Pantheon Report

Generated at 2019-06-28 14:32:42 (UTC).

Data path: GCE London on ens4 (*remote*) →GCE Sydney on ens4 (*local*).

Repeated the test of 22 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 `time.google.com` and have been applied to correct the timestamps in logs.
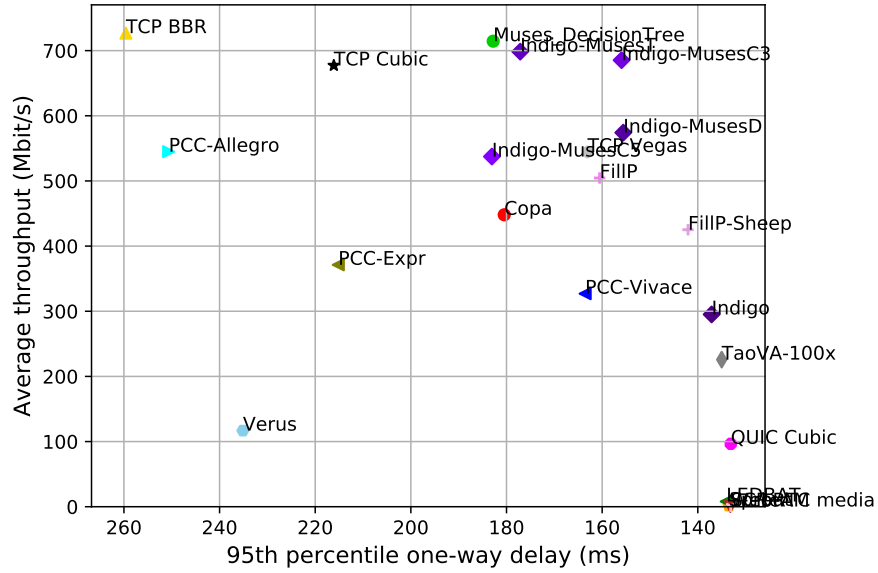
```
System info:
Linux 4.15.0-1032-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
 M helpers/__init__.pyc
 M helpers/context.pyc
 M helpers/utils.pyc
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
```
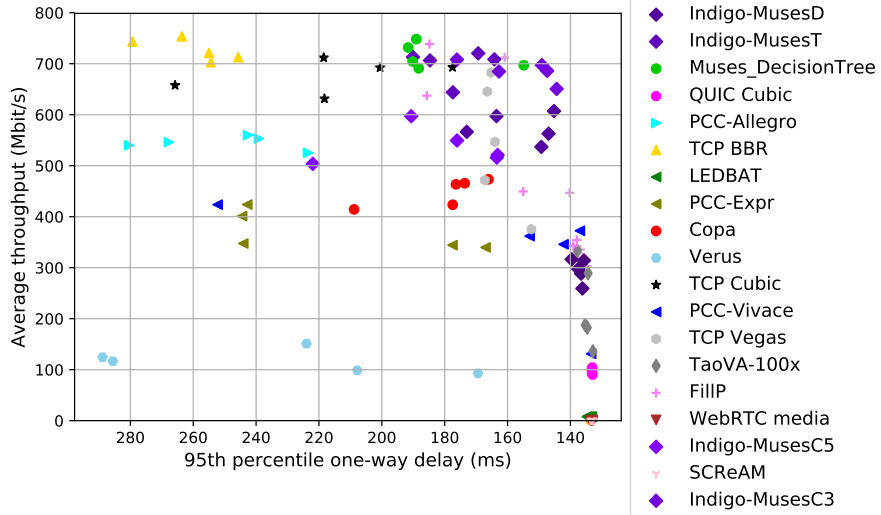
```
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE London to GCE Sydney, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

Average throughput (Mbit/s) vs 95th percentile one-way delay (ms)

TCP BBR
Muses_DecisionTree
Indigo-MusesT
Indigo-MusesC3
TCP Cubic
Indigo-MusesD
PCC-Allegro
TCP Vegas
Indigo-MusesC5
FillP
Copa
FillP-Sheep
PCC-Expr
PCC-Vivace
Indigo
TaoVA-100x
Verus
QUIC Cubic
LEDBAT
WebRTC media

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test from GCE London to GCE Sydney, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

Average throughput (Mbit/s) vs 95th percentile one-way delay (ms)

Legend:
- FillP-Sheep
- Indigo
- Sprout
- Indigo-MusesD
- Indigo-MusesT
- Muses_DecisionTree
- QUIC Cubic
- PCC-Allegro
- TCP BBR
- LEDBAT
- PCC-Expr
- Copa
- Verus
- TCP Cubic
- PCC-Vivace
- TCP Vegas
- TaoVA-100x
- FillP
- WebRTC media
- Indigo-MusesC5
- SCReAM
- Indigo-MusesC3

3

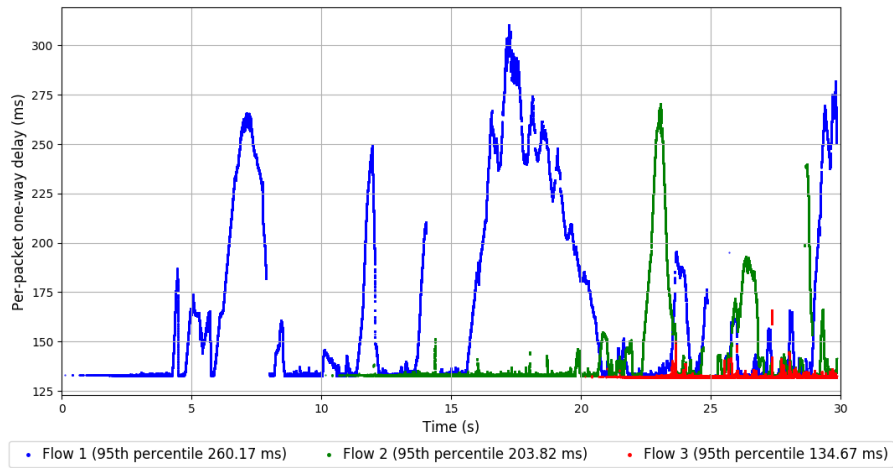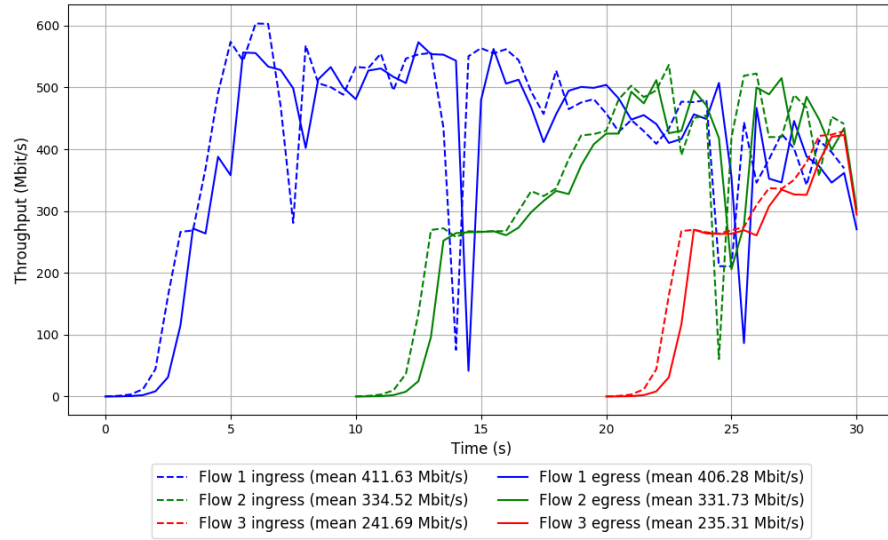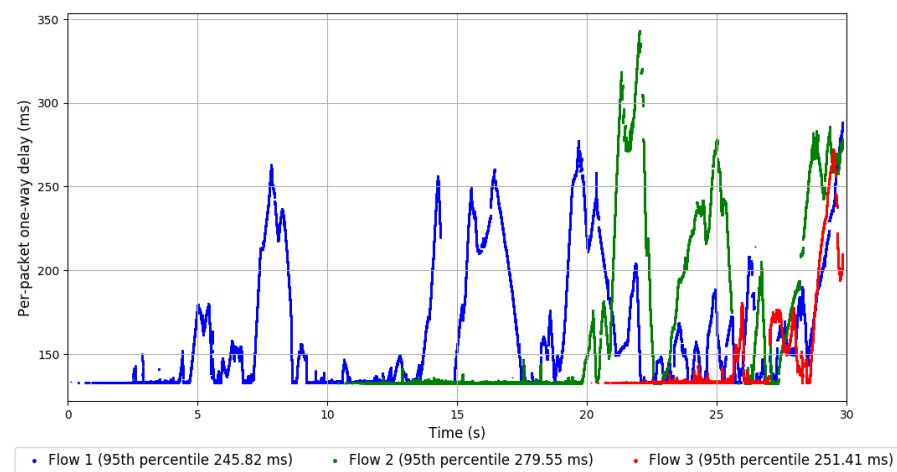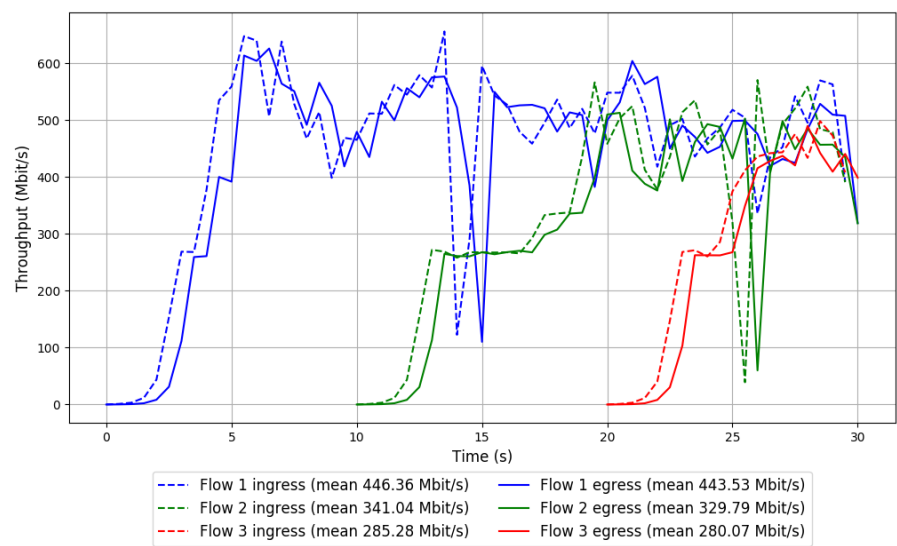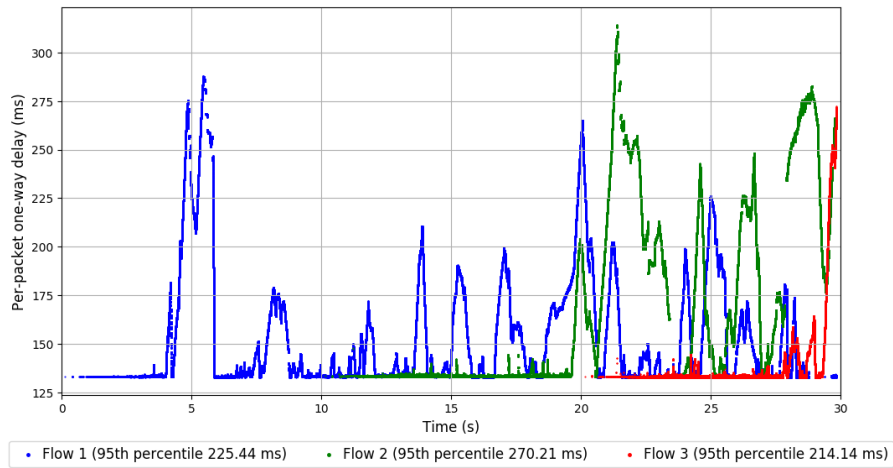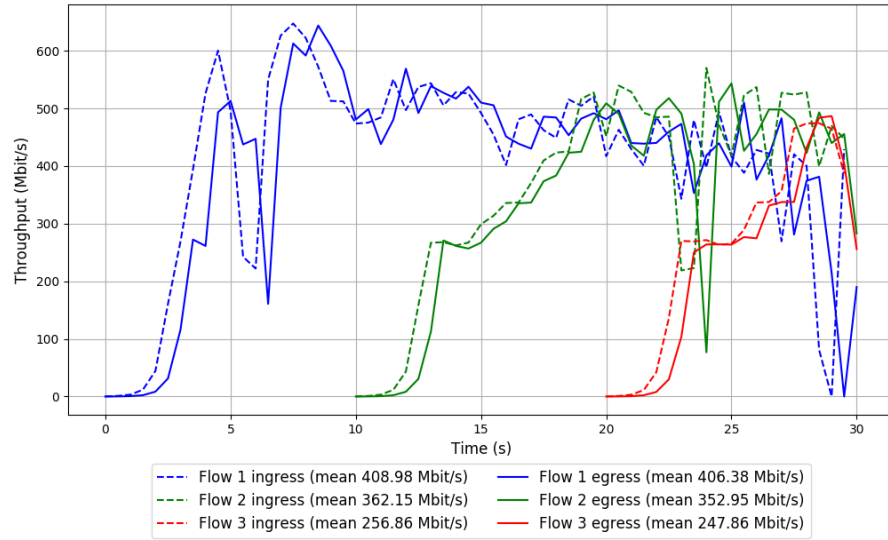| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	409.23	348.50	265.04	252.17	247.63	226.30	2.24	3.80	6.73
Copa	5	245.68	214.88	183.61	166.20	187.71	174.13	0.83	1.45	3.95
TCP Cubic	5	398.72	307.32	229.10	208.27	184.60	225.41	0.94	1.61	4.59
FillP	5	229.86	323.08	187.34	167.98	139.59	136.12	0.97	1.28	3.64
FillP-Sheep	5	148.91	308.19	221.52	152.37	137.03	136.09	0.29	1.38	2.99
Indigo	5	159.83	140.48	127.43	136.20	136.97	141.02	0.88	1.44	3.27
Indigo-MusesC3	5	407.32	348.66	234.68	158.28	153.95	140.56	0.78	1.41	4.87
Indigo-MusesC5	5	330.21	296.54	84.43	174.70	190.09	133.80	0.44	2.10	5.81
Indigo-MusesD	5	357.04	303.78	101.02	154.25	159.77	134.85	0.93	1.87	5.79
Indigo-MusesT	5	439.78	365.19	112.84	178.63	177.42	136.03	0.95	1.51	5.63
LEDBAT	5	5.23	3.44	1.66	134.11	133.85	133.89	1.79	2.69	5.39
Muses_DecisionTree	5	418.29	366.36	177.16	186.29	168.44	154.38	1.11	1.32	4.09
PCC-Allegro	5	302.39	259.05	219.93	249.93	220.19	280.88	4.63	2.74	6.98
PCC-Expr	5	210.26	180.39	128.44	188.64	182.01	224.78	1.36	2.91	6.54
QUIC Cubic	5	53.33	47.57	34.87	133.00	132.62	132.96	1.29	2.02	5.19
SCReAM	5	0.18	0.15	0.17	132.90	132.87	132.85	0.89	1.39	2.49
Sprout	5	0.63	0.60	0.66	133.44	133.46	133.35	0.98	1.69	3.18
TaoVA-100x	5	78.87	174.74	95.19	133.47	135.61	135.91	0.96	1.51	3.20
TCP Vegas	5	298.43	258.43	228.83	157.64	176.79	173.06	0.73	1.44	4.76
Verus	5	60.28	53.91	65.13	219.50	155.06	233.39	2.91	1.71	4.11
PCC-Vivace	5	186.79	154.61	117.01	165.44	158.62	179.63	1.26	2.79	4.39
WebRTC media	5	0.30	0.05	0.05	133.24	133.06	132.95	0.30	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-06-28 09:04:53
End at: 2019-06-28 09:05:23
Local clock offset: -0.038 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2019-06-28 12:36:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 703.03 Mbit/s
95th percentile per-packet one-way delay: 254.325 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 406.28 Mbit/s
95th percentile per-packet one-way delay: 260.169 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 331.73 Mbit/s
95th percentile per-packet one-way delay: 203.821 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 235.31 Mbit/s
95th percentile per-packet one-way delay: 134.674 ms
Loss rate: 5.36%
```
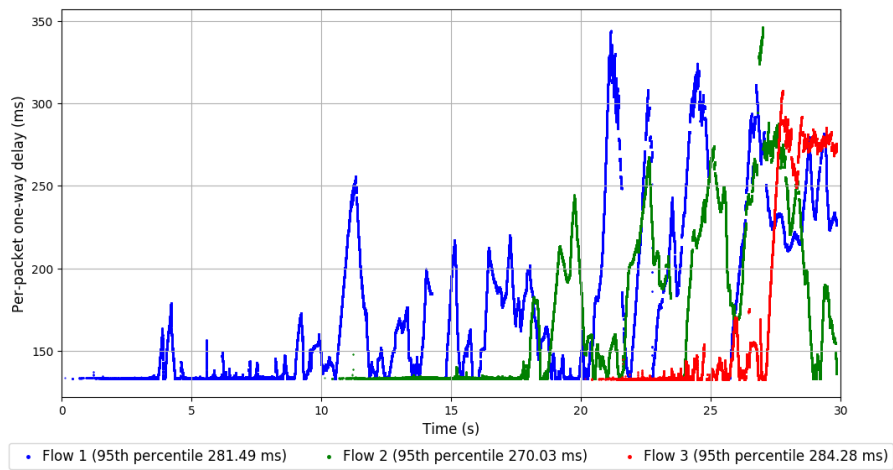
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 411.63 Mbit/s)   — Flow 1 egress (mean 406.28 Mbit/s)
Flow 2 ingress (mean 334.52 Mbit/s)   — Flow 2 egress (mean 331.73 Mbit/s)
Flow 3 ingress (mean 241.69 Mbit/s)   — Flow 3 egress (mean 235.31 Mbit/s)

• Flow 1 (95th percentile 260.17 ms)   • Flow 2 (95th percentile 203.82 ms)   • Flow 3 (95th percentile 134.67 ms)

6

```
Run 2: Statistics of TCP BBR

Start at: 2019-06-28 09:43:56
End at: 2019-06-28 09:44:26
Local clock offset: -0.247 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2019-06-28 12:37:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 753.65 Mbit/s
95th percentile per-packet one-way delay: 263.618 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 443.53 Mbit/s
95th percentile per-packet one-way delay: 245.816 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 329.79 Mbit/s
95th percentile per-packet one-way delay: 279.548 ms
Loss rate: 4.59%
-- Flow 3:
Average throughput: 280.07 Mbit/s
95th percentile per-packet one-way delay: 251.413 ms
Loss rate: 4.47%
```

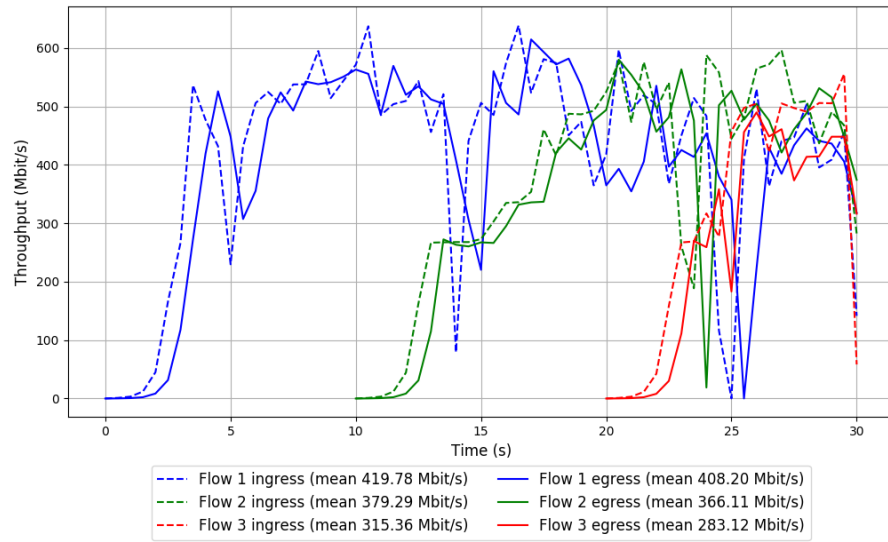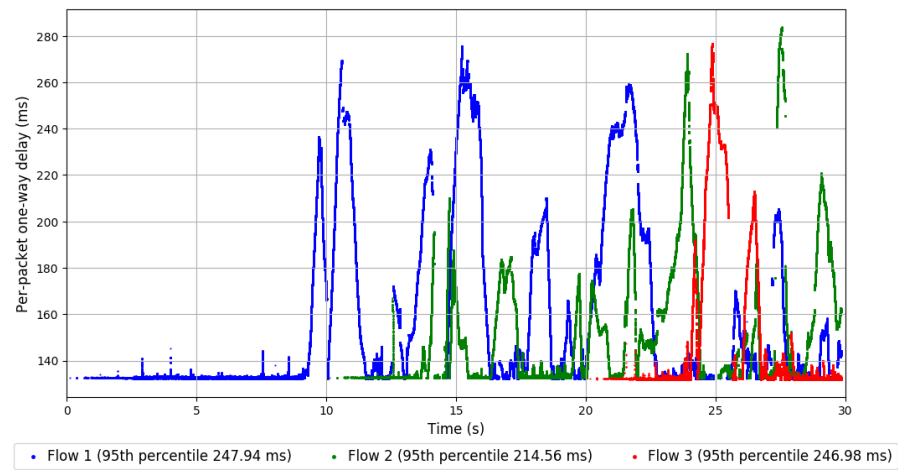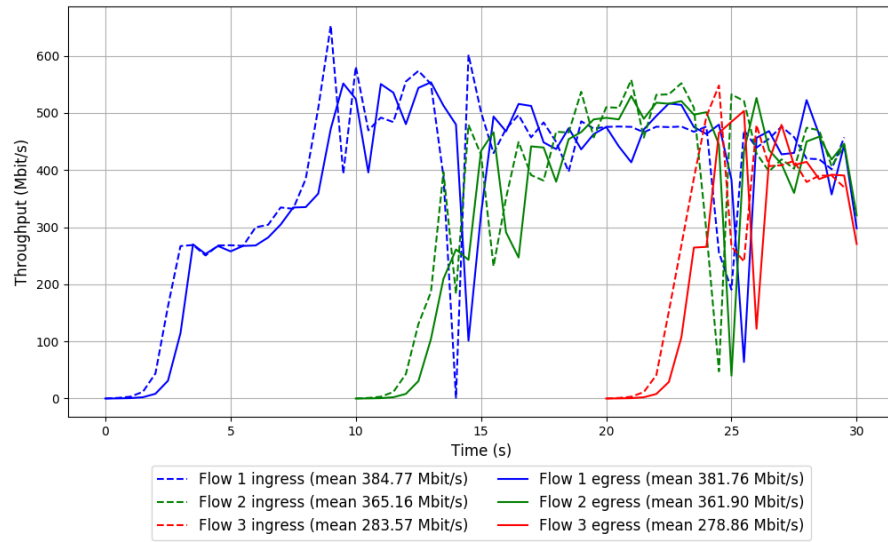Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-06-28 10:23:07
End at: 2019-06-28 10:23:37
Local clock offset: 0.05 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2019-06-28 12:37:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 721.32 Mbit/s
95th percentile per-packet one-way delay: 254.982 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 406.38 Mbit/s
95th percentile per-packet one-way delay: 225.436 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 352.95 Mbit/s
95th percentile per-packet one-way delay: 270.212 ms
Loss rate: 3.85%
-- Flow 3:
Average throughput: 247.86 Mbit/s
95th percentile per-packet one-way delay: 214.143 ms
Loss rate: 6.08%
```
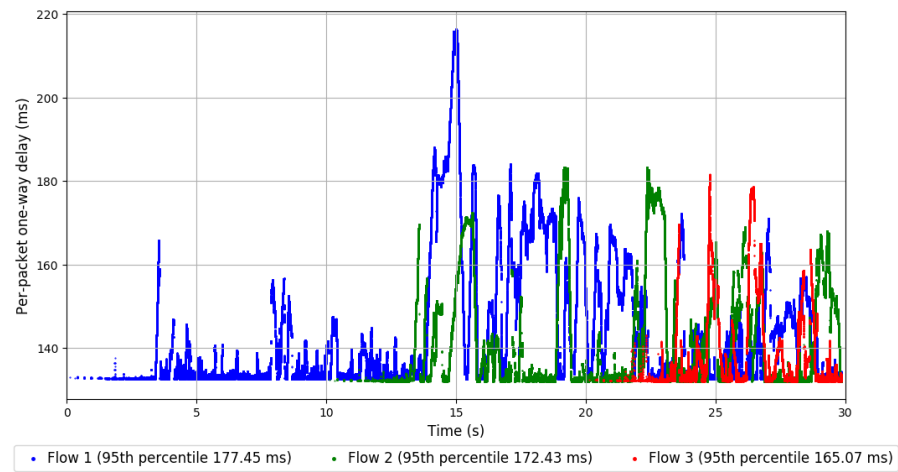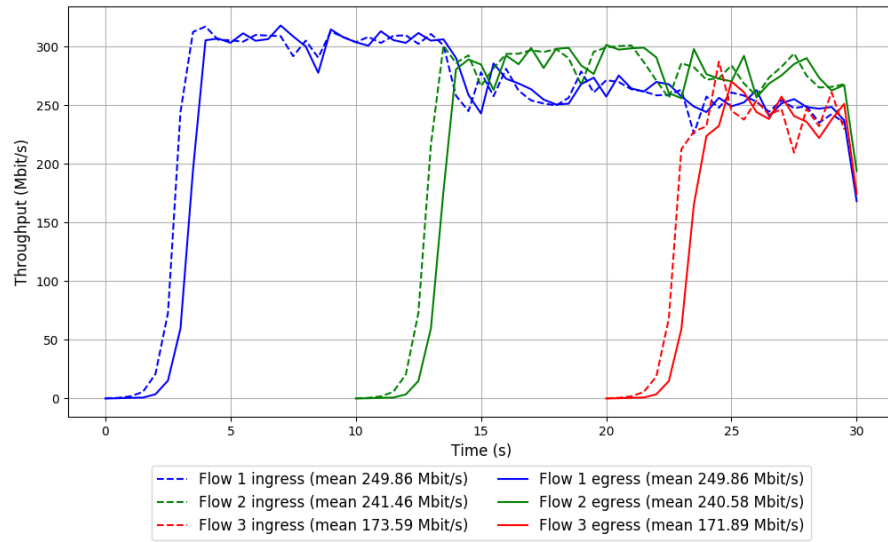
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 408.98 Mbit/s)   Flow 1 egress (mean 406.38 Mbit/s)
Flow 2 ingress (mean 362.15 Mbit/s)   Flow 2 egress (mean 352.95 Mbit/s)
Flow 3 ingress (mean 256.86 Mbit/s)   Flow 3 egress (mean 247.86 Mbit/s)

Flow 1 (95th percentile 225.44 ms)   Flow 2 (95th percentile 270.21 ms)   Flow 3 (95th percentile 214.14 ms)

10

```
Run 4: Statistics of TCP BBR

Start at: 2019-06-28 11:02:33
End at: 2019-06-28 11:03:03
Local clock offset: 0.01 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-06-28 12:37:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 743.48 Mbit/s
95th percentile per-packet one-way delay: 279.322 ms
Loss rate: 6.12%
-- Flow 1:
Average throughput: 408.20 Mbit/s
95th percentile per-packet one-way delay: 281.494 ms
Loss rate: 4.29%
-- Flow 2:
Average throughput: 366.11 Mbit/s
95th percentile per-packet one-way delay: 270.031 ms
Loss rate: 6.12%
-- Flow 3:
Average throughput: 283.12 Mbit/s
95th percentile per-packet one-way delay: 284.280 ms
Loss rate: 13.45%
```

Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 419.78 Mbit/s)   Flow 1 egress (mean 408.20 Mbit/s)
Flow 2 ingress (mean 379.29 Mbit/s)   Flow 2 egress (mean 366.11 Mbit/s)
Flow 3 ingress (mean 315.36 Mbit/s)   Flow 3 egress (mean 283.12 Mbit/s)

Flow 1 (95th percentile 281.49 ms)   Flow 2 (95th percentile 270.03 ms)   Flow 3 (95th percentile 284.28 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-06-28 11:41:47
End at: 2019-06-28 11:42:17
Local clock offset: -0.644 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2019-06-28 12:37:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 712.77 Mbit/s
95th percentile per-packet one-way delay: 245.701 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 381.76 Mbit/s
95th percentile per-packet one-way delay: 247.940 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 361.90 Mbit/s
95th percentile per-packet one-way delay: 214.557 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 278.86 Mbit/s
95th percentile per-packet one-way delay: 246.983 ms
Loss rate: 4.30%
```
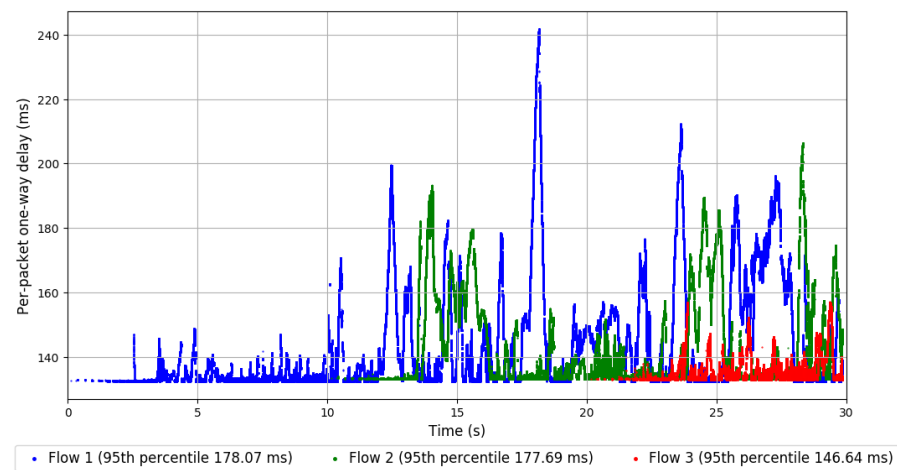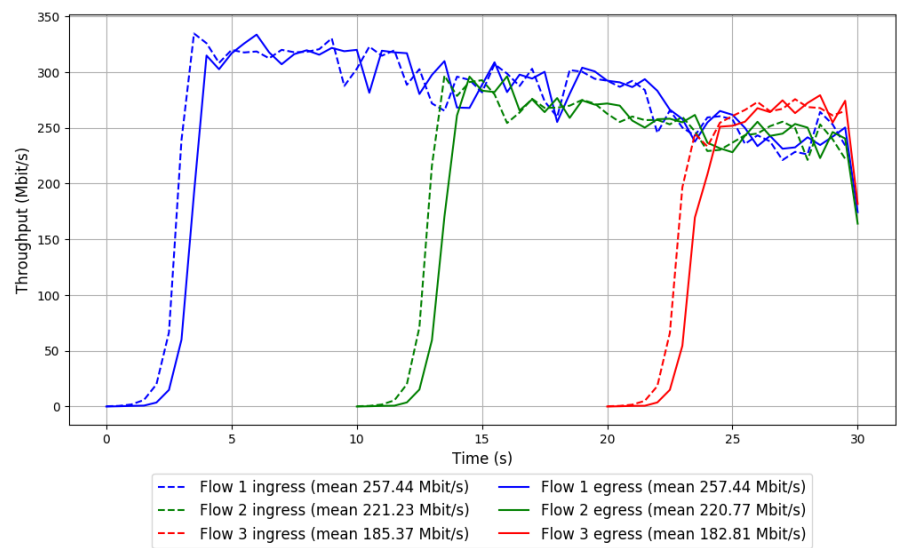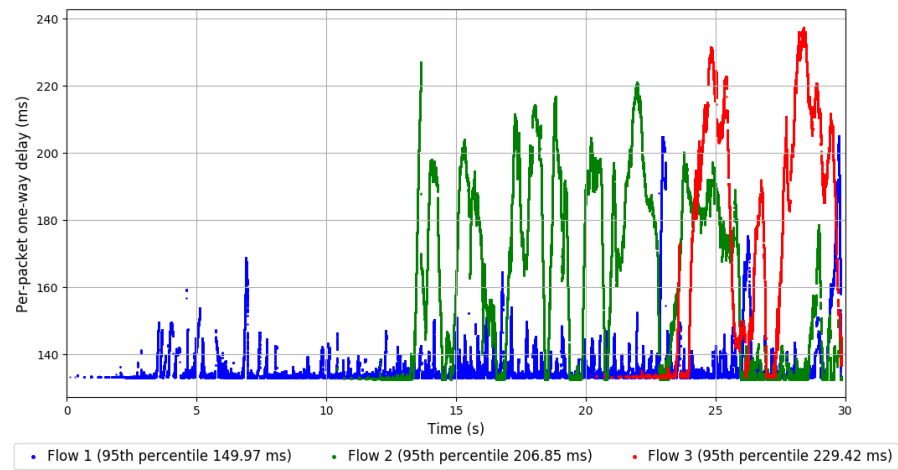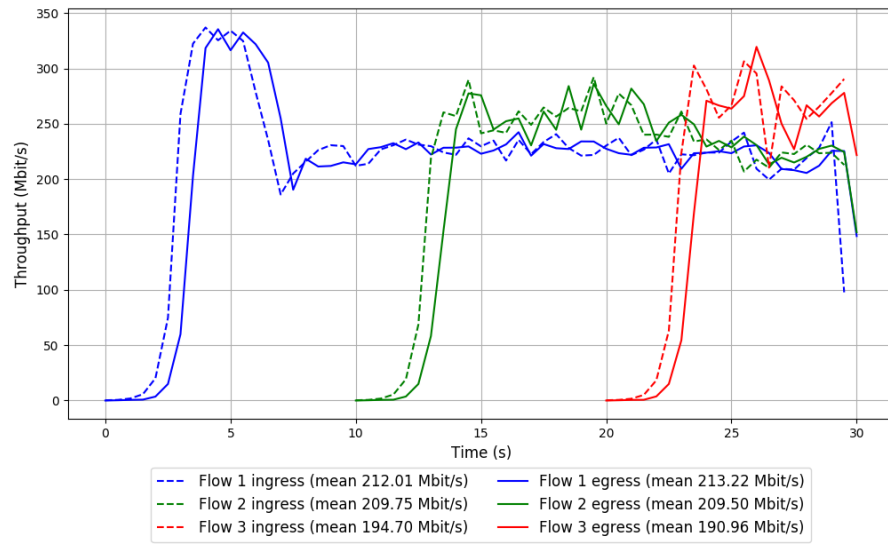
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 384.77 Mbit/s)   Flow 1 egress (mean 381.76 Mbit/s)
Flow 2 ingress (mean 365.16 Mbit/s)   Flow 2 egress (mean 361.90 Mbit/s)
Flow 3 ingress (mean 283.57 Mbit/s)   Flow 3 egress (mean 278.86 Mbit/s)

Flow 1 (95th percentile 247.94 ms)   Flow 2 (95th percentile 214.56 ms)   Flow 3 (95th percentile 246.98 ms)

14

```
Run 1: Statistics of Copa

Start at: 2019-06-28 09:12:43
End at: 2019-06-28 09:13:13
Local clock offset: -0.325 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2019-06-28 12:39:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 465.60 Mbit/s
95th percentile per-packet one-way delay: 173.622 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 249.86 Mbit/s
95th percentile per-packet one-way delay: 177.448 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 240.58 Mbit/s
95th percentile per-packet one-way delay: 172.425 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 171.89 Mbit/s
95th percentile per-packet one-way delay: 165.070 ms
Loss rate: 3.63%
```
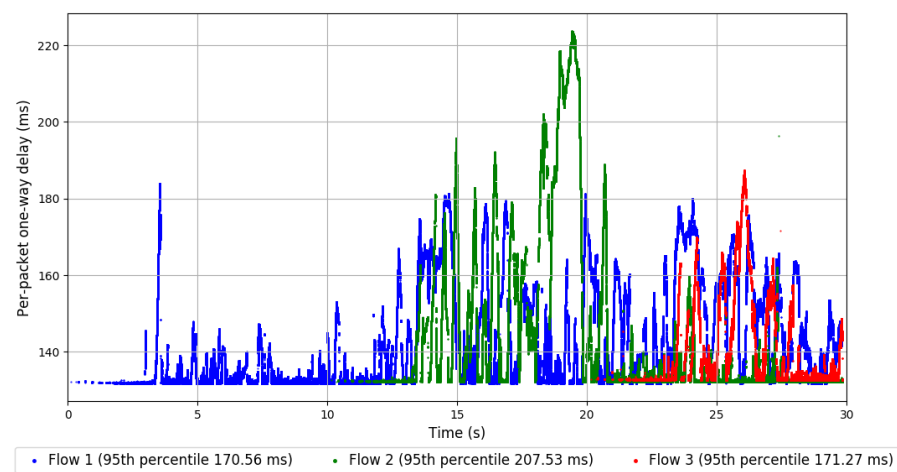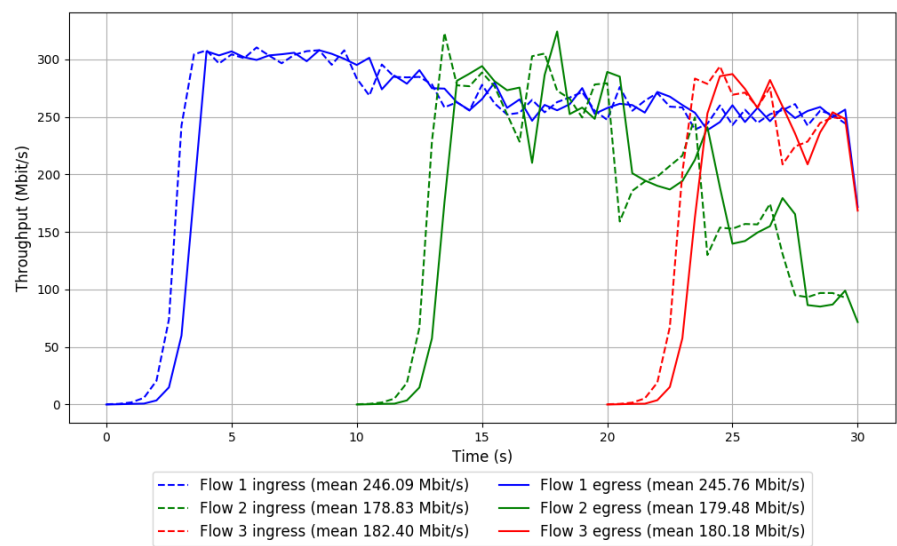
Run 1: Report of Copa — Data Link

- Flow 1 ingress (mean 249.86 Mbit/s)
- Flow 1 egress (mean 249.86 Mbit/s)
- Flow 2 ingress (mean 241.46 Mbit/s)
- Flow 2 egress (mean 240.58 Mbit/s)
- Flow 3 ingress (mean 173.59 Mbit/s)
- Flow 3 egress (mean 171.89 Mbit/s)

- Flow 1 (95th percentile 177.45 ms)
- Flow 2 (95th percentile 172.43 ms)
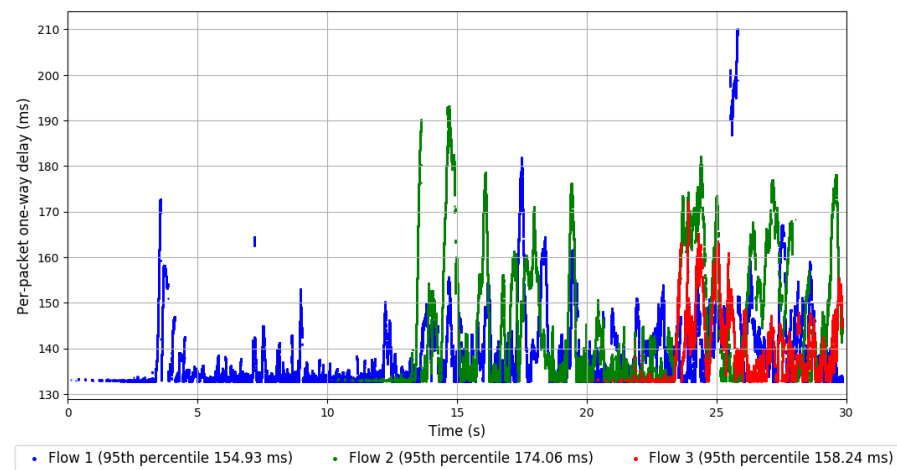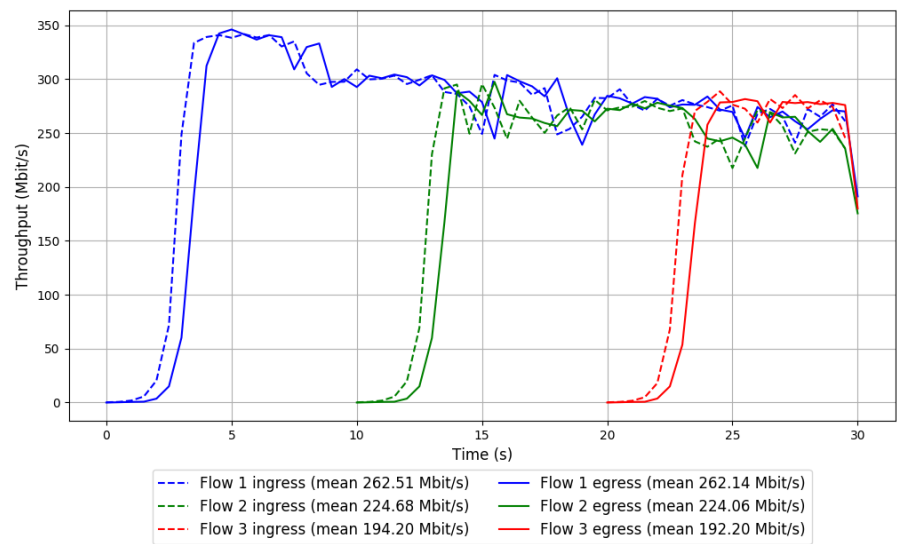- Flow 3 (95th percentile 165.07 ms)

```
Run 2: Statistics of Copa

Start at: 2019-06-28 09:51:43
End at: 2019-06-28 09:52:13
Local clock offset: 0.167 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2019-06-28 12:39:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 463.44 Mbit/s
95th percentile per-packet one-way delay: 176.404 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 257.44 Mbit/s
95th percentile per-packet one-way delay: 178.075 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 220.77 Mbit/s
95th percentile per-packet one-way delay: 177.691 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 182.81 Mbit/s
95th percentile per-packet one-way delay: 146.642 ms
Loss rate: 4.02%
```

Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 257.44 Mbit/s) --- Flow 1 egress (mean 257.44 Mbit/s)
Flow 2 ingress (mean 221.23 Mbit/s) --- Flow 2 egress (mean 220.77 Mbit/s)
Flow 3 ingress (mean 185.37 Mbit/s) --- Flow 3 egress (mean 182.81 Mbit/s)

Flow 1 (95th percentile 178.07 ms)   Flow 2 (95th percentile 177.69 ms)   Flow 3 (95th percentile 146.64 ms)

```
Run 3: Statistics of Copa

Start at: 2019-06-28 10:30:49
End at: 2019-06-28 10:31:19
Local clock offset: -0.087 ms
Remote clock offset: -0.386 ms


# Below is generated by plot.py at 2019-06-28 12:39:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.36 Mbit/s
95th percentile per-packet one-way delay: 208.826 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 213.22 Mbit/s
95th percentile per-packet one-way delay: 149.975 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 209.50 Mbit/s
95th percentile per-packet one-way delay: 206.846 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 190.96 Mbit/s
95th percentile per-packet one-way delay: 229.419 ms
Loss rate: 4.57%
```
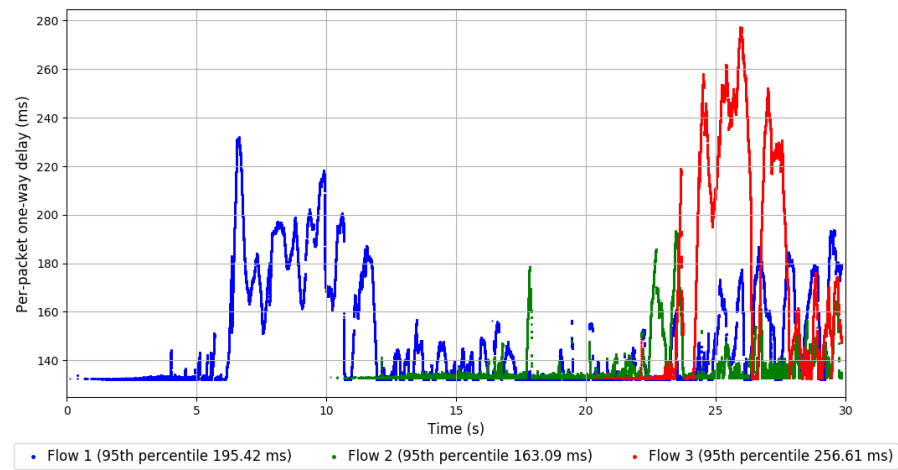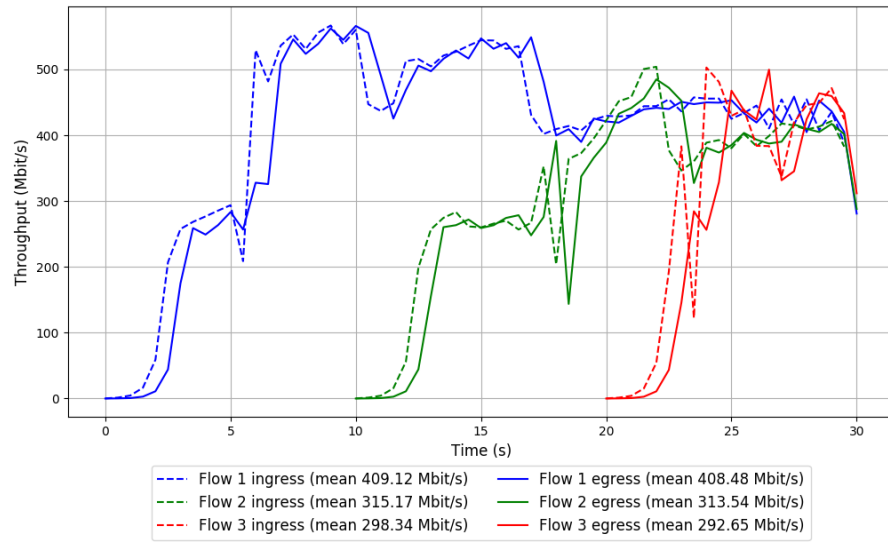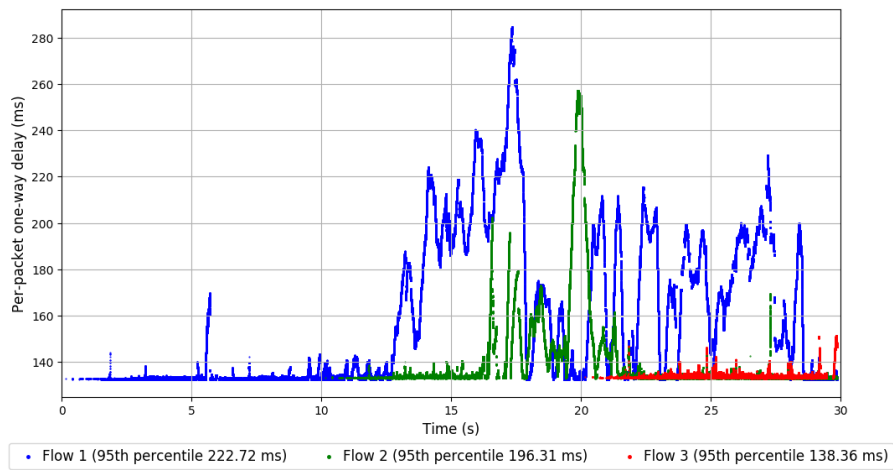
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-06-28 11:10:11
End at: 2019-06-28 11:10:41
Local clock offset: -0.181 ms
Remote clock offset: 0.292 ms


