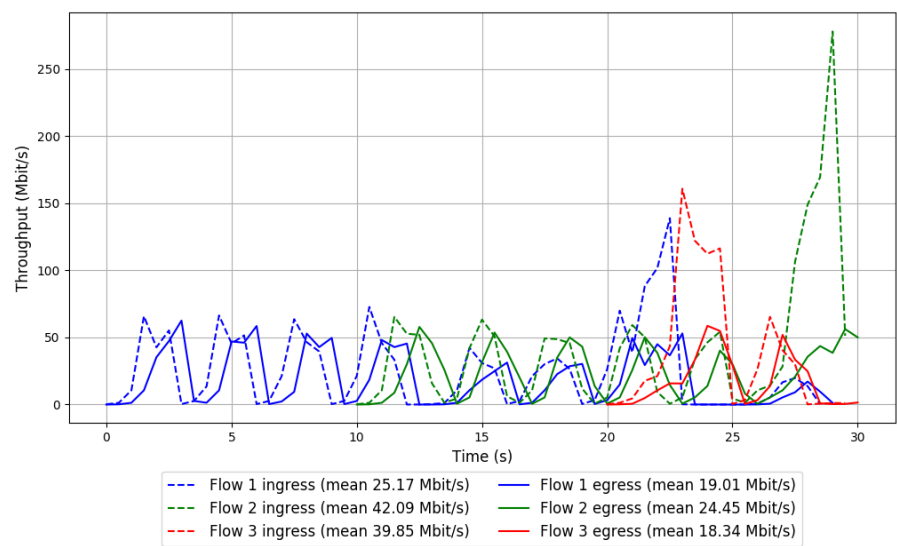## Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-02-05 09:33:32
End at: 2019-02-05 09:34:02
Local clock offset: -10.688 ms
Remote clock offset: -0.663 ms


# Below is generated by plot.py at 2019-02-05 09:45:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 111.074 ms
Loss rate: 37.85%
-- Flow 1:
Average throughput: 19.01 Mbit/s
95th percentile per-packet one-way delay: 110.561 ms
Loss rate: 24.92%
-- Flow 2:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 111.451 ms
Loss rate: 41.81%
-- Flow 3:
Average throughput: 18.34 Mbit/s
95th percentile per-packet one-way delay: 112.848 ms
Loss rate: 53.86%
```

Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-02-05 07:39:19
End at: 2019-02-05 07:39:49
Local clock offset: -7.17 ms
Remote clock offset: 4.85 ms


# Below is generated by plot.py at 2019-02-05 09:45:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.47 Mbit/s
95th percentile per-packet one-way delay: 109.157 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 65.16 Mbit/s
