Pantheon Report

Generated at 2017-12-05 09:46:27 (UTC).

Data path: AWS Brazil 2 Ethernet (*local*) →Colombia ppp0 (*remote*).

Repeated the test of 14 congestion control schemes 3 times.

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

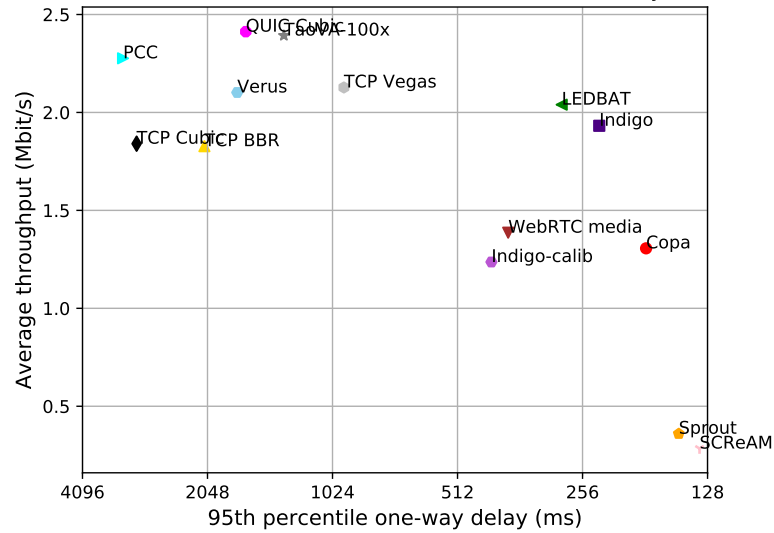Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