# Below is generated by plot.py at 2019-06-28 12:51:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.51 Mbit/s
95th percentile per-packet one-way delay: 177.448 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 245.76 Mbit/s
95th percentile per-packet one-way delay: 170.565 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 179.48 Mbit/s
95th percentile per-packet one-way delay: 207.533 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 180.18 Mbit/s
95th percentile per-packet one-way delay: 171.272 ms
Loss rate: 3.85%
```
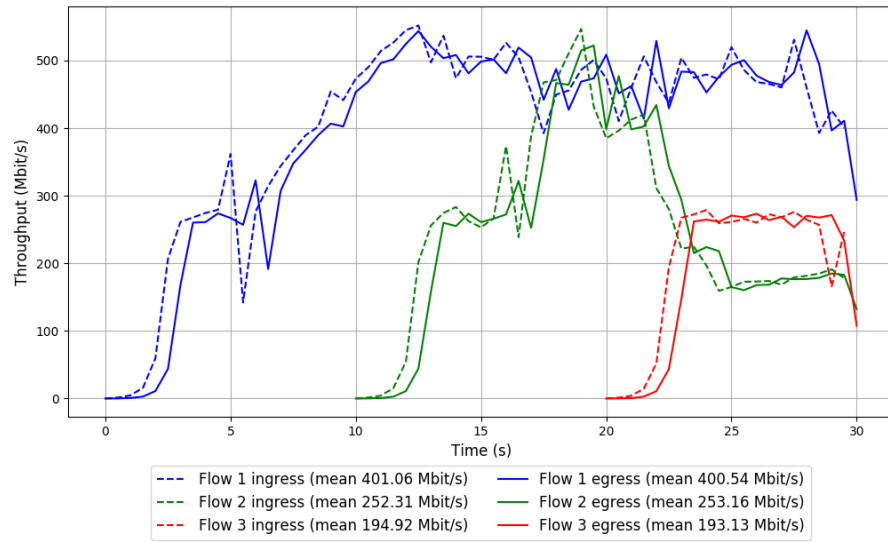
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-06-28 11:49:23
End at: 2019-06-28 11:49:53
Local clock offset: -0.112 ms
Remote clock offset: -0.127 ms


# Below is generated by plot.py at 2019-06-28 12:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 473.37 Mbit/s
95th percentile per-packet one-way delay: 166.078 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 262.14 Mbit/s
95th percentile per-packet one-way delay: 154.932 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 224.06 Mbit/s
95th percentile per-packet one-way delay: 174.065 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 192.20 Mbit/s
95th percentile per-packet one-way delay: 158.241 ms
Loss rate: 3.68%
```
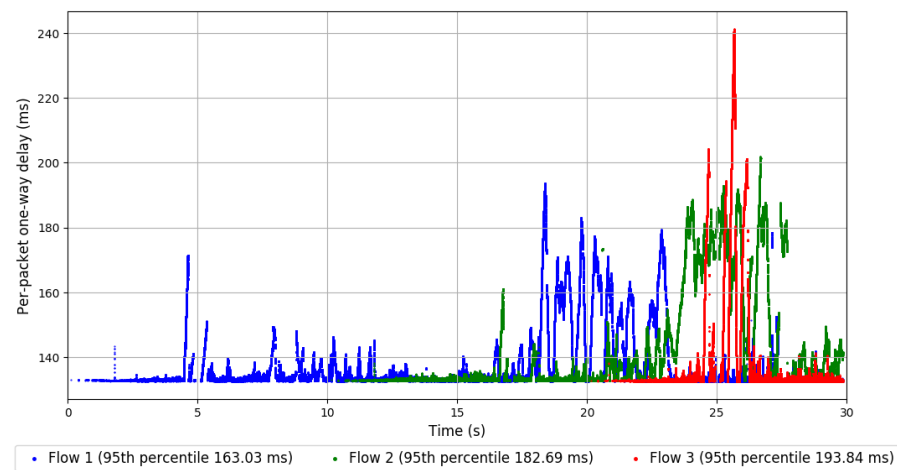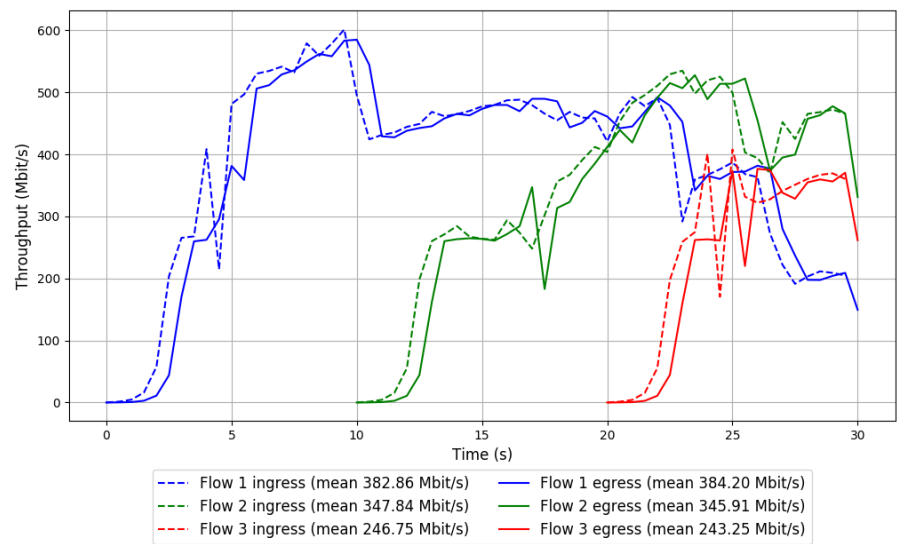
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 262.51 Mbit/s) --- Flow 1 egress (mean 262.14 Mbit/s) ——
Flow 2 ingress (mean 224.68 Mbit/s) --- Flow 2 egress (mean 224.06 Mbit/s) ——
Flow 3 ingress (mean 194.20 Mbit/s) --- Flow 3 egress (mean 192.20 Mbit/s) ——

Flow 1 (95th percentile 154.93 ms) · Flow 2 (95th percentile 174.06 ms) · Flow 3 (95th percentile 158.24 ms)
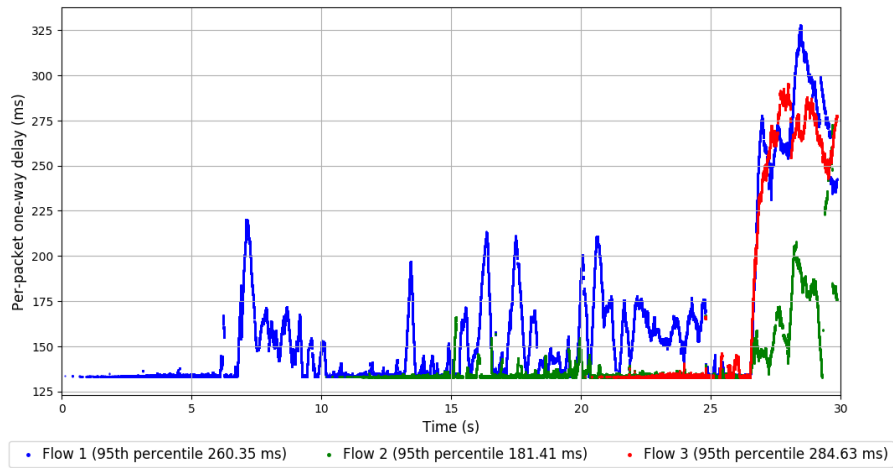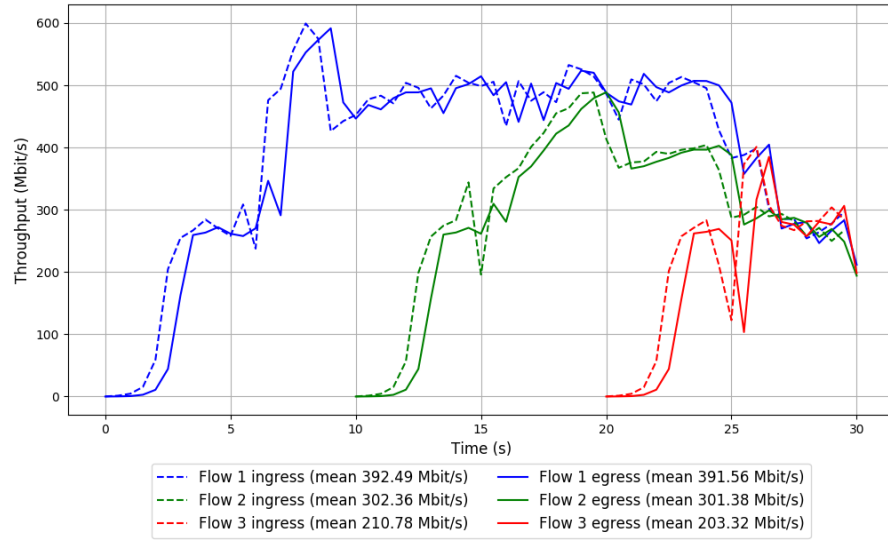
24

```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 08:58:19
End at: 2019-06-28 08:58:49
Local clock offset: 0.131 ms
Remote clock offset: 0.311 ms


# Below is generated by plot.py at 2019-06-28 12:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.80 Mbit/s
95th percentile per-packet one-way delay: 218.486 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 408.48 Mbit/s
95th percentile per-packet one-way delay: 195.423 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 313.54 Mbit/s
95th percentile per-packet one-way delay: 163.094 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 292.65 Mbit/s
95th percentile per-packet one-way delay: 256.612 ms
Loss rate: 4.53%
```

Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 09:37:30
End at: 2019-06-28 09:38:00
Local clock offset: 0.262 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2019-06-28 12:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 631.39 Mbit/s
95th percentile per-packet one-way delay: 218.253 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 400.54 Mbit/s
95th percentile per-packet one-way delay: 222.725 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 253.16 Mbit/s
95th percentile per-packet one-way delay: 196.313 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 193.13 Mbit/s
95th percentile per-packet one-way delay: 138.363 ms
Loss rate: 3.58%
```
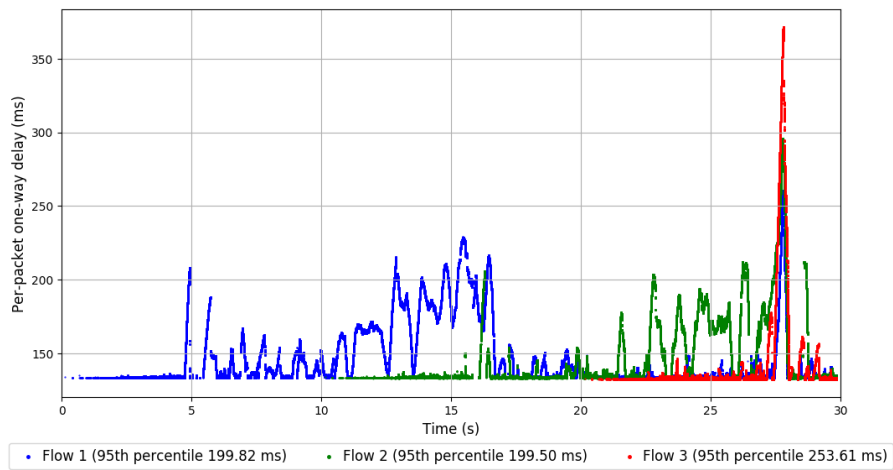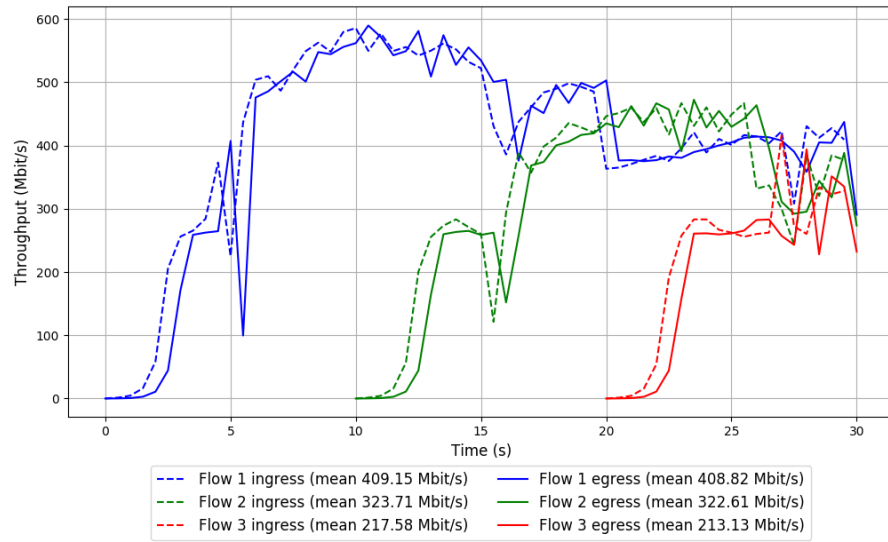
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 401.06 Mbit/s) --- Flow 1 egress (mean 400.54 Mbit/s)
Flow 2 ingress (mean 252.31 Mbit/s) --- Flow 2 egress (mean 253.16 Mbit/s)
Flow 3 ingress (mean 194.92 Mbit/s) --- Flow 3 egress (mean 193.13 Mbit/s)

Flow 1 (95th percentile 222.72 ms) • Flow 2 (95th percentile 196.31 ms) • Flow 3 (95th percentile 138.36 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 10:16:33
End at: 2019-06-28 10:17:03
Local clock offset: -0.229 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2019-06-28 12:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 693.01 Mbit/s
95th percentile per-packet one-way delay: 177.496 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 384.20 Mbit/s
95th percentile per-packet one-way delay: 163.026 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 345.91 Mbit/s
95th percentile per-packet one-way delay: 182.689 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 243.25 Mbit/s
95th percentile per-packet one-way delay: 193.840 ms
Loss rate: 4.05%
```

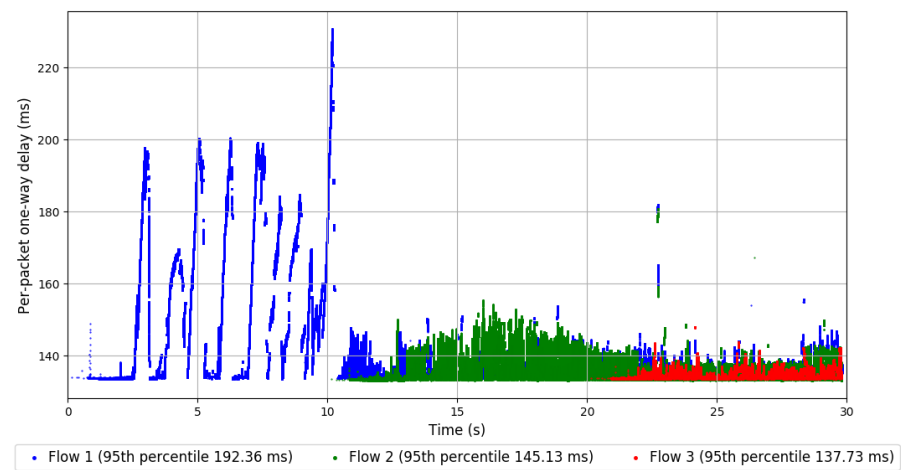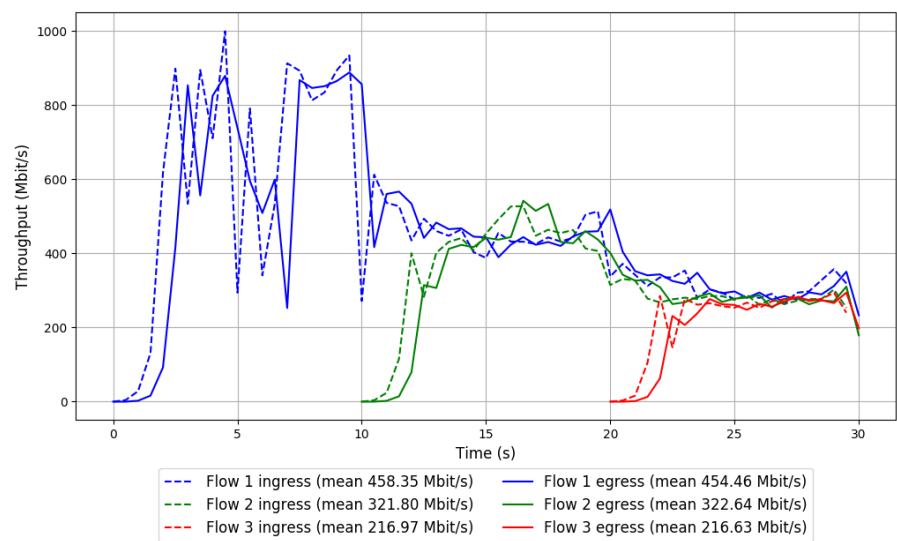Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 382.86 Mbit/s) --- Flow 1 egress (mean 384.20 Mbit/s)
Flow 2 ingress (mean 347.84 Mbit/s) --- Flow 2 egress (mean 345.91 Mbit/s)
Flow 3 ingress (mean 246.75 Mbit/s) --- Flow 3 egress (mean 243.25 Mbit/s)

• Flow 1 (95th percentile 163.03 ms) • Flow 2 (95th percentile 182.69 ms) • Flow 3 (95th percentile 193.84 ms)
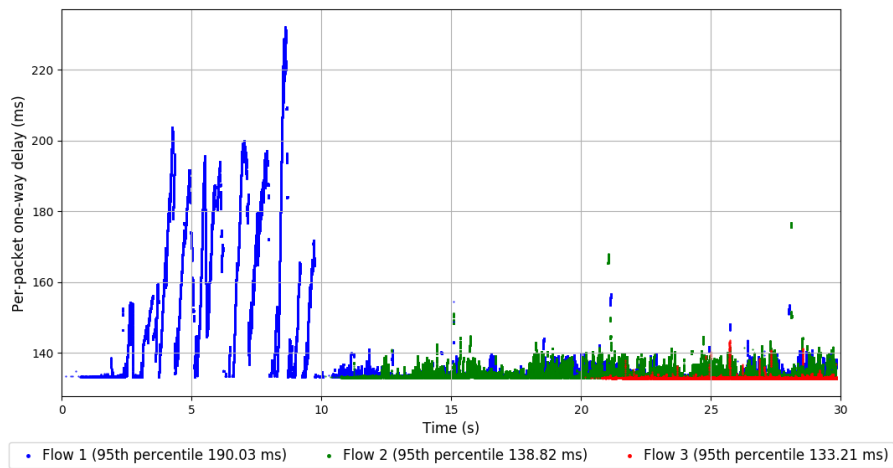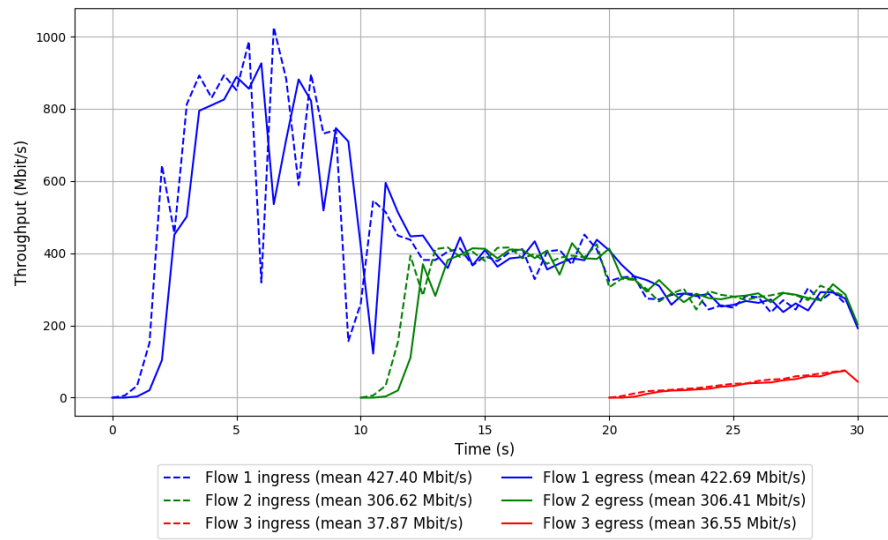
```
Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 10:56:05
End at: 2019-06-28 10:56:35
Local clock offset: -0.365 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2019-06-28 12:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 657.77 Mbit/s
95th percentile per-packet one-way delay: 265.760 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 391.56 Mbit/s
95th percentile per-packet one-way delay: 260.347 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 301.38 Mbit/s
95th percentile per-packet one-way delay: 181.407 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 203.32 Mbit/s
95th percentile per-packet one-way delay: 284.635 ms
Loss rate: 6.11%
```
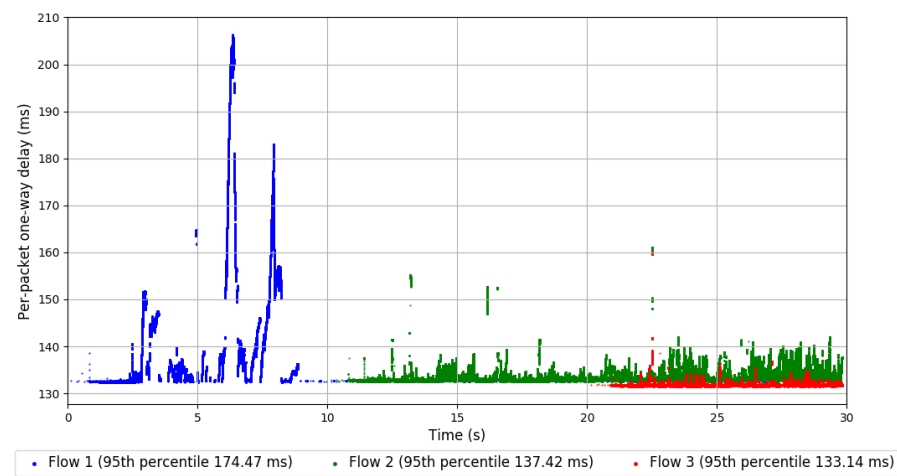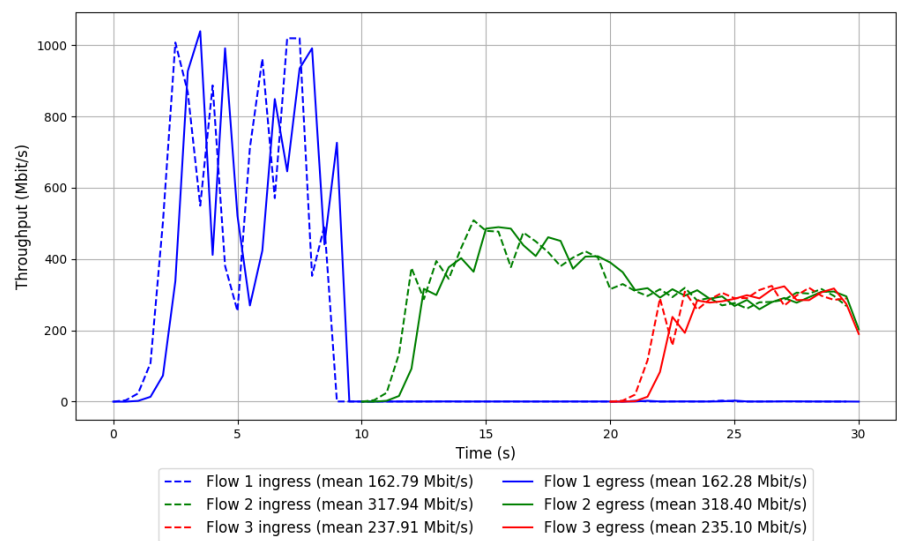
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 11:35:14
End at: 2019-06-28 11:35:44
Local clock offset: -0.171 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2019-06-28 12:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 692.25 Mbit/s
95th percentile per-packet one-way delay: 200.557 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 408.82 Mbit/s
95th percentile per-packet one-way delay: 199.819 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 322.61 Mbit/s
95th percentile per-packet one-way delay: 199.505 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 213.13 Mbit/s
95th percentile per-packet one-way delay: 253.606 ms
Loss rate: 4.66%
```

Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-06-28 09:07:01
End at: 2019-06-28 09:07:31
Local clock offset: 0.339 ms
Remote clock offset: -0.317 ms


# Below is generated by plot.py at 2019-06-28 12:57:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 738.51 Mbit/s
95th percentile per-packet one-way delay: 184.837 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 454.46 Mbit/s
95th percentile per-packet one-way delay: 192.358 ms
Loss rate: 1.71%
-- Flow 2:
Average throughput: 322.64 Mbit/s
95th percentile per-packet one-way delay: 145.131 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 216.63 Mbit/s
95th percentile per-packet one-way delay: 137.734 ms
Loss rate: 2.95%
```
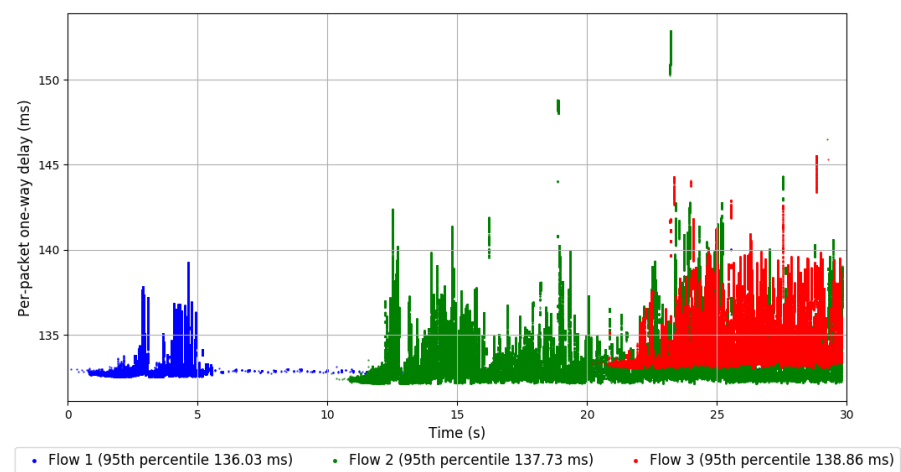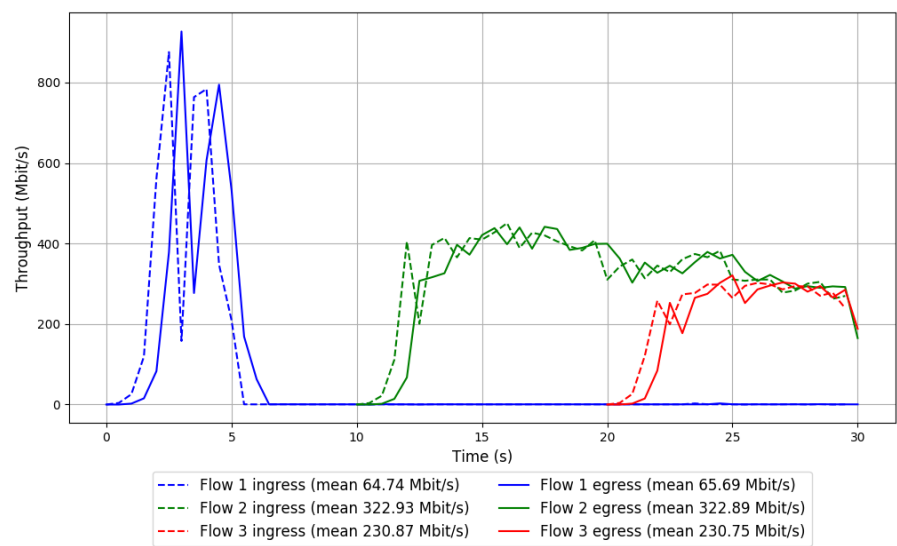
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-06-28 09:46:09
End at: 2019-06-28 09:46:39
Local clock offset: 0.153 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2019-06-28 13:04:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 637.42 Mbit/s
95th percentile per-packet one-way delay: 185.687 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 422.69 Mbit/s
95th percentile per-packet one-way delay: 190.028 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 306.41 Mbit/s
95th percentile per-packet one-way delay: 138.818 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 133.213 ms
Loss rate: 5.96%
```
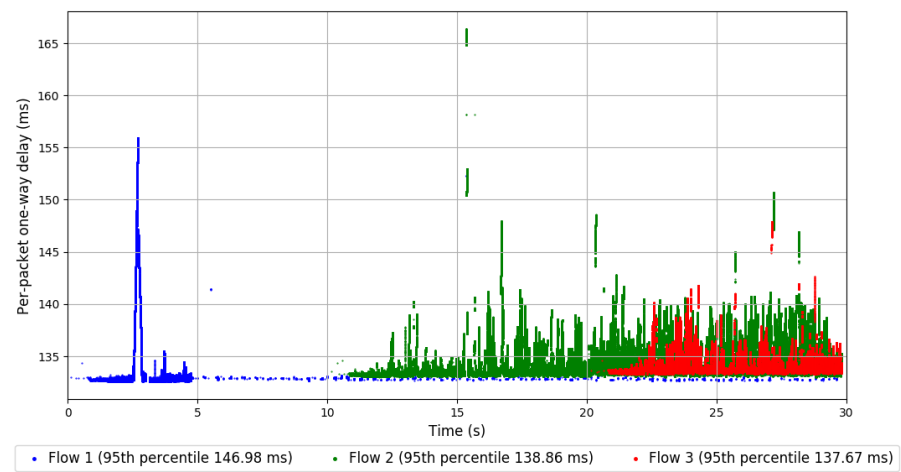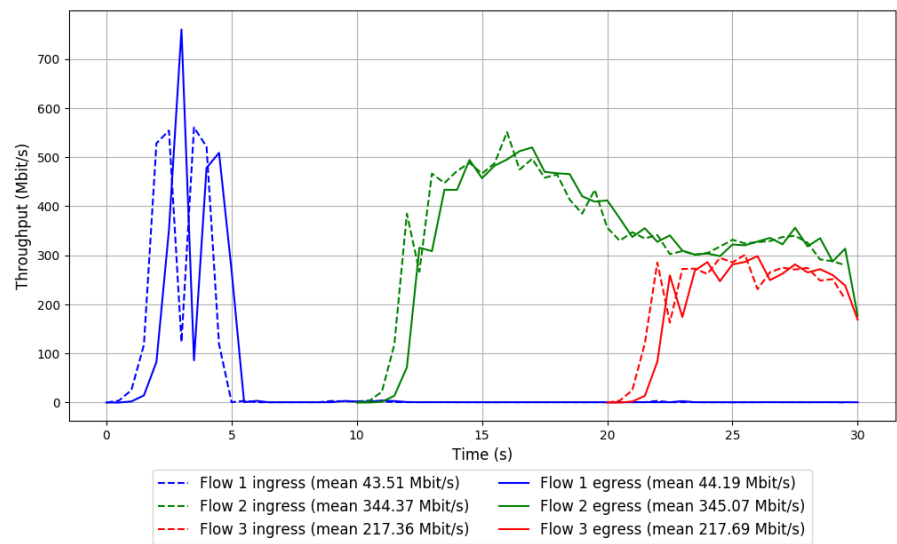
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-06-28 10:25:18
End at: 2019-06-28 10:25:48
Local clock offset: -0.392 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-06-28 13:04:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.51 Mbit/s
95th percentile per-packet one-way delay: 155.030 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 162.28 Mbit/s
95th percentile per-packet one-way delay: 174.474 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 318.40 Mbit/s
95th percentile per-packet one-way delay: 137.418 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 235.10 Mbit/s
95th percentile per-packet one-way delay: 133.140 ms
Loss rate: 3.75%
```
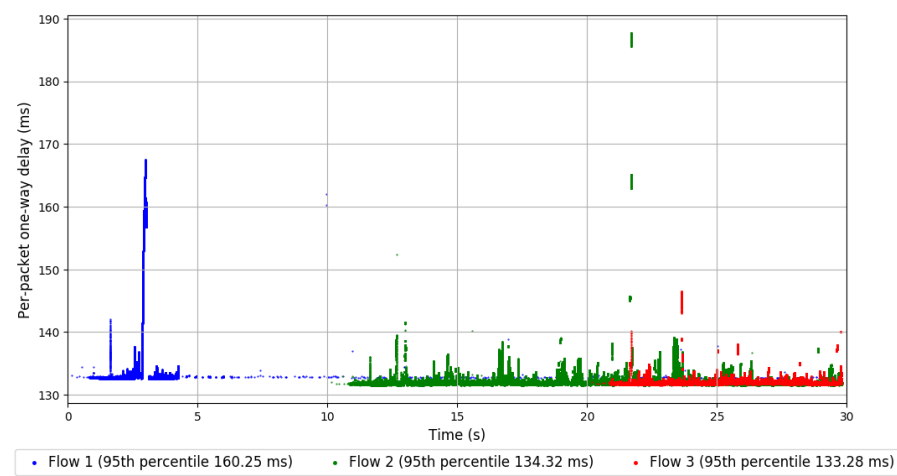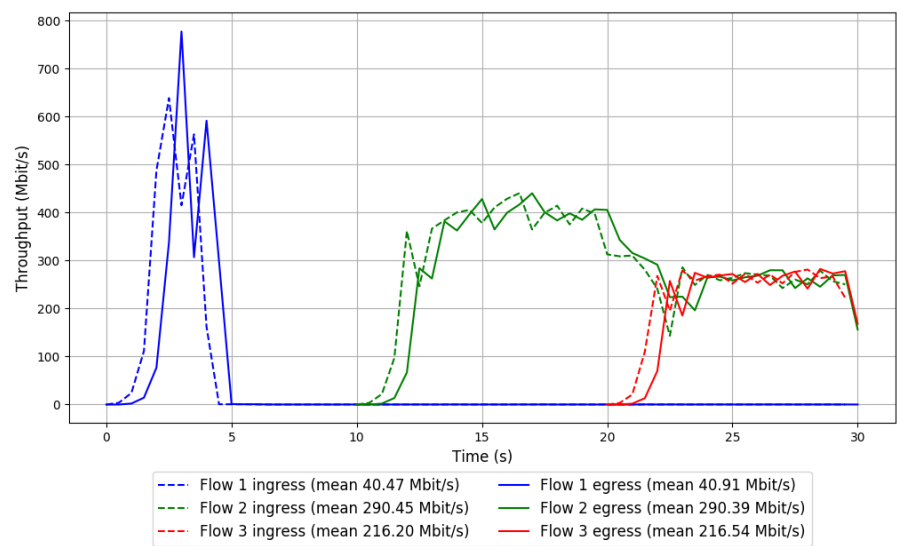
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-06-28 11:04:46
End at: 2019-06-28 11:05:16
Local clock offset: -0.163 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2019-06-28 13:04:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.23 Mbit/s
95th percentile per-packet one-way delay: 137.977 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 65.69 Mbit/s
95th percentile per-packet one-way delay: 136.033 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 322.89 Mbit/s
95th percentile per-packet one-way delay: 137.733 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 230.75 Mbit/s
95th percentile per-packet one-way delay: 138.862 ms
Loss rate: 2.86%
```
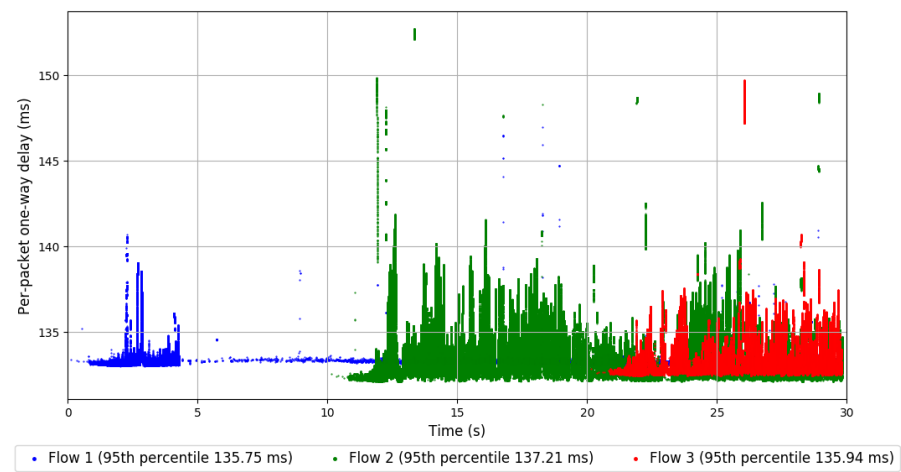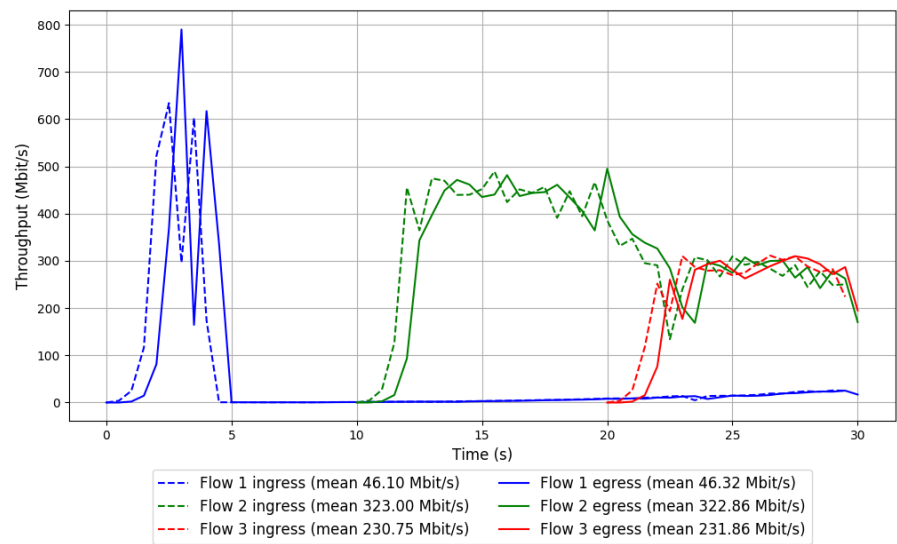
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 64.74 Mbit/s) — Flow 1 egress (mean 65.69 Mbit/s)
Flow 2 ingress (mean 322.93 Mbit/s) — Flow 2 egress (mean 322.89 Mbit/s)
Flow 3 ingress (mean 230.87 Mbit/s) — Flow 3 egress (mean 230.75 Mbit/s)

Flow 1 (95th percentile 136.03 ms)   Flow 2 (95th percentile 137.73 ms)   Flow 3 (95th percentile 138.86 ms)

42

```
Run 5: Statistics of FillP

Start at: 2019-06-28 11:43:56
End at: 2019-06-28 11:44:26
Local clock offset: 0.011 ms
Remote clock offset: -0.121 ms


# Below is generated by plot.py at 2019-06-28 13:04:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 342.99 Mbit/s
95th percentile per-packet one-way delay: 139.091 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 44.19 Mbit/s
95th percentile per-packet one-way delay: 146.984 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 345.07 Mbit/s
95th percentile per-packet one-way delay: 138.859 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 217.69 Mbit/s
95th percentile per-packet one-way delay: 137.667 ms
Loss rate: 2.66%
```

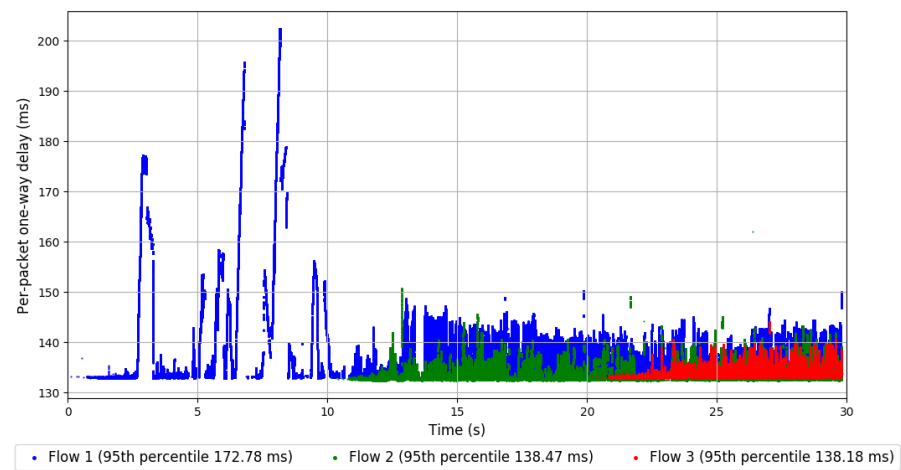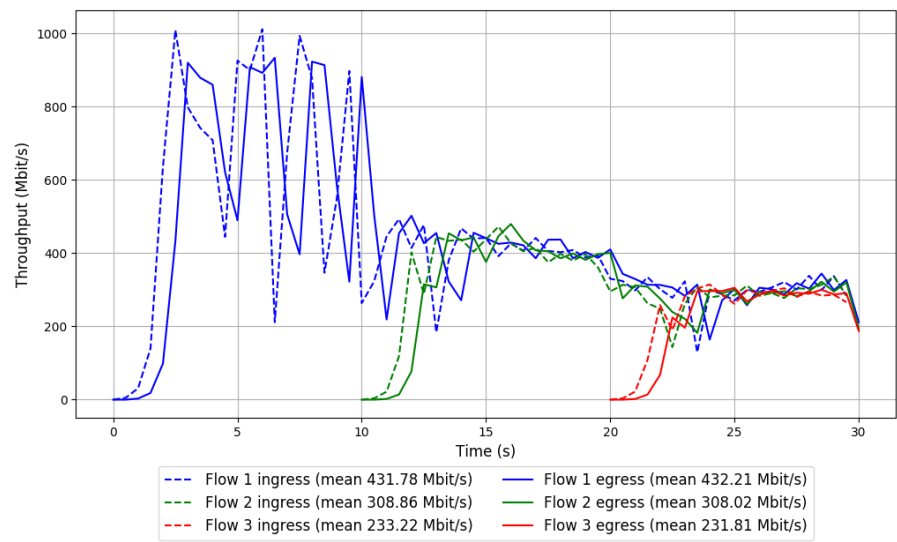Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 09:30:50
End at: 2019-06-28 09:31:20
Local clock offset: -0.463 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-06-28 13:04:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 303.41 Mbit/s
95th percentile per-packet one-way delay: 134.758 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 40.91 Mbit/s
95th percentile per-packet one-way delay: 160.249 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 290.39 Mbit/s
95th percentile per-packet one-way delay: 134.324 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 216.54 Mbit/s
95th percentile per-packet one-way delay: 133.285 ms
Loss rate: 2.61%
```

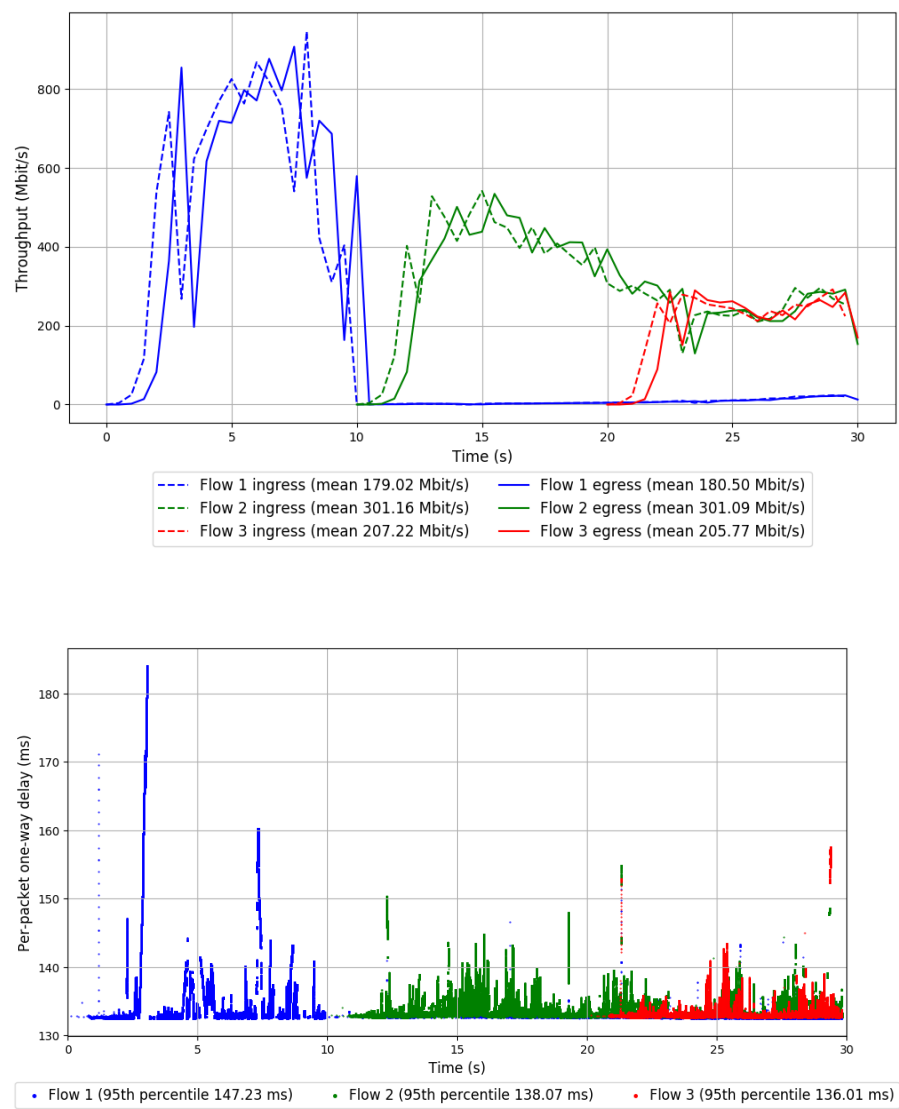Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 10:09:53
End at: 2019-06-28 10:10:23
Local clock offset: 0.231 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2019-06-28 13:04:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 335.63 Mbit/s
95th percentile per-packet one-way delay: 136.813 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 46.32 Mbit/s
95th percentile per-packet one-way delay: 135.752 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 322.86 Mbit/s
95th percentile per-packet one-way delay: 137.205 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 231.86 Mbit/s
95th percentile per-packet one-way delay: 135.942 ms
Loss rate: 2.34%
```

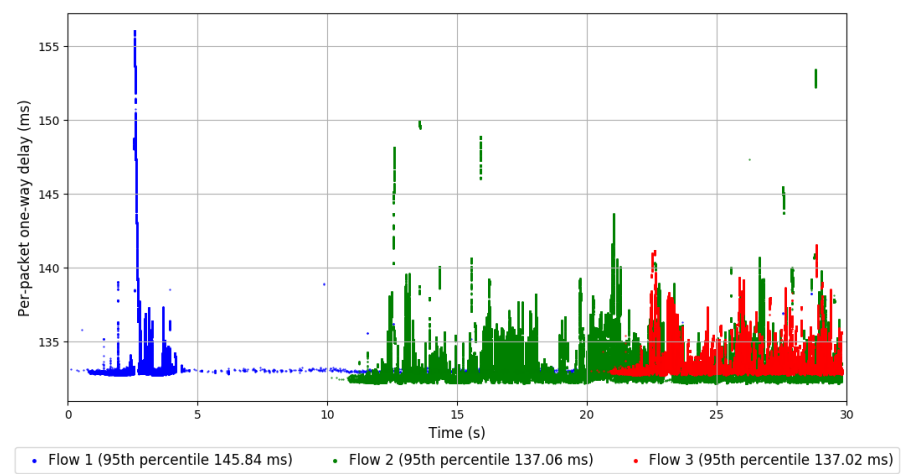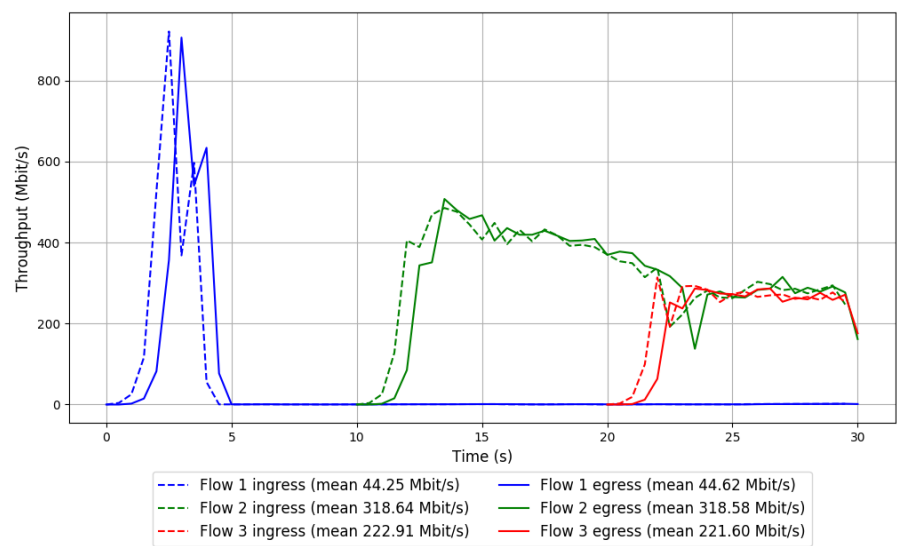Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 10:48:52
End at: 2019-06-28 10:49:22
Local clock offset: -0.247 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-06-28 13:10:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.91 Mbit/s
95th percentile per-packet one-way delay: 160.903 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 432.21 Mbit/s
95th percentile per-packet one-way delay: 172.780 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 308.02 Mbit/s
95th percentile per-packet one-way delay: 138.468 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 231.81 Mbit/s
95th percentile per-packet one-way delay: 138.178 ms
Loss rate: 3.28%
```
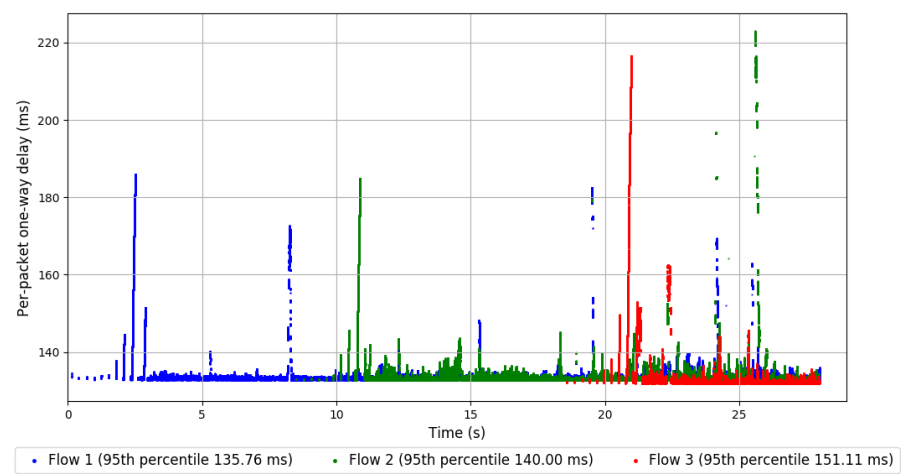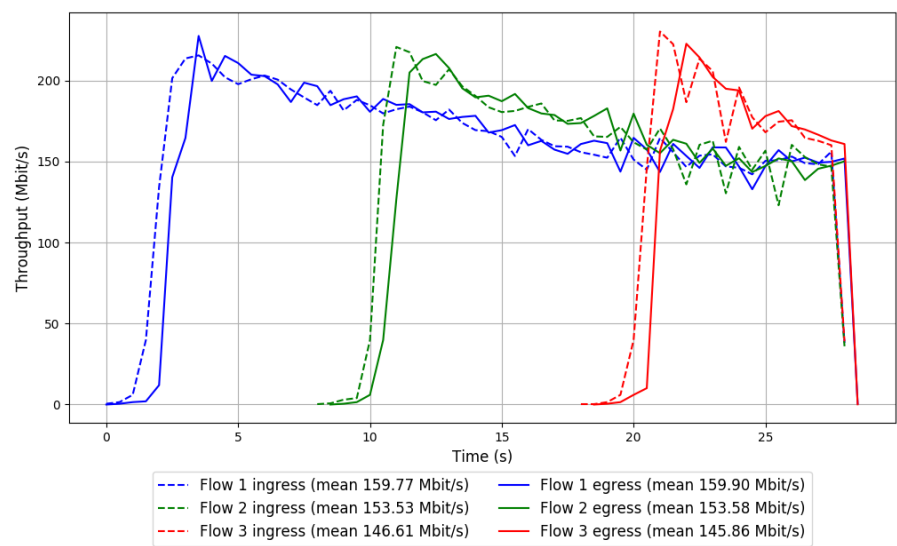
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 431.78 Mbit/s) --- Flow 1 egress (mean 432.21 Mbit/s)
Flow 2 ingress (mean 308.86 Mbit/s) --- Flow 2 egress (mean 308.02 Mbit/s)
Flow 3 ingress (mean 233.22 Mbit/s) --- Flow 3 egress (mean 231.81 Mbit/s)