95th percentile per-packet one-way delay: 108.358 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 16.84 Mbit/s
95th percentile per-packet one-way delay: 111.483 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 110.636 ms
Loss rate: 0.61%
```
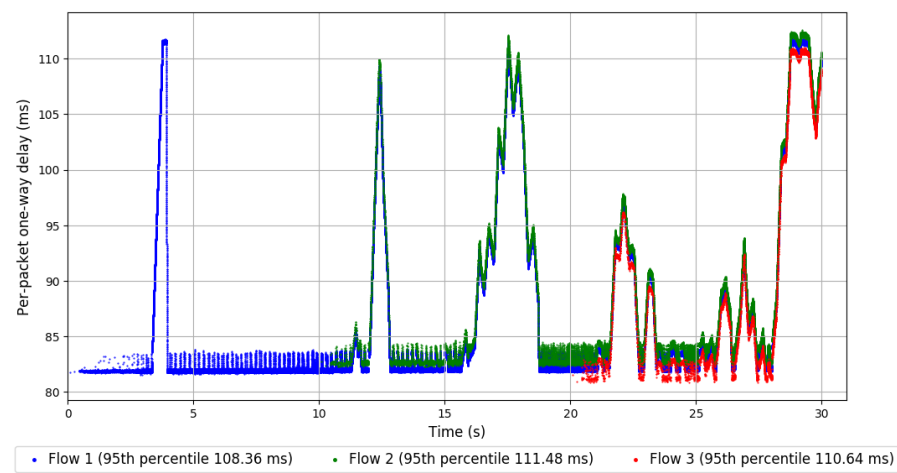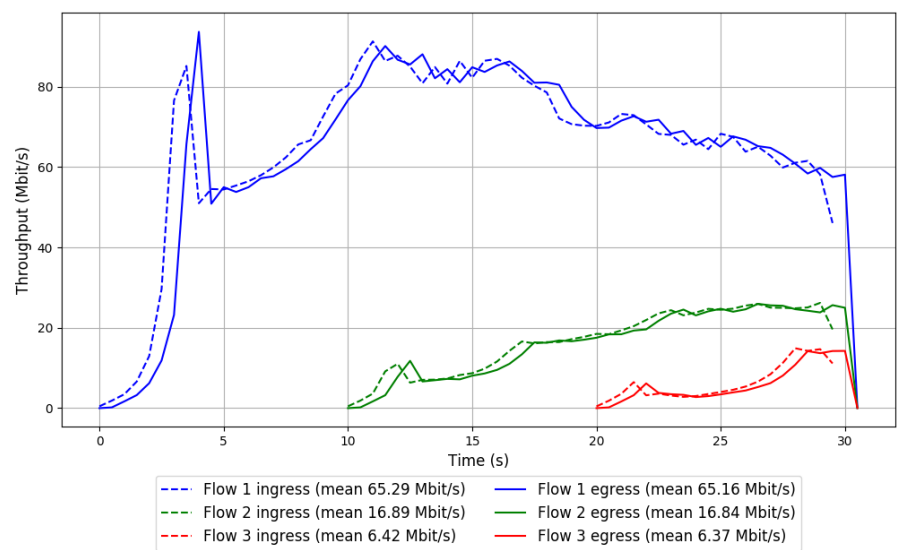
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 65.29 Mbit/s) — Flow 1 egress (mean 65.16 Mbit/s)
Flow 2 ingress (mean 16.89 Mbit/s) — Flow 2 egress (mean 16.84 Mbit/s)
Flow 3 ingress (mean 6.42 Mbit/s) — Flow 3 egress (mean 6.37 Mbit/s)

Flow 1 (95th percentile 108.36 ms)   Flow 2 (95th percentile 111.48 ms)   Flow 3 (95th percentile 110.64 ms)

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```
Run 2: Statistics of PCC-Vivace

Start at: 2019-02-05 08:06:04
End at: 2019-02-05 08:06:34
Local clock offset: -2.611 ms
Remote clock offset: 0.7 ms


# Below is generated by plot.py at 2019-02-05 09:45:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.47 Mbit/s
95th percentile per-packet one-way delay: 110.709 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 68.86 Mbit/s
95th percentile per-packet one-way delay: 110.756 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 109.311 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 5.19 Mbit/s
95th percentile per-packet one-way delay: 109.183 ms
Loss rate: 0.77%
```
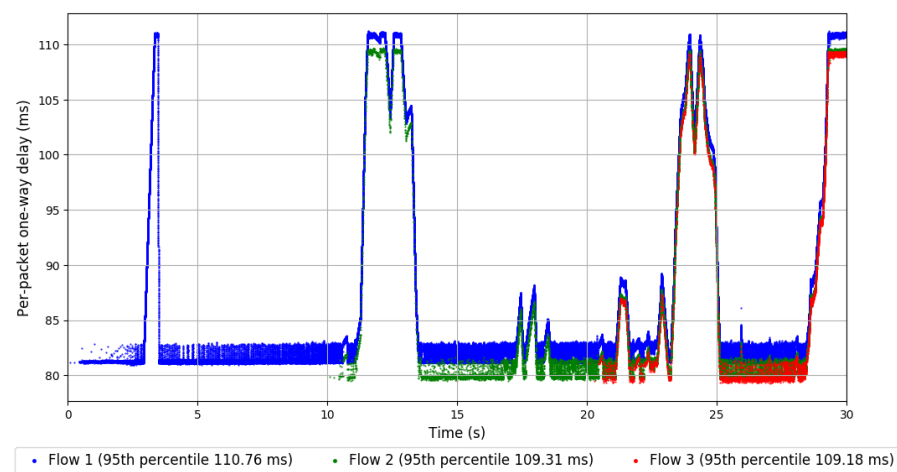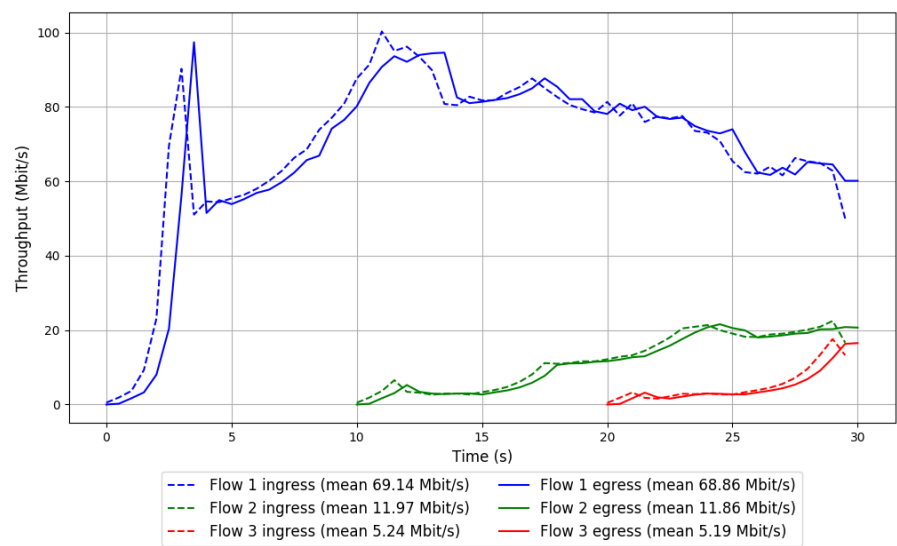
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-02-05 08:32:41
End at: 2019-02-05 08:33:11
Local clock offset: -0.675 ms
Remote clock offset: 4.584 ms


# Below is generated by plot.py at 2019-02-05 09:45:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.69 Mbit/s
95th percentile per-packet one-way delay: 112.761 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 64.37 Mbit/s
95th percentile per-packet one-way delay: 112.038 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 14.77 Mbit/s