Flow 1 (95th percentile 172.78 ms) · Flow 2 (95th percentile 138.47 ms) · Flow 3 (95th percentile 138.18 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 11:28:22
End at: 2019-06-28 11:28:52
Local clock offset: -0.657 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2019-06-28 13:10:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.84 Mbit/s
95th percentile per-packet one-way delay: 140.240 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 180.50 Mbit/s
95th percentile per-packet one-way delay: 147.231 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 301.09 Mbit/s
95th percentile per-packet one-way delay: 138.075 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 205.77 Mbit/s
95th percentile per-packet one-way delay: 136.015 ms
Loss rate: 3.44%
```

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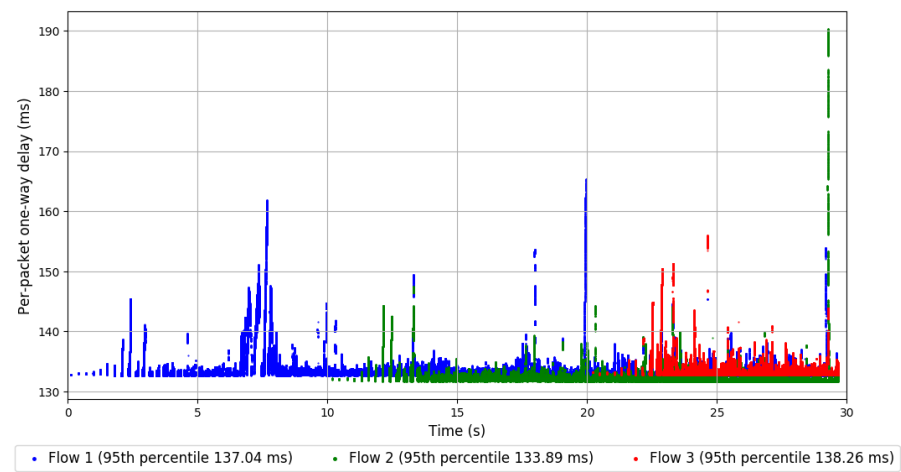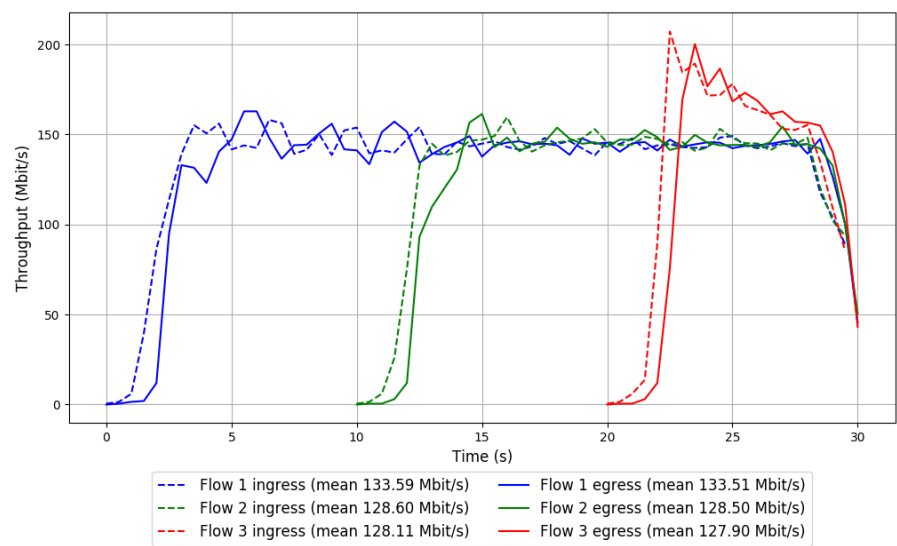
```
Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 12:07:49
End at: 2019-06-28 12:08:19
Local clock offset: 0.075 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2019-06-28 13:10:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.78 Mbit/s
95th percentile per-packet one-way delay: 137.485 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 44.62 Mbit/s
95th percentile per-packet one-way delay: 145.842 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 318.58 Mbit/s
95th percentile per-packet one-way delay: 137.060 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 221.60 Mbit/s
95th percentile per-packet one-way delay: 137.016 ms
Loss rate: 3.26%
```

Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 44.25 Mbit/s) — — — Flow 1 egress (mean 44.62 Mbit/s)
Flow 2 ingress (mean 318.64 Mbit/s) — — — Flow 2 egress (mean 318.58 Mbit/s)
Flow 3 ingress (mean 222.91 Mbit/s) — — — Flow 3 egress (mean 221.60 Mbit/s)

Flow 1 (95th percentile 145.84 ms) • Flow 2 (95th percentile 137.06 ms) • Flow 3 (95th percentile 137.02 ms)
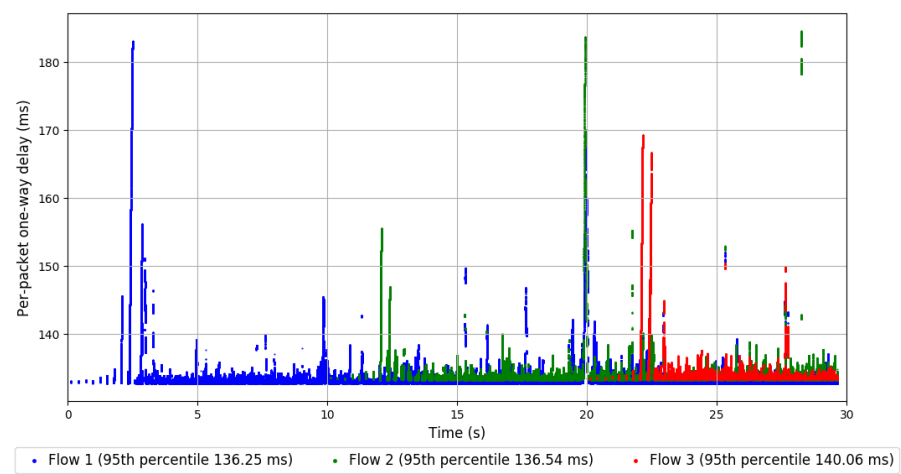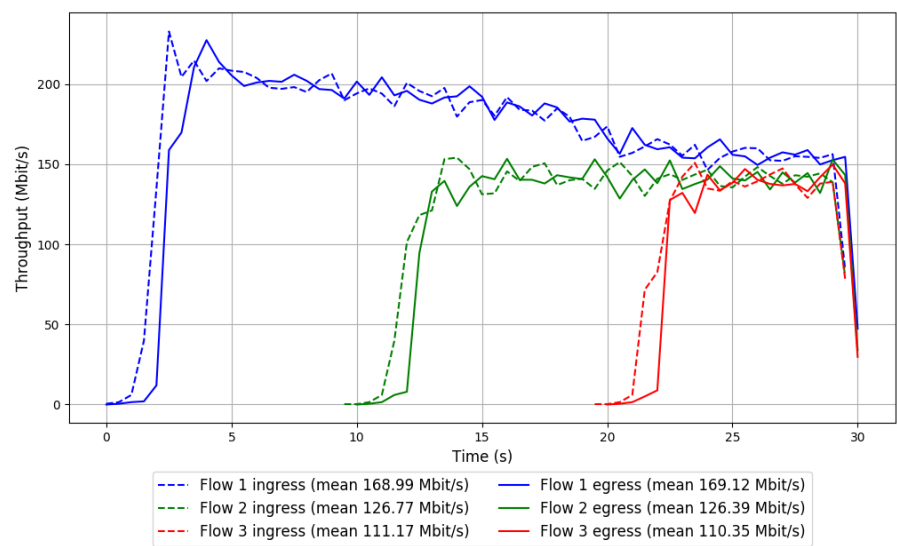
```
Run 1: Statistics of Indigo

Start at: 2019-06-28 09:08:57
End at: 2019-06-28 09:09:27
Local clock offset: -0.094 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2019-06-28 13:10:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.45 Mbit/s
95th percentile per-packet one-way delay: 139.603 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 159.90 Mbit/s
95th percentile per-packet one-way delay: 135.762 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 153.58 Mbit/s
95th percentile per-packet one-way delay: 139.996 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 145.86 Mbit/s
95th percentile per-packet one-way delay: 151.107 ms
Loss rate: 3.02%
```
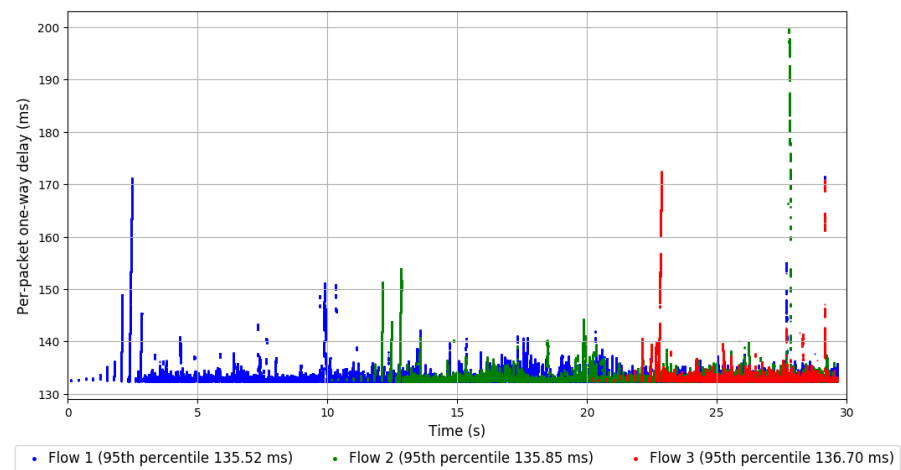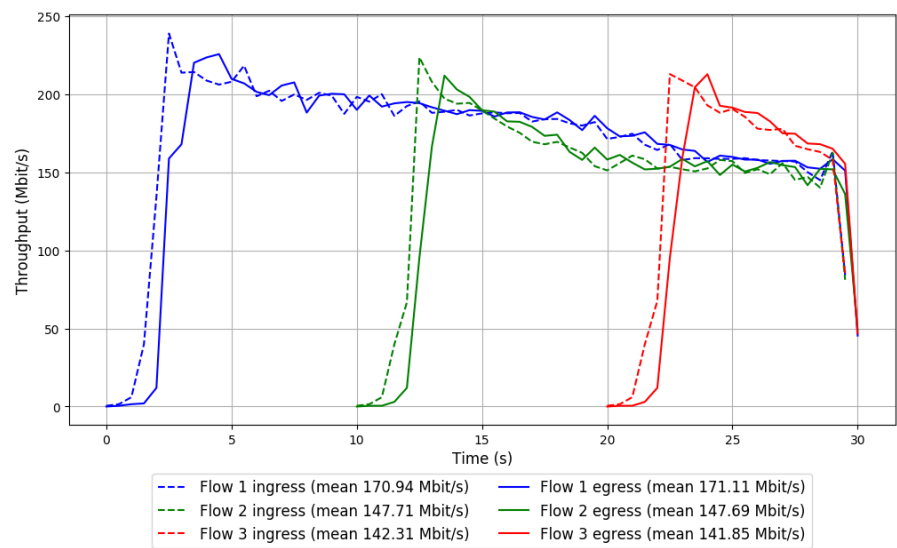
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-06-28 09:48:01
End at: 2019-06-28 09:48:31
Local clock offset: -0.213 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-06-28 13:10:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.30 Mbit/s
95th percentile per-packet one-way delay: 136.181 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 133.51 Mbit/s
95th percentile per-packet one-way delay: 137.042 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 128.50 Mbit/s
95th percentile per-packet one-way delay: 133.891 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 127.90 Mbit/s
95th percentile per-packet one-way delay: 138.258 ms
Loss rate: 2.92%
```

Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-06-28 10:27:01
End at: 2019-06-28 10:27:31
Local clock offset: 0.416 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-06-28 13:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.36 Mbit/s
95th percentile per-packet one-way delay: 136.601 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 169.12 Mbit/s
95th percentile per-packet one-way delay: 136.250 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 126.39 Mbit/s
95th percentile per-packet one-way delay: 136.537 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 110.35 Mbit/s
95th percentile per-packet one-way delay: 140.065 ms
Loss rate: 3.46%
```
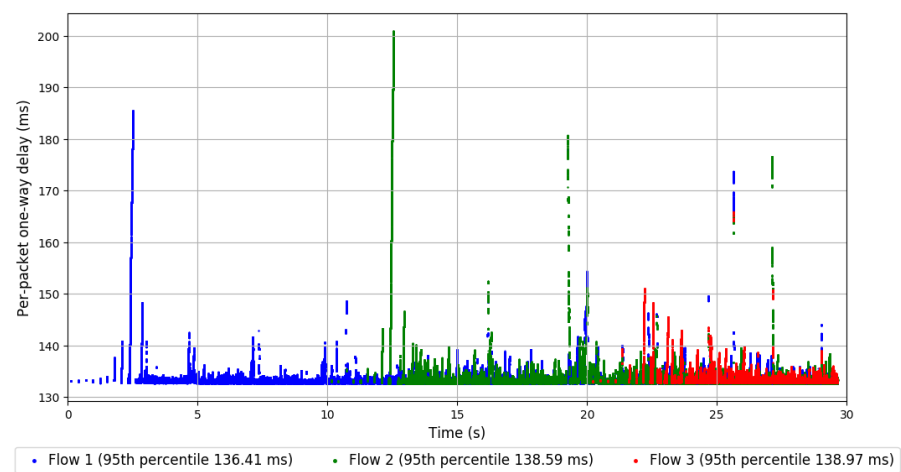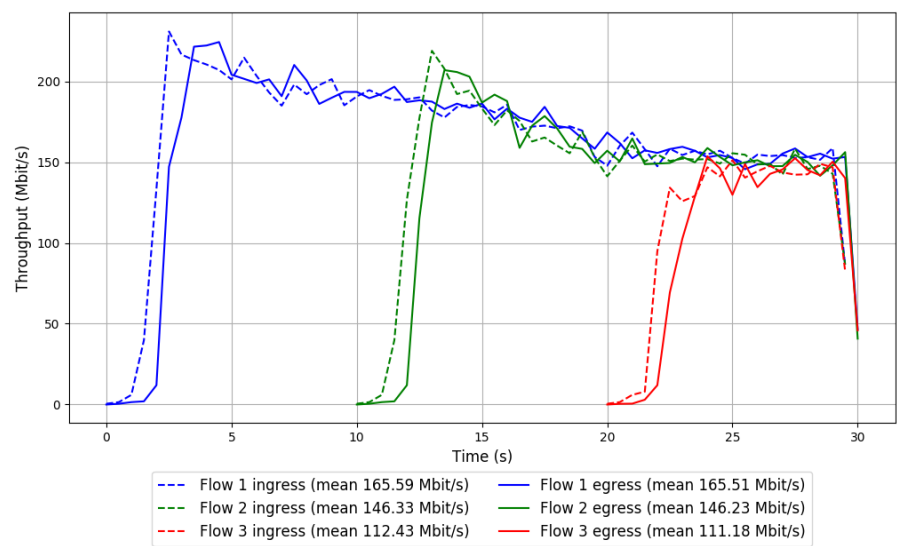
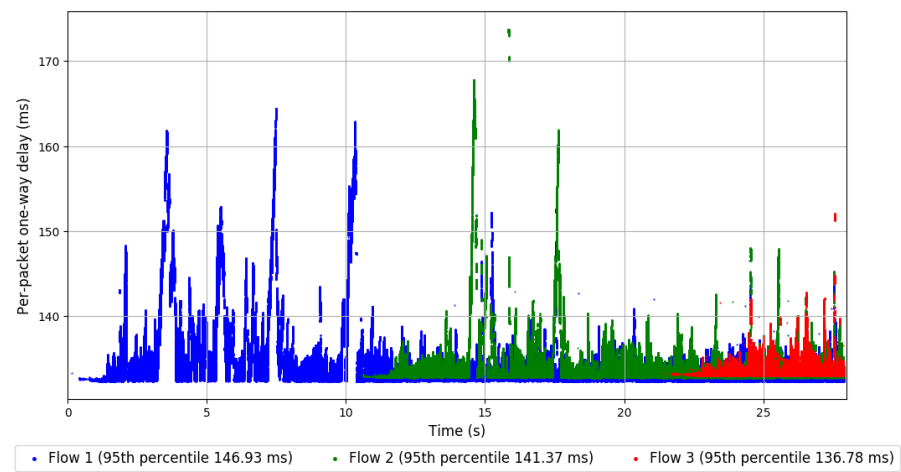# Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-06-28 11:06:24
End at: 2019-06-28 11:06:54
Local clock offset: -0.88 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2019-06-28 13:13:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.08 Mbit/s
95th percentile per-packet one-way delay: 135.687 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 171.11 Mbit/s
95th percentile per-packet one-way delay: 135.523 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 147.69 Mbit/s
95th percentile per-packet one-way delay: 135.851 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 141.85 Mbit/s
95th percentile per-packet one-way delay: 136.703 ms
Loss rate: 3.06%
```
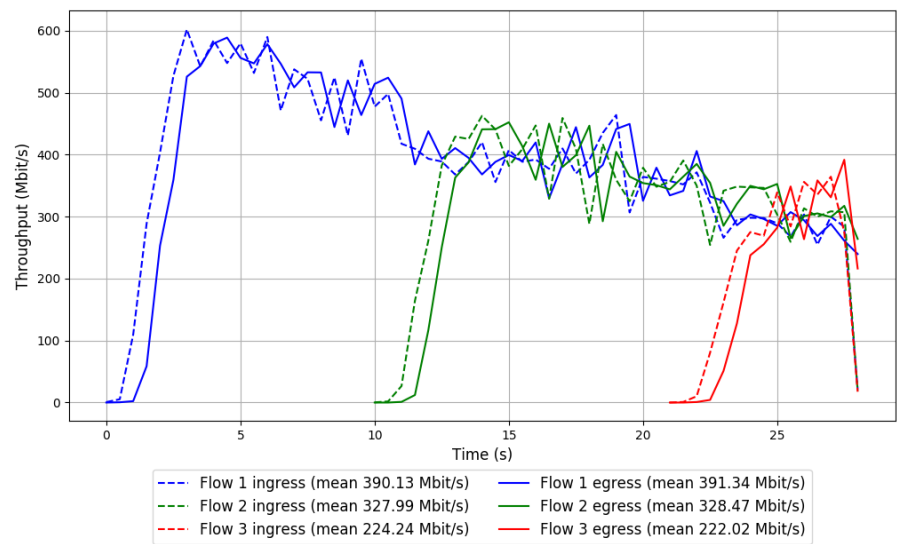
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-06-28 11:45:34
End at: 2019-06-28 11:46:04
Local clock offset: -0.168 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2019-06-28 13:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 297.54 Mbit/s
95th percentile per-packet one-way delay: 137.479 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 165.51 Mbit/s
95th percentile per-packet one-way delay: 136.415 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 146.23 Mbit/s
95th percentile per-packet one-way delay: 138.592 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 111.18 Mbit/s
95th percentile per-packet one-way delay: 138.967 ms
Loss rate: 3.89%
```
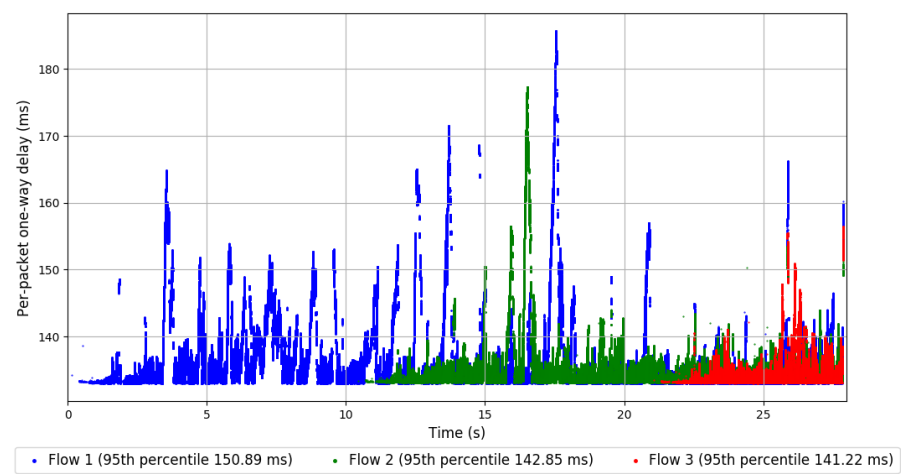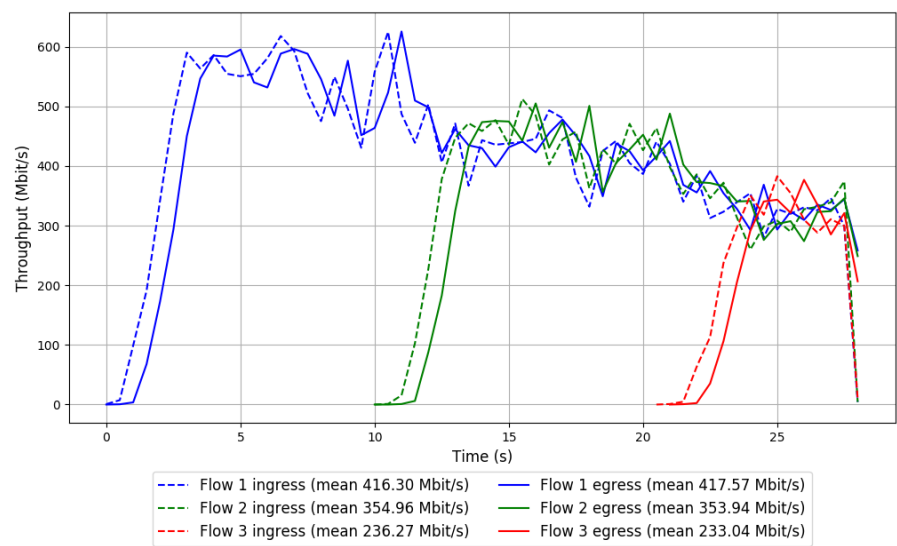
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 09:16:12
End at: 2019-06-28 09:16:42
Local clock offset: -0.115 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-06-28 13:18:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.56 Mbit/s
95th percentile per-packet one-way delay: 144.378 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 391.34 Mbit/s
95th percentile per-packet one-way delay: 146.930 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 328.47 Mbit/s
95th percentile per-packet one-way delay: 141.369 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 222.02 Mbit/s
95th percentile per-packet one-way delay: 136.780 ms
Loss rate: 4.82%
```

Run 1: Report of Indigo-MusesC3 — Data Link

66

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 09:55:13
End at: 2019-06-28 09:55:43
Local clock offset: 0.268 ms
Remote clock offset: -0.089 ms


# Below is generated by plot.py at 2019-06-28 13:21:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 697.30 Mbit/s
95th percentile per-packet one-way delay: 149.082 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 417.57 Mbit/s
95th percentile per-packet one-way delay: 150.887 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 353.94 Mbit/s
95th percentile per-packet one-way delay: 142.847 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 233.04 Mbit/s
95th percentile per-packet one-way delay: 141.217 ms
Loss rate: 5.08%
```
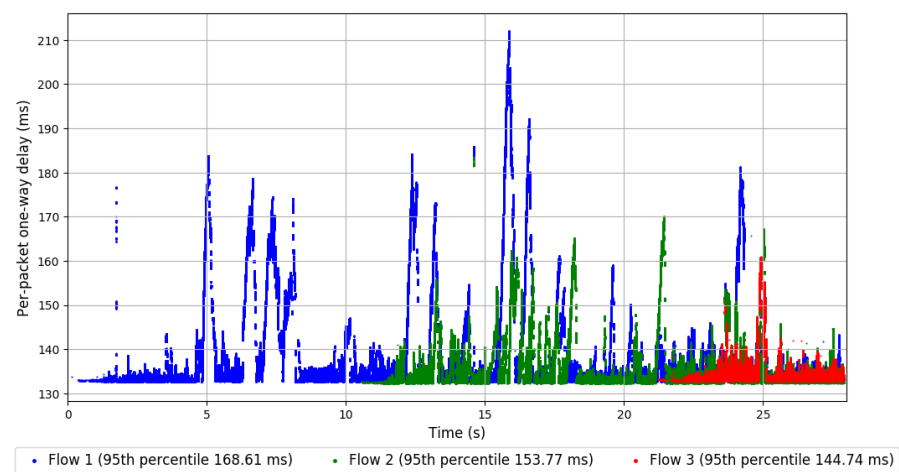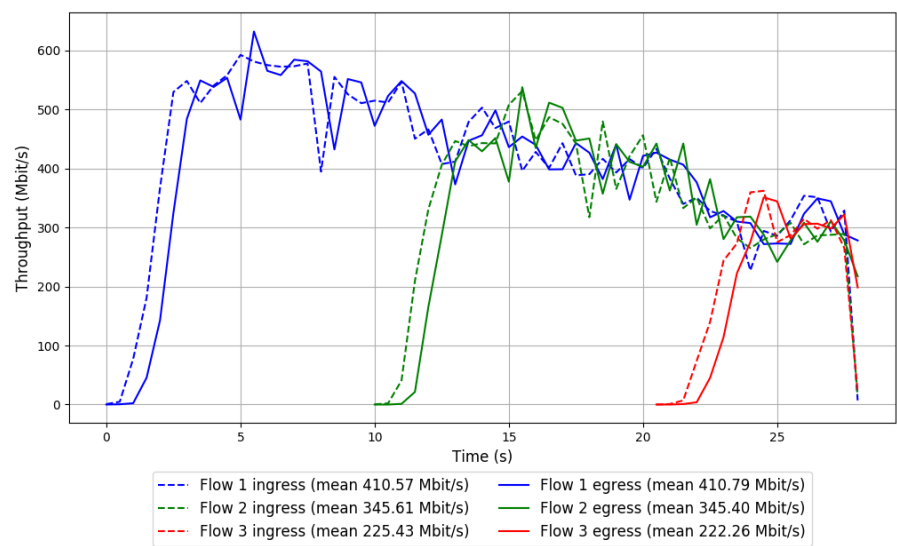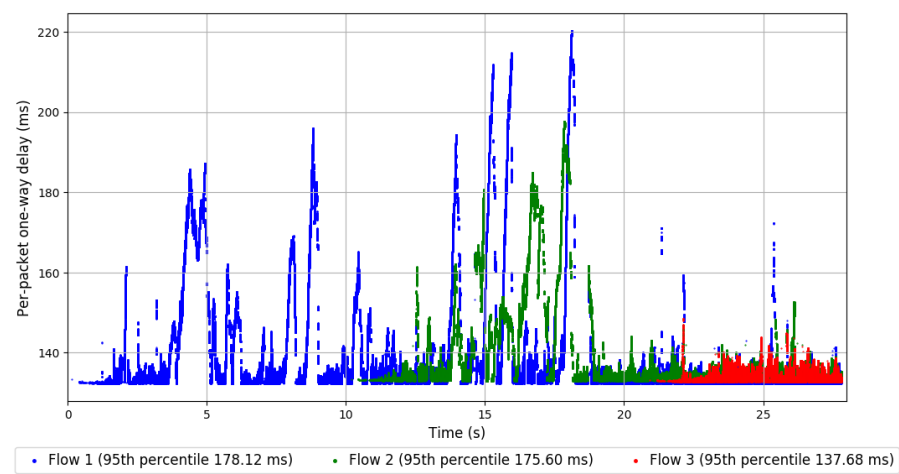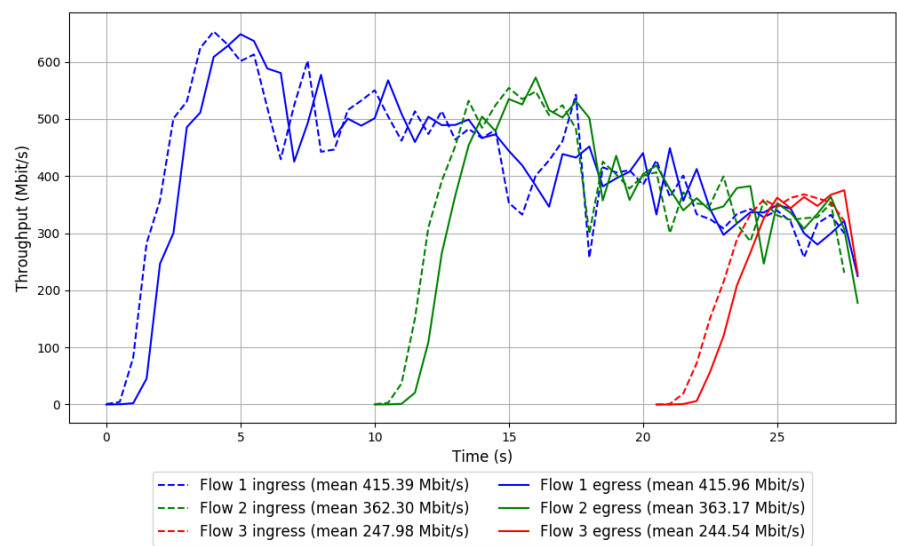
Run 2: Report of Indigo-MusesC3 — Data Link

68

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 10:34:13
End at: 2019-06-28 10:34:43
Local clock offset: -0.151 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-28 13:21:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 684.75 Mbit/s
95th percentile per-packet one-way delay: 162.738 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 410.79 Mbit/s
95th percentile per-packet one-way delay: 168.608 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 345.40 Mbit/s
95th percentile per-packet one-way delay: 153.770 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 222.26 Mbit/s
95th percentile per-packet one-way delay: 144.741 ms
Loss rate: 5.10%
```

Run 3: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 410.57 Mbit/s) ——— Flow 1 egress (mean 410.79 Mbit/s)
- - - Flow 2 ingress (mean 345.61 Mbit/s) ——— Flow 2 egress (mean 345.40 Mbit/s)
- - - Flow 3 ingress (mean 225.43 Mbit/s) ——— Flow 3 egress (mean 222.26 Mbit/s)

- Flow 1 (95th percentile 168.61 ms)   - Flow 2 (95th percentile 153.77 ms)   - Flow 3 (95th percentile 144.74 ms)
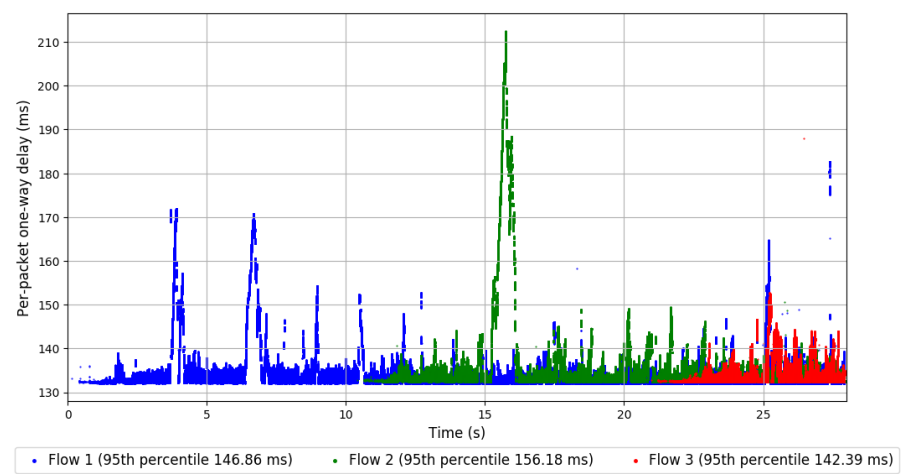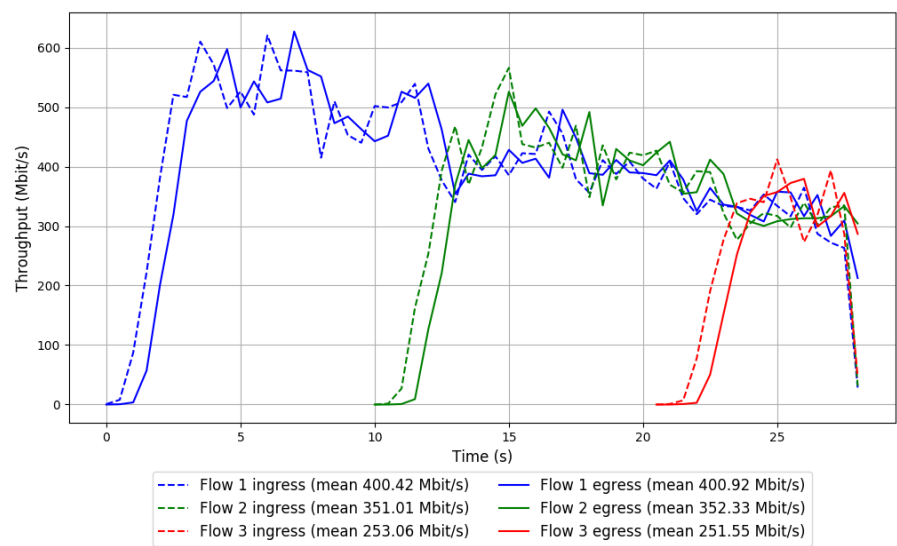
```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 11:13:37
End at: 2019-06-28 11:14:07
Local clock offset: -0.499 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2019-06-28 13:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 708.11 Mbit/s
95th percentile per-packet one-way delay: 176.099 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 415.96 Mbit/s
95th percentile per-packet one-way delay: 178.120 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 363.17 Mbit/s
95th percentile per-packet one-way delay: 175.602 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 244.54 Mbit/s
95th percentile per-packet one-way delay: 137.680 ms
Loss rate: 5.03%
```
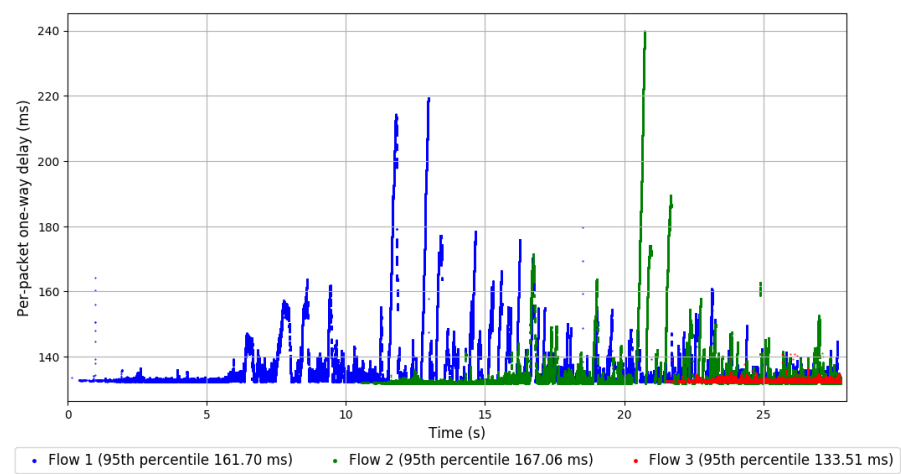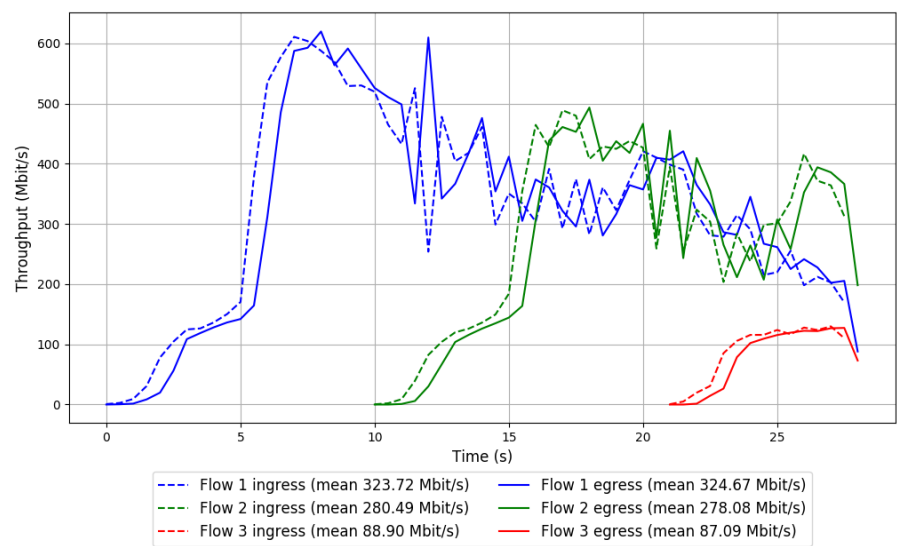
Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 415.39 Mbit/s)   Flow 1 egress (mean 415.96 Mbit/s)
Flow 2 ingress (mean 362.30 Mbit/s)   Flow 2 egress (mean 363.17 Mbit/s)
Flow 3 ingress (mean 247.98 Mbit/s)   Flow 3 egress (mean 244.54 Mbit/s)

Flow 1 (95th percentile 178.12 ms)   Flow 2 (95th percentile 175.60 ms)   Flow 3 (95th percentile 137.68 ms)
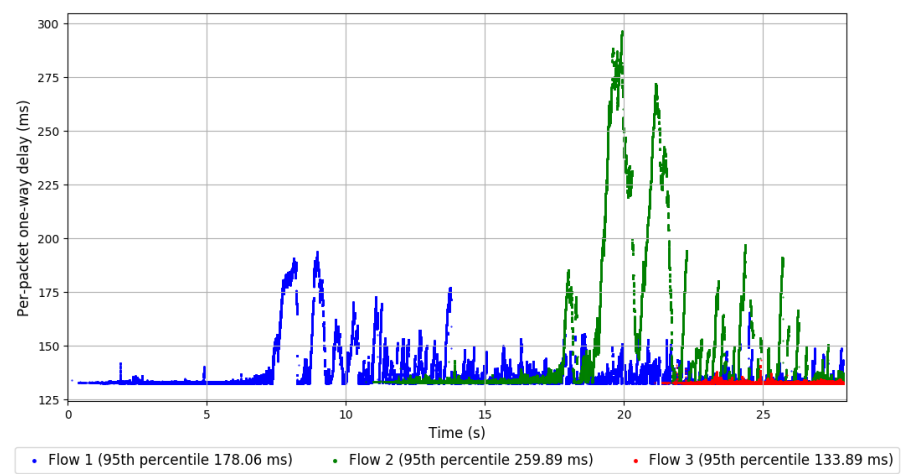
```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 11:52:54
End at: 2019-06-28 11:53:24
Local clock offset: -0.293 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2019-06-28 13:23:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 686.05 Mbit/s
95th percentile per-packet one-way delay: 147.406 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 400.92 Mbit/s
95th percentile per-packet one-way delay: 146.859 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 352.33 Mbit/s
95th percentile per-packet one-way delay: 156.179 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 251.55 Mbit/s
95th percentile per-packet one-way delay: 142.390 ms
Loss rate: 4.31%
```

Run 5: Report of Indigo-MusesC3 — Data Link

74

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 09:03:03
End at: 2019-06-28 09:03:33
Local clock offset: -0.53 ms
Remote clock offset: -0.052 ms


# Below is generated by plot.py at 2019-06-28 13:23:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 521.06 Mbit/s
95th percentile per-packet one-way delay: 163.168 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 324.67 Mbit/s
95th percentile per-packet one-way delay: 161.704 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 278.08 Mbit/s
95th percentile per-packet one-way delay: 167.060 ms
Loss rate: 2.35%
-- Flow 3:
Average throughput: 87.09 Mbit/s
95th percentile per-packet one-way delay: 133.509 ms
Loss rate: 5.91%
```
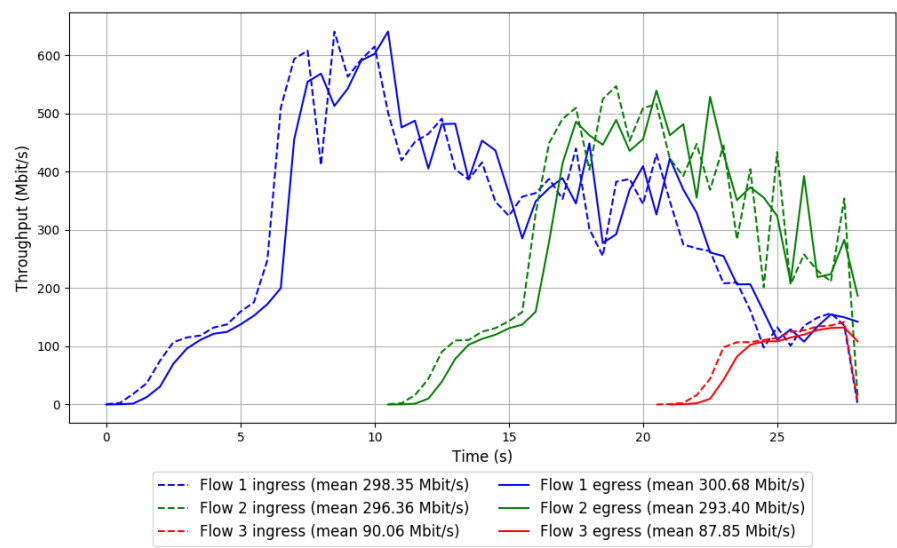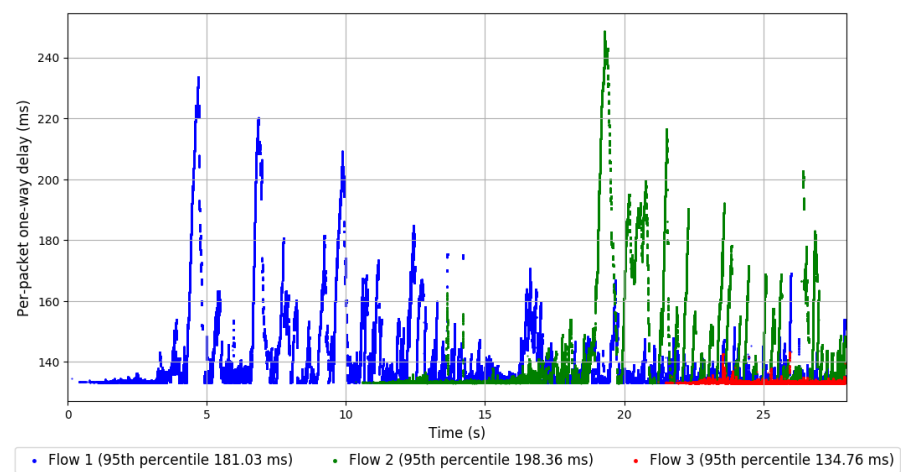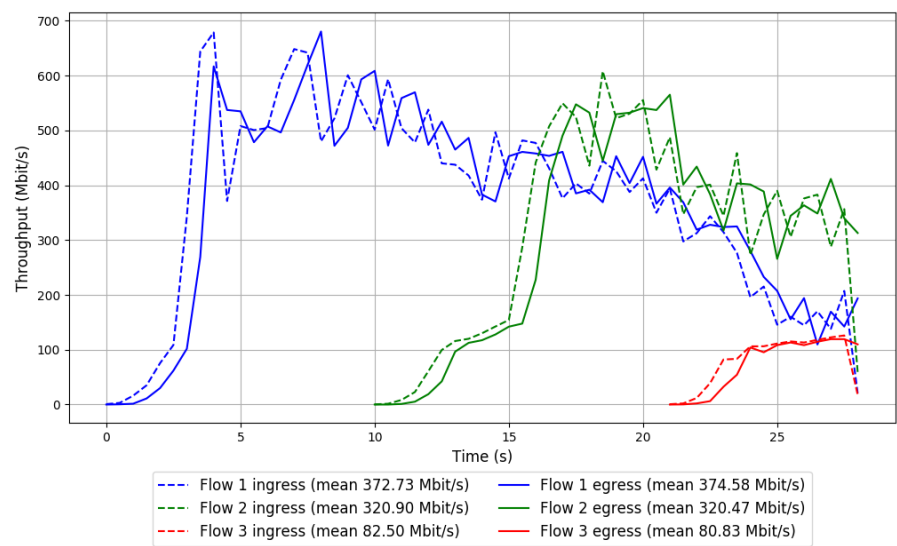
Run 1: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 323.72 Mbit/s)   Flow 1 egress (mean 324.67 Mbit/s)
Flow 2 ingress (mean 280.49 Mbit/s)   Flow 2 egress (mean 278.08 Mbit/s)
Flow 3 ingress (mean 88.90 Mbit/s)   Flow 3 egress (mean 87.09 Mbit/s)

Flow 1 (95th percentile 161.70 ms)   Flow 2 (95th percentile 167.06 ms)   Flow 3 (95th percentile 133.51 ms)

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 09:42:08
End at: 2019-06-28 09:42:38
Local clock offset: 0.268 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2019-06-28 13:23:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.60 Mbit/s
95th percentile per-packet one-way delay: 221.960 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 300.68 Mbit/s
95th percentile per-packet one-way delay: 178.062 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 293.40 Mbit/s
95th percentile per-packet one-way delay: 259.892 ms
Loss rate: 2.48%
-- Flow 3:
Average throughput: 87.85 Mbit/s
95th percentile per-packet one-way delay: 133.888 ms
Loss rate: 6.16%
```
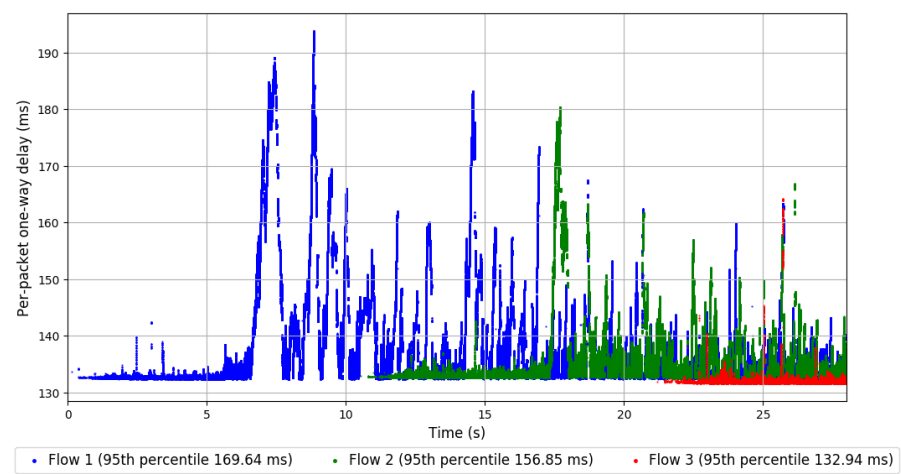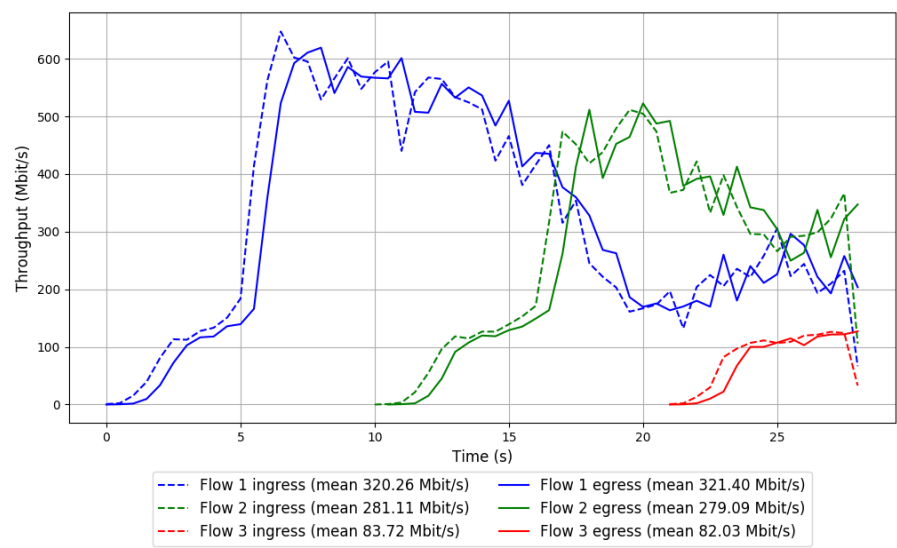
Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 298.35 Mbit/s)   Flow 1 egress (mean 300.68 Mbit/s)
Flow 2 ingress (mean 296.36 Mbit/s)   Flow 2 egress (mean 293.40 Mbit/s)
Flow 3 ingress (mean 90.06 Mbit/s)   Flow 3 egress (mean 87.85 Mbit/s)