95th percentile per-packet one-way delay: 116.231 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 112.118 ms
Loss rate: 0.17%
```
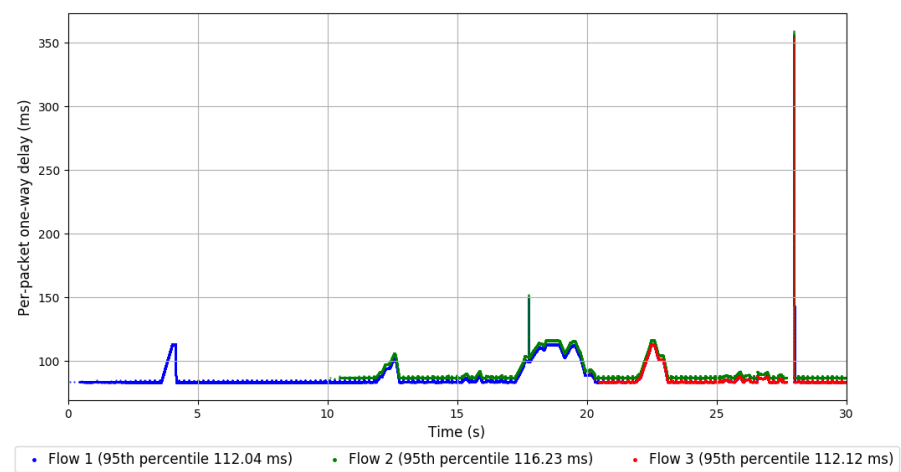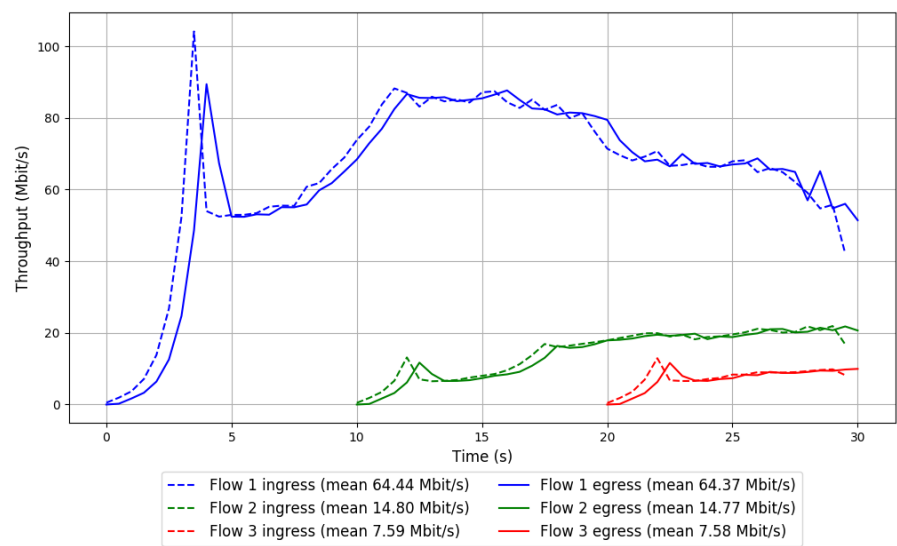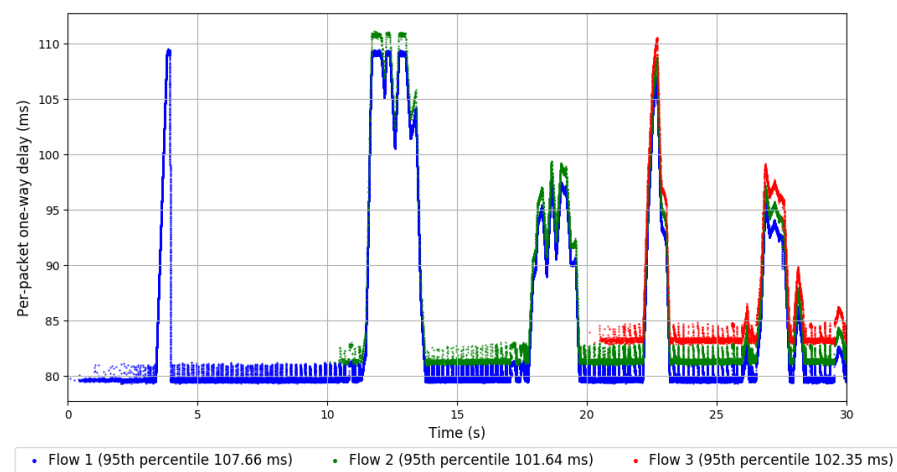
Run 3: Report of PCC-Vivace — Data Link

Legend:
- Flow 1 ingress (mean 64.44 Mbit/s)
- Flow 1 egress (mean 64.37 Mbit/s)
- Flow 2 ingress (mean 14.80 Mbit/s)
- Flow 2 egress (mean 14.77 Mbit/s)
- Flow 3 ingress (mean 7.59 Mbit/s)
- Flow 3 egress (mean 7.58 Mbit/s)

Legend:
- Flow 1 (95th percentile 112.04 ms)
- Flow 2 (95th percentile 116.23 ms)
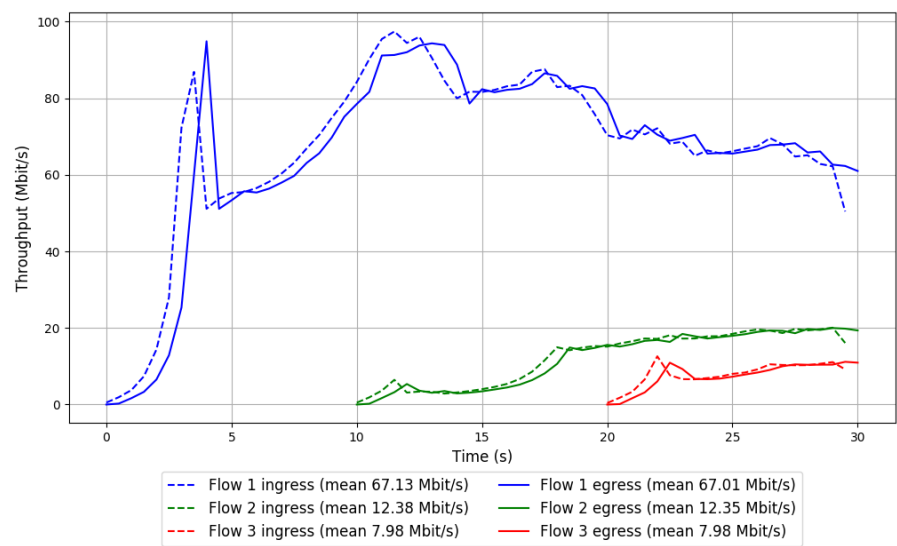- Flow 3 (95th percentile 112.12 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-02-05 08:59:16
End at: 2019-02-05 08:59:47
Local clock offset: -6.143 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2019-02-05 09:45:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.85 Mbit/s
95th percentile per-packet one-way delay: 107.077 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 67.01 Mbit/s