Flow 1 (95th percentile 178.06 ms)   Flow 2 (95th percentile 259.89 ms)   Flow 3 (95th percentile 133.89 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 10:21:14
End at: 2019-06-28 10:21:44
Local clock offset: 0.148 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-06-28 13:27:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.06 Mbit/s
95th percentile per-packet one-way delay: 190.651 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 374.58 Mbit/s
95th percentile per-packet one-way delay: 181.035 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 320.47 Mbit/s
95th percentile per-packet one-way delay: 198.359 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 80.83 Mbit/s
95th percentile per-packet one-way delay: 134.763 ms
Loss rate: 5.88%
```
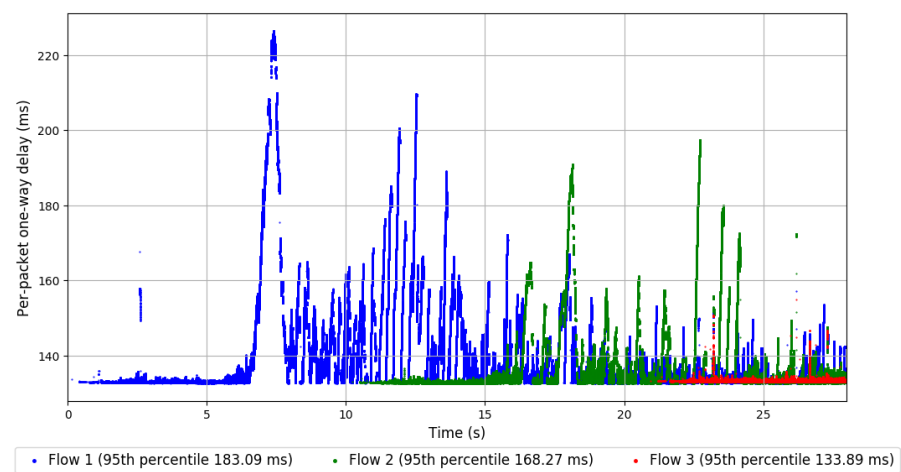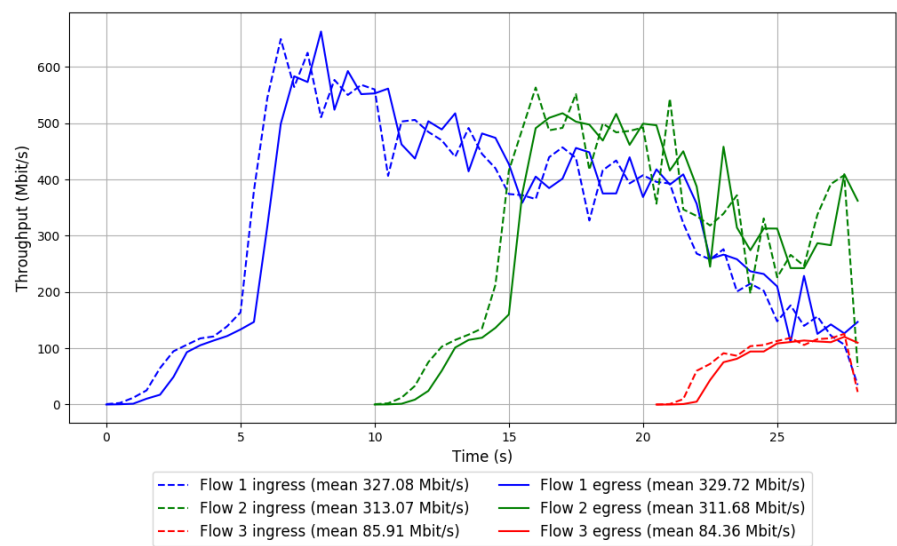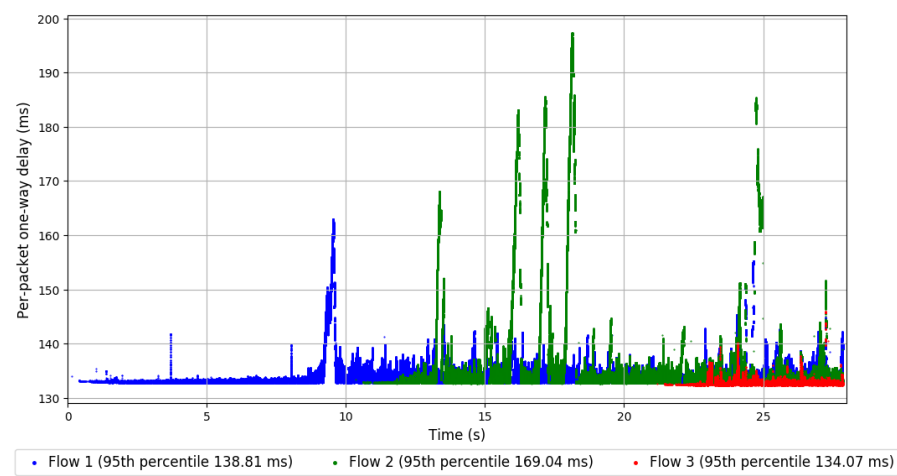
Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 372.73 Mbit/s)   Flow 1 egress (mean 374.58 Mbit/s)
Flow 2 ingress (mean 320.90 Mbit/s)   Flow 2 egress (mean 320.47 Mbit/s)
Flow 3 ingress (mean 82.50 Mbit/s)   Flow 3 egress (mean 80.83 Mbit/s)

Flow 1 (95th percentile 181.03 ms)   Flow 2 (95th percentile 198.36 ms)   Flow 3 (95th percentile 134.76 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 11:00:44
End at: 2019-06-28 11:01:14
Local clock offset: -0.69 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-06-28 13:28:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 515.98 Mbit/s
95th percentile per-packet one-way delay: 163.423 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 321.40 Mbit/s
95th percentile per-packet one-way delay: 169.636 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 279.09 Mbit/s
95th percentile per-packet one-way delay: 156.851 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 82.03 Mbit/s
95th percentile per-packet one-way delay: 132.941 ms
Loss rate: 5.66%
```

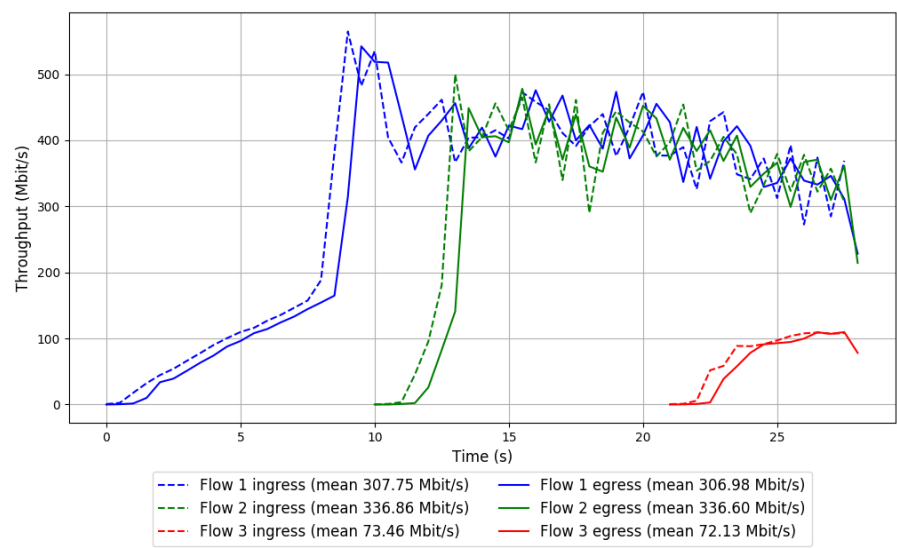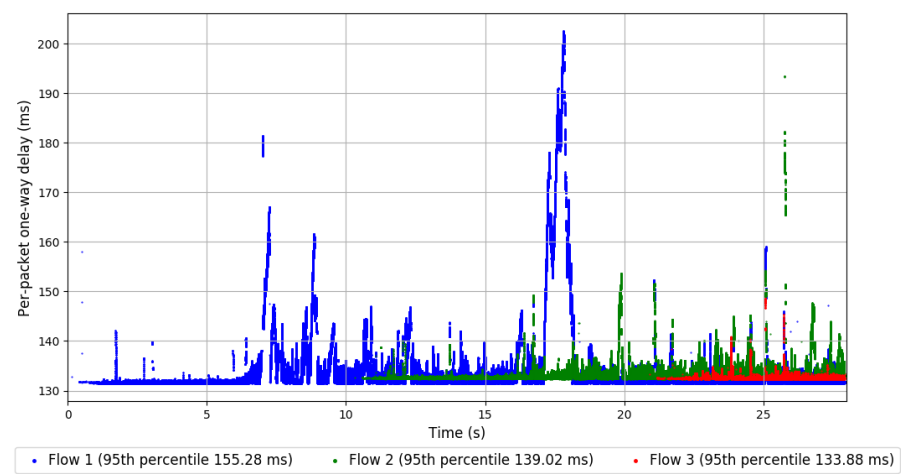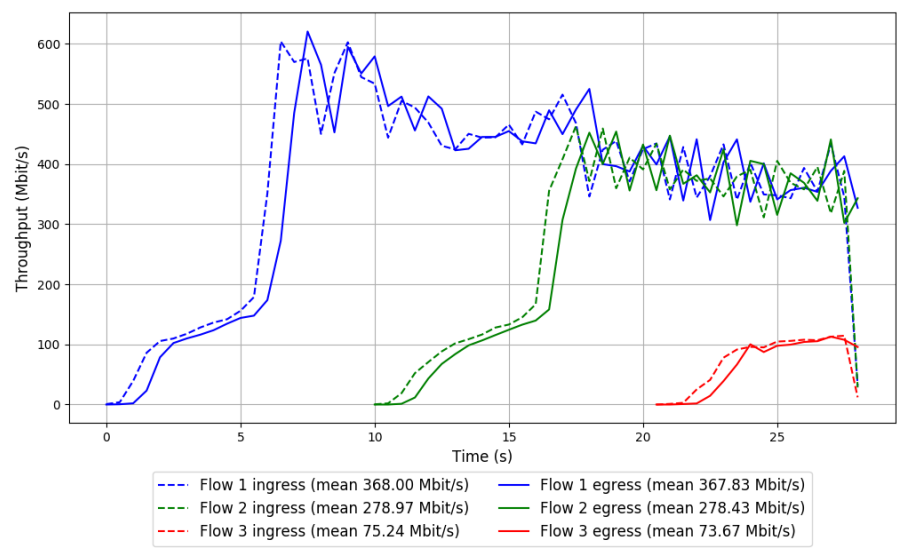Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 11:39:55
End at: 2019-06-28 11:40:25
Local clock offset: 0.007 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2019-06-28 13:31:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 549.47 Mbit/s
95th percentile per-packet one-way delay: 176.077 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 329.72 Mbit/s
95th percentile per-packet one-way delay: 183.086 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 311.68 Mbit/s
95th percentile per-packet one-way delay: 168.267 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 84.36 Mbit/s
95th percentile per-packet one-way delay: 133.889 ms
Loss rate: 5.45%
```
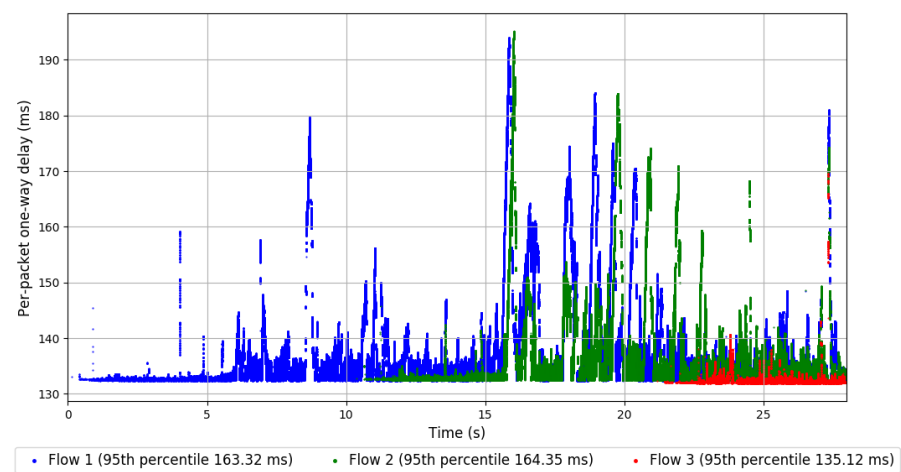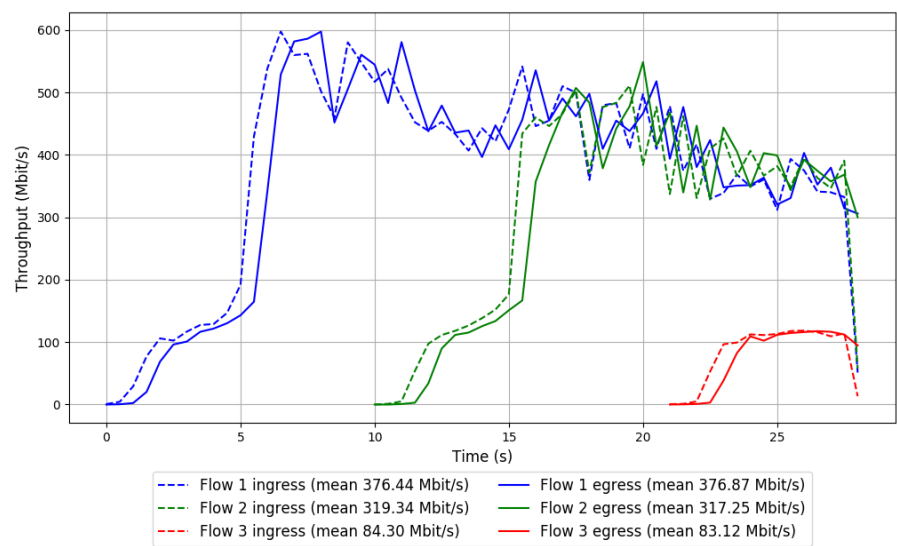
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 327.08 Mbit/s) --- Flow 1 egress (mean 329.72 Mbit/s)
Flow 2 ingress (mean 313.07 Mbit/s) --- Flow 2 egress (mean 311.68 Mbit/s)
Flow 3 ingress (mean 85.91 Mbit/s) --- Flow 3 egress (mean 84.36 Mbit/s)

Flow 1 (95th percentile 183.09 ms)   Flow 2 (95th percentile 168.27 ms)   Flow 3 (95th percentile 133.89 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 09:10:51
End at: 2019-06-28 09:11:21
Local clock offset: -0.085 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-06-28 13:31:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.90 Mbit/s
95th percentile per-packet one-way delay: 149.247 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 306.98 Mbit/s
95th percentile per-packet one-way delay: 138.810 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 336.60 Mbit/s
95th percentile per-packet one-way delay: 169.036 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 72.13 Mbit/s
95th percentile per-packet one-way delay: 134.075 ms
Loss rate: 5.58%
```
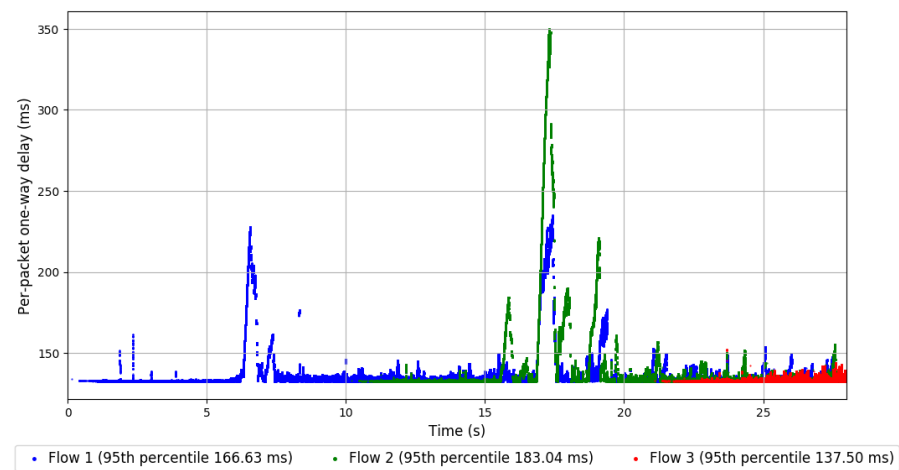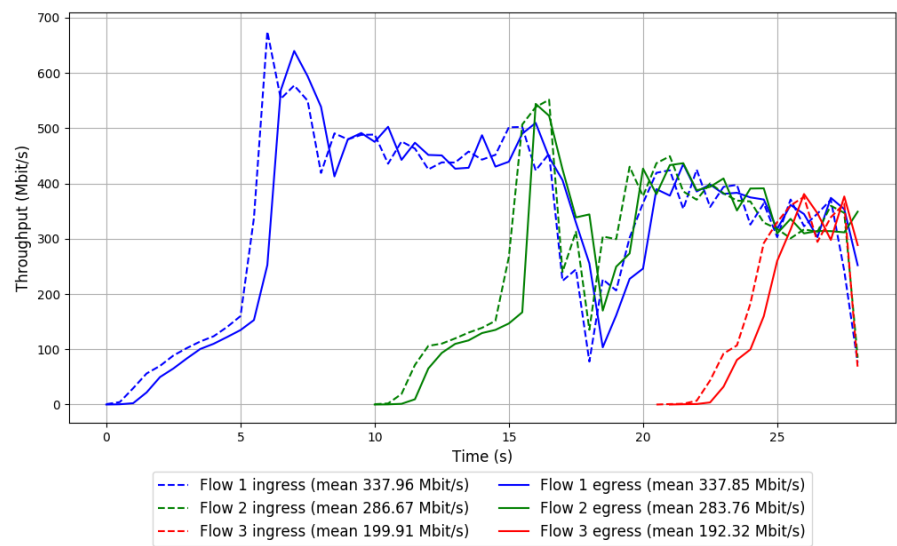
Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 307.75 Mbit/s) Flow 1 egress (mean 306.98 Mbit/s)
Flow 2 ingress (mean 336.86 Mbit/s) Flow 2 egress (mean 336.60 Mbit/s)
Flow 3 ingress (mean 73.46 Mbit/s)   Flow 3 egress (mean 72.13 Mbit/s)

Flow 1 (95th percentile 138.81 ms)   Flow 2 (95th percentile 169.04 ms)   Flow 3 (95th percentile 134.07 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 09:49:51
End at: 2019-06-28 09:50:21
Local clock offset: -0.401 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2019-06-28 13:32:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 562.83 Mbit/s
95th percentile per-packet one-way delay: 146.948 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 367.83 Mbit/s
95th percentile per-packet one-way delay: 155.285 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 278.43 Mbit/s
95th percentile per-packet one-way delay: 139.018 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 73.67 Mbit/s
95th percentile per-packet one-way delay: 133.876 ms
Loss rate: 5.65%
```
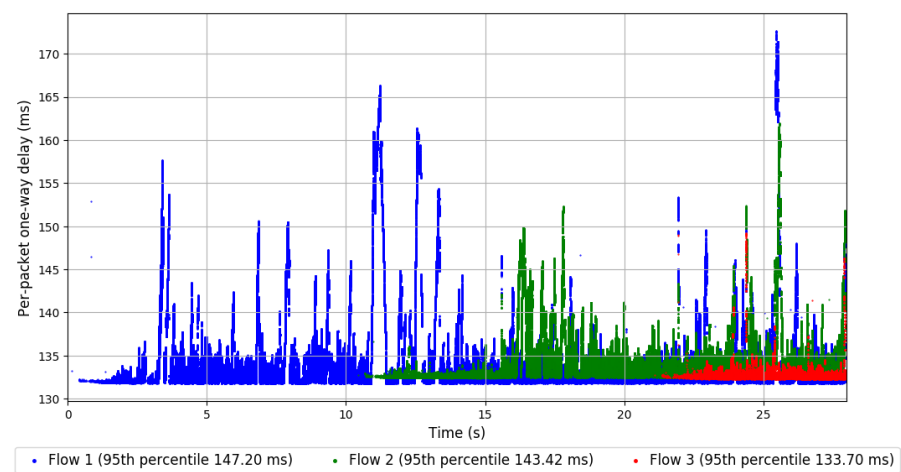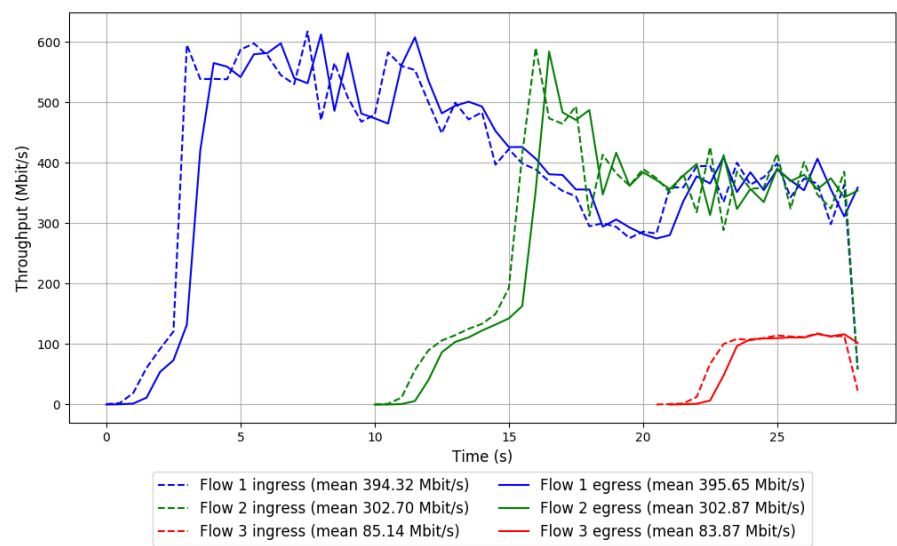
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 10:28:54
End at: 2019-06-28 10:29:24
Local clock offset: -0.417 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2019-06-28 13:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.35 Mbit/s
95th percentile per-packet one-way delay: 163.518 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 376.87 Mbit/s
95th percentile per-packet one-way delay: 163.324 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 317.25 Mbit/s
95th percentile per-packet one-way delay: 164.349 ms
Loss rate: 2.12%
-- Flow 3:
Average throughput: 83.12 Mbit/s
95th percentile per-packet one-way delay: 135.118 ms
Loss rate: 5.14%
```

Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 11:08:20
End at: 2019-06-28 11:08:50
Local clock offset: -0.606 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-06-28 13:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 566.52 Mbit/s
95th percentile per-packet one-way delay: 172.986 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 337.85 Mbit/s
95th percentile per-packet one-way delay: 166.629 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 283.76 Mbit/s
95th percentile per-packet one-way delay: 183.038 ms
Loss rate: 2.47%
-- Flow 3:
Average throughput: 192.32 Mbit/s
95th percentile per-packet one-way delay: 137.500 ms
Loss rate: 7.40%
```
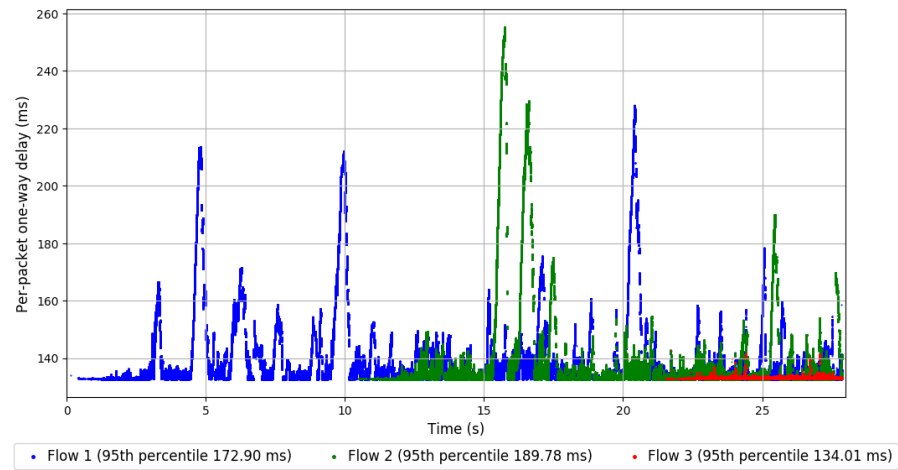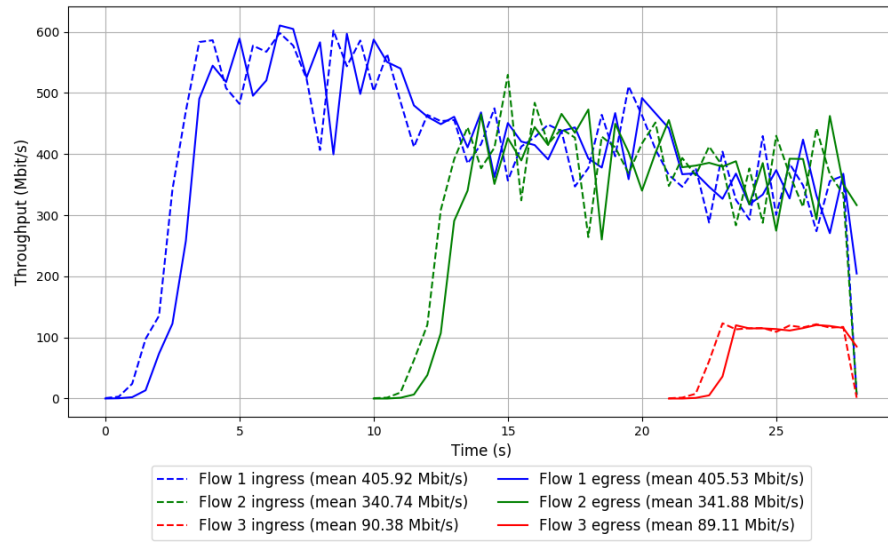
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 11:47:27
End at: 2019-06-28 11:47:57
Local clock offset: -0.587 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2019-06-28 13:35:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 607.09 Mbit/s
95th percentile per-packet one-way delay: 145.223 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 395.65 Mbit/s
95th percentile per-packet one-way delay: 147.201 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 302.87 Mbit/s
95th percentile per-packet one-way delay: 143.416 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 83.87 Mbit/s
95th percentile per-packet one-way delay: 133.701 ms
Loss rate: 5.17%
```
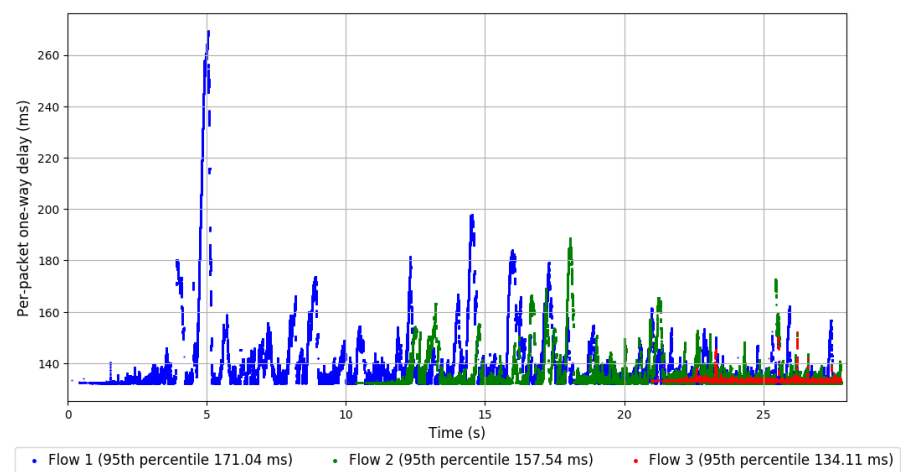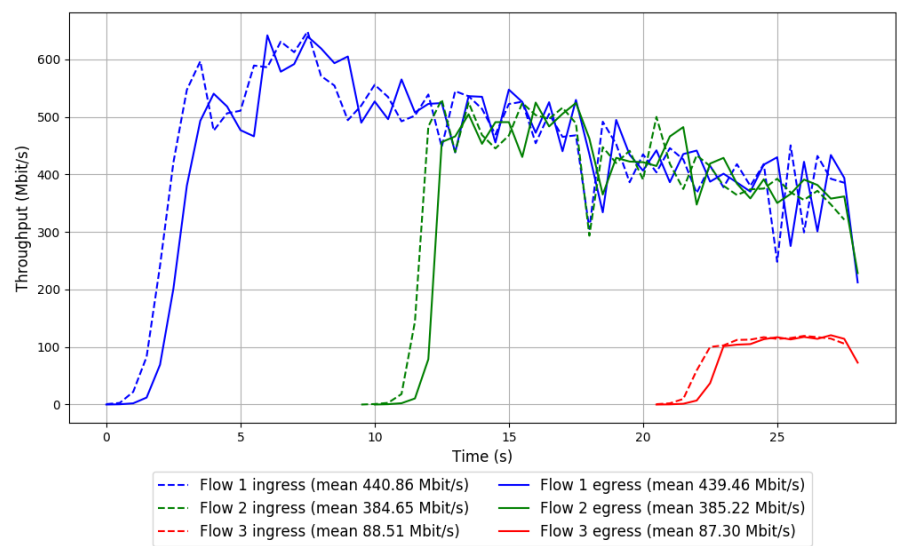
Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 394.32 Mbit/s) ---- Flow 1 egress (mean 395.65 Mbit/s)
Flow 2 ingress (mean 302.70 Mbit/s) ---- Flow 2 egress (mean 302.87 Mbit/s)
Flow 3 ingress (mean 85.14 Mbit/s) ---- Flow 3 egress (mean 83.87 Mbit/s)

Flow 1 (95th percentile 147.20 ms)   Flow 2 (95th percentile 143.42 ms)   Flow 3 (95th percentile 133.70 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-28 09:23:23
End at: 2019-06-28 09:23:53
Local clock offset: 0.173 ms
Remote clock offset: 0.349 ms


# Below is generated by plot.py at 2019-06-28 13:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 643.93 Mbit/s
95th percentile per-packet one-way delay: 177.388 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 405.53 Mbit/s
95th percentile per-packet one-way delay: 172.896 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 341.88 Mbit/s
95th percentile per-packet one-way delay: 189.775 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 89.11 Mbit/s
95th percentile per-packet one-way delay: 134.011 ms
Loss rate: 5.42%
```
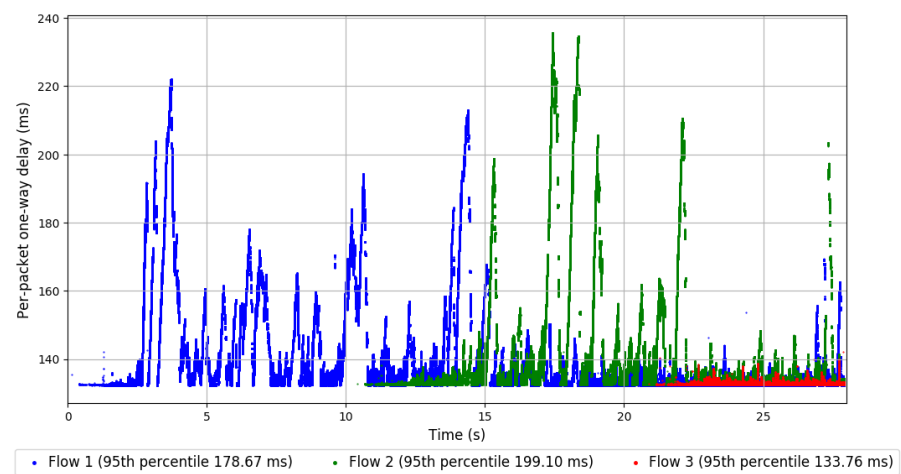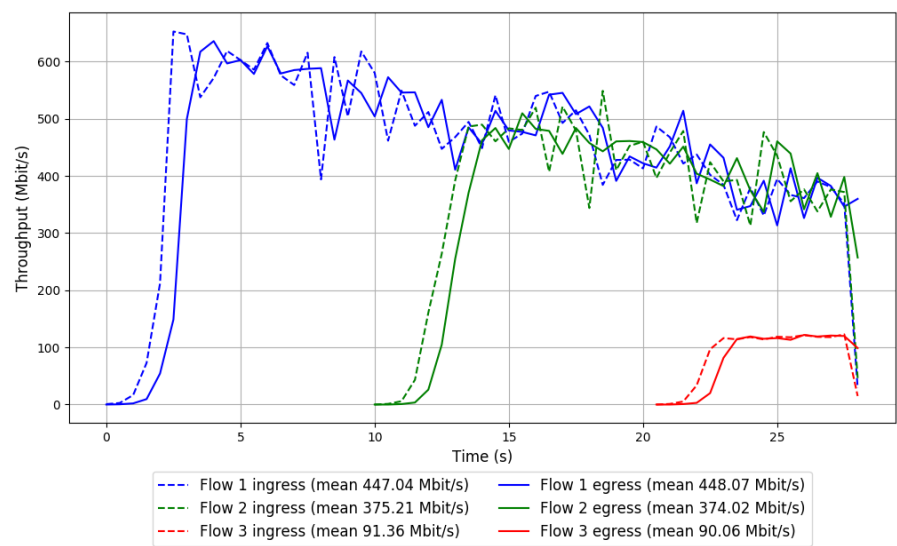
Run 1: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 405.92 Mbit/s) — — — Flow 1 egress (mean 405.53 Mbit/s)
Flow 2 ingress (mean 340.74 Mbit/s) — — — Flow 2 egress (mean 341.88 Mbit/s)
Flow 3 ingress (mean 90.38 Mbit/s) — — — Flow 3 egress (mean 89.11 Mbit/s)

Flow 1 (95th percentile 172.90 ms)   Flow 2 (95th percentile 189.78 ms)   Flow 3 (95th percentile 134.01 ms)
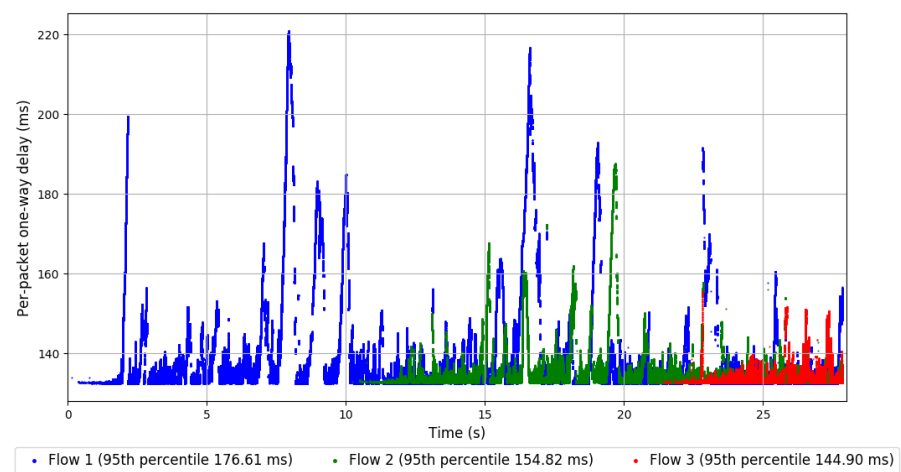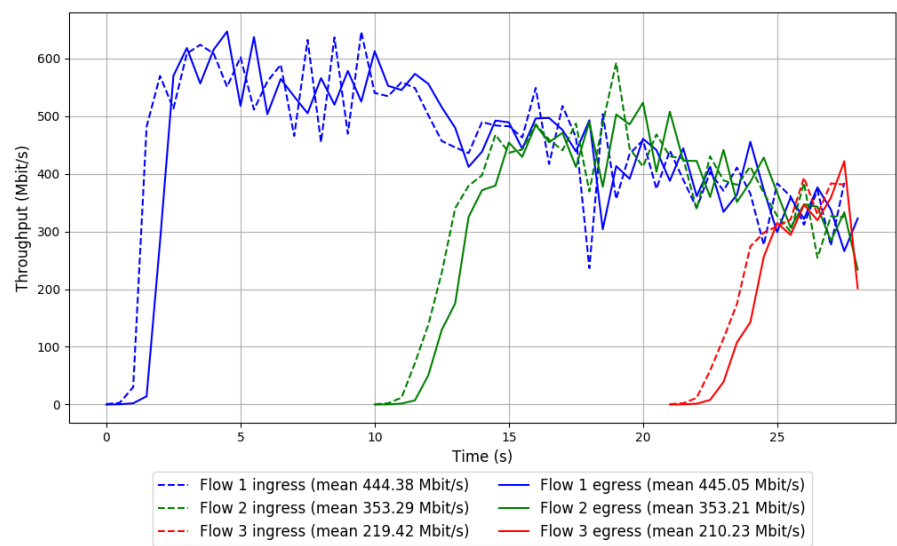
```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-28 10:02:23
End at: 2019-06-28 10:02:53
Local clock offset: 0.244 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2019-06-28 13:41:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 708.55 Mbit/s
95th percentile per-packet one-way delay: 164.200 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 439.46 Mbit/s
95th percentile per-packet one-way delay: 171.045 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 385.22 Mbit/s
95th percentile per-packet one-way delay: 157.545 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 87.30 Mbit/s
95th percentile per-packet one-way delay: 134.113 ms
Loss rate: 4.93%
```
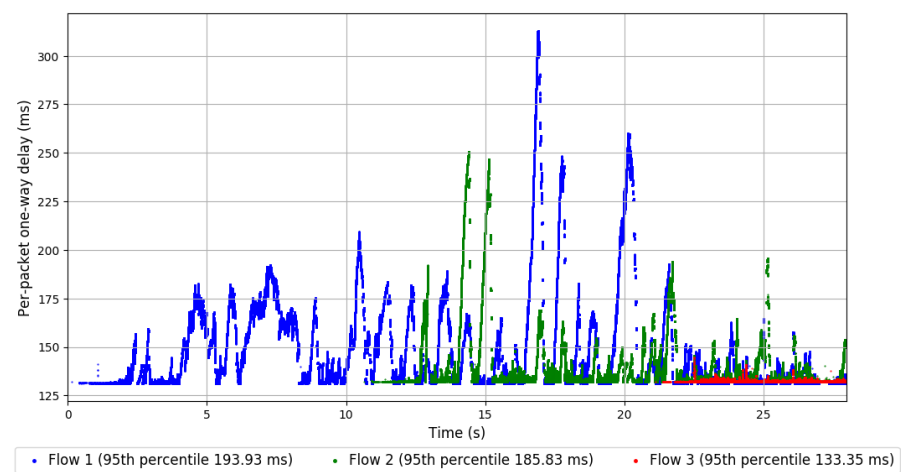
Run 2: Report of Indigo-MusesT — Data Link

- - - - Flow 1 ingress (mean 440.86 Mbit/s) ——— Flow 1 egress (mean 439.46 Mbit/s)
- - - - Flow 2 ingress (mean 384.65 Mbit/s) ——— Flow 2 egress (mean 385.22 Mbit/s)
- - - - Flow 3 ingress (mean 88.51 Mbit/s) ——— Flow 3 egress (mean 87.30 Mbit/s)

• Flow 1 (95th percentile 171.04 ms)　　• Flow 2 (95th percentile 157.54 ms)　　• Flow 3 (95th percentile 134.11 ms)

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-28 10:41:18
End at: 2019-06-28 10:41:48
Local clock offset: -0.613 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2019-06-28 13:44:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 706.50 Mbit/s
95th percentile per-packet one-way delay: 184.672 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 448.07 Mbit/s
95th percentile per-packet one-way delay: 178.670 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 374.02 Mbit/s
95th percentile per-packet one-way delay: 199.101 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 90.06 Mbit/s
95th percentile per-packet one-way delay: 133.756 ms
Loss rate: 5.03%
```
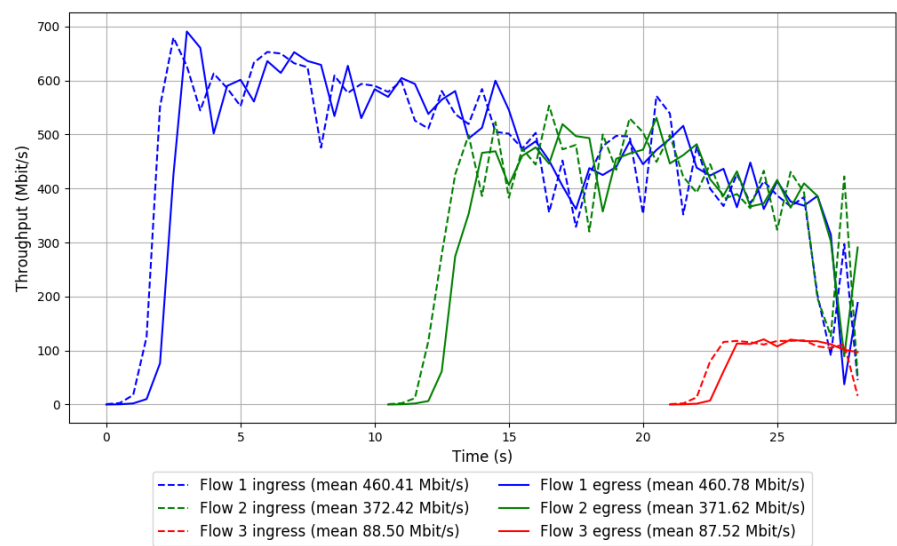
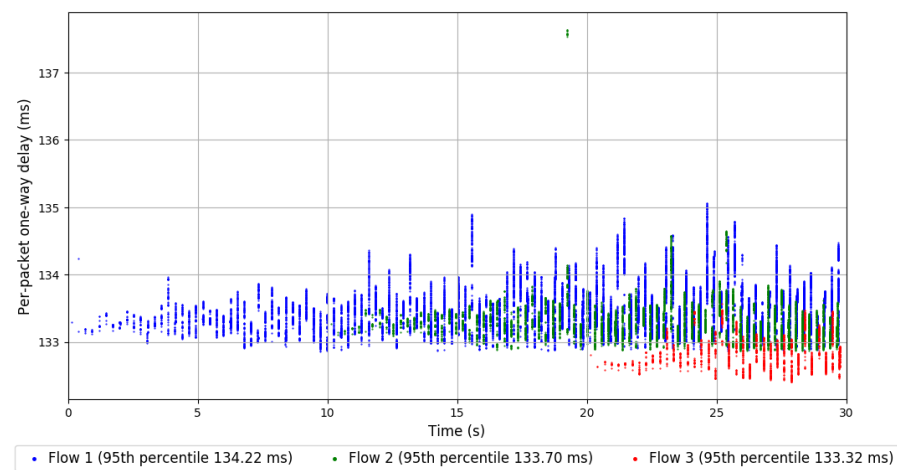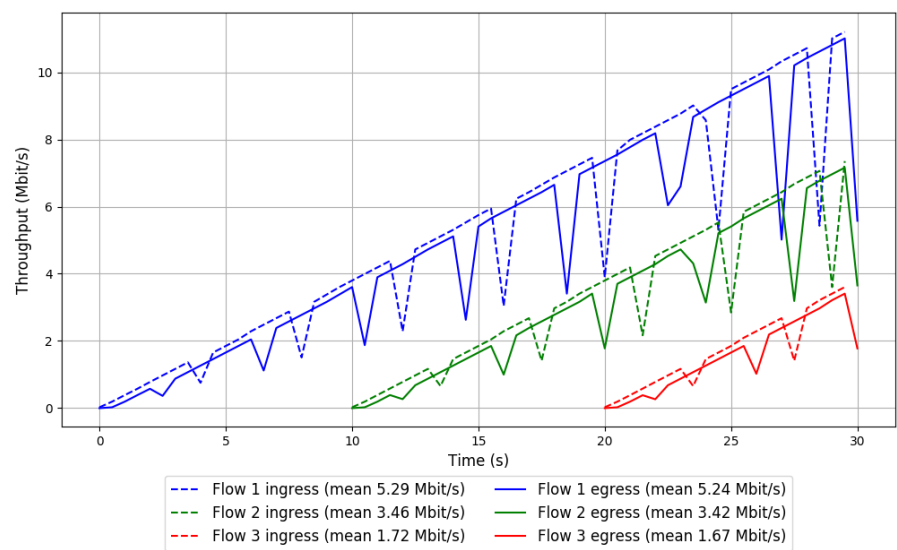Run 3: Report of Indigo-MusesT — Data Link

100

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-28 11:20:47
End at: 2019-06-28 11:21:17
Local clock offset: -0.728 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2019-06-28 13:45:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.37 Mbit/s
95th percentile per-packet one-way delay: 169.337 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 445.05 Mbit/s
95th percentile per-packet one-way delay: 176.611 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 353.21 Mbit/s
95th percentile per-packet one-way delay: 154.820 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 210.23 Mbit/s
95th percentile per-packet one-way delay: 144.903 ms
Loss rate: 7.87%
```

Run 4: Report of Indigo-MusesT — Data Link
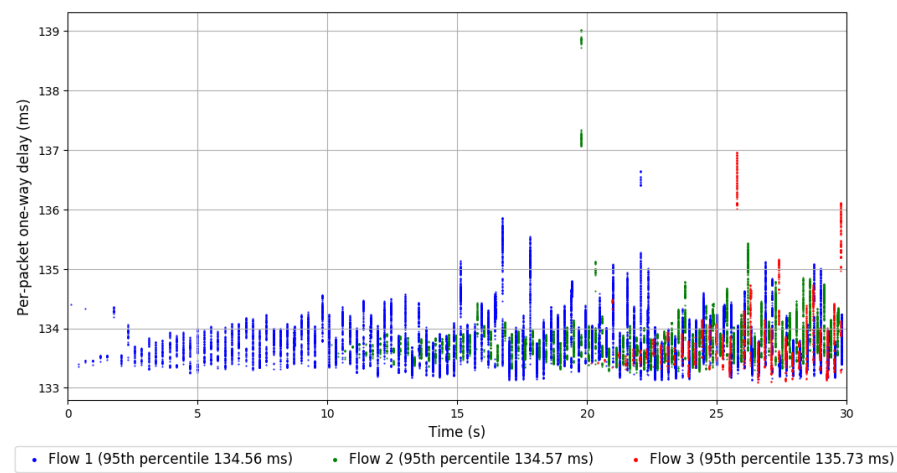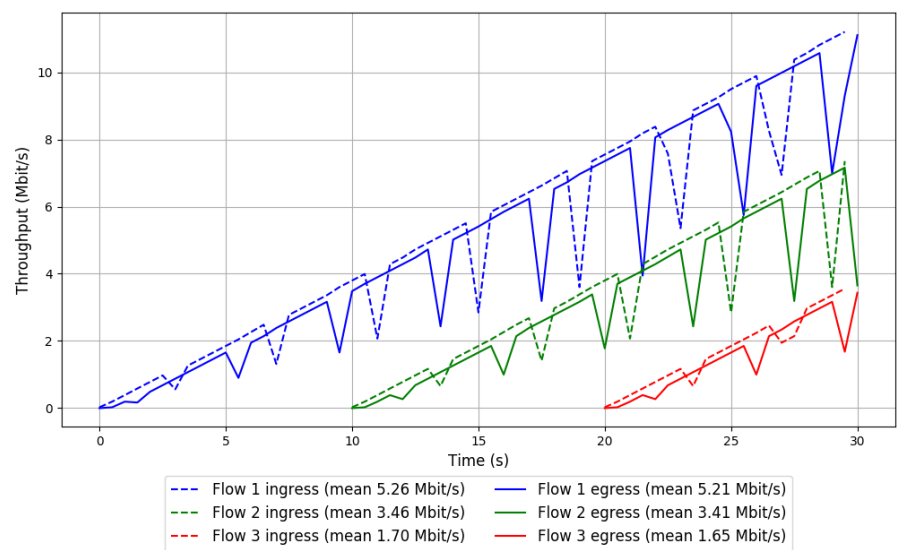

- - - Flow 1 ingress (mean 444.38 Mbit/s) —— Flow 1 egress (mean 445.05 Mbit/s)
- - - Flow 2 ingress (mean 353.29 Mbit/s) —— Flow 2 egress (mean 353.21 Mbit/s)
- - - Flow 3 ingress (mean 219.42 Mbit/s) —— Flow 3 egress (mean 210.23 Mbit/s)

• Flow 1 (95th percentile 176.61 ms) • Flow 2 (95th percentile 154.82 ms) • Flow 3 (95th percentile 144.90 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-28 12:00:16
End at: 2019-06-28 12:00:46
Local clock offset: -0.329 ms
Remote clock offset: 0.292 ms


# Below is generated by plot.py at 2019-06-28 13:45:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 712.97 Mbit/s
95th percentile per-packet one-way delay: 190.079 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 460.78 Mbit/s
95th percentile per-packet one-way delay: 193.925 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 371.62 Mbit/s
95th percentile per-packet one-way delay: 185.834 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 87.52 Mbit/s
95th percentile per-packet one-way delay: 133.350 ms
Loss rate: 4.92%
```

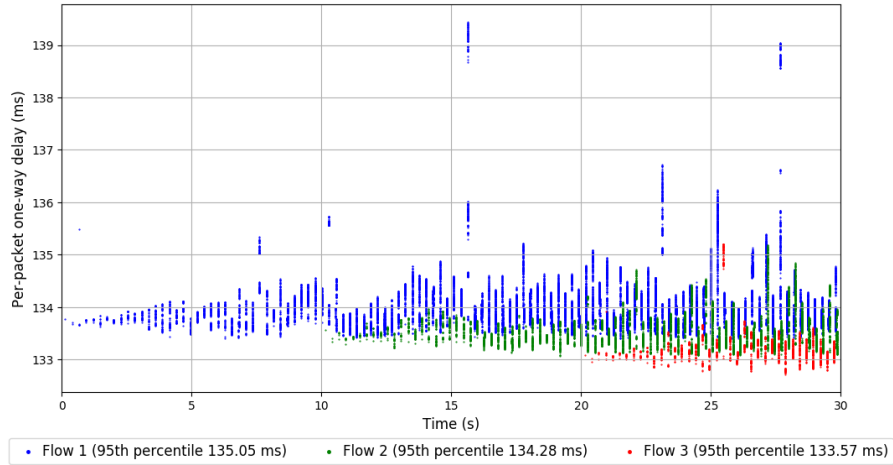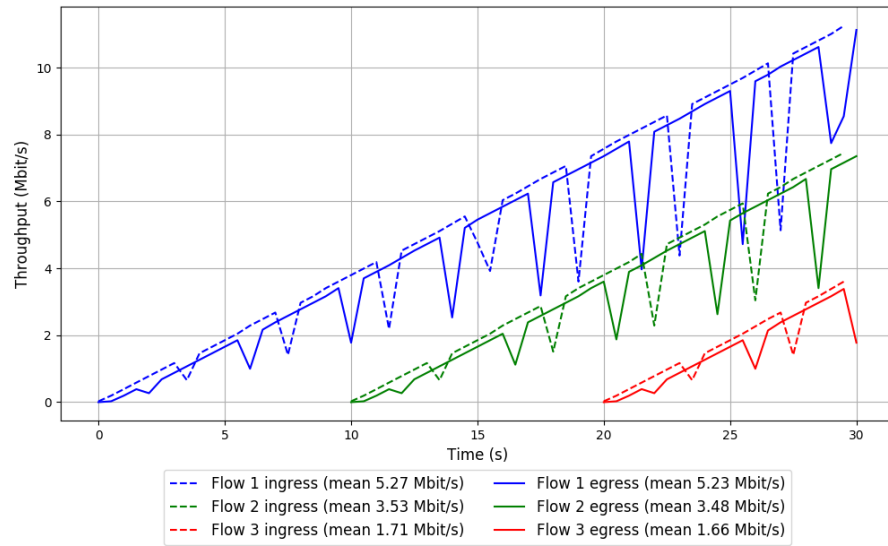# Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-06-28 09:00:24
End at: 2019-06-28 09:00:54
Local clock offset: -0.093 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-06-28 13:45:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 134.118 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 134.218 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 133.696 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 133.317 ms
Loss rate: 5.39%
```
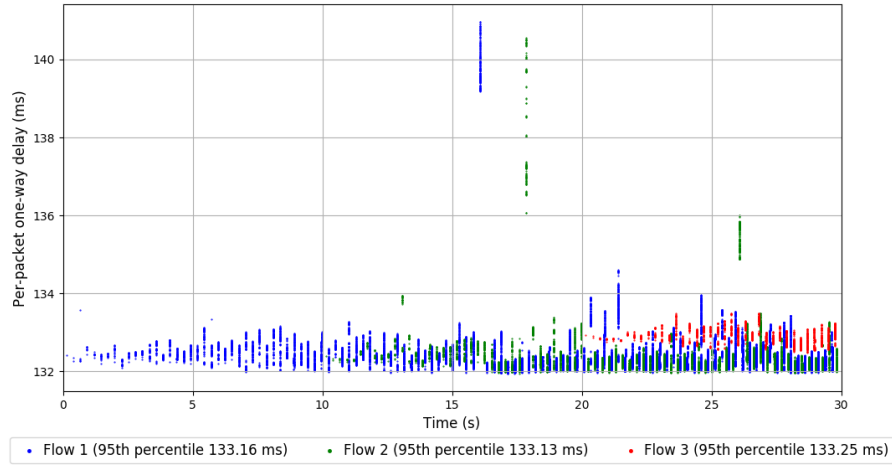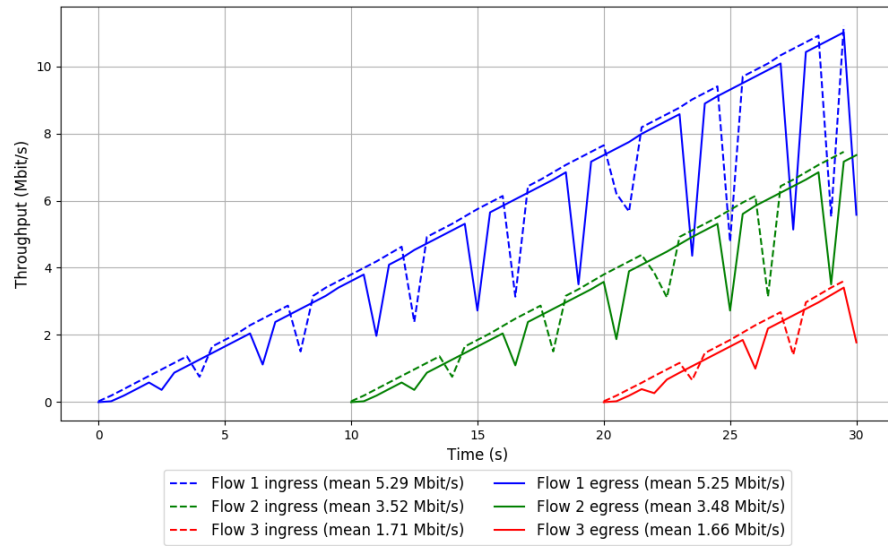
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.29 Mbit/s)   Flow 1 egress (mean 5.24 Mbit/s)
Flow 2 ingress (mean 3.46 Mbit/s)   Flow 2 egress (mean 3.42 Mbit/s)
Flow 3 ingress (mean 1.72 Mbit/s)   Flow 3 egress (mean 1.67 Mbit/s)

Flow 1 (95th percentile 134.22 ms)   Flow 2 (95th percentile 133.70 ms)   Flow 3 (95th percentile 133.32 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-06-28 09:39:29
End at: 2019-06-28 09:39:59
Local clock offset: 0.298 ms
Remote clock offset: -0.076 ms


# Below is generated by plot.py at 2019-06-28 13:45:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 134.594 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 134.564 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 134.574 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 135.726 ms
Loss rate: 5.36%
```
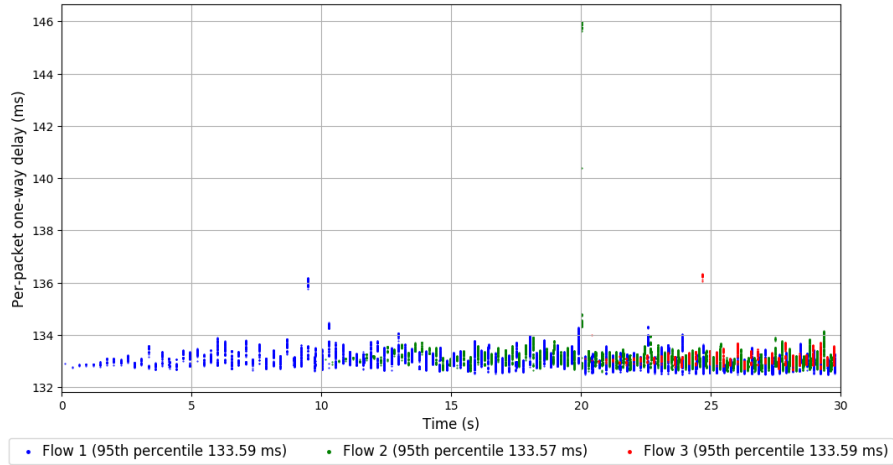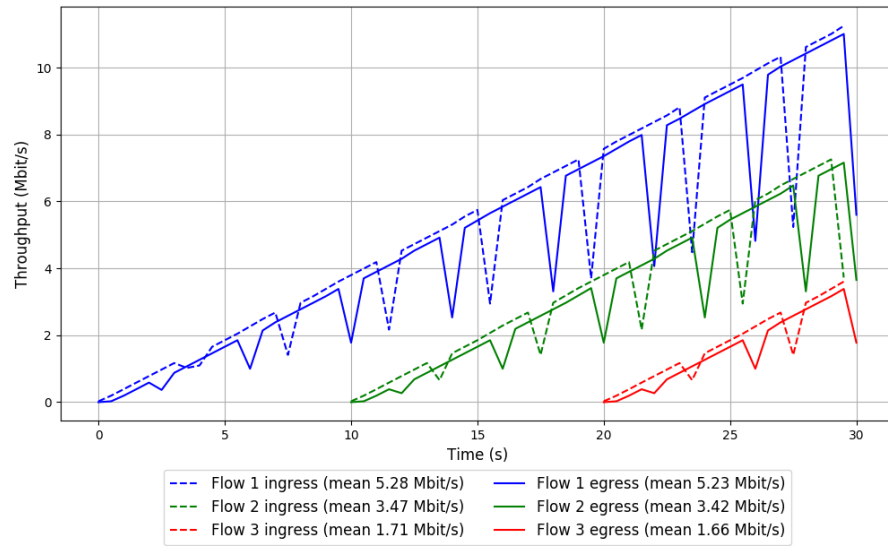
Run 2: Report of LEDBAT — Data Link

108

```
Run 3: Statistics of LEDBAT

Start at: 2019-06-28 10:18:35
End at: 2019-06-28 10:19:05
Local clock offset: 0.464 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2019-06-28 13:46:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 134.785 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 135.046 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 134.279 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 133.572 ms
Loss rate: 5.41%
```
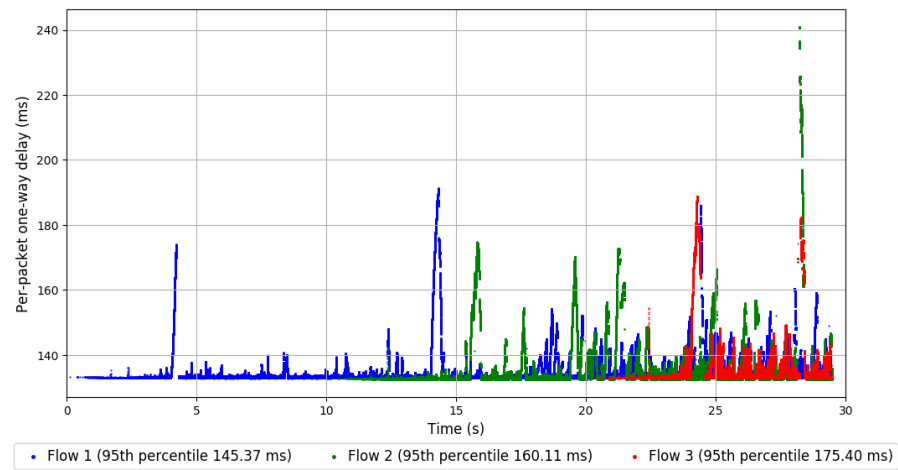
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.27 Mbit/s)   Flow 1 egress (mean 5.23 Mbit/s)
Flow 2 ingress (mean 3.53 Mbit/s)   Flow 2 egress (mean 3.48 Mbit/s)
Flow 3 ingress (mean 1.71 Mbit/s)   Flow 3 egress (mean 1.66 Mbit/s)

Flow 1 (95th percentile 135.05 ms)   Flow 2 (95th percentile 134.28 ms)   Flow 3 (95th percentile 133.57 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-06-28 10:58:05
End at: 2019-06-28 10:58:35
Local clock offset: -0.765 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-06-28 13:46:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 133.181 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.25 Mbit/s
95th percentile per-packet one-way delay: 133.156 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 133.131 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 133.252 ms
Loss rate: 5.40%
```
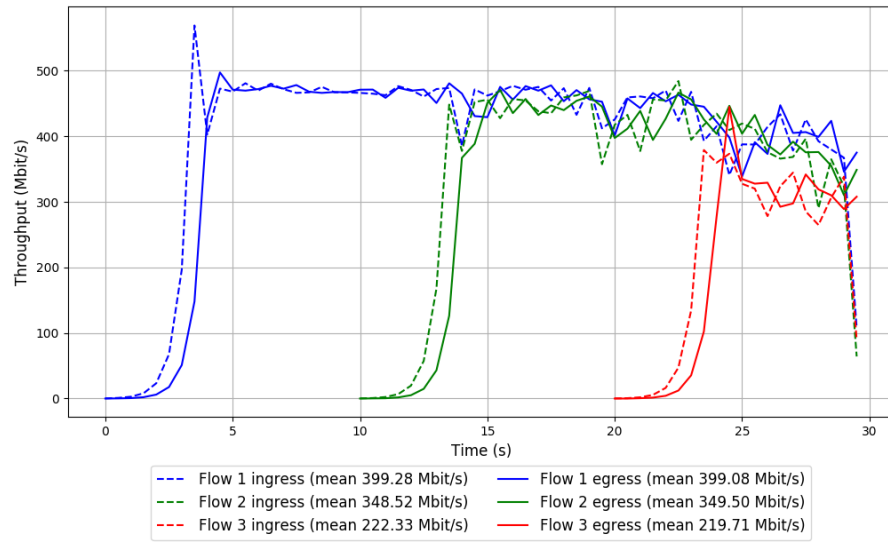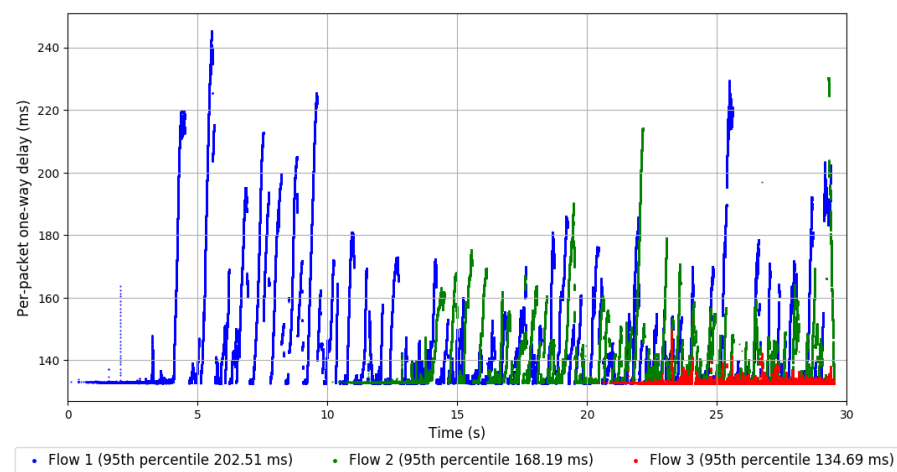
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-06-28 11:37:17
End at: 2019-06-28 11:37:47
Local clock offset: -0.761 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2019-06-28 13:46:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 133.583 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 133.585 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 133.569 ms
Loss rate: 2.72%
-- Flow 3:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 133.594 ms
Loss rate: 5.41%
```
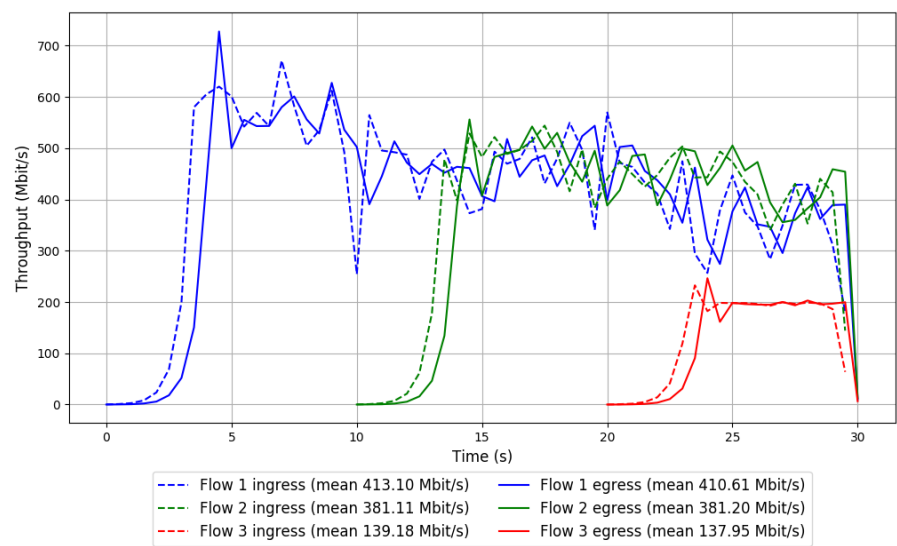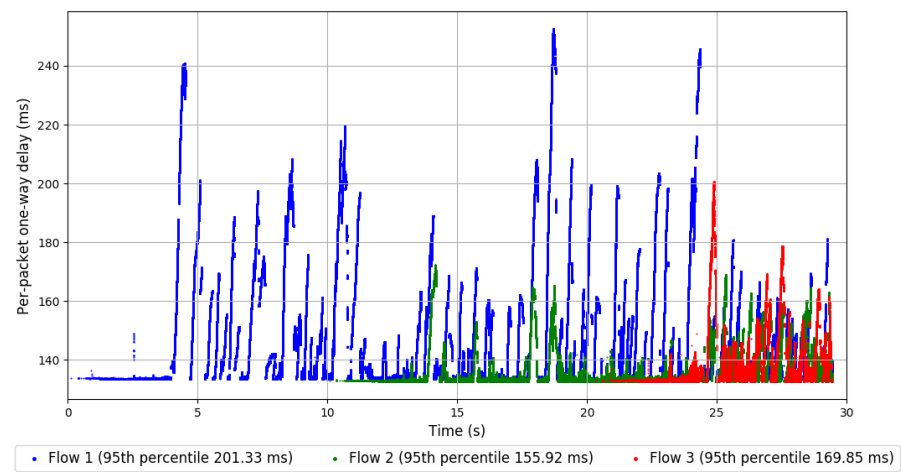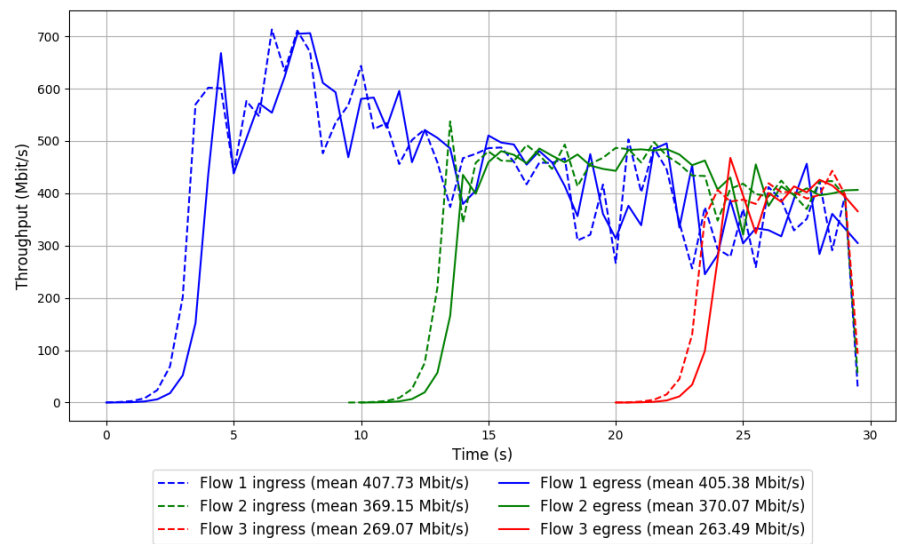
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 09:28:49
End at: 2019-06-28 09:29:19
Local clock offset: -0.218 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2019-06-28 13:48:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 697.00 Mbit/s
95th percentile per-packet one-way delay: 154.819 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 399.08 Mbit/s
95th percentile per-packet one-way delay: 145.372 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 349.50 Mbit/s
95th percentile per-packet one-way delay: 160.114 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 219.71 Mbit/s
95th percentile per-packet one-way delay: 175.402 ms
Loss rate: 4.02%
```
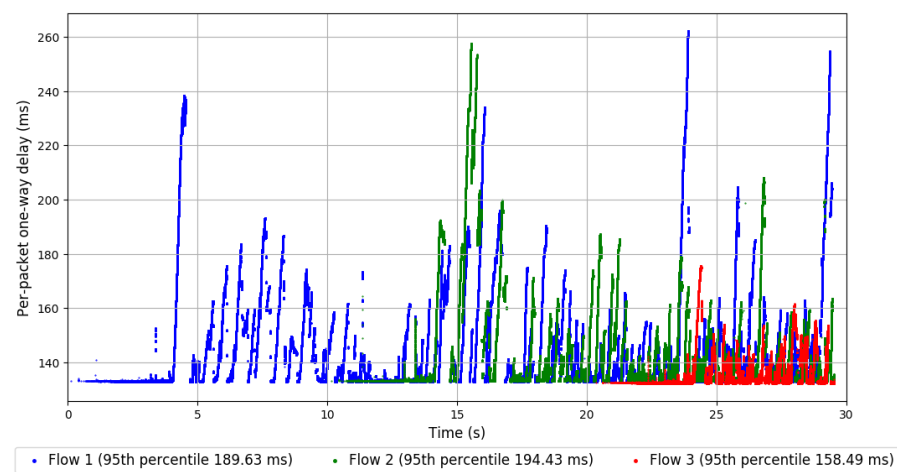
Run 1: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 399.28 Mbit/s)   Flow 1 egress (mean 399.08 Mbit/s)
Flow 2 ingress (mean 348.52 Mbit/s)   Flow 2 egress (mean 349.50 Mbit/s)
Flow 3 ingress (mean 222.33 Mbit/s)   Flow 3 egress (mean 219.71 Mbit/s)

Flow 1 (95th percentile 145.37 ms)   Flow 2 (95th percentile 160.11 ms)   Flow 3 (95th percentile 175.40 ms)

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 10:07:51
End at: 2019-06-28 10:08:21
Local clock offset: -0.162 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-06-28 13:48:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 704.38 Mbit/s
95th percentile per-packet one-way delay: 190.196 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 410.61 Mbit/s
95th percentile per-packet one-way delay: 202.512 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 381.20 Mbit/s
95th percentile per-packet one-way delay: 168.188 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 137.95 Mbit/s
95th percentile per-packet one-way delay: 134.693 ms
Loss rate: 3.70%
```
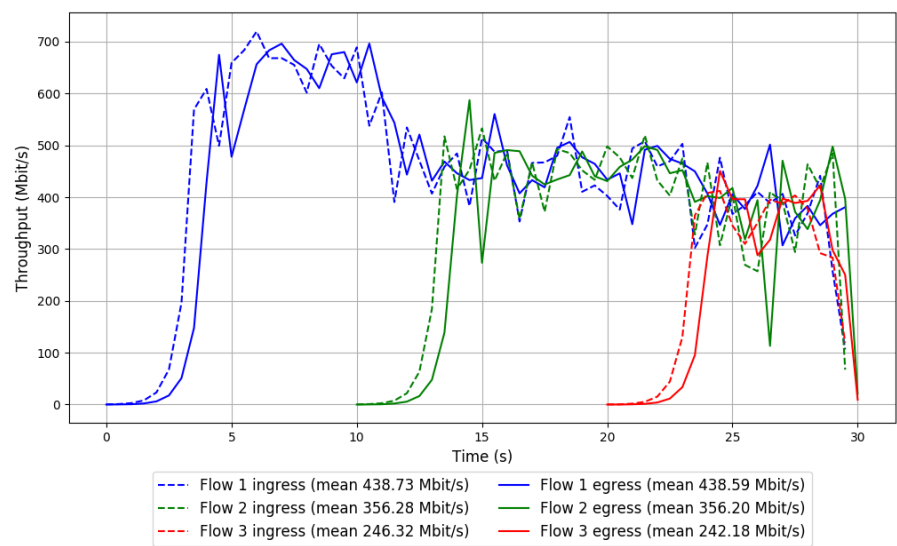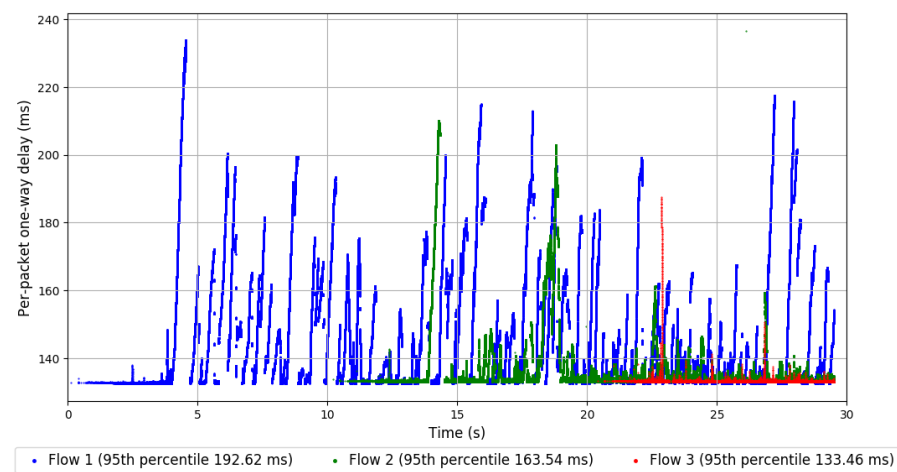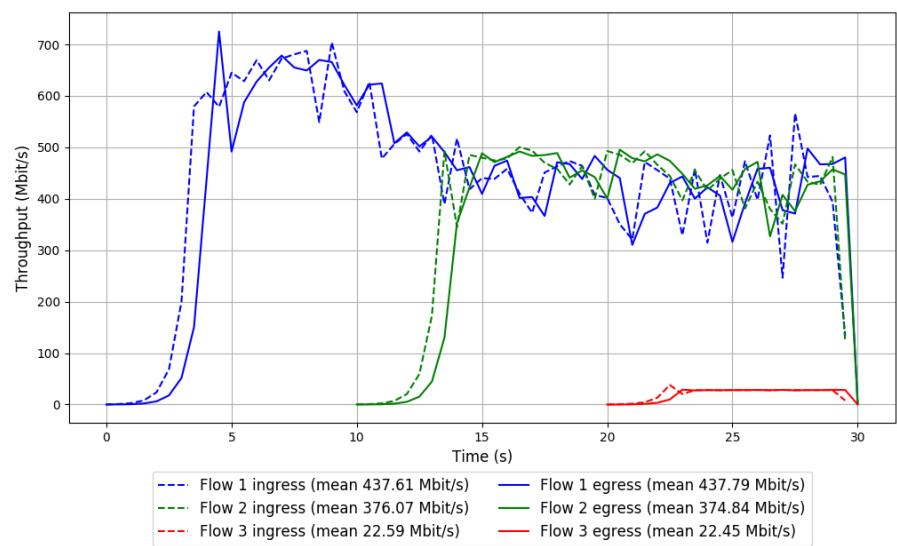
Run 2: Report of Muses_DecisionTree — Data Link

Legend:
- Flow 1 ingress (mean 413.10 Mbit/s) — Flow 1 egress (mean 410.61 Mbit/s)
- Flow 2 ingress (mean 381.11 Mbit/s) — Flow 2 egress (mean 381.20 Mbit/s)
- Flow 3 ingress (mean 139.18 Mbit/s) — Flow 3 egress (mean 137.95 Mbit/s)

Legend:
- Flow 1 (95th percentile 202.51 ms)
- Flow 2 (95th percentile 168.19 ms)
- Flow 3 (95th percentile 134.69 ms)

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 10:46:48
End at: 2019-06-28 10:47:18
Local clock offset: 0.073 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2019-06-28 13:49:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 731.72 Mbit/s
95th percentile per-packet one-way delay: 191.600 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 405.38 Mbit/s
95th percentile per-packet one-way delay: 201.334 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 370.07 Mbit/s
95th percentile per-packet one-way delay: 155.924 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 263.49 Mbit/s
95th percentile per-packet one-way delay: 169.852 ms
Loss rate: 4.85%
```
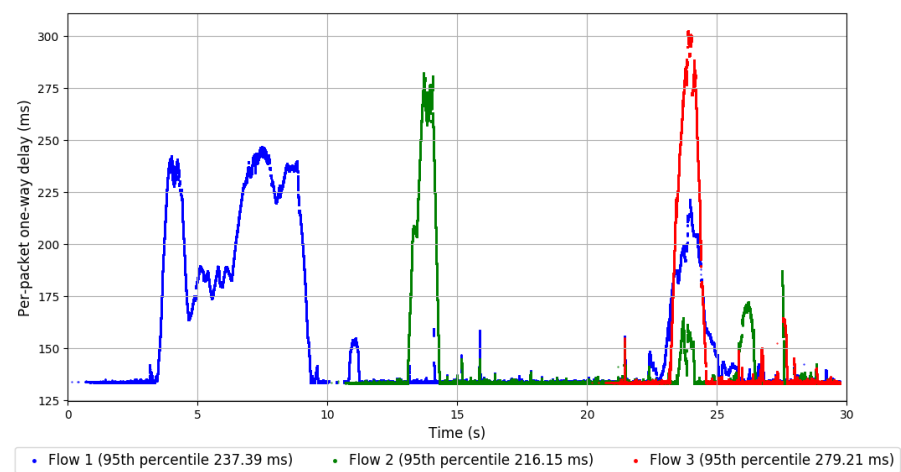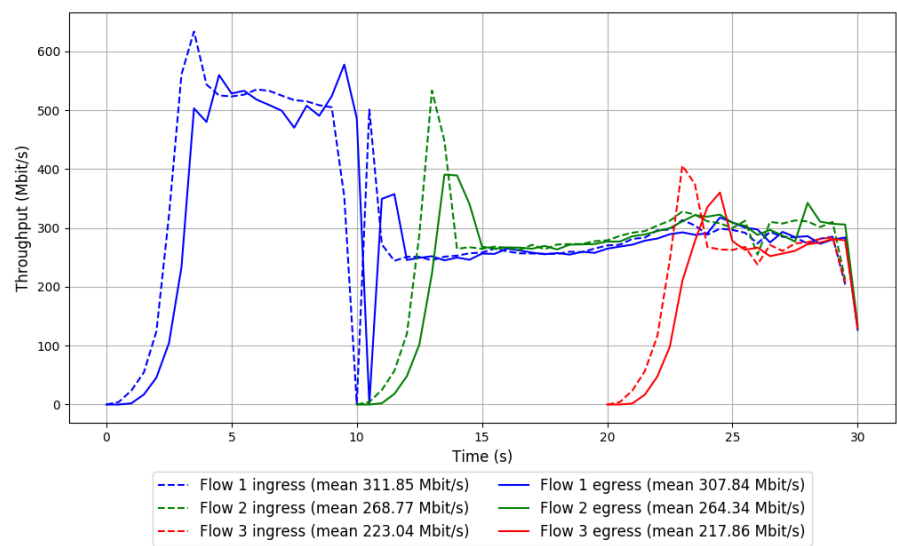
Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 11:26:18
End at: 2019-06-28 11:26:48
Local clock offset: -0.106 ms
Remote clock offset: 0.218 ms


# Below is generated by plot.py at 2019-06-28 13:54:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 748.27 Mbit/s
95th percentile per-packet one-way delay: 189.030 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 438.59 Mbit/s
95th percentile per-packet one-way delay: 189.632 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 356.20 Mbit/s
95th percentile per-packet one-way delay: 194.427 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 242.18 Mbit/s
95th percentile per-packet one-way delay: 158.493 ms
Loss rate: 4.45%
```

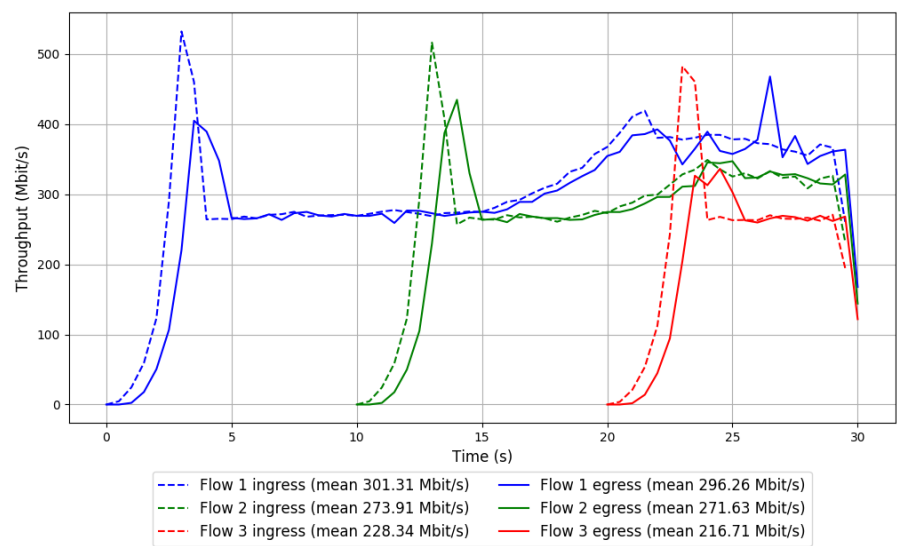Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 12:05:48
End at: 2019-06-28 12:06:18
Local clock offset: 0.327 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2019-06-28 13:54:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 691.09 Mbit/s
95th percentile per-packet one-way delay: 188.273 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 437.79 Mbit/s
95th percentile per-packet one-way delay: 192.624 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 374.84 Mbit/s
95th percentile per-packet one-way delay: 163.543 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 22.45 Mbit/s
95th percentile per-packet one-way delay: 133.462 ms
Loss rate: 3.44%
```

Run 5: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 437.61 Mbit/s) --- Flow 1 egress (mean 437.79 Mbit/s)
Flow 2 ingress (mean 376.07 Mbit/s) --- Flow 2 egress (mean 374.84 Mbit/s)
Flow 3 ingress (mean 22.59 Mbit/s) --- Flow 3 egress (mean 22.45 Mbit/s)

Flow 1 (95th percentile 192.62 ms) Flow 2 (95th percentile 163.54 ms) Flow 3 (95th percentile 133.46 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 09:26:46
End at: 2019-06-28 09:27:16
Local clock offset: 0.347 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2019-06-28 14:06:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 553.07 Mbit/s
95th percentile per-packet one-way delay: 239.077 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 307.84 Mbit/s
95th percentile per-packet one-way delay: 237.393 ms
Loss rate: 2.17%
-- Flow 2:
Average throughput: 264.34 Mbit/s
95th percentile per-packet one-way delay: 216.153 ms
Loss rate: 2.98%
-- Flow 3:
Average throughput: 217.86 Mbit/s
95th percentile per-packet one-way delay: 279.214 ms
Loss rate: 4.97%
```

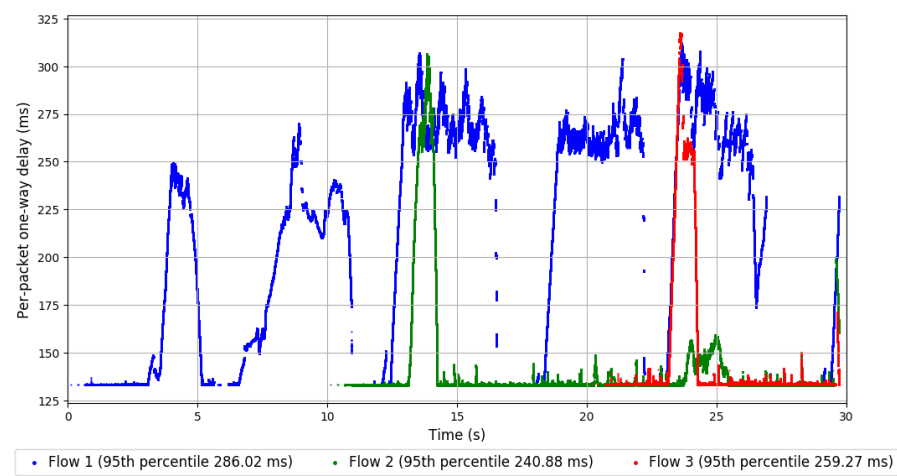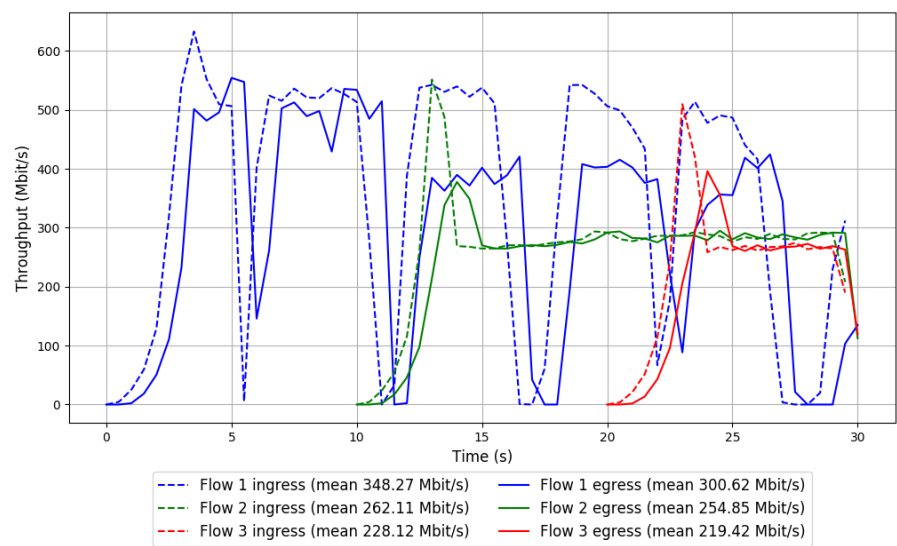# Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 311.85 Mbit/s)   Flow 1 egress (mean 307.84 Mbit/s)
Flow 2 ingress (mean 268.77 Mbit/s)   Flow 2 egress (mean 264.34 Mbit/s)
Flow 3 ingress (mean 223.04 Mbit/s)   Flow 3 egress (mean 217.86 Mbit/s)

Flow 1 (95th percentile 237.39 ms)   Flow 2 (95th percentile 216.15 ms)   Flow 3 (95th percentile 279.21 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 10:05:48
End at: 2019-06-28 10:06:18
Local clock offset: -0.429 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-06-28 14:06:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.12 Mbit/s
95th percentile per-packet one-way delay: 267.741 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 296.26 Mbit/s
95th percentile per-packet one-way delay: 270.030 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 271.63 Mbit/s
95th percentile per-packet one-way delay: 215.128 ms
Loss rate: 2.17%
-- Flow 3:
Average throughput: 216.71 Mbit/s
95th percentile per-packet one-way delay: 300.528 ms
Loss rate: 7.67%
```
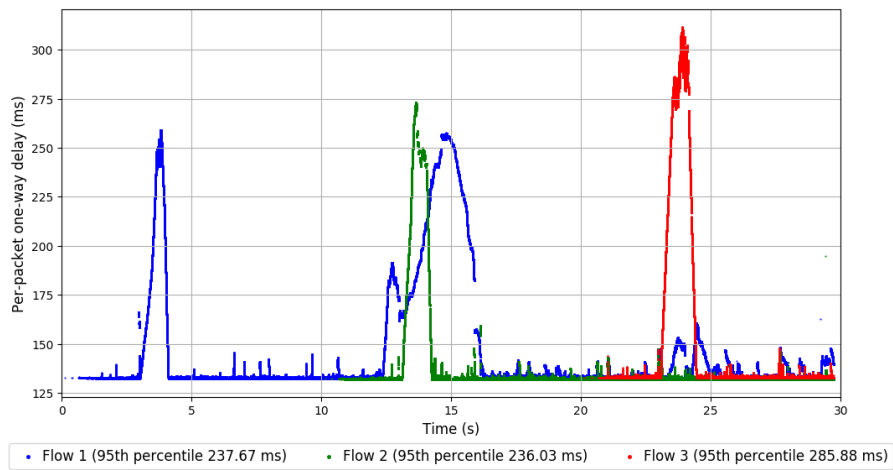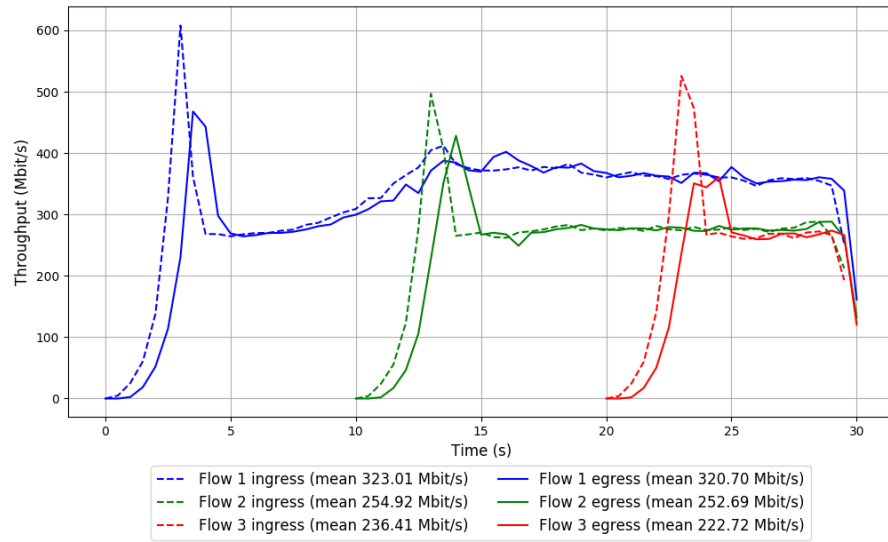
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 10:44:45
End at: 2019-06-28 10:45:15
Local clock offset: -0.136 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2019-06-28 14:06:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 525.25 Mbit/s
95th percentile per-packet one-way delay: 223.470 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 286.54 Mbit/s
95th percentile per-packet one-way delay: 218.563 ms
Loss rate: 2.36%
-- Flow 2:
Average throughput: 251.76 Mbit/s
95th percentile per-packet one-way delay: 192.753 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 222.96 Mbit/s
95th percentile per-packet one-way delay: 279.513 ms
Loss rate: 7.47%
```