95th percentile per-packet one-way delay: 107.657 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 12.35 Mbit/s
95th percentile per-packet one-way delay: 101.636 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 102.348 ms
Loss rate: 0.04%
```
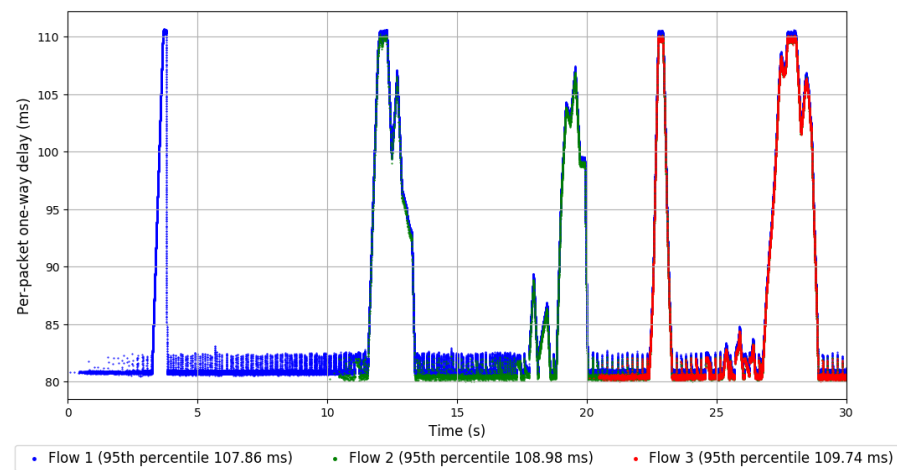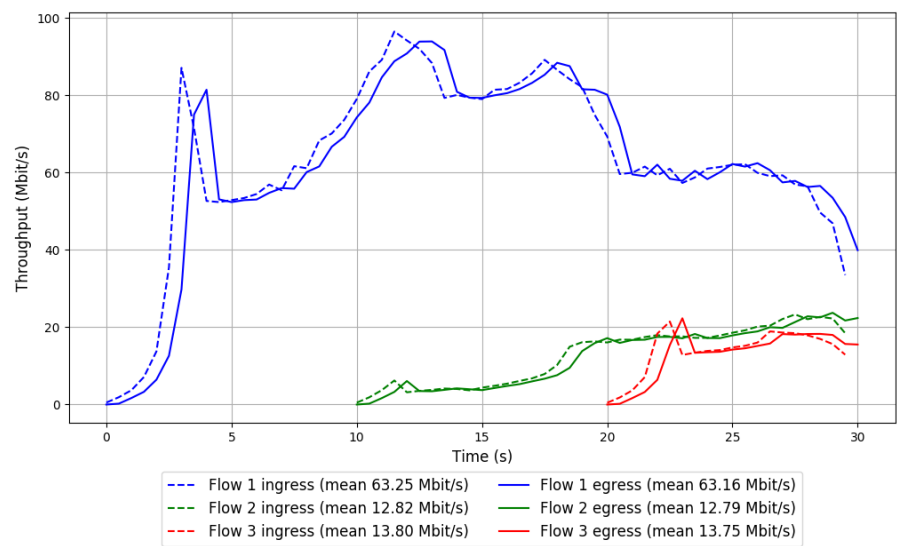
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 67.13 Mbit/s) --- Flow 1 egress (mean 67.01 Mbit/s)
Flow 2 ingress (mean 12.38 Mbit/s) --- Flow 2 egress (mean 12.35 Mbit/s)
Flow 3 ingress (mean 7.98 Mbit/s) --- Flow 3 egress (mean 7.98 Mbit/s)

Flow 1 (95th percentile 107.66 ms) • Flow 2 (95th percentile 101.64 ms) • Flow 3 (95th percentile 102.35 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-02-05 09:25:55
End at: 2019-02-05 09:26:25
Local clock offset: -10.018 ms
Remote clock offset: -0.563 ms


# Below is generated by plot.py at 2019-02-05 09:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.21 Mbit/s
95th percentile per-packet one-way delay: 108.333 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 63.16 Mbit/s