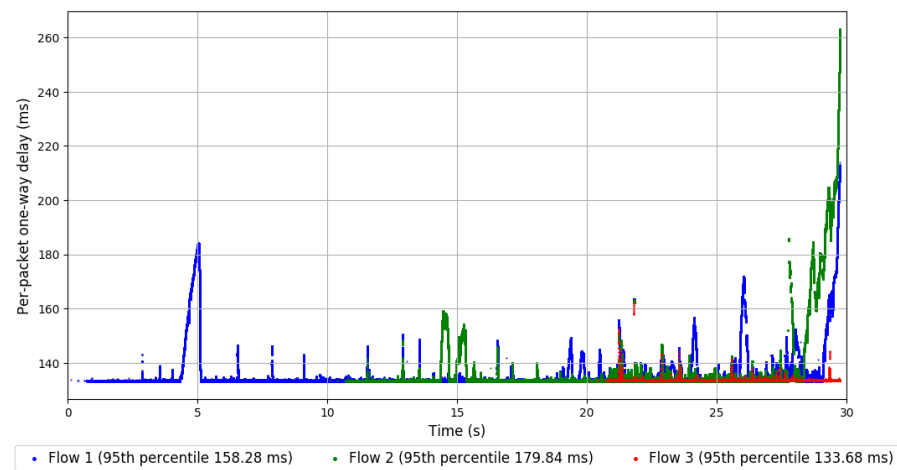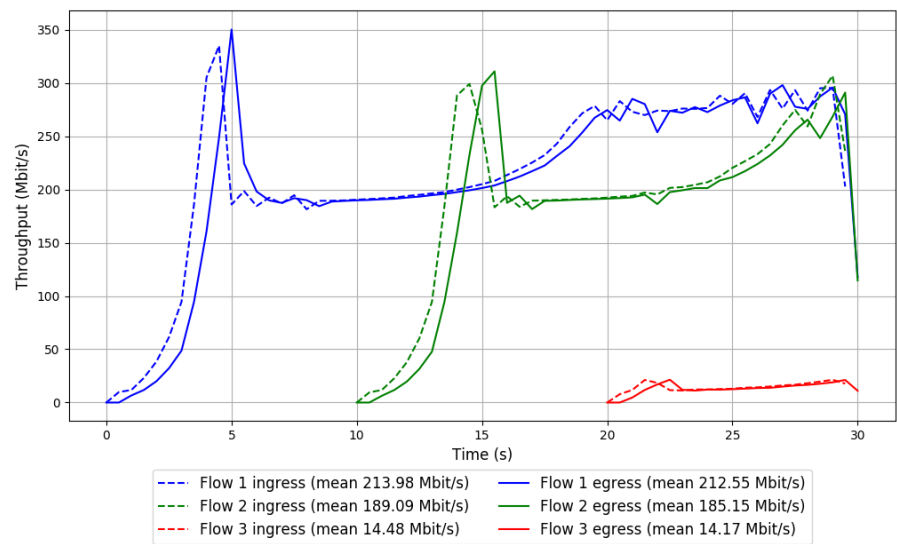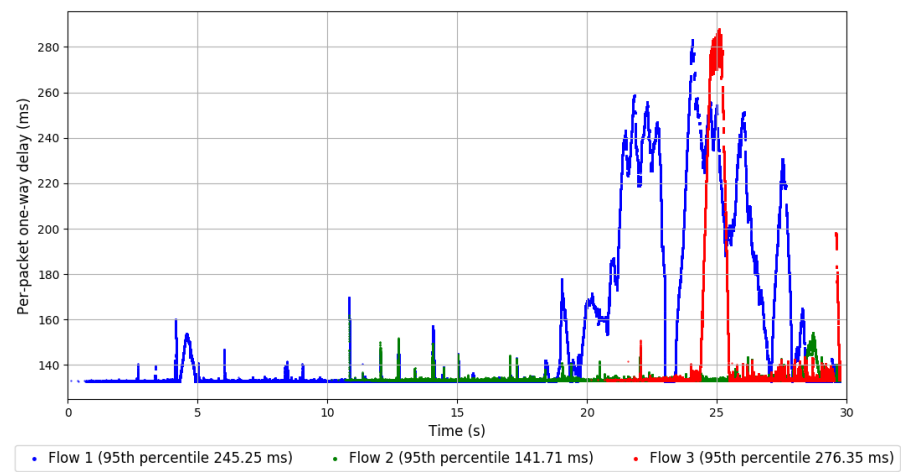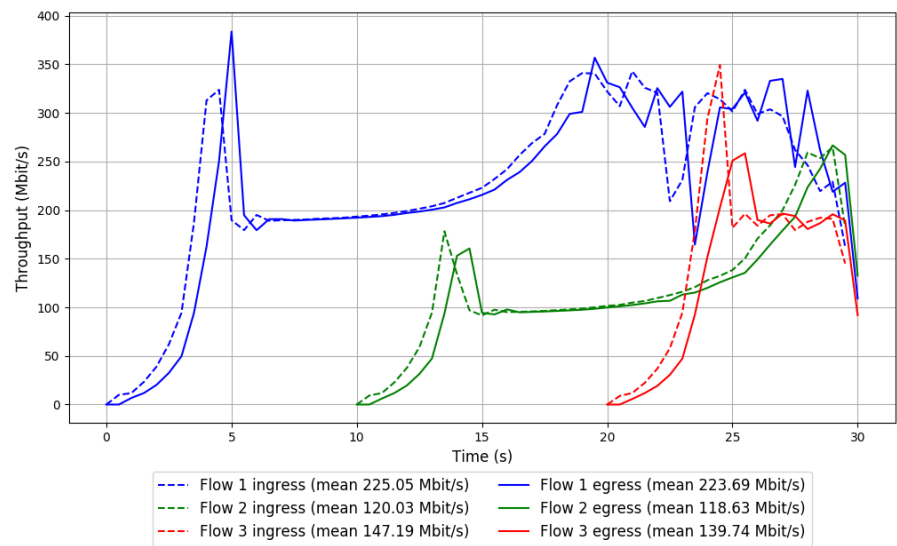# Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 11:24:13
End at: 2019-06-28 11:24:43
Local clock offset: -0.277 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2019-06-28 14:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 540.09 Mbit/s
95th percentile per-packet one-way delay: 280.329 ms
Loss rate: 10.42%
-- Flow 1:
Average throughput: 300.62 Mbit/s
95th percentile per-packet one-way delay: 286.017 ms
Loss rate: 14.45%
-- Flow 2:
Average throughput: 254.85 Mbit/s
95th percentile per-packet one-way delay: 240.884 ms
Loss rate: 4.08%
-- Flow 3:
Average throughput: 219.42 Mbit/s
95th percentile per-packet one-way delay: 259.266 ms
Loss rate: 6.43%
```

Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 348.27 Mbit/s)   Flow 1 egress (mean 300.62 Mbit/s)
Flow 2 ingress (mean 262.11 Mbit/s)   Flow 2 egress (mean 254.85 Mbit/s)
Flow 3 ingress (mean 228.12 Mbit/s)   Flow 3 egress (mean 219.42 Mbit/s)

Flow 1 (95th percentile 286.02 ms)   Flow 2 (95th percentile 240.88 ms)   Flow 3 (95th percentile 259.27 ms)
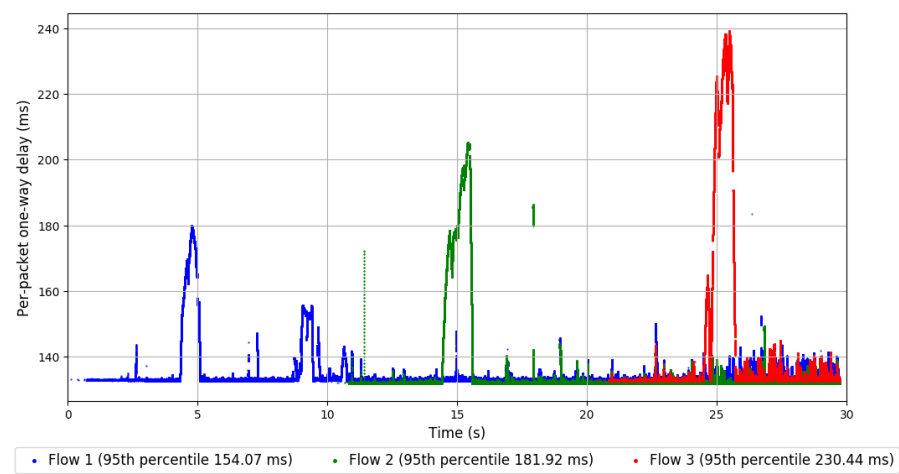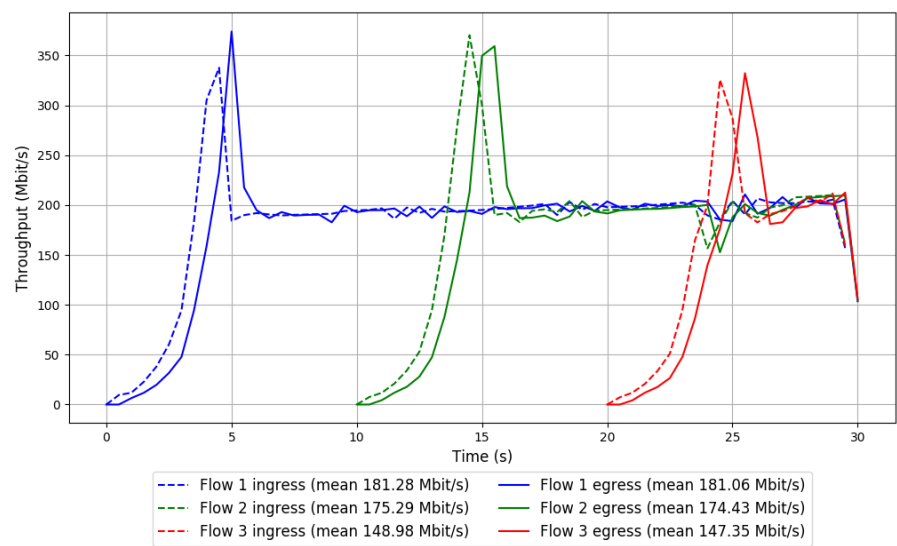
```
Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 12:03:44
End at: 2019-06-28 12:04:14
Local clock offset: 0.091 ms
Remote clock offset: 0.274 ms


# Below is generated by plot.py at 2019-06-28 14:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.89 Mbit/s
95th percentile per-packet one-way delay: 242.541 ms
Loss rate: 2.70%
-- Flow 1:
Average throughput: 320.70 Mbit/s
95th percentile per-packet one-way delay: 237.670 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 252.69 Mbit/s
95th percentile per-packet one-way delay: 236.035 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 222.72 Mbit/s
95th percentile per-packet one-way delay: 285.882 ms
Loss rate: 8.34%
```

Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 323.01 Mbit/s) Flow 1 egress (mean 320.70 Mbit/s)
Flow 2 ingress (mean 254.92 Mbit/s) Flow 2 egress (mean 252.69 Mbit/s)
Flow 3 ingress (mean 236.41 Mbit/s) Flow 3 egress (mean 222.72 Mbit/s)

Flow 1 (95th percentile 237.67 ms)   Flow 2 (95th percentile 236.03 ms)   Flow 3 (95th percentile 285.88 ms)
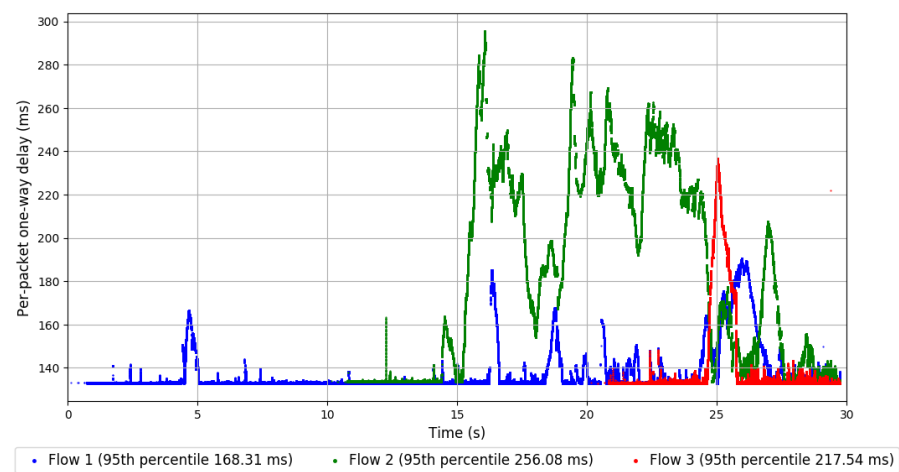
```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 09:18:08
End at: 2019-06-28 09:18:38
Local clock offset: 0.281 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-28 14:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 339.75 Mbit/s
95th percentile per-packet one-way delay: 167.024 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 212.55 Mbit/s
95th percentile per-packet one-way delay: 158.284 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 185.15 Mbit/s
95th percentile per-packet one-way delay: 179.837 ms
Loss rate: 3.40%
-- Flow 3:
Average throughput: 14.17 Mbit/s
95th percentile per-packet one-way delay: 133.681 ms
Loss rate: 4.77%
```
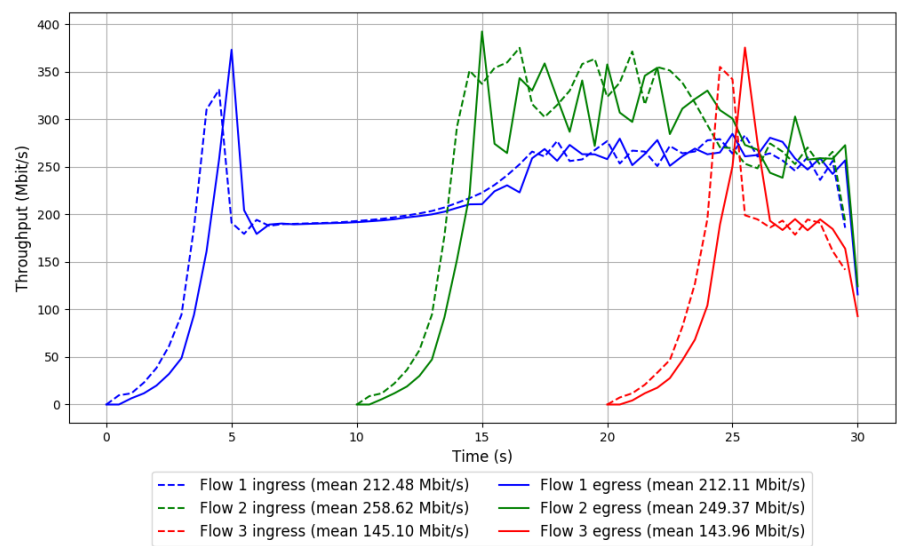
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 213.98 Mbit/s) --- Flow 1 egress (mean 212.55 Mbit/s)
Flow 2 ingress (mean 189.09 Mbit/s) --- Flow 2 egress (mean 185.15 Mbit/s)
Flow 3 ingress (mean 14.48 Mbit/s) --- Flow 3 egress (mean 14.17 Mbit/s)

Flow 1 (95th percentile 158.28 ms) · Flow 2 (95th percentile 179.84 ms) · Flow 3 (95th percentile 133.68 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 09:57:12
End at: 2019-06-28 09:57:42
Local clock offset: 0.244 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2019-06-28 14:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.49 Mbit/s
95th percentile per-packet one-way delay: 244.086 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 223.69 Mbit/s
95th percentile per-packet one-way delay: 245.250 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 118.63 Mbit/s
95th percentile per-packet one-way delay: 141.713 ms
Loss rate: 2.56%
-- Flow 3:
Average throughput: 139.74 Mbit/s
95th percentile per-packet one-way delay: 276.353 ms
Loss rate: 7.63%
```
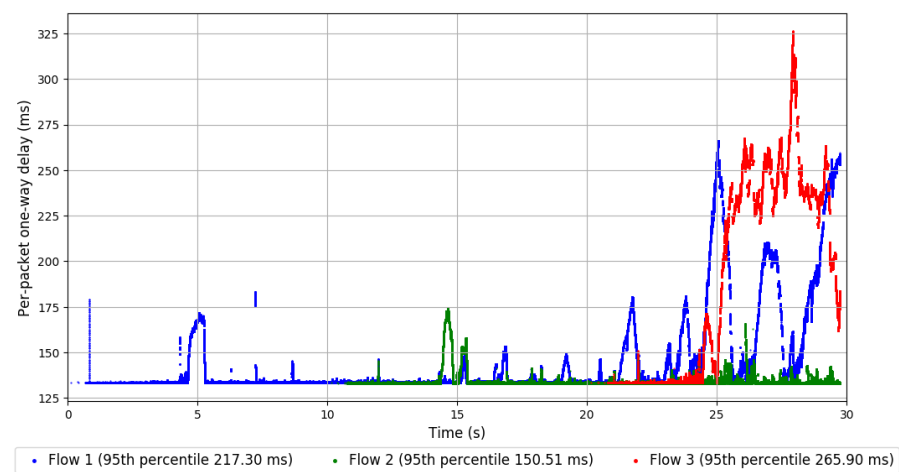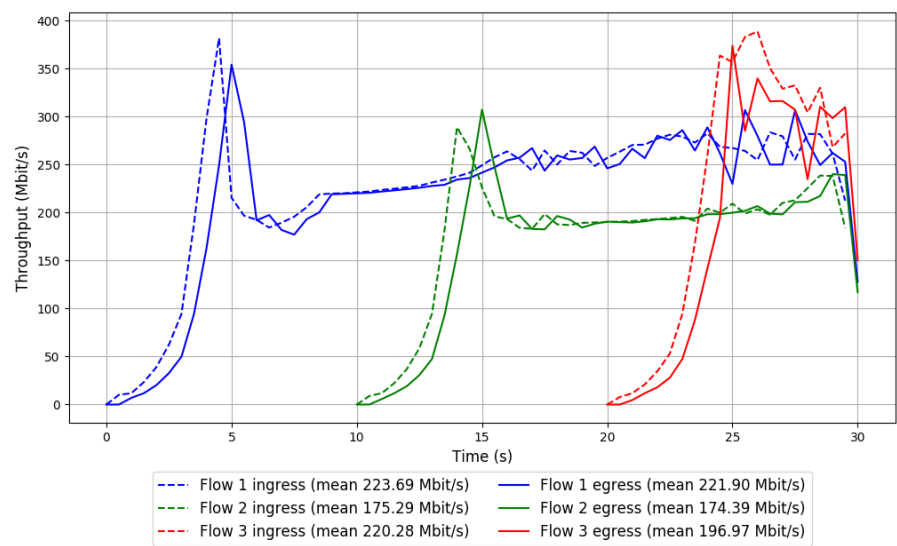
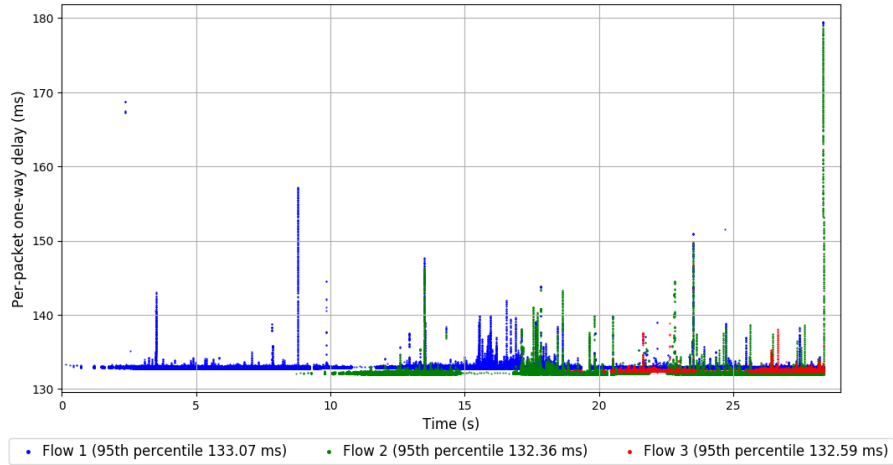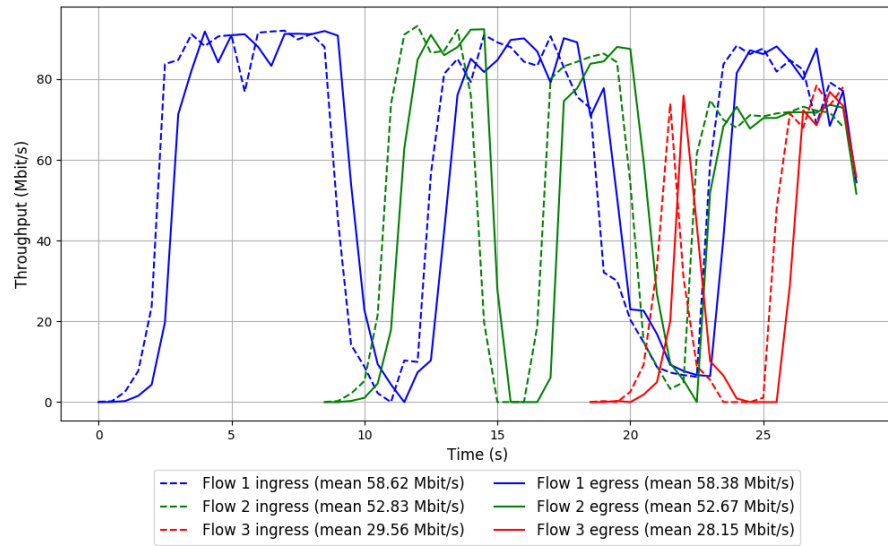Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 10:36:12
End at: 2019-06-28 10:36:42
Local clock offset: -0.165 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2019-06-28 14:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 344.22 Mbit/s
95th percentile per-packet one-way delay: 177.523 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 181.06 Mbit/s
95th percentile per-packet one-way delay: 154.069 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 174.43 Mbit/s
95th percentile per-packet one-way delay: 181.916 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 147.35 Mbit/s
95th percentile per-packet one-way delay: 230.436 ms
Loss rate: 3.78%
```
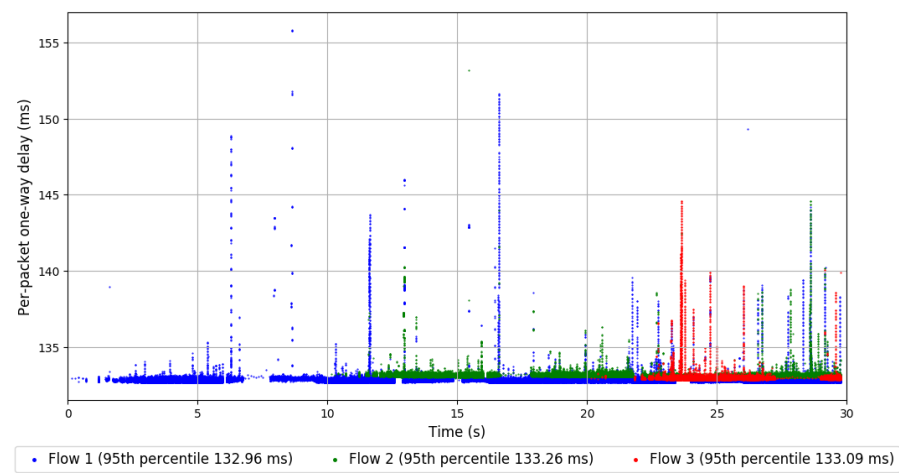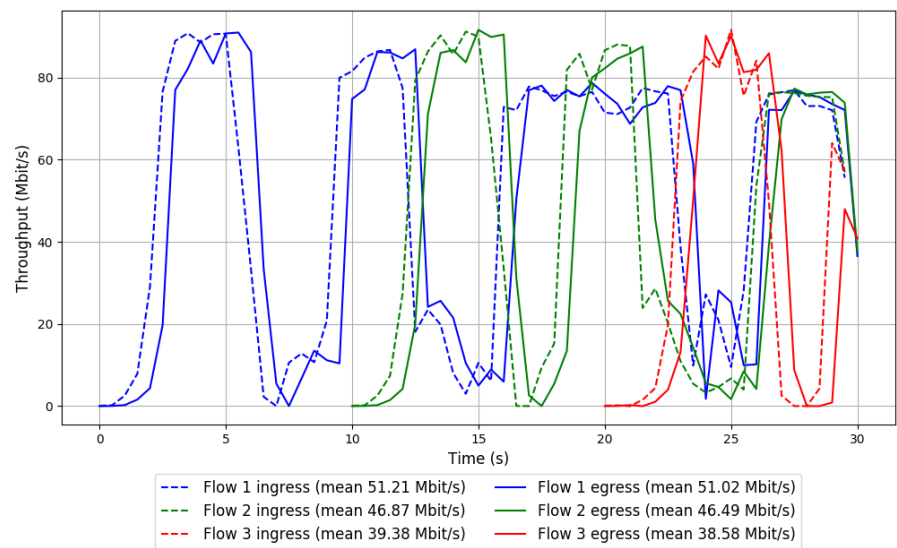
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 181.28 Mbit/s) --- Flow 1 egress (mean 181.06 Mbit/s)
Flow 2 ingress (mean 175.29 Mbit/s) --- Flow 2 egress (mean 174.43 Mbit/s)
Flow 3 ingress (mean 148.98 Mbit/s) --- Flow 3 egress (mean 147.35 Mbit/s)

Flow 1 (95th percentile 154.07 ms)   Flow 2 (95th percentile 181.92 ms)   Flow 3 (95th percentile 230.44 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 11:15:37
End at: 2019-06-28 11:16:07
Local clock offset: -0.016 ms
Remote clock offset: -0.164 ms


# Below is generated by plot.py at 2019-06-28 14:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.82 Mbit/s
95th percentile per-packet one-way delay: 242.817 ms
Loss rate: 2.86%
-- Flow 1:
Average throughput: 212.11 Mbit/s
95th percentile per-packet one-way delay: 168.311 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 249.37 Mbit/s
95th percentile per-packet one-way delay: 256.079 ms
Loss rate: 4.89%
-- Flow 3:
Average throughput: 143.96 Mbit/s
95th percentile per-packet one-way delay: 217.540 ms
Loss rate: 3.50%
```

Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 212.48 Mbit/s) Flow 1 egress (mean 212.11 Mbit/s)
Flow 2 ingress (mean 258.62 Mbit/s) Flow 2 egress (mean 249.37 Mbit/s)
Flow 3 ingress (mean 145.10 Mbit/s) Flow 3 egress (mean 143.96 Mbit/s)

Flow 1 (95th percentile 168.31 ms) Flow 2 (95th percentile 256.08 ms) Flow 3 (95th percentile 217.54 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 11:54:52
End at: 2019-06-28 11:55:22
Local clock offset: 0.244 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.12 Mbit/s
95th percentile per-packet one-way delay: 244.463 ms
Loss rate: 3.73%
-- Flow 1:
Average throughput: 221.90 Mbit/s
95th percentile per-packet one-way delay: 217.297 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 174.39 Mbit/s
95th percentile per-packet one-way delay: 150.511 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 196.97 Mbit/s
95th percentile per-packet one-way delay: 265.901 ms
Loss rate: 13.01%
```
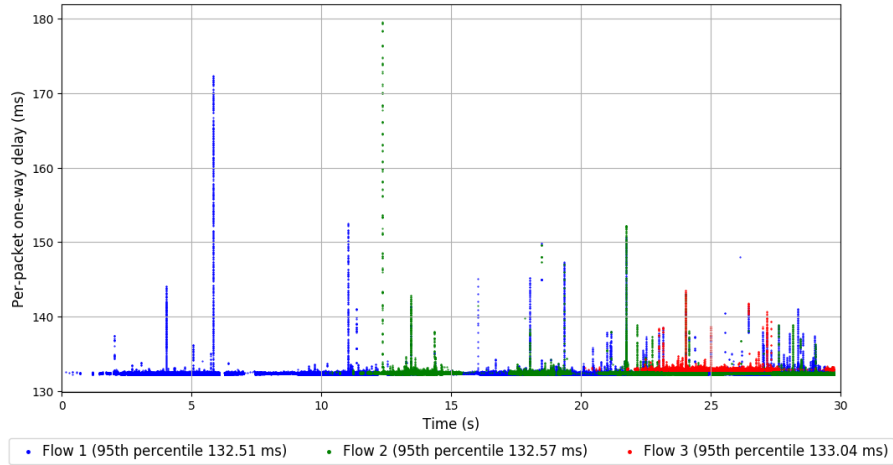
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 223.69 Mbit/s) --- Flow 1 egress (mean 221.90 Mbit/s)
Flow 2 ingress (mean 175.29 Mbit/s) --- Flow 2 egress (mean 174.39 Mbit/s)
Flow 3 ingress (mean 220.28 Mbit/s) --- Flow 3 egress (mean 196.97 Mbit/s)

Flow 1 (95th percentile 217.30 ms)   Flow 2 (95th percentile 150.51 ms)   Flow 3 (95th percentile 265.90 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 09:25:19
End at: 2019-06-28 09:25:49
Local clock offset: -0.042 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.57 Mbit/s
95th percentile per-packet one-way delay: 133.018 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 58.38 Mbit/s
95th percentile per-packet one-way delay: 133.070 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 52.67 Mbit/s
95th percentile per-packet one-way delay: 132.364 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 132.593 ms
Loss rate: 7.30%
```
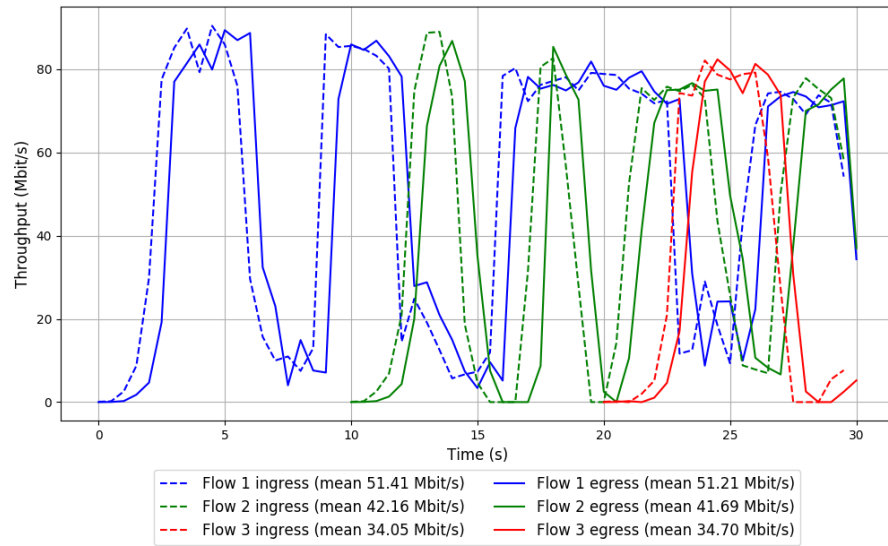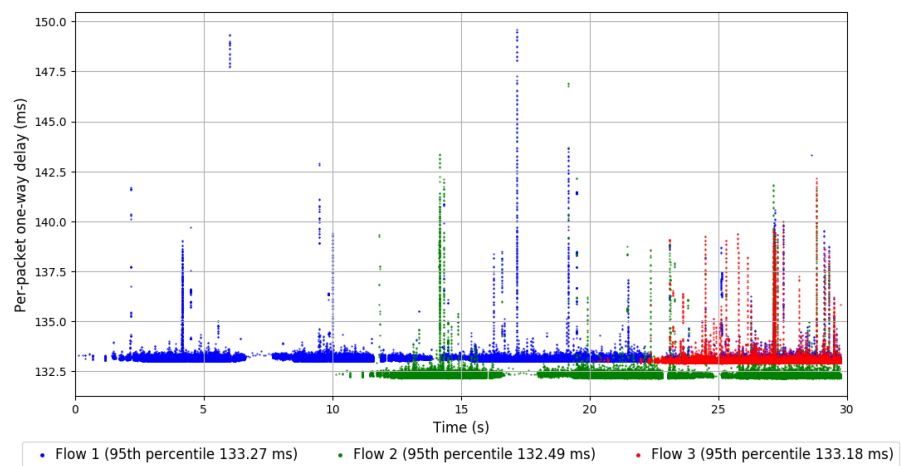
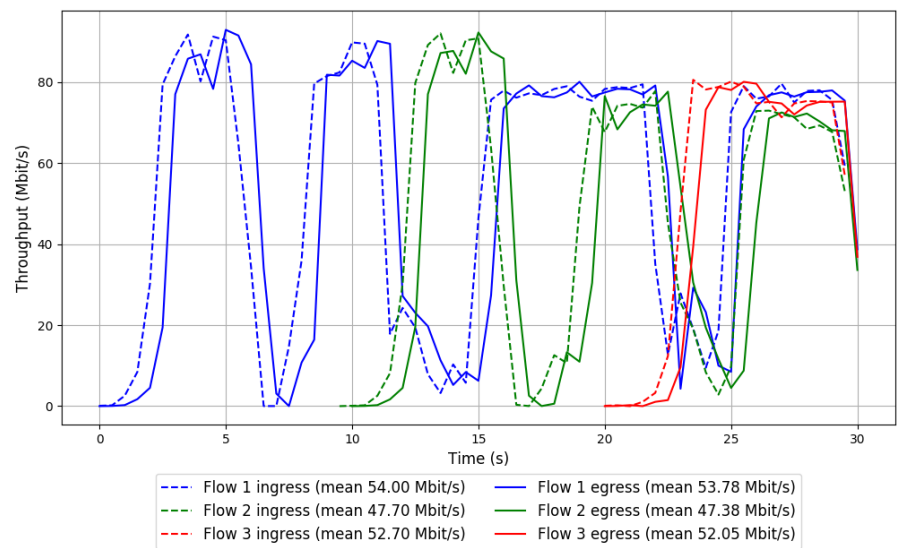Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 10:04:23
End at: 2019-06-28 10:04:53
Local clock offset: 0.038 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.32 Mbit/s
95th percentile per-packet one-way delay: 133.205 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 51.02 Mbit/s
95th percentile per-packet one-way delay: 132.959 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 46.49 Mbit/s
95th percentile per-packet one-way delay: 133.262 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 38.58 Mbit/s
95th percentile per-packet one-way delay: 133.085 ms
Loss rate: 4.61%
```
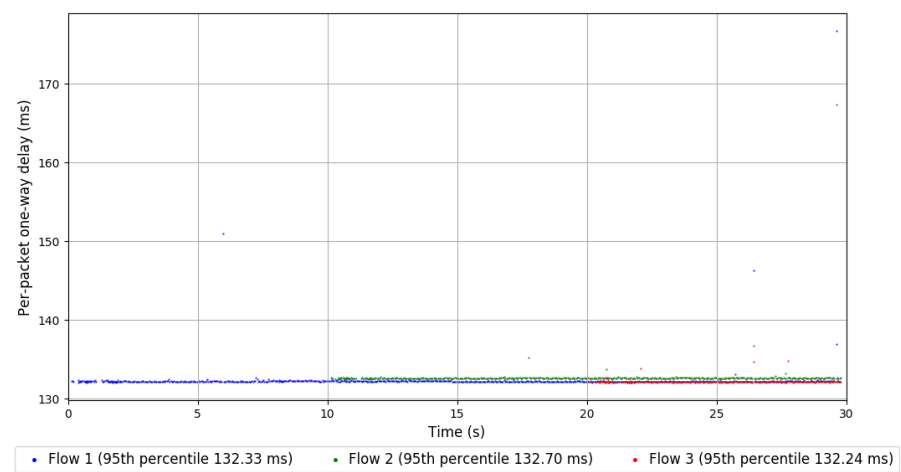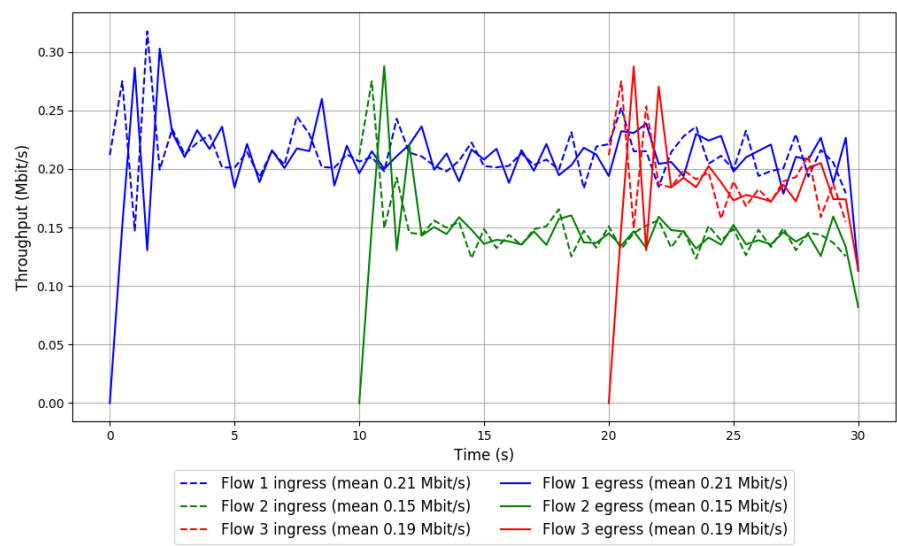
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 10:43:18
End at: 2019-06-28 10:43:48
Local clock offset: -0.389 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 133.123 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 52.27 Mbit/s
95th percentile per-packet one-way delay: 133.178 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 49.63 Mbit/s
95th percentile per-packet one-way delay: 132.400 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 20.88 Mbit/s
95th percentile per-packet one-way delay: 132.901 ms
Loss rate: 9.35%
```
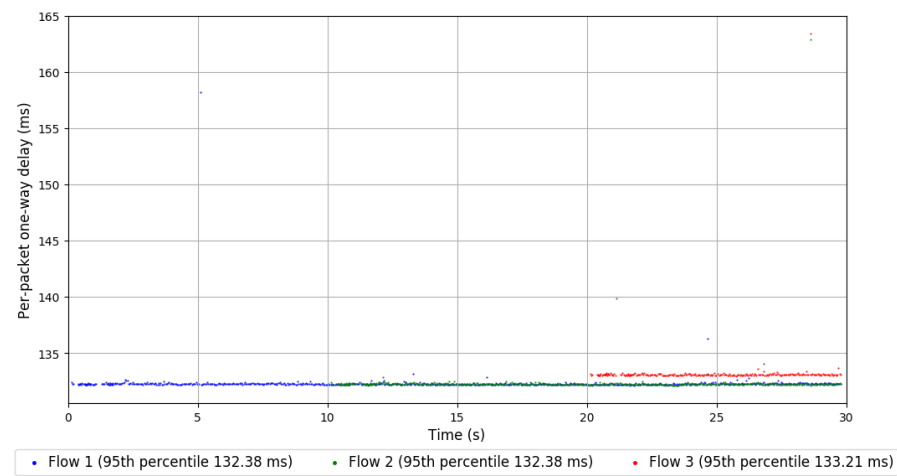
Run 3: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 52.49 Mbit/s) ——— Flow 1 egress (mean 52.27 Mbit/s)
- - - Flow 2 ingress (mean 49.93 Mbit/s) ——— Flow 2 egress (mean 49.63 Mbit/s)
- - - Flow 3 ingress (mean 22.41 Mbit/s) ——— Flow 3 egress (mean 20.88 Mbit/s)

- Flow 1 (95th percentile 133.18 ms) • Flow 2 (95th percentile 132.40 ms) • Flow 3 (95th percentile 132.90 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 11:22:47
End at: 2019-06-28 11:23:17
Local clock offset: -0.524 ms
Remote clock offset: -0.13 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.06 Mbit/s
95th percentile per-packet one-way delay: 132.936 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 51.21 Mbit/s
95th percentile per-packet one-way delay: 132.512 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 41.69 Mbit/s
95th percentile per-packet one-way delay: 132.574 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 34.70 Mbit/s
95th percentile per-packet one-way delay: 133.036 ms
Loss rate: 0.81%
```
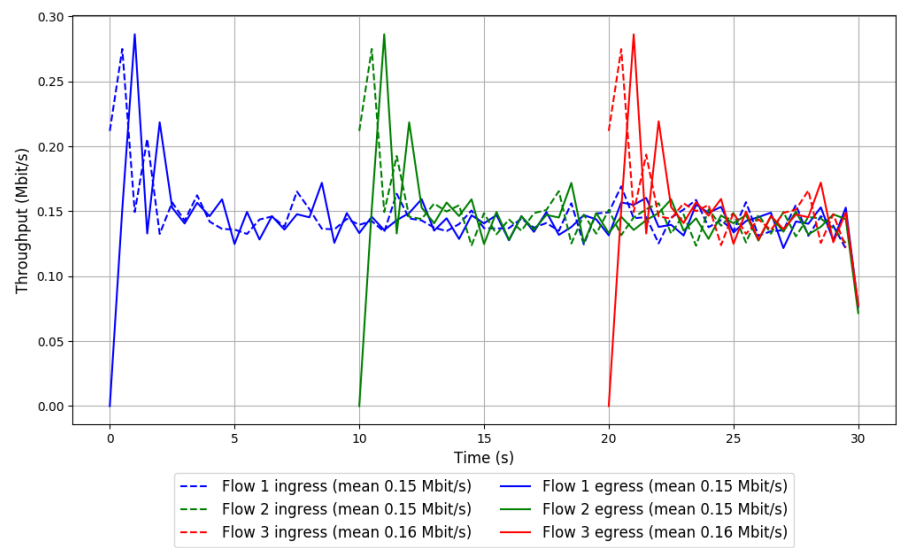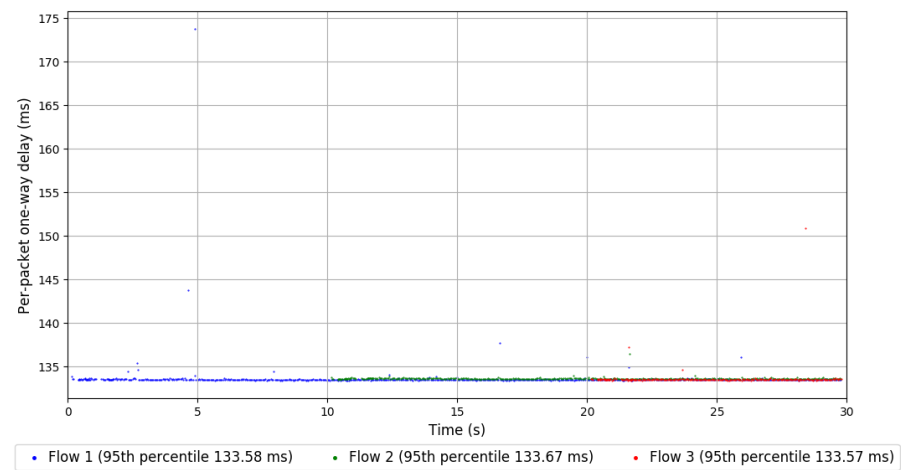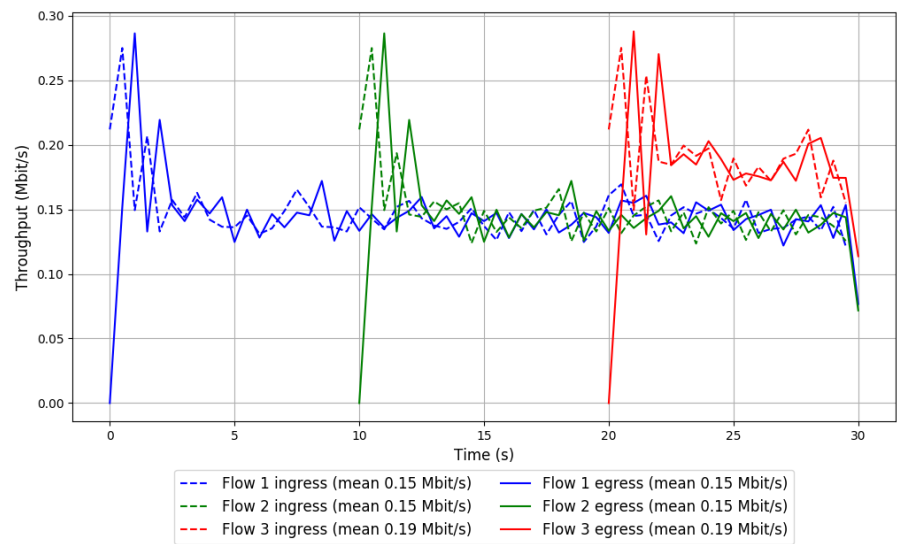
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 51.41 Mbit/s)   Flow 1 egress (mean 51.21 Mbit/s)
Flow 2 ingress (mean 42.16 Mbit/s)   Flow 2 egress (mean 41.69 Mbit/s)
Flow 3 ingress (mean 34.05 Mbit/s)   Flow 3 egress (mean 34.70 Mbit/s)

Flow 1 (95th percentile 132.51 ms)   Flow 2 (95th percentile 132.57 ms)   Flow 3 (95th percentile 133.04 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 12:02:17
End at: 2019-06-28 12:02:47
Local clock offset: 0.325 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.04 Mbit/s
95th percentile per-packet one-way delay: 133.238 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 53.78 Mbit/s
95th percentile per-packet one-way delay: 133.270 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 47.38 Mbit/s
95th percentile per-packet one-way delay: 132.488 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 52.05 Mbit/s
95th percentile per-packet one-way delay: 133.178 ms
Loss rate: 3.87%
```
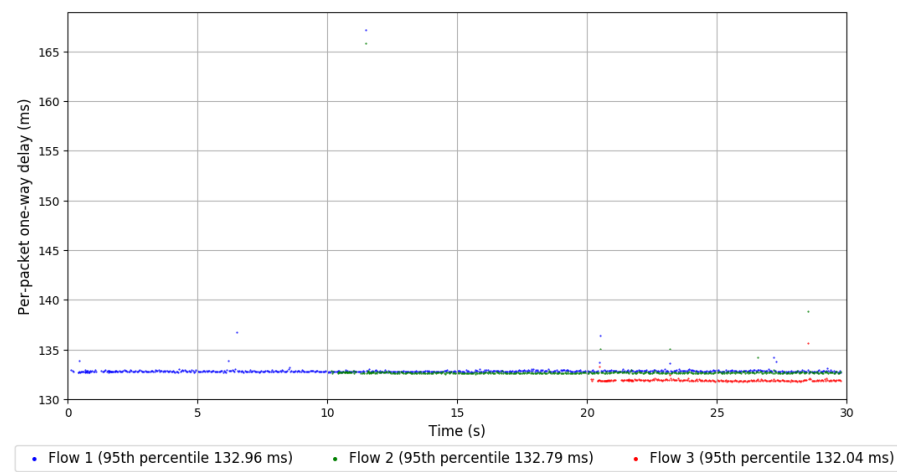
Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-06-28 09:14:54
End at: 2019-06-28 09:15:24
Local clock offset: -0.467 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 132.668 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 132.328 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.702 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 132.236 ms
Loss rate: 2.54%
```
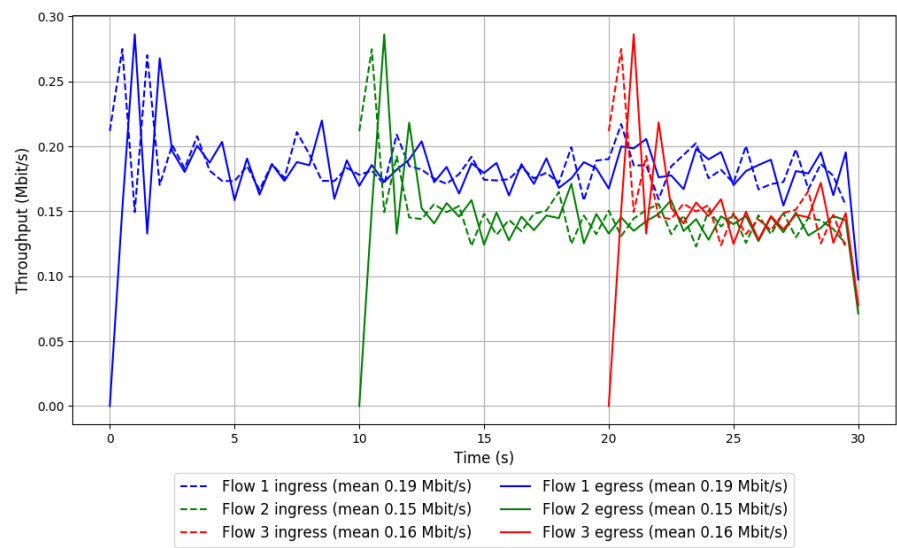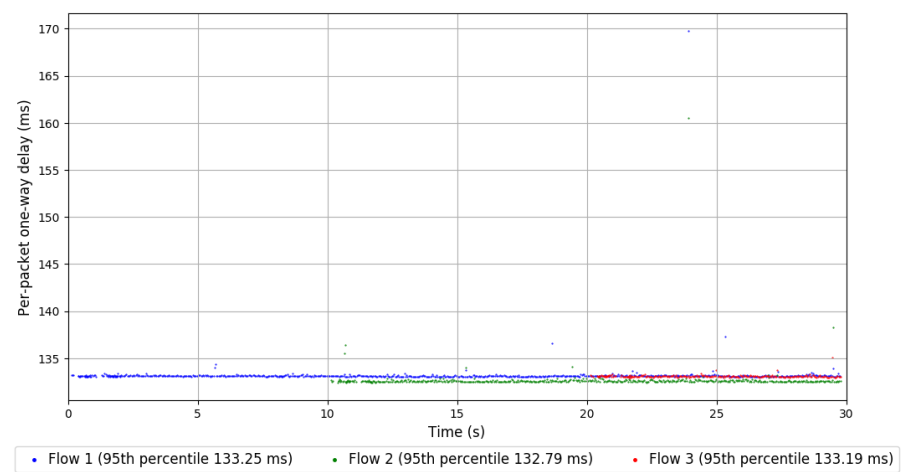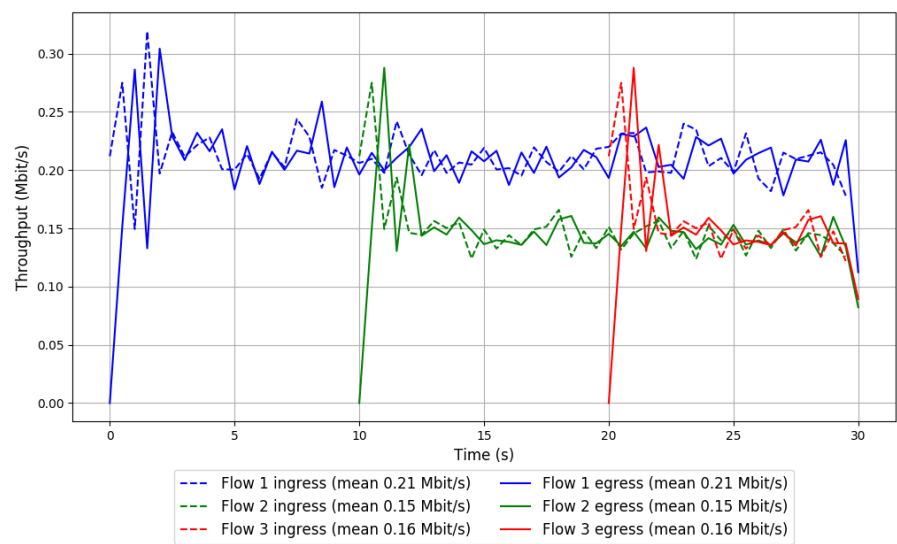
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-06-28 09:53:55
End at: 2019-06-28 09:54:25
Local clock offset: 0.04 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 133.109 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.383 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.378 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 133.212 ms
Loss rate: 2.45%
```

Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-06-28 10:32:55
End at: 2019-06-28 10:33:25
Local clock offset: 0.29 ms
Remote clock offset: 0.023 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 133.630 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.584 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.667 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 133.575 ms
Loss rate: 2.55%
```
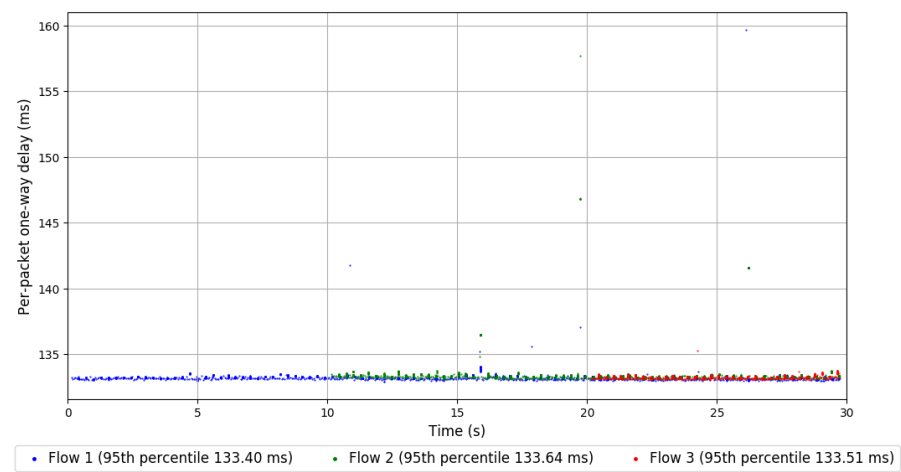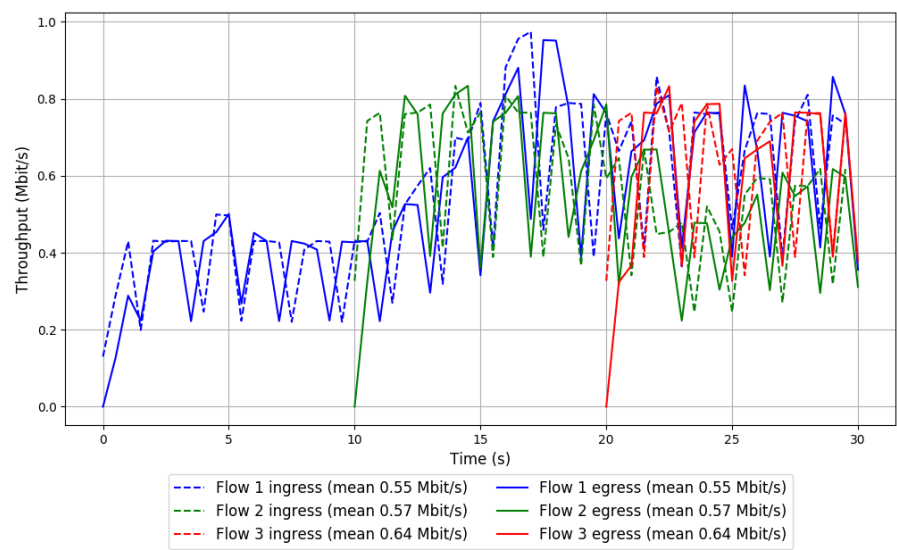
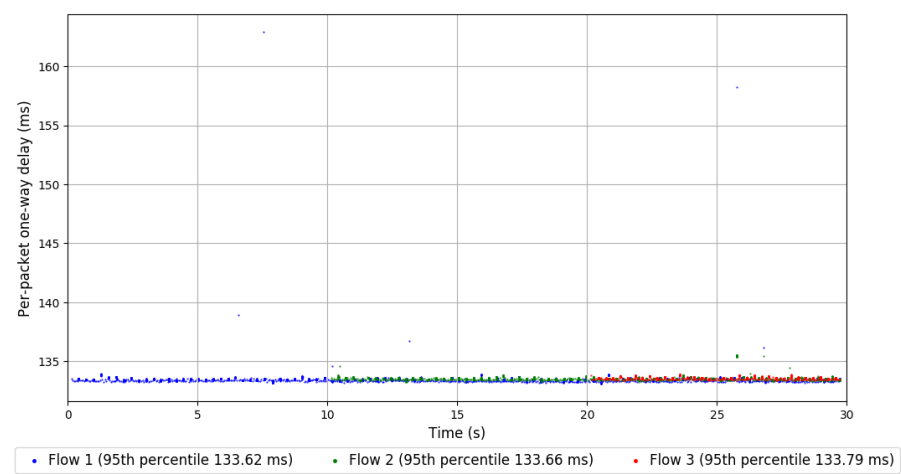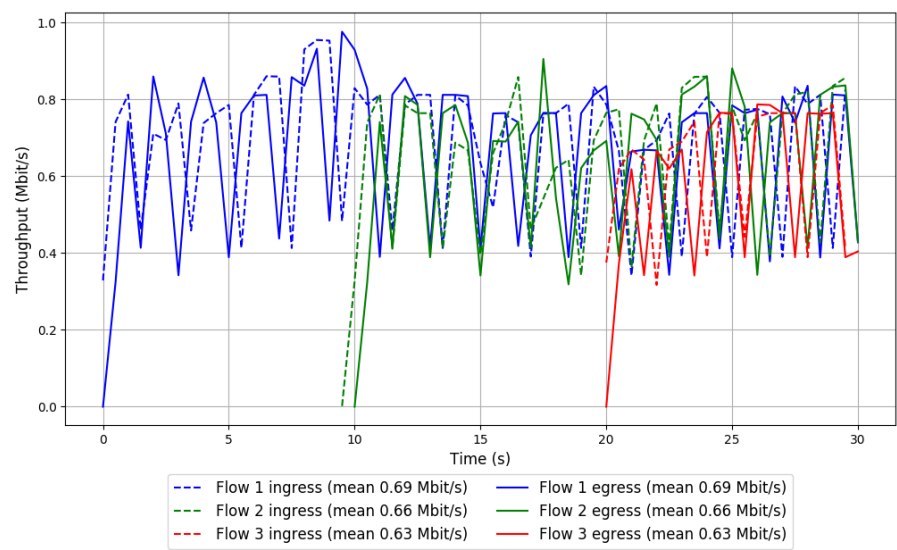# Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-06-28 11:12:18
End at: 2019-06-28 11:12:48
Local clock offset: -0.727 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 132.933 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 132.961 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.790 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.045 ms
Loss rate: 2.45%
```
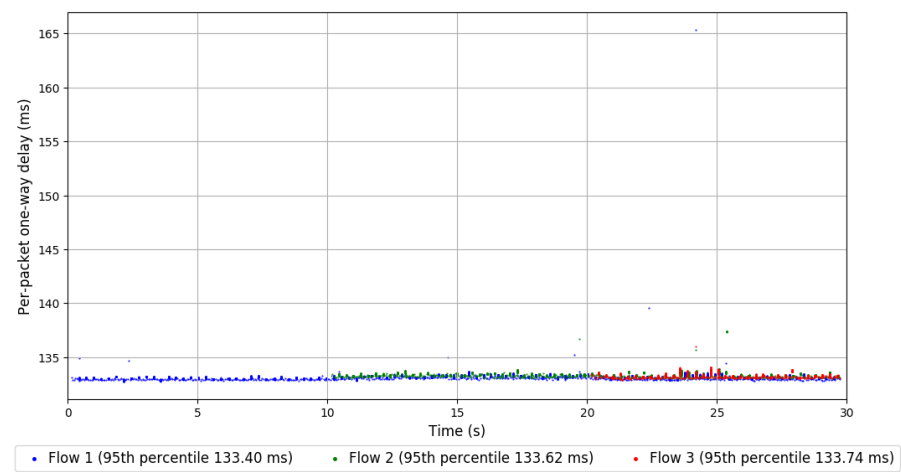
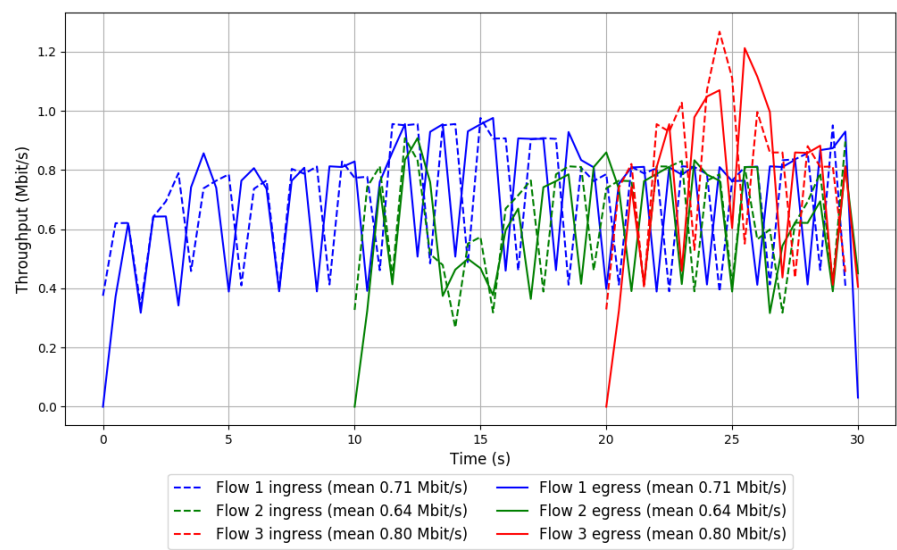## Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-06-28 11:51:36
End at: 2019-06-28 11:52:06
Local clock offset: -0.071 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 133.222 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 133.254 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.794 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 133.191 ms
Loss rate: 2.45%
```
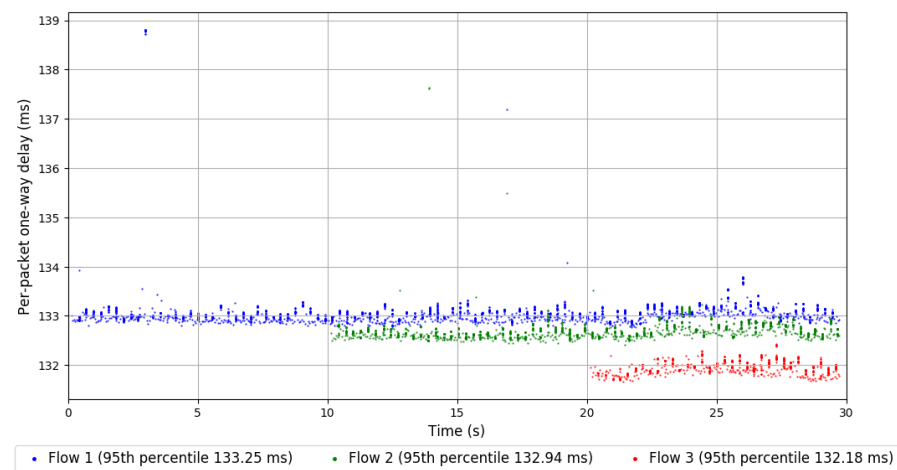
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-06-28 09:22:04
End at: 2019-06-28 09:22:34
Local clock offset: 0.035 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 133.528 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 133.403 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 133.636 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.510 ms
Loss rate: 3.02%
```
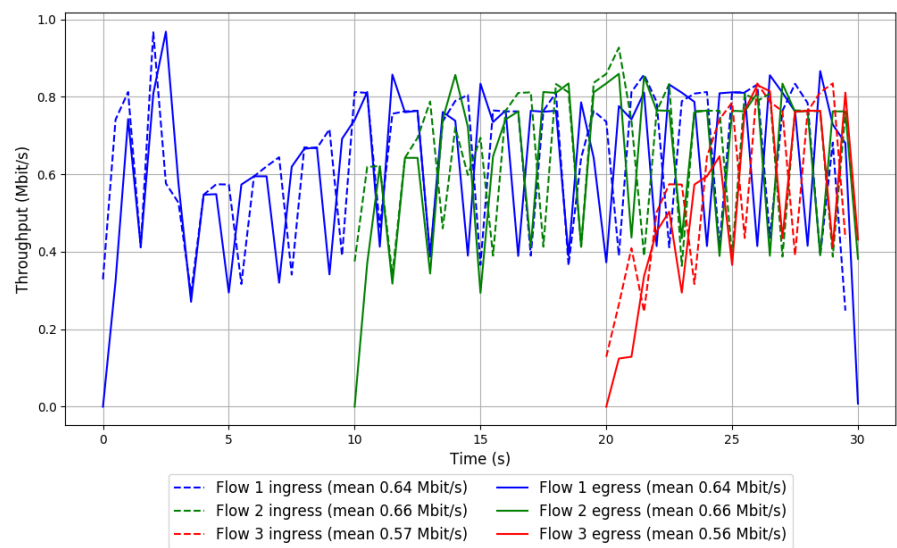
Run 1: Report of Sprout — Data Link

166

```
Run 2: Statistics of Sprout

Start at: 2019-06-28 10:01:04
End at: 2019-06-28 10:01:34
Local clock offset: 0.438 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 133.694 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 133.622 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 133.665 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 133.786 ms
Loss rate: 3.27%
```
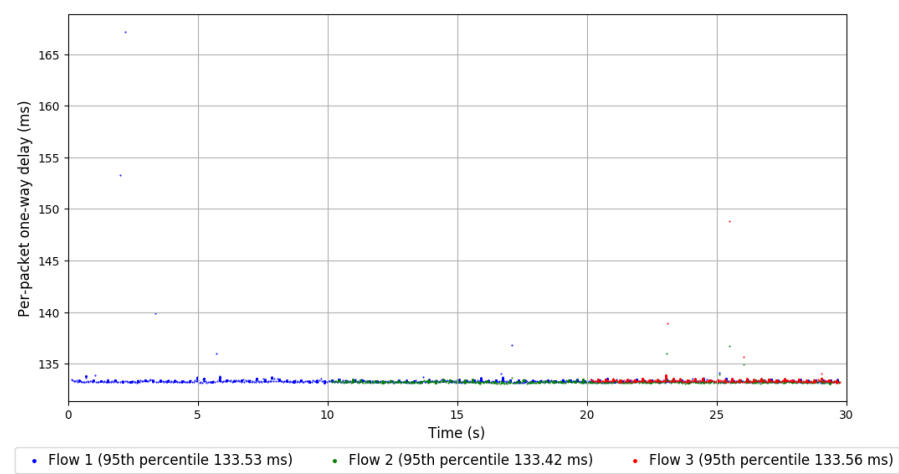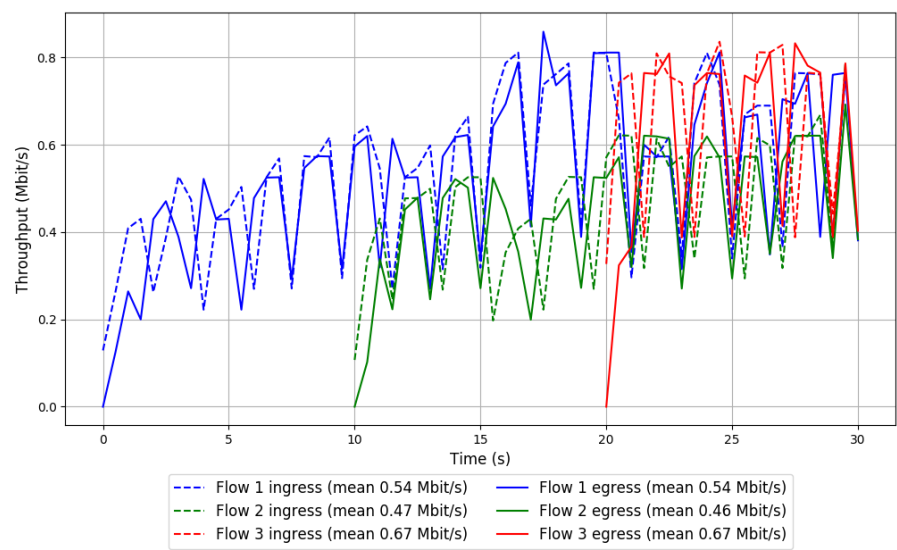
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-06-28 10:39:59
End at: 2019-06-28 10:40:29
Local clock offset: -0.251 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 133.581 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 133.395 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.615 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 133.741 ms
Loss rate: 2.85%
```

Run 3: Report of Sprout — Data Link

170

```
Run 4: Statistics of Sprout

Start at: 2019-06-28 11:19:27
End at: 2019-06-28 11:19:57
Local clock offset: -0.496 ms
Remote clock offset: 0.255 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 133.210 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.247 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 132.941 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 132.177 ms
Loss rate: 3.83%
```
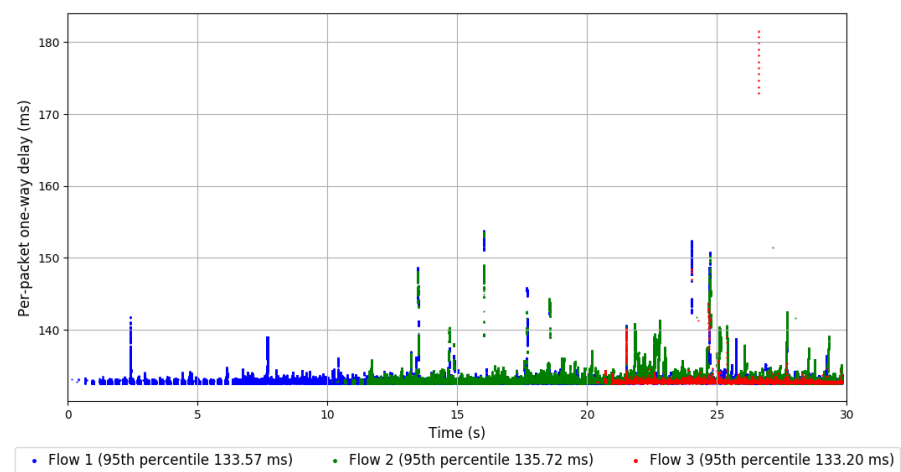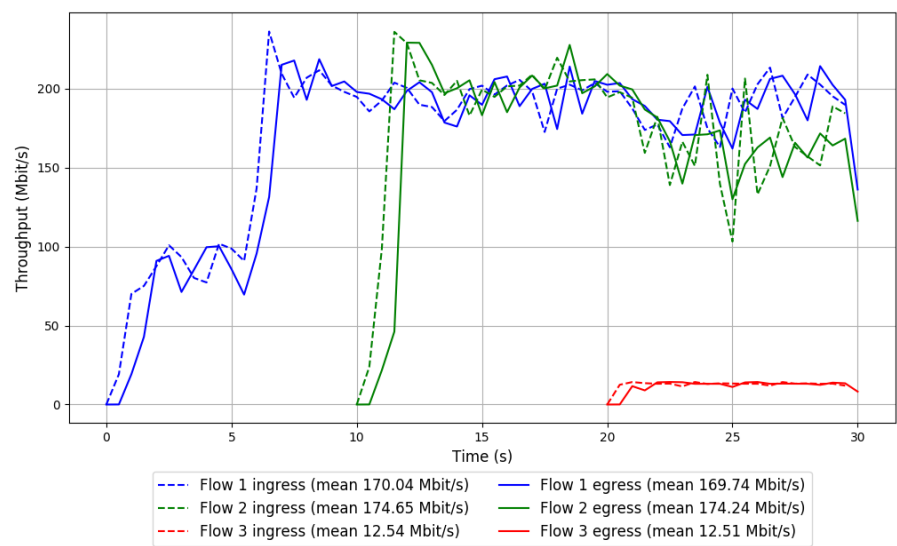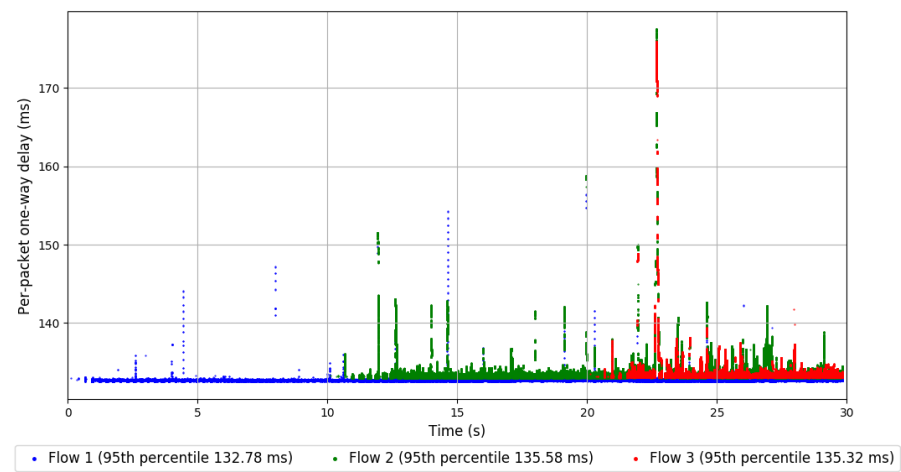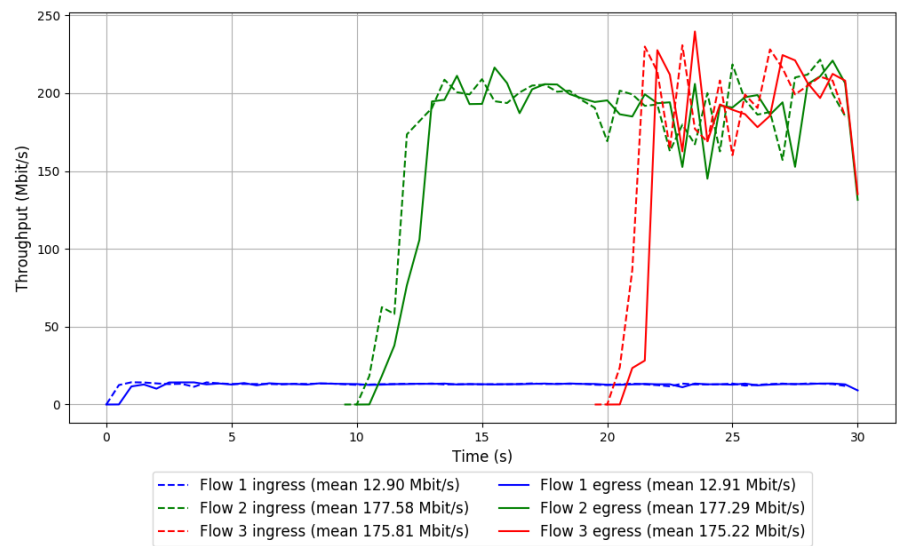
Run 4: Report of Sprout — Data Link

Flow 1 ingress (mean 0.64 Mbit/s) --- Flow 1 egress (mean 0.64 Mbit/s) ———
Flow 2 ingress (mean 0.66 Mbit/s) --- Flow 2 egress (mean 0.66 Mbit/s) ———
Flow 3 ingress (mean 0.57 Mbit/s) --- Flow 3 egress (mean 0.56 Mbit/s) ———

Flow 1 (95th percentile 133.25 ms)   Flow 2 (95th percentile 132.94 ms)   Flow 3 (95th percentile 132.18 ms)

```
Run 5: Statistics of Sprout

Start at: 2019-06-28 11:58:58
End at: 2019-06-28 11:59:28
Local clock offset: 0.225 ms
Remote clock offset: -0.129 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 133.520 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 133.529 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 133.421 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 133.559 ms
Loss rate: 2.92%
```

Run 5: Report of Sprout — Data Link

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

Start at: 2019-06-28 08:56:27
End at: 2019-06-28 08:56:57
Local clock offset: -0.328 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 289.21 Mbit/s
95th percentile per-packet one-way delay: 134.363 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 169.74 Mbit/s
95th percentile per-packet one-way delay: 133.572 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 174.24 Mbit/s
95th percentile per-packet one-way delay: 135.723 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 12.51 Mbit/s
95th percentile per-packet one-way delay: 133.198 ms
Loss rate: 2.87%
```
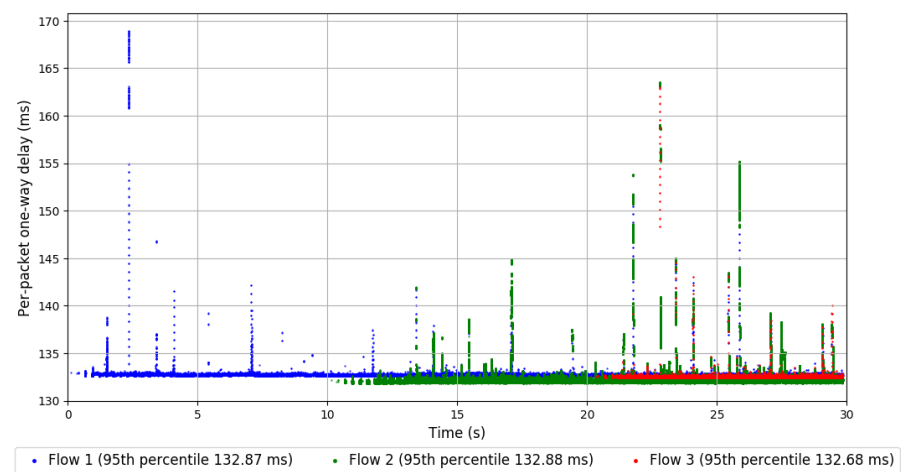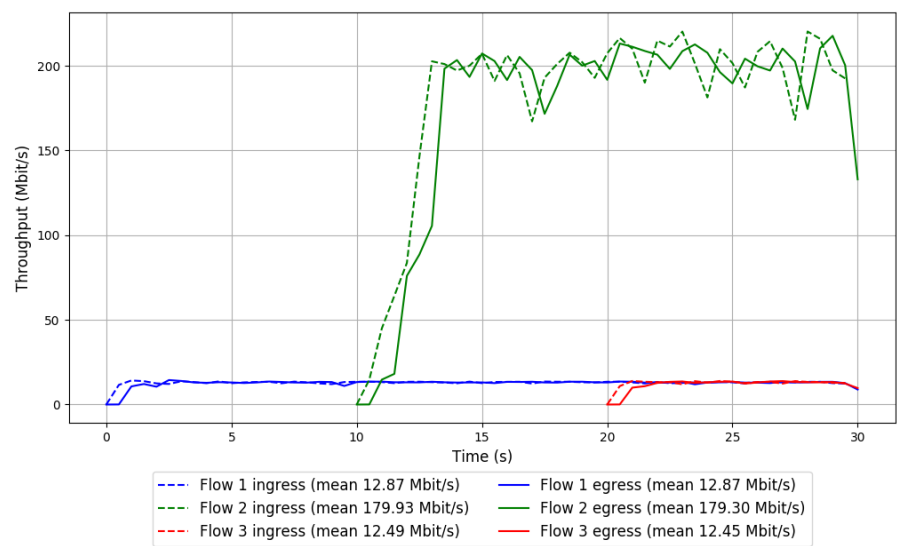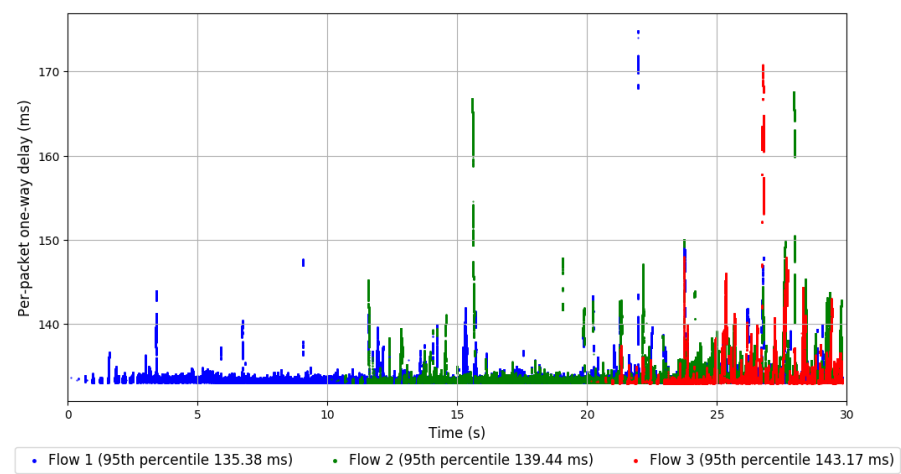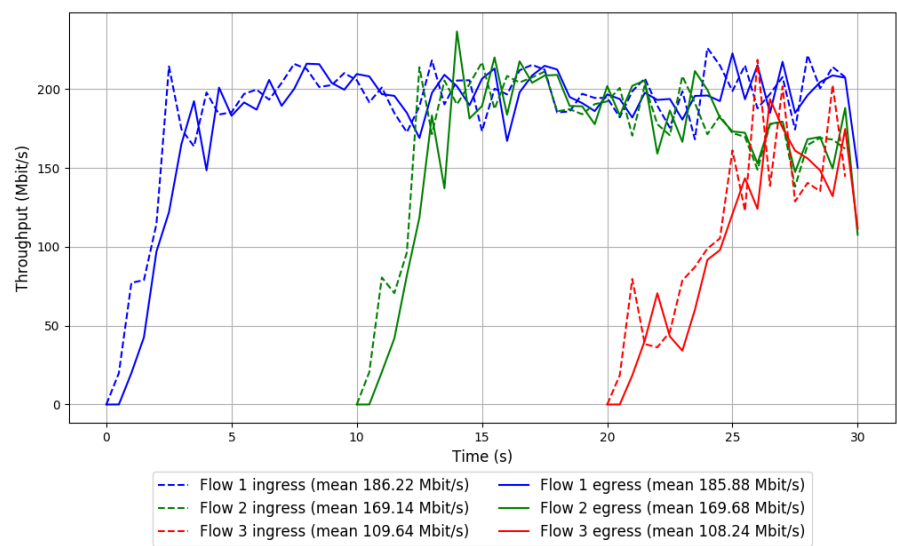
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 170.04 Mbit/s) --- Flow 1 egress (mean 169.74 Mbit/s)
Flow 2 ingress (mean 174.65 Mbit/s) --- Flow 2 egress (mean 174.24 Mbit/s)
Flow 3 ingress (mean 12.54 Mbit/s) --- Flow 3 egress (mean 12.51 Mbit/s)

Flow 1 (95th percentile 133.57 ms)   Flow 2 (95th percentile 135.72 ms)   Flow 3 (95th percentile 133.20 ms)

176

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

Start at: 2019-06-28 09:35:49
End at: 2019-06-28 09:36:19
Local clock offset: 0.224 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.73 Mbit/s
95th percentile per-packet one-way delay: 135.312 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 12.91 Mbit/s
95th percentile per-packet one-way delay: 132.784 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 177.29 Mbit/s
95th percentile per-packet one-way delay: 135.584 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 175.22 Mbit/s
95th percentile per-packet one-way delay: 135.323 ms
Loss rate: 3.01%
```

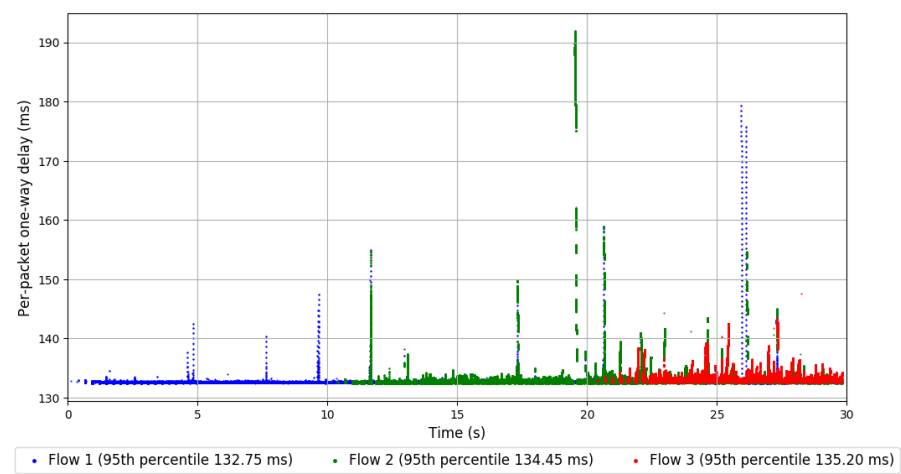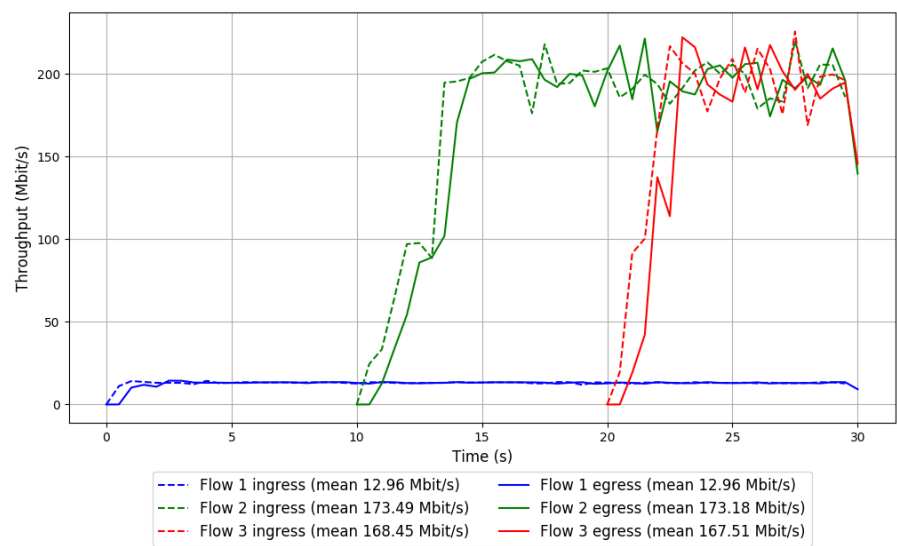Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-28 10:14:57
End at: 2019-06-28 10:15:27
Local clock offset: -0.402 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2019-06-28 14:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.83 Mbit/s
95th percentile per-packet one-way delay: 132.864 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 132.870 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 179.30 Mbit/s
95th percentile per-packet one-way delay: 132.880 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 132.676 ms
Loss rate: 2.97%
```

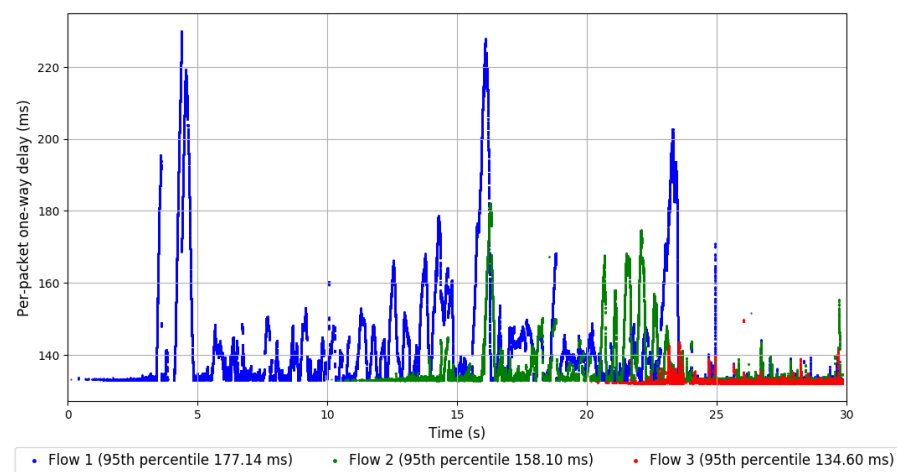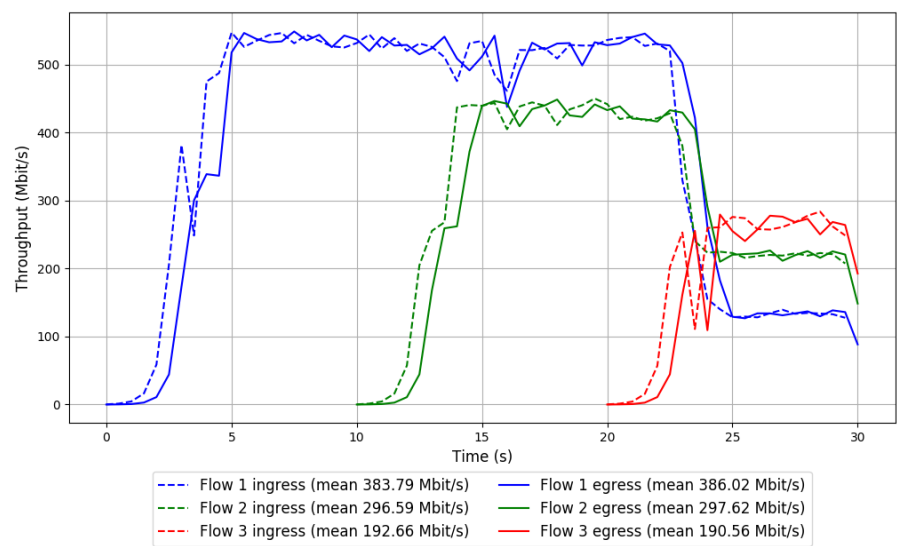# Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-28 10:54:08
End at: 2019-06-28 10:54:38
Local clock offset: -0.144 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2019-06-28 14:22:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.52 Mbit/s
95th percentile per-packet one-way delay: 137.826 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 185.88 Mbit/s
95th percentile per-packet one-way delay: 135.384 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 169.68 Mbit/s
95th percentile per-packet one-way delay: 139.435 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 108.24 Mbit/s
95th percentile per-packet one-way delay: 143.170 ms
Loss rate: 3.91%
```

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

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

Start at: 2019-06-28 11:33:34
End at: 2019-06-28 11:34:04
Local clock offset: -0.725 ms
Remote clock offset: -0.111 ms


# Below is generated by plot.py at 2019-06-28 14:22:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.46 Mbit/s
95th percentile per-packet one-way delay: 134.637 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 12.96 Mbit/s
95th percentile per-packet one-way delay: 132.751 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 173.18 Mbit/s
95th percentile per-packet one-way delay: 134.451 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 167.51 Mbit/s
95th percentile per-packet one-way delay: 135.198 ms
Loss rate: 3.22%
```

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

Flow 1 ingress (mean 12.96 Mbit/s) — — — Flow 1 egress (mean 12.96 Mbit/s)
Flow 2 ingress (mean 173.49 Mbit/s) — — — Flow 2 egress (mean 173.18 Mbit/s)
Flow 3 ingress (mean 168.45 Mbit/s) — — — Flow 3 egress (mean 167.51 Mbit/s)

Flow 1 (95th percentile 132.75 ms) · Flow 2 (95th percentile 134.45 ms) · Flow 3 (95th percentile 135.20 ms)
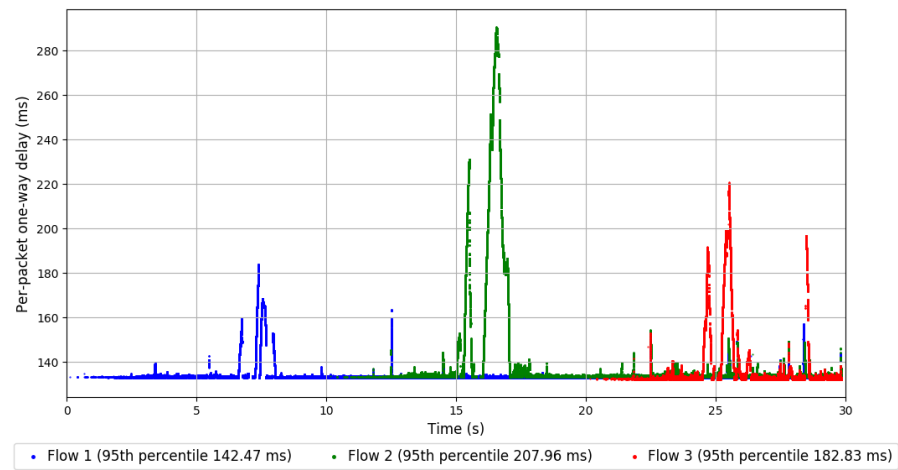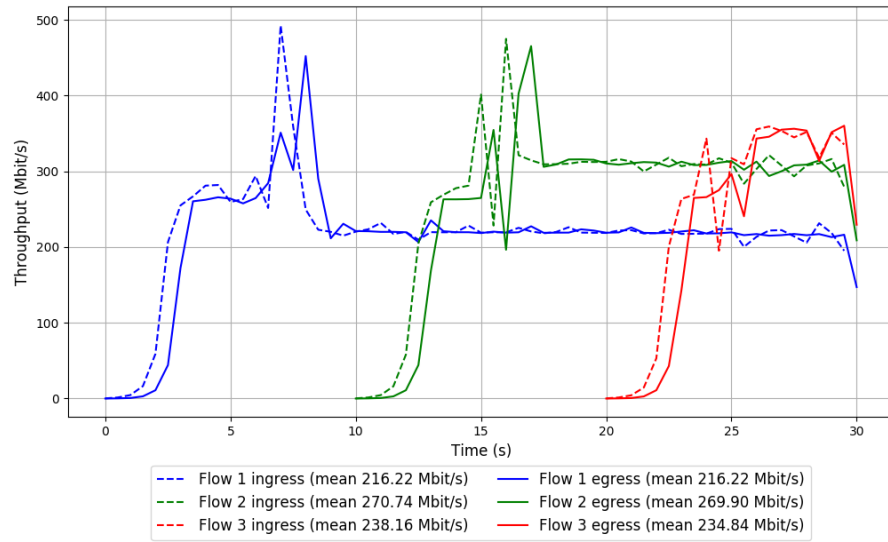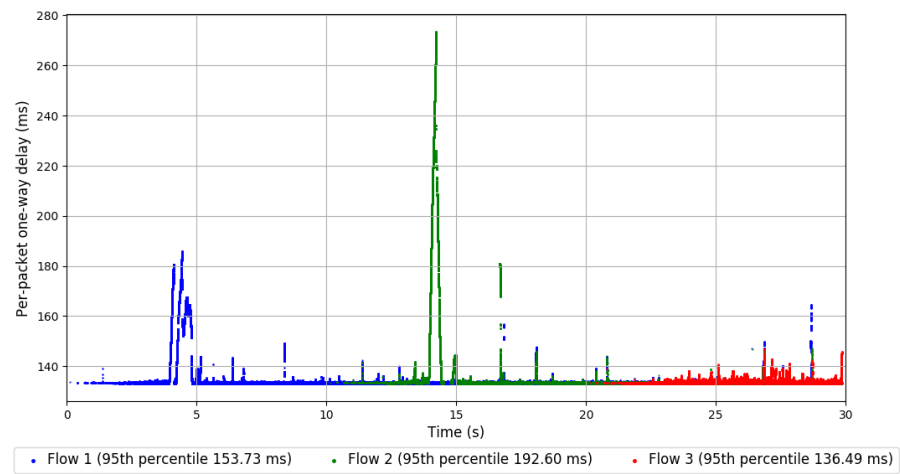
184

```
Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 09:20:05
End at: 2019-06-28 09:20:35
Local clock offset: 0.061 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-06-28 14:24:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 645.47 Mbit/s
95th percentile per-packet one-way delay: 166.446 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 386.02 Mbit/s
95th percentile per-packet one-way delay: 177.142 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 297.62 Mbit/s
95th percentile per-packet one-way delay: 158.104 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 190.56 Mbit/s
95th percentile per-packet one-way delay: 134.599 ms
Loss rate: 3.72%
```

Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 383.79 Mbit/s)   Flow 1 egress (mean 386.02 Mbit/s)
Flow 2 ingress (mean 296.59 Mbit/s)   Flow 2 egress (mean 297.62 Mbit/s)
Flow 3 ingress (mean 192.66 Mbit/s)   Flow 3 egress (mean 190.56 Mbit/s)

Flow 1 (95th percentile 177.14 ms)   Flow 2 (95th percentile 158.10 ms)   Flow 3 (95th percentile 134.60 ms)
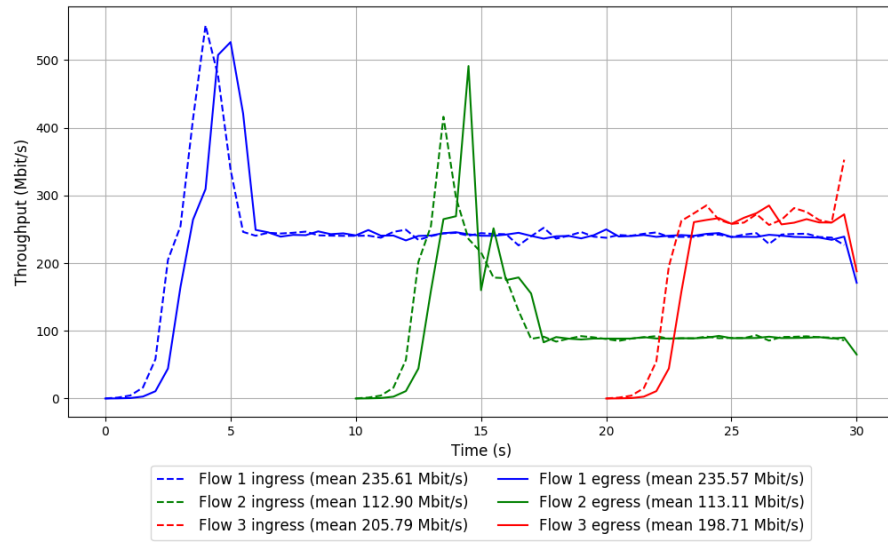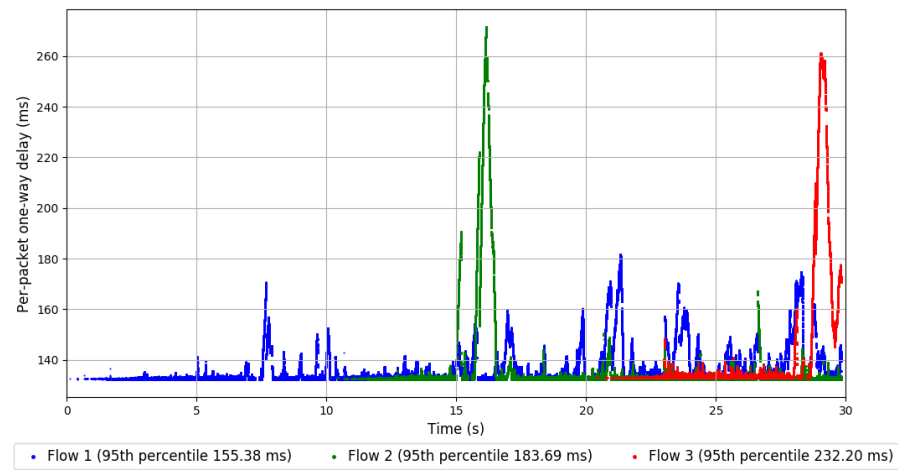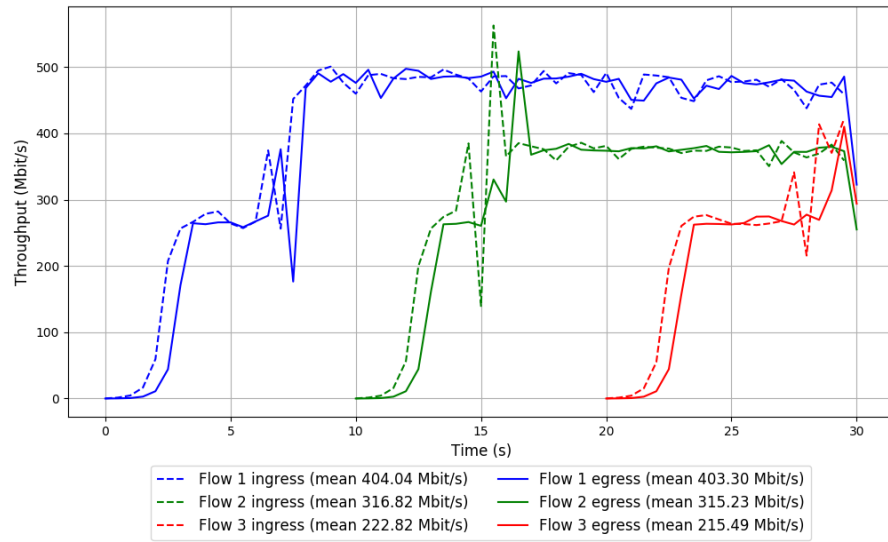
```
Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 09:59:10
End at: 2019-06-28 09:59:40
Local clock offset: -0.04 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2019-06-28 14:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.91 Mbit/s
95th percentile per-packet one-way delay: 164.011 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 251.02 Mbit/s
95th percentile per-packet one-way delay: 159.462 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 296.31 Mbit/s
95th percentile per-packet one-way delay: 141.607 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 304.53 Mbit/s
95th percentile per-packet one-way delay: 179.169 ms
Loss rate: 4.22%
```

Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 250.00 Mbit/s)   Flow 1 egress (mean 251.02 Mbit/s)
Flow 2 ingress (mean 297.03 Mbit/s)   Flow 2 egress (mean 296.31 Mbit/s)
Flow 3 ingress (mean 309.48 Mbit/s)   Flow 3 egress (mean 304.53 Mbit/s)

Flow 1 (95th percentile 159.46 ms)   Flow 2 (95th percentile 141.61 ms)   Flow 3 (95th percentile 179.17 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 10:38:09
End at: 2019-06-28 10:38:39
Local clock offset: -0.007 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-06-28 14:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 471.76 Mbit/s
95th percentile per-packet one-way delay: 167.221 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 216.22 Mbit/s
95th percentile per-packet one-way delay: 142.470 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 269.90 Mbit/s
95th percentile per-packet one-way delay: 207.958 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 234.84 Mbit/s
95th percentile per-packet one-way delay: 182.828 ms
Loss rate: 3.98%
```

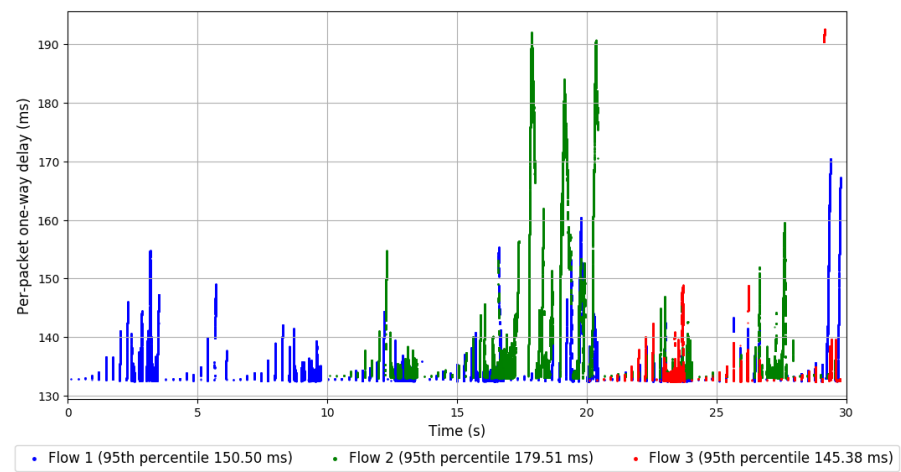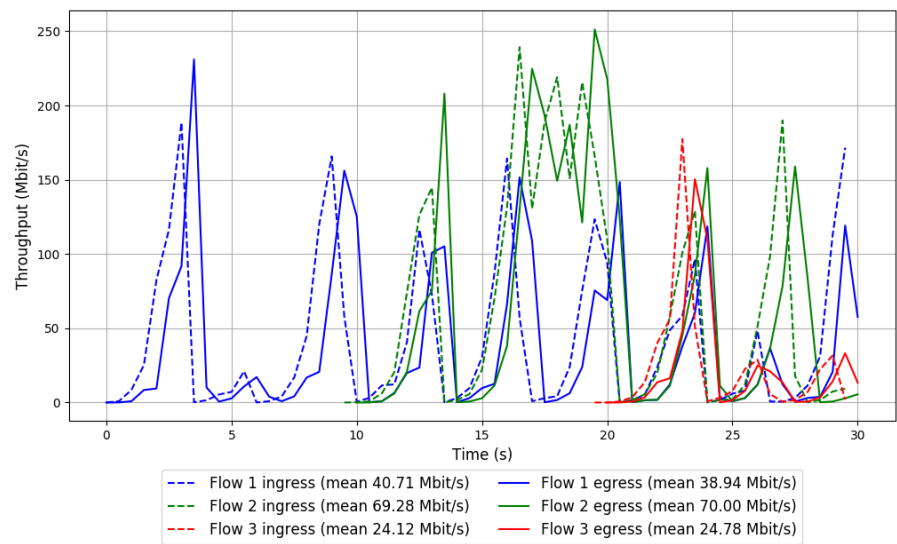Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 11:17:43
End at: 2019-06-28 11:18:13
Local clock offset: -0.082 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-06-28 14:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.41 Mbit/s
95th percentile per-packet one-way delay: 152.400 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 235.57 Mbit/s
95th percentile per-packet one-way delay: 153.731 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 113.11 Mbit/s
95th percentile per-packet one-way delay: 192.603 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 198.71 Mbit/s
95th percentile per-packet one-way delay: 136.490 ms
Loss rate: 6.02%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 11:56:56
End at: 2019-06-28 11:57:26
Local clock offset: -0.023 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2019-06-28 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 682.59 Mbit/s
95th percentile per-packet one-way delay: 165.233 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 403.30 Mbit/s
95th percentile per-packet one-way delay: 155.381 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 315.23 Mbit/s
95th percentile per-packet one-way delay: 183.687 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 215.49 Mbit/s
95th percentile per-packet one-way delay: 232.204 ms
Loss rate: 5.88%
```
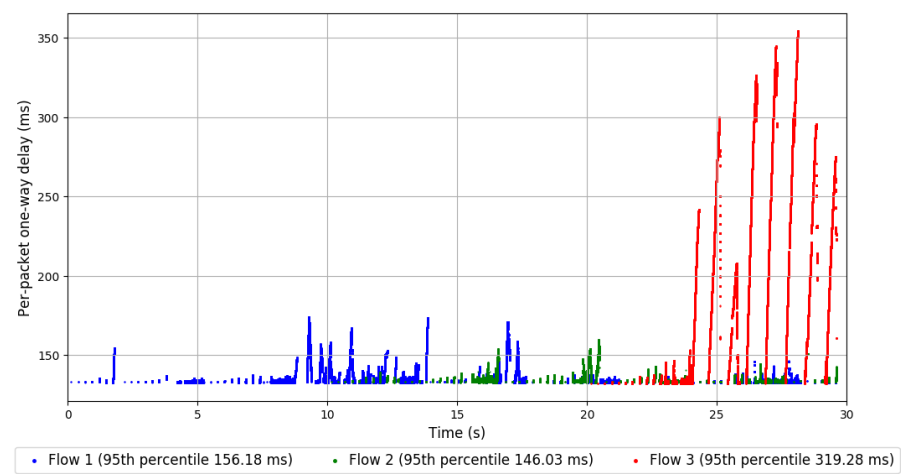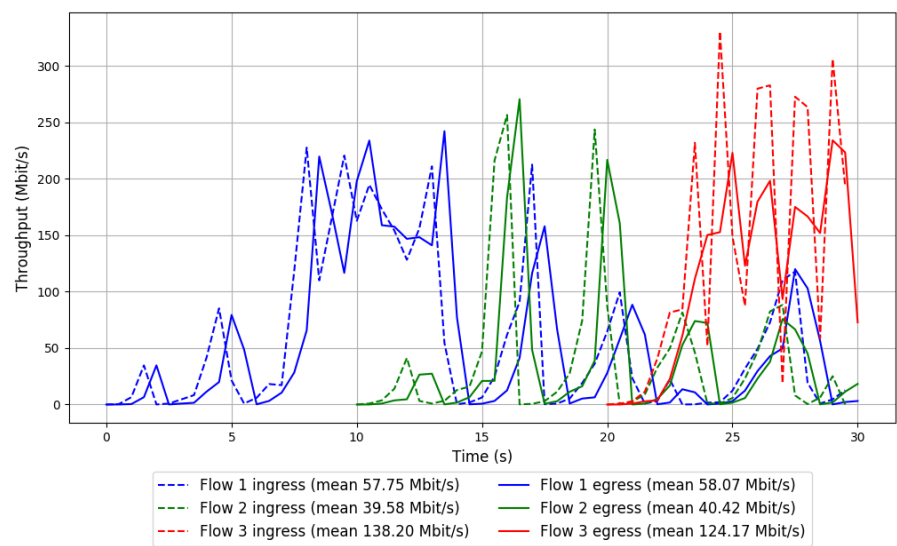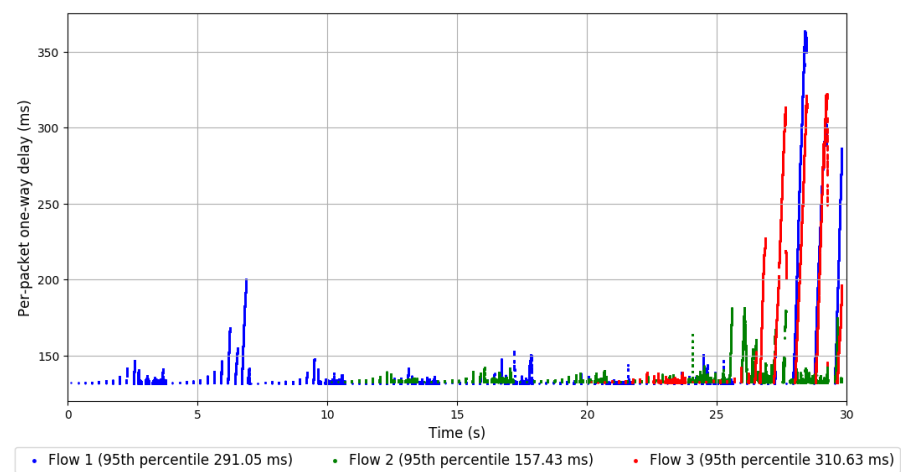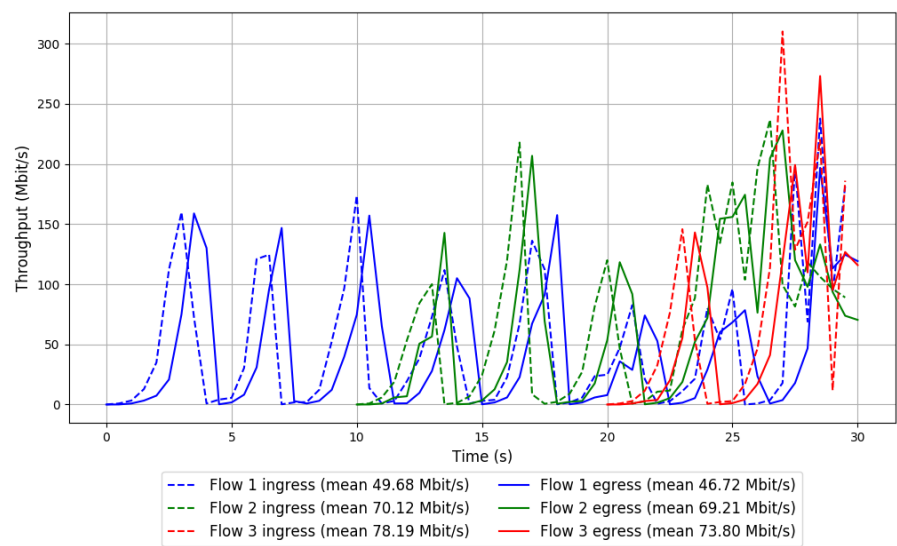
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-06-28 08:53:24
End at: 2019-06-28 08:53:54
Local clock offset: 0.103 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2019-06-28 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 169.414 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 38.94 Mbit/s
95th percentile per-packet one-way delay: 150.503 ms
Loss rate: 5.17%
-- Flow 2:
Average throughput: 70.00 Mbit/s
95th percentile per-packet one-way delay: 179.512 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 145.378 ms
Loss rate: 0.01%
```
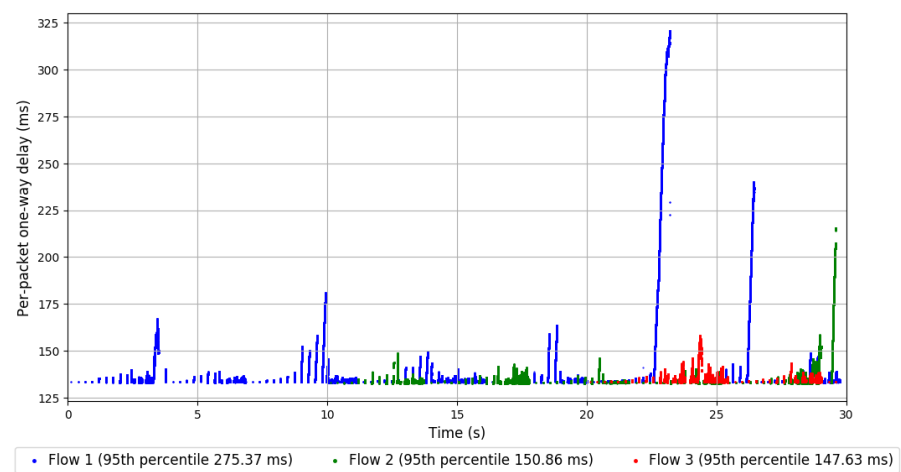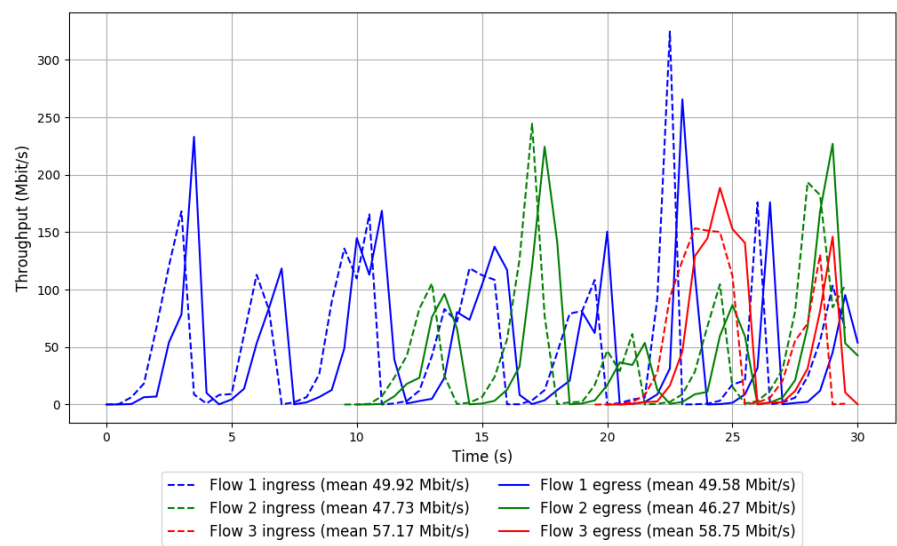
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-06-28 09:32:25
End at: 2019-06-28 09:32:55
Local clock offset: 0.263 ms
Remote clock offset: 0.297 ms


# Below is generated by plot.py at 2019-06-28 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.52 Mbit/s
95th percentile per-packet one-way delay: 288.849 ms
Loss rate: 5.35%
-- Flow 1:
Average throughput: 58.07 Mbit/s
95th percentile per-packet one-way delay: 156.176 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 40.42 Mbit/s
95th percentile per-packet one-way delay: 146.028 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.17 Mbit/s
95th percentile per-packet one-way delay: 319.280 ms
Loss rate: 14.61%
```
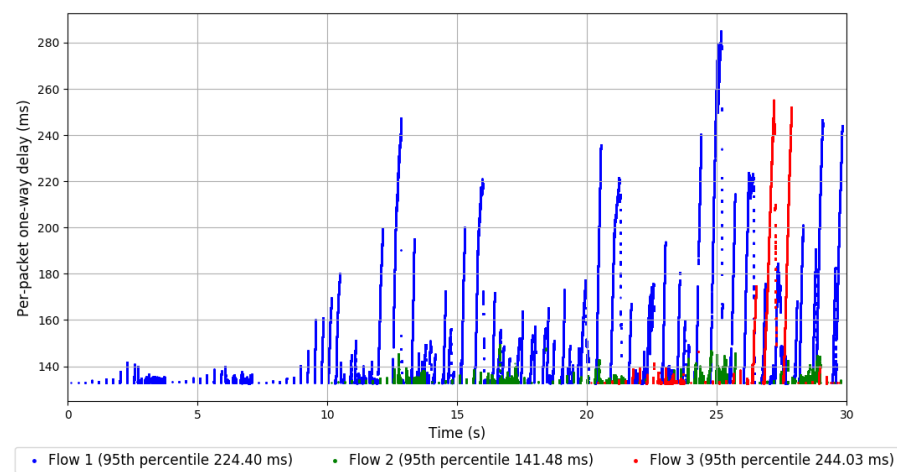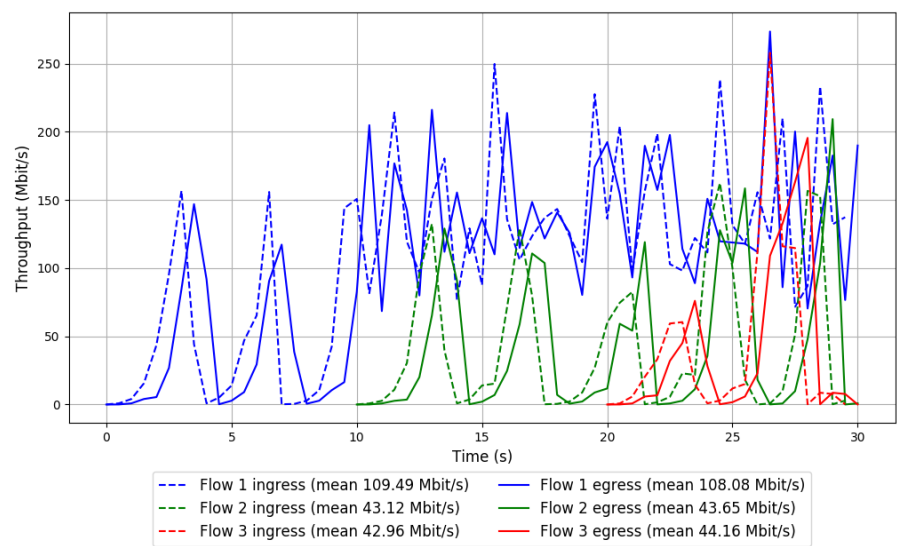
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-06-28 10:11:29
End at: 2019-06-28 10:11:59
Local clock offset: -0.389 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-06-28 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.63 Mbit/s
95th percentile per-packet one-way delay: 285.577 ms
Loss rate: 4.70%
-- Flow 1:
Average throughput: 46.72 Mbit/s
95th percentile per-packet one-way delay: 291.054 ms
Loss rate: 6.06%
-- Flow 2:
Average throughput: 69.21 Mbit/s
95th percentile per-packet one-way delay: 157.431 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 73.80 Mbit/s
95th percentile per-packet one-way delay: 310.629 ms
Loss rate: 5.86%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-06-28 10:50:47
End at: 2019-06-28 10:51:17
Local clock offset: 0.091 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-06-28 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.75 Mbit/s
95th percentile per-packet one-way delay: 207.823 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 49.58 Mbit/s
95th percentile per-packet one-way delay: 275.365 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 46.27 Mbit/s
95th percentile per-packet one-way delay: 150.858 ms
Loss rate: 5.45%
-- Flow 3:
Average throughput: 58.75 Mbit/s
95th percentile per-packet one-way delay: 147.632 ms
Loss rate: 0.07%
```
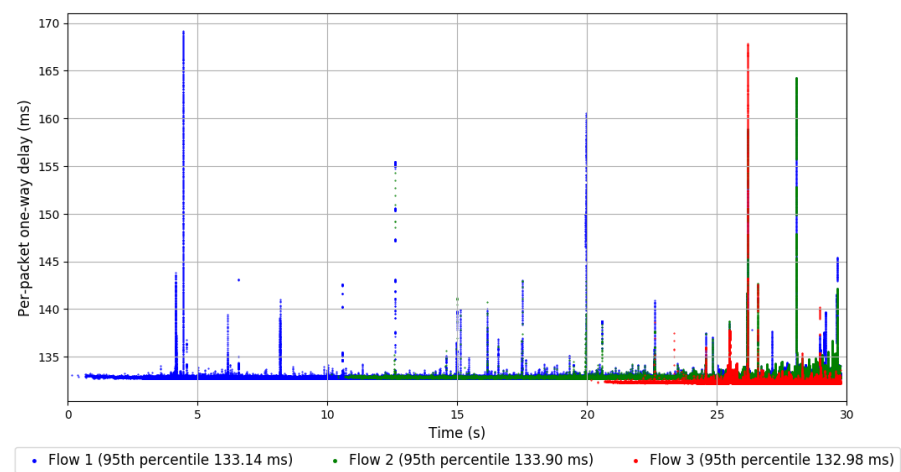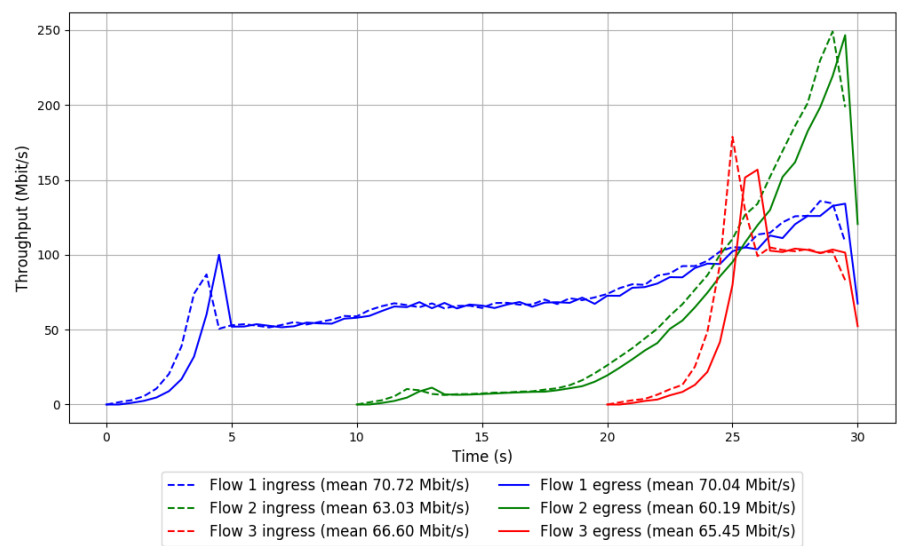
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-06-28 11:30:05
End at: 2019-06-28 11:30:35
Local clock offset: -0.562 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2019-06-28 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.15 Mbit/s
95th percentile per-packet one-way delay: 223.972 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 108.08 Mbit/s
95th percentile per-packet one-way delay: 224.403 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 43.65 Mbit/s
95th percentile per-packet one-way delay: 141.484 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 244.035 ms
Loss rate: 0.01%
```

Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 08:54:55
End at: 2019-06-28 08:55:25
Local clock offset: -0.127 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2019-06-28 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 131.10 Mbit/s
95th percentile per-packet one-way delay: 133.407 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 70.04 Mbit/s
95th percentile per-packet one-way delay: 133.143 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 60.19 Mbit/s
95th percentile per-packet one-way delay: 133.904 ms
Loss rate: 5.80%
-- Flow 3:
Average throughput: 65.45 Mbit/s
95th percentile per-packet one-way delay: 132.977 ms
Loss rate: 4.38%
```
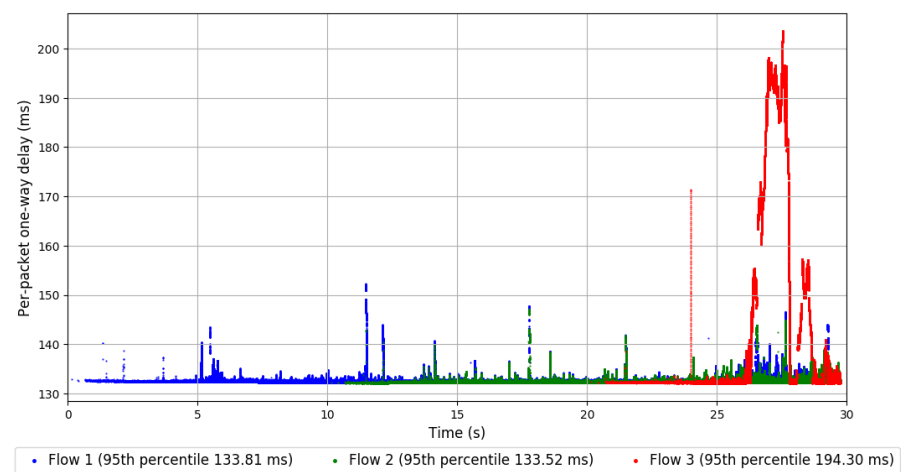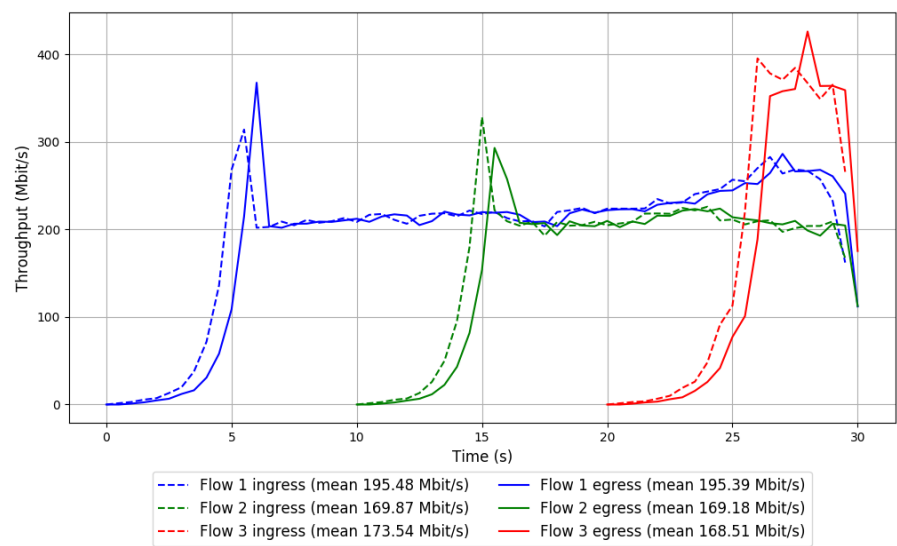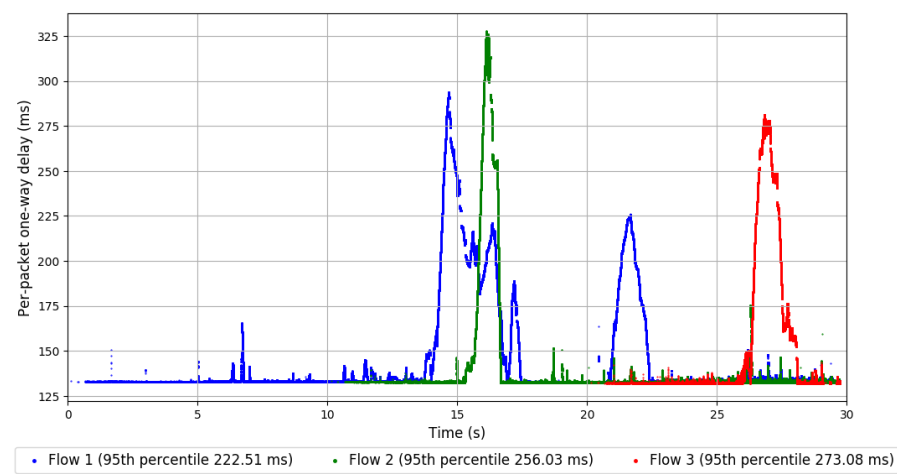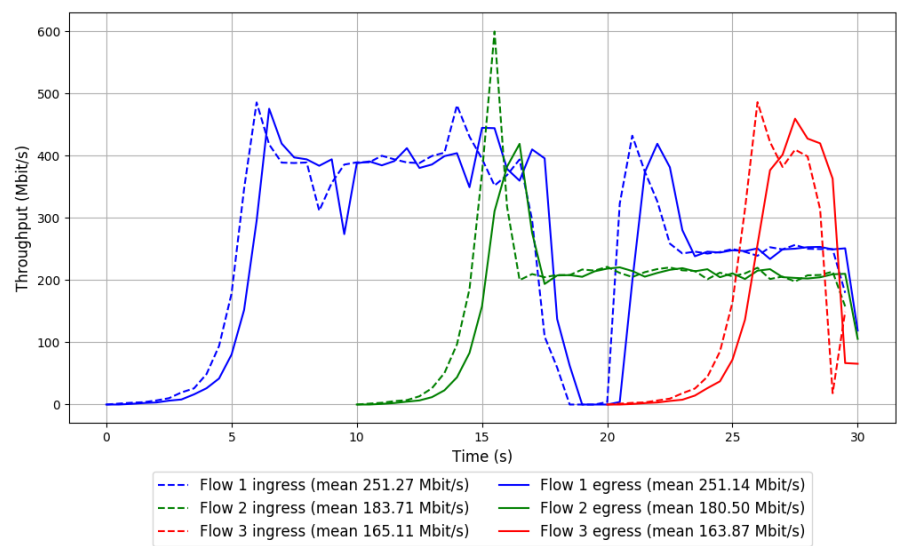
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 09:33:59
End at: 2019-06-28 09:34:29
Local clock offset: -0.28 ms
Remote clock offset: 0.323 ms


# Below is generated by plot.py at 2019-06-28 14:32:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.92 Mbit/s
95th percentile per-packet one-way delay: 152.991 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 195.39 Mbit/s
95th percentile per-packet one-way delay: 133.813 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 169.18 Mbit/s
95th percentile per-packet one-way delay: 133.521 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 168.51 Mbit/s
95th percentile per-packet one-way delay: 194.302 ms
Loss rate: 5.52%
```

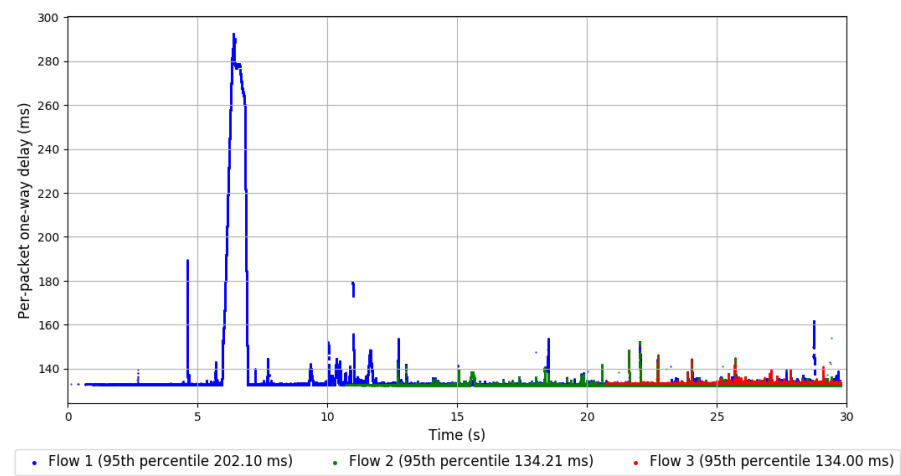Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 10:13:03
End at: 2019-06-28 10:13:33
Local clock offset: -0.253 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-06-28 14:32:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.70 Mbit/s
95th percentile per-packet one-way delay: 252.233 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 251.14 Mbit/s
95th percentile per-packet one-way delay: 222.511 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 180.50 Mbit/s
95th percentile per-packet one-way delay: 256.026 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 163.87 Mbit/s
95th percentile per-packet one-way delay: 273.082 ms
Loss rate: 3.43%
```

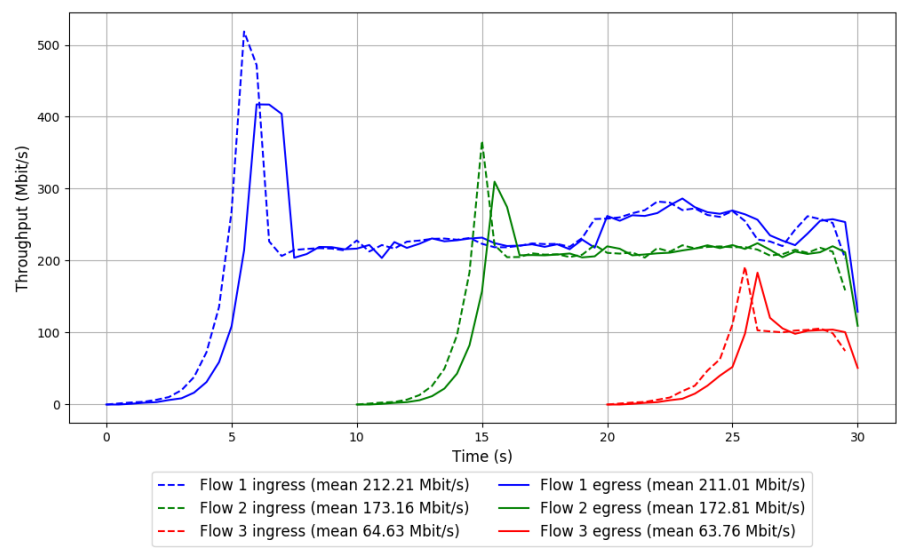## Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 10:52:19
End at: 2019-06-28 10:52:49
Local clock offset: 0.051 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-06-28 14:32:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.84 Mbit/s
95th percentile per-packet one-way delay: 142.187 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 211.01 Mbit/s
95th percentile per-packet one-way delay: 202.100 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 172.81 Mbit/s
95th percentile per-packet one-way delay: 134.207 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 63.76 Mbit/s
95th percentile per-packet one-way delay: 134.001 ms
Loss rate: 4.02%
```

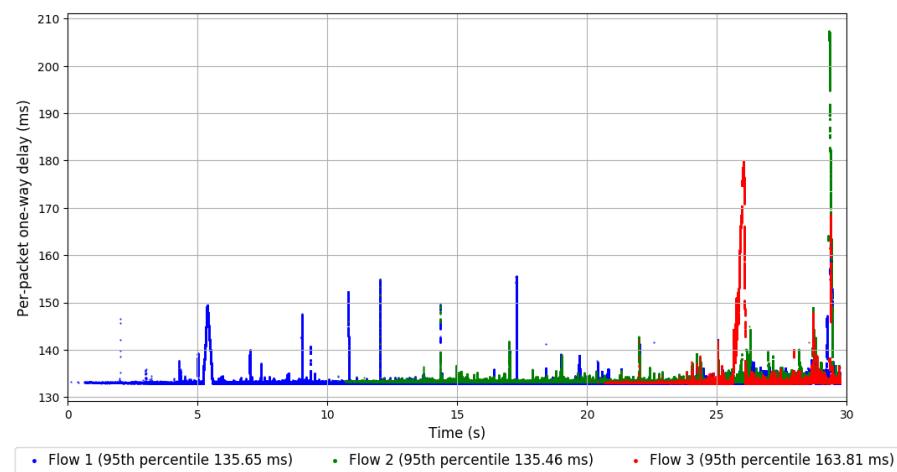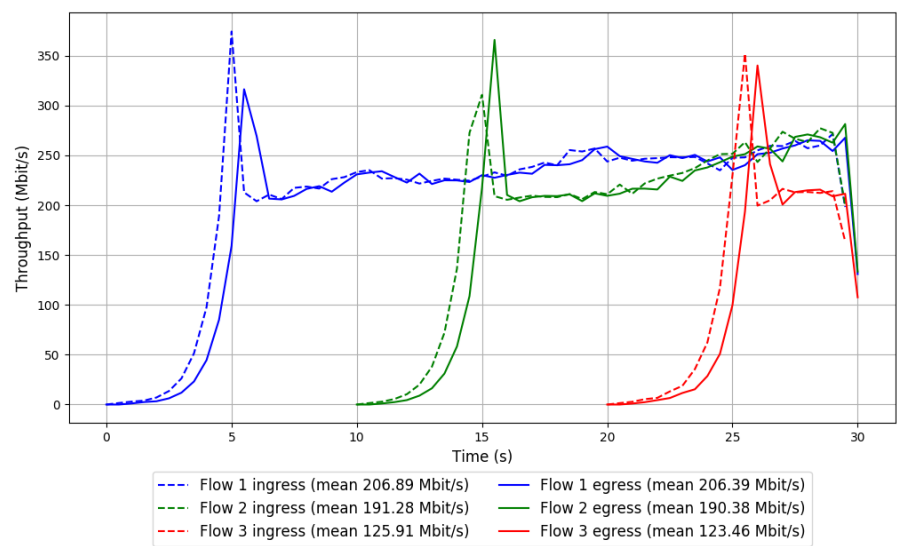## Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 11:31:42
End at: 2019-06-28 11:32:12
Local clock offset: -0.327 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2019-06-28 14:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.40 Mbit/s
95th percentile per-packet one-way delay: 136.997 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 206.39 Mbit/s
95th percentile per-packet one-way delay: 135.649 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 190.38 Mbit/s
95th percentile per-packet one-way delay: 135.455 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 123.46 Mbit/s
95th percentile per-packet one-way delay: 163.813 ms
Loss rate: 4.61%
```

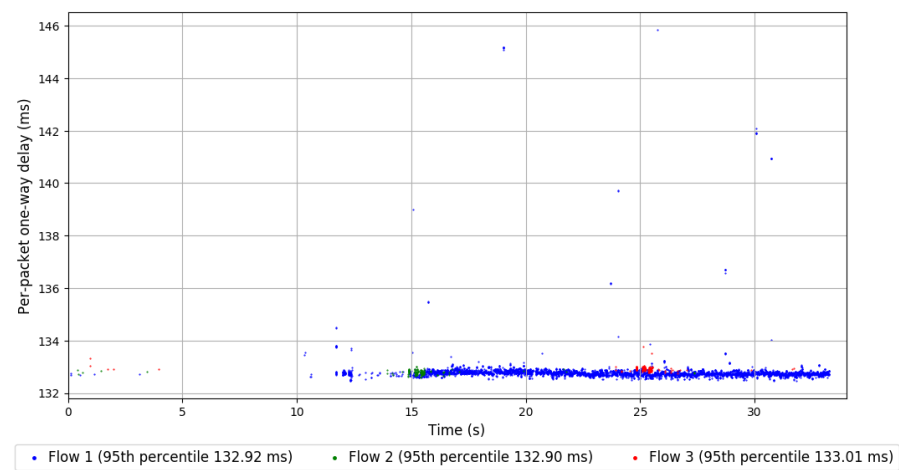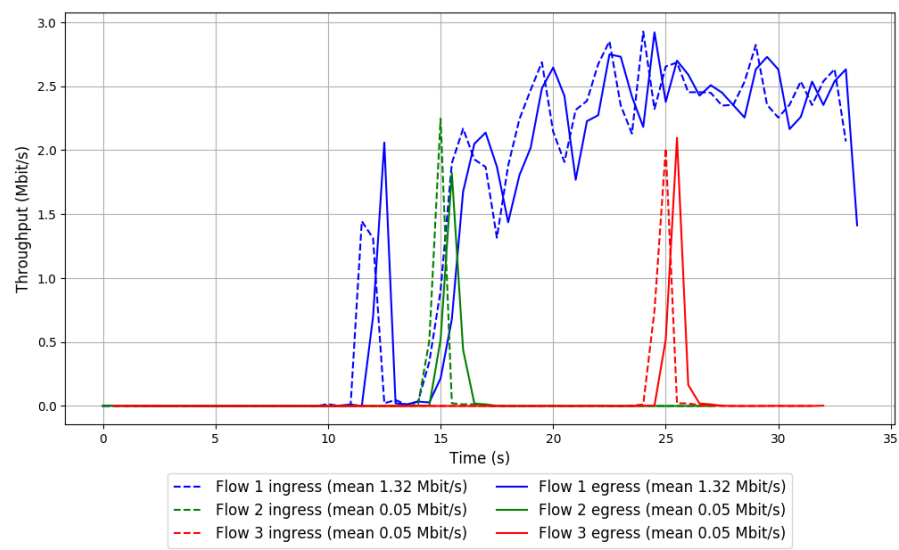Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-06-28 09:01:44
End at: 2019-06-28 09:02:14
Local clock offset: -0.324 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-06-28 14:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 132.924 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 132.916 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.898 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.006 ms
Loss rate: 0.00%
```

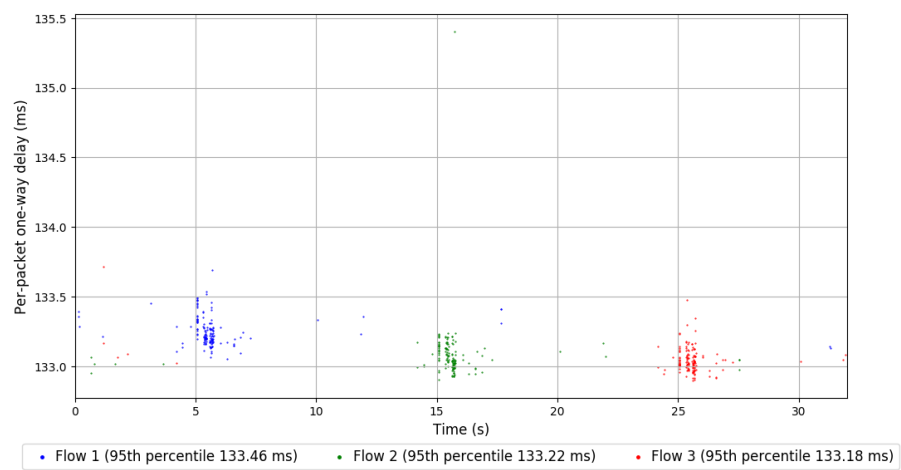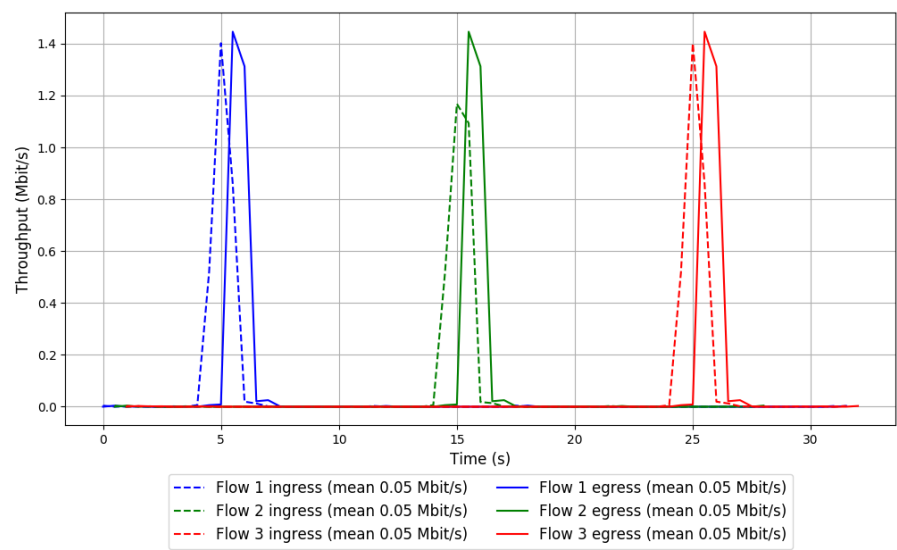Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-06-28 09:40:50
End at: 2019-06-28 09:41:20
Local clock offset: 0.025 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2019-06-28 14:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.394 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.456 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.215 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.180 ms
Loss rate: 0.00%
```

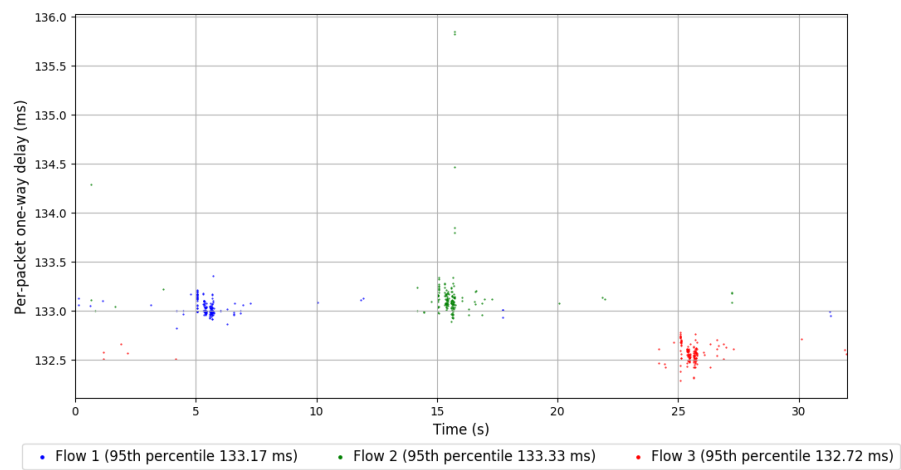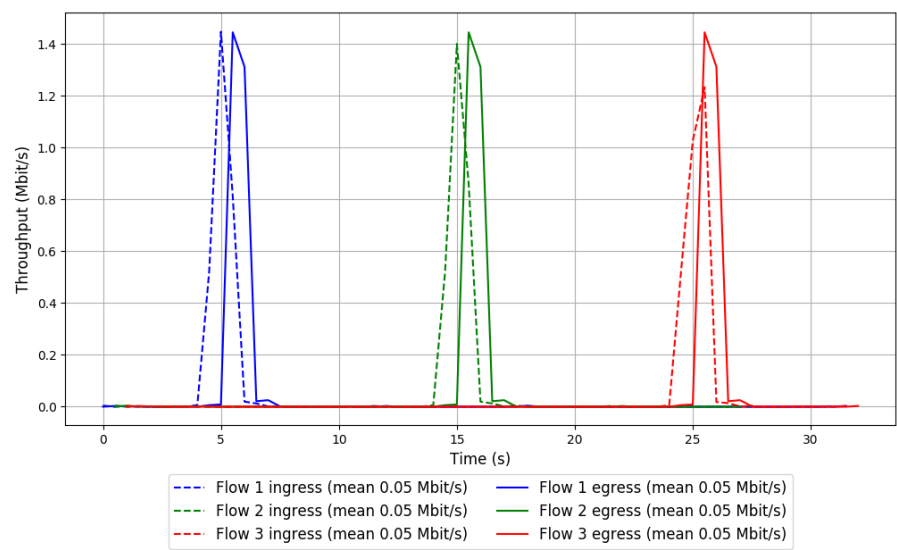Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-06-28 10:19:55
End at: 2019-06-28 10:20:25
Local clock offset: -0.001 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2019-06-28 14:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.220 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.166 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.334 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.725 ms
Loss rate: 0.00%
```
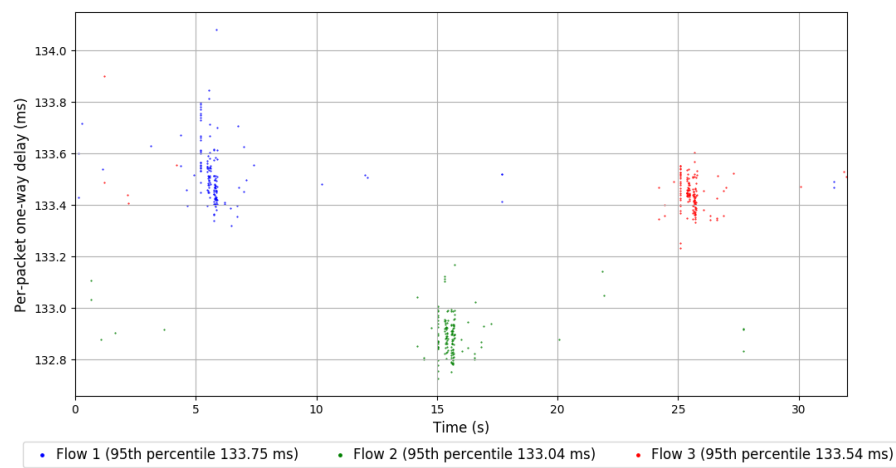
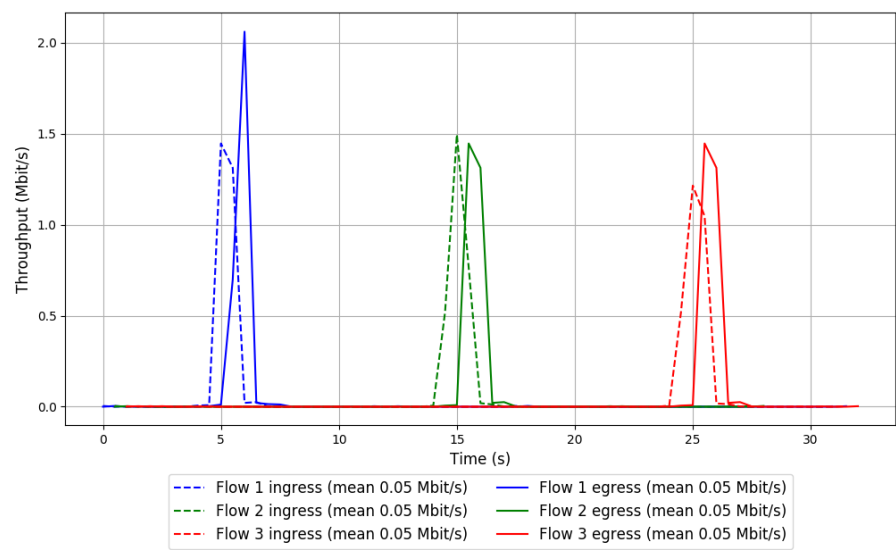Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-06-28 10:59:26
End at: 2019-06-28 10:59:56
Local clock offset: -0.401 ms
Remote clock offset: -0.405 ms


# Below is generated by plot.py at 2019-06-28 14:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.625 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.043 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.539 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-06-28 11:38:37
End at: 2019-06-28 11:39:07
Local clock offset: -0.818 ms
Remote clock offset: -0.095 ms


# Below is generated by plot.py at 2019-06-28 14:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 132.793 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.920 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.805 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.307 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link