95th percentile per-packet one-way delay: 107.861 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 12.79 Mbit/s
95th percentile per-packet one-way delay: 108.984 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 13.75 Mbit/s
95th percentile per-packet one-way delay: 109.744 ms
Loss rate: 0.36%
```

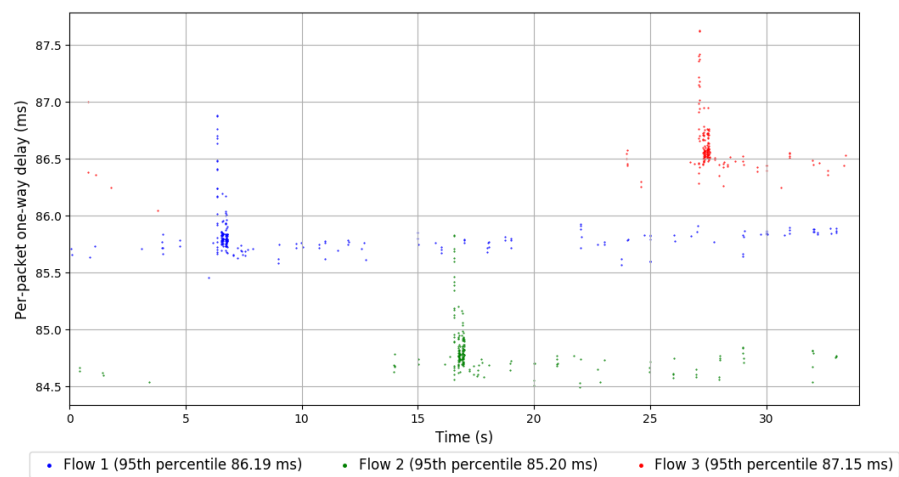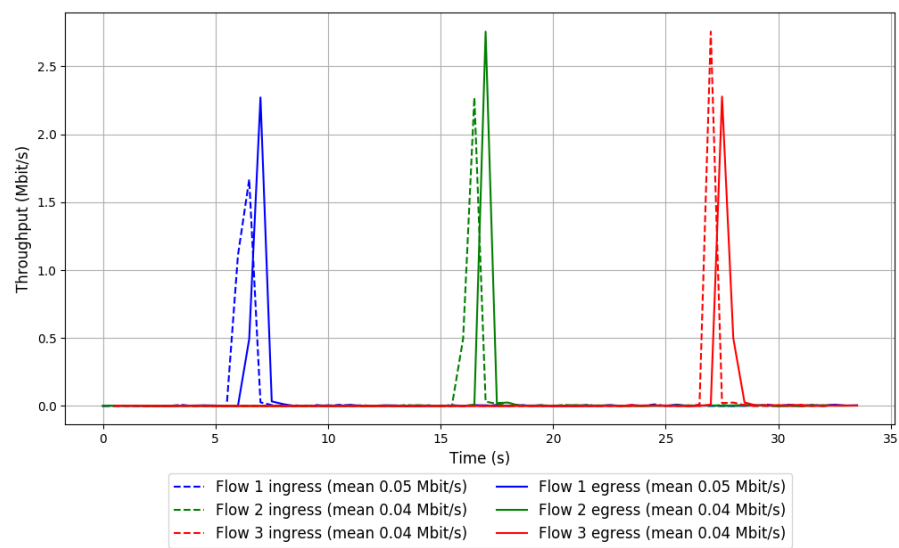## Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-02-05 07:36:50
End at: 2019-02-05 07:37:20
Local clock offset: -7.111 ms
Remote clock offset: 10.404 ms


# Below is generated by plot.py at 2019-02-05 09:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 86.723 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.191 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.198 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 87.150 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-02-05 08:03:34
End at: 2019-02-05 08:04:04
Local clock offset: -2.274 ms
Remote clock offset: 4.463 ms


# Below is generated by plot.py at 2019-02-05 09:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 85.153 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.215 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 83.386 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.488 ms
Loss rate: 0.00%
```
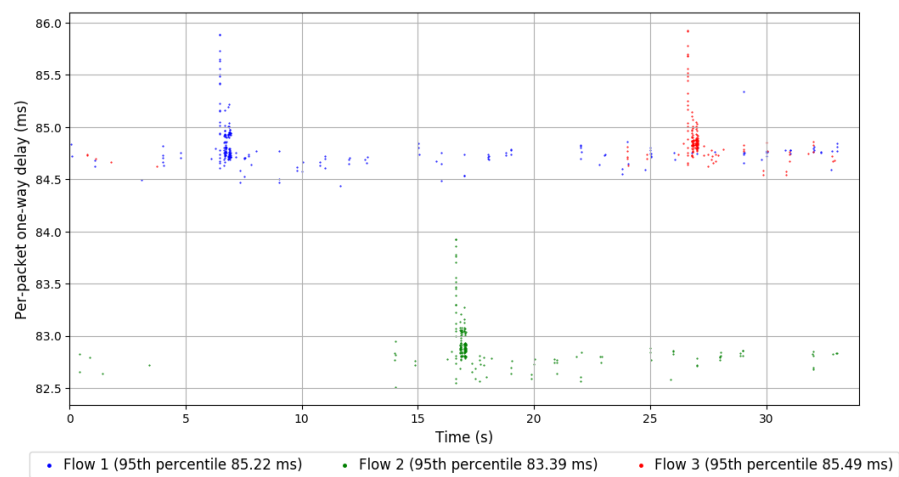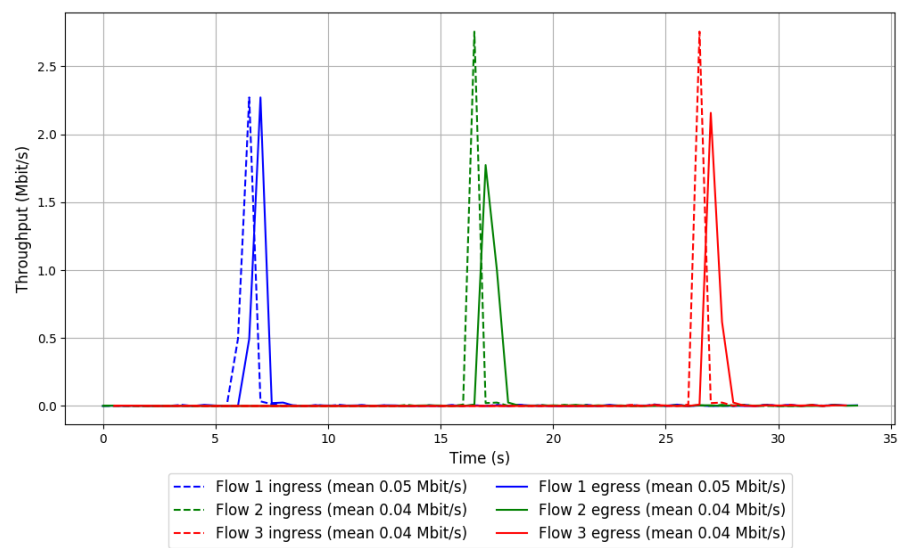
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-02-05 08:30:12
End at: 2019-02-05 08:30:42
Local clock offset: -0.814 ms
Remote clock offset: 1.691 ms


# Below is generated by plot.py at 2019-02-05 09:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 84.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 84.649 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 82.855 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 82.757 ms
Loss rate: 0.00%
```
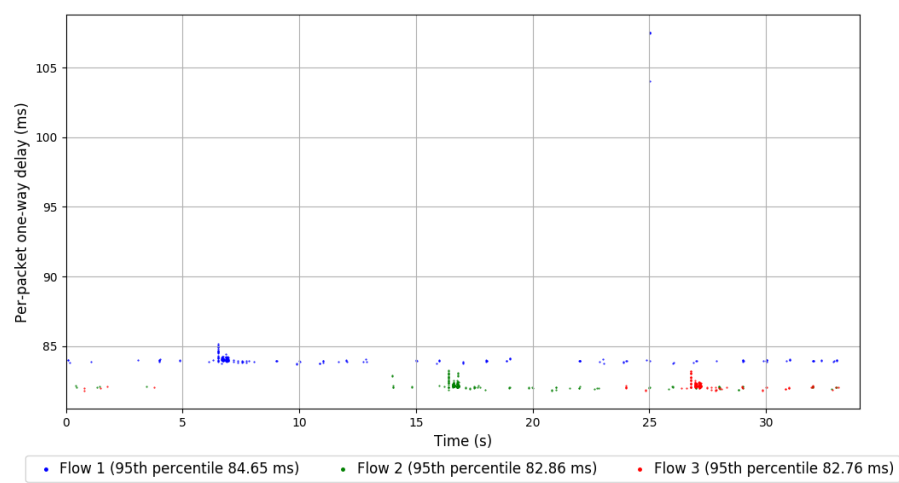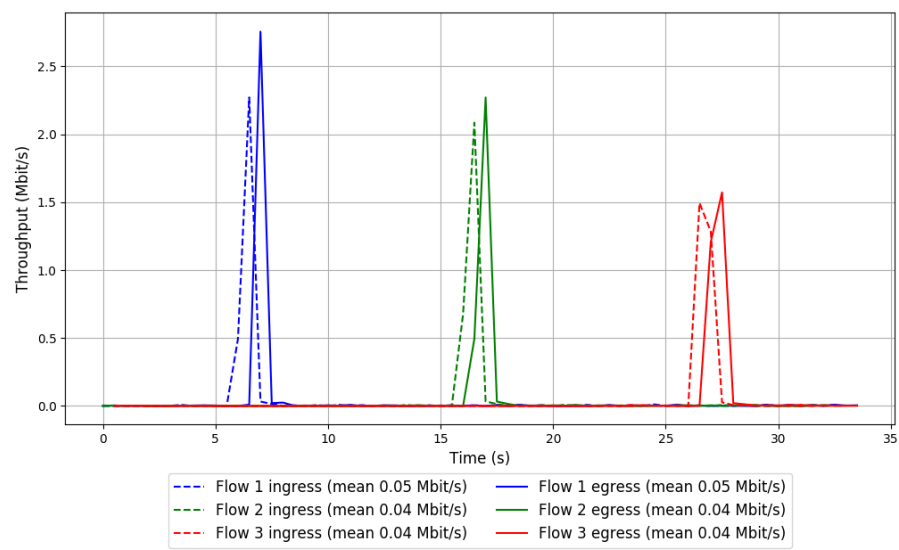
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-02-05 08:56:47
End at: 2019-02-05 08:57:17
Local clock offset: -6.19 ms
Remote clock offset: 2.85 ms


# Below is generated by plot.py at 2019-02-05 09:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 85.442 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 84.096 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.264 ms
Loss rate: 0.00%
```
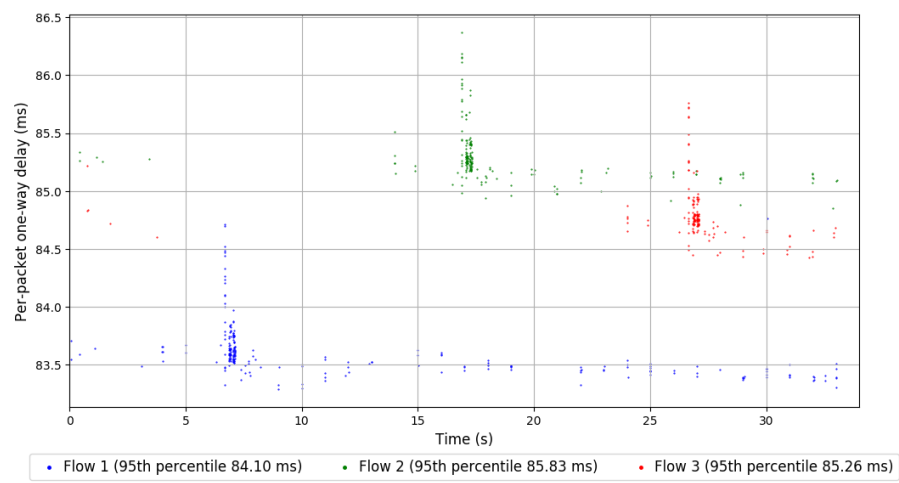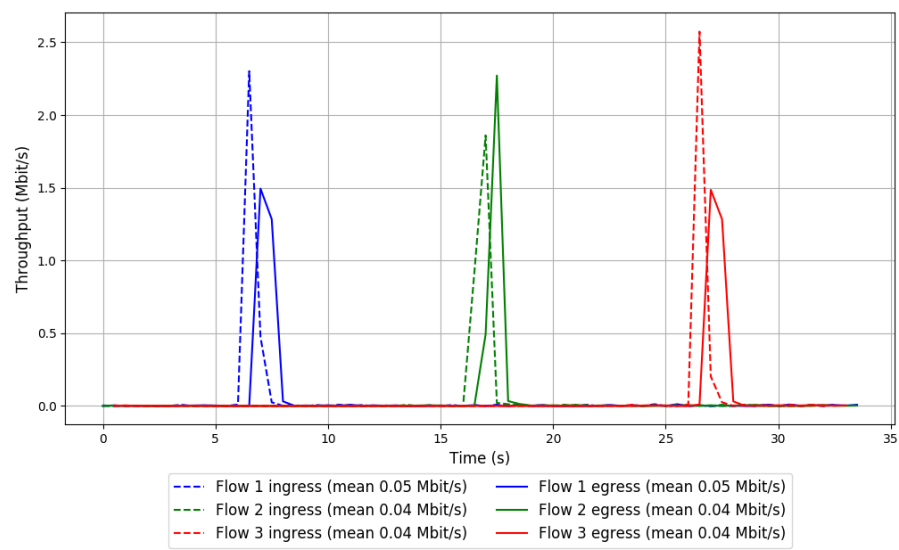
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-02-05 09:23:26
End at: 2019-02-05 09:23:56
Local clock offset: -10.538 ms
Remote clock offset: -0.689 ms


# Below is generated by plot.py at 2019-02-05 09:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 83.019 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 83.232 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 81.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 81.629 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link