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

```
Git summary:
branch: indigos @ e3a57ad5ac5cfcaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
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/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 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/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```
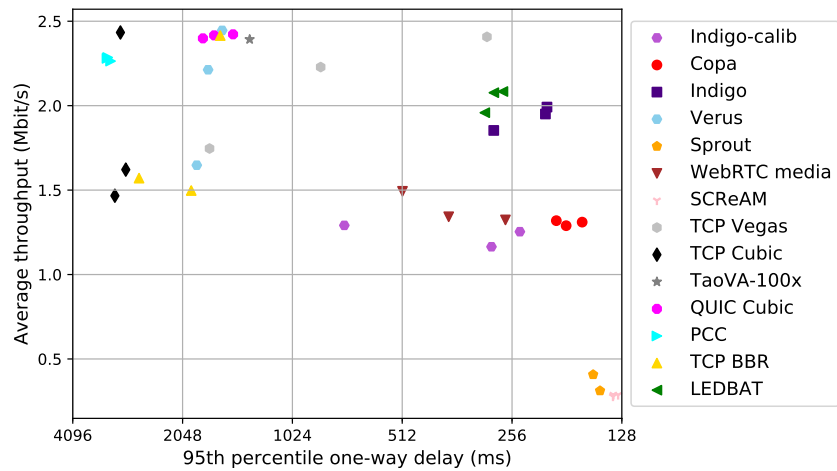
test from AWS Brazil 2 Ethernet to Colombia ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS Brazil 2 Ethernet to Colombia ppp0, 3 runs of 30s each per scheme
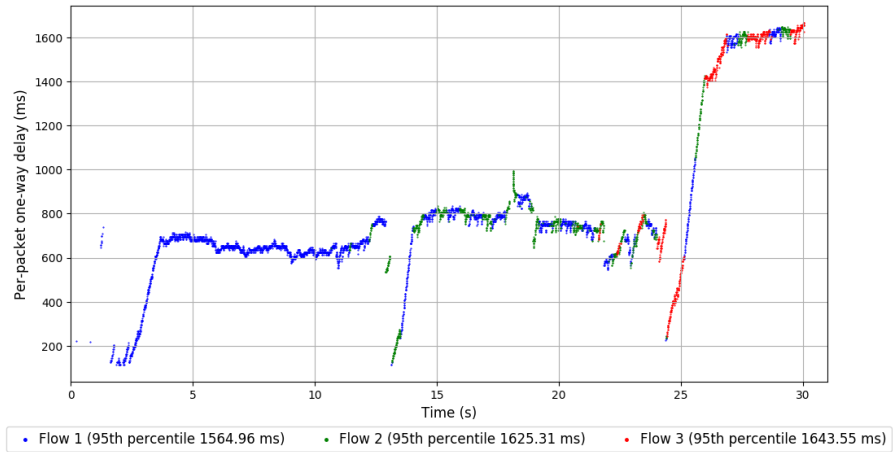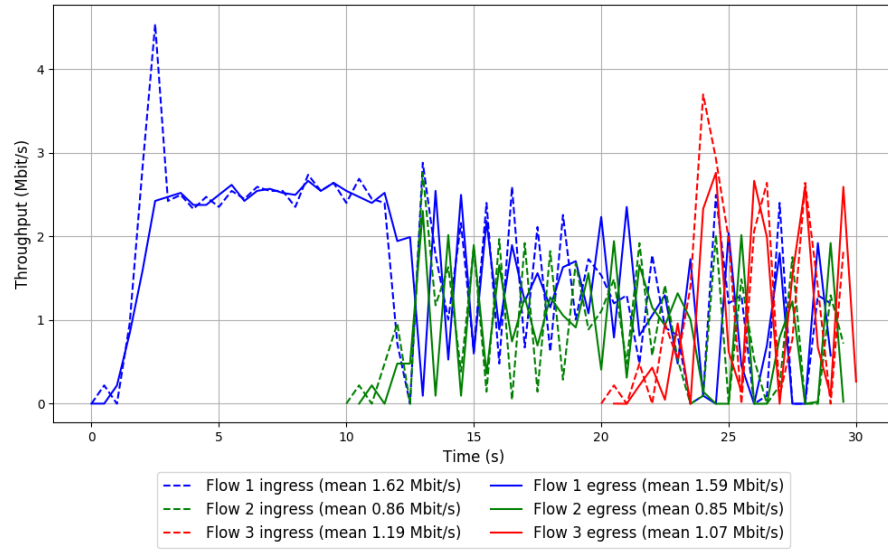3 flows with 10s interval between flows

scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	6.38	1.32	1.20	3523.10	1653.24	2276.05	0.88	9.74	25.60
TCP Cubic	3	7.49	1.50	0.11	2736.82	3010.96	2822.44	4.79	22.23	42.01
LEDBAT	3	1.57	0.50	0.41	284.02	297.18	290.70	0.50	0.69	3.67
PCC	3	1.79	0.00	1.49	3241.29	3237.83	3314.38	58.56	12.61	70.41
QUIC Cubic	3	1.88	0.69	0.22	1647.57	1674.44	1714.46	4.46	9.19	25.02
SCReAM	3	0.08	0.21	0.18	127.15	133.98	133.62	0.13	0.06	0.22
WebRTC media	3	0.79	0.45	0.16	367.53	383.77	351.17	0.12	0.24	1.02
Sprout	2	0.17	0.17	0.21	149.77	149.90	141.38	0.00	0.00	0.02
TaoVA-100x	1	1.28	1.18	0.94	1271.94	1658.61	1417.91	1.12	6.14	2.76
TCP Vegas	3	1.58	0.53	0.65	1025.59	938.37	814.79	2.00	3.53	5.73
Verus	3	2.09	0.01	0.01	1737.63	1638.77	1680.41	3.72	7.68	14.06
Copa	3	118.25	1.52	0.82	2813.63	173.33	195.87	0.00	0.18	0.73
Indigo	3	1.04	0.77	1.16	210.72	200.33	286.84	0.00	0.02	0.16
Indigo-calib	3	0.59	0.47	1.03	303.81	249.68	532.77	0.03	0.00	0.19

```
Run 1: Statistics of TCP BBR

Start at: 2017-12-05 09:02:00
End at: 2017-12-05 09:02:30
Local clock offset: 1.3 ms
Remote clock offset: -1.888 ms


# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 1614.642 ms
Loss rate: 5.38%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 1564.960 ms
Loss rate: 2.64%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 1625.307 ms
Loss rate: 5.93%
-- Flow 3:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 1643.553 ms
Loss rate: 15.56%
```

Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2017-12-05 09:19:27
End at: 2017-12-05 09:19:57
Local clock offset: 0.898 ms
Remote clock offset: 3.307 ms


# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 2695.793 ms
Loss rate: 18.19%
-- Flow 1:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: 4428.372 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 1594.915 ms
Loss rate: 11.25%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 2785.835 ms
Loss rate: 30.05%
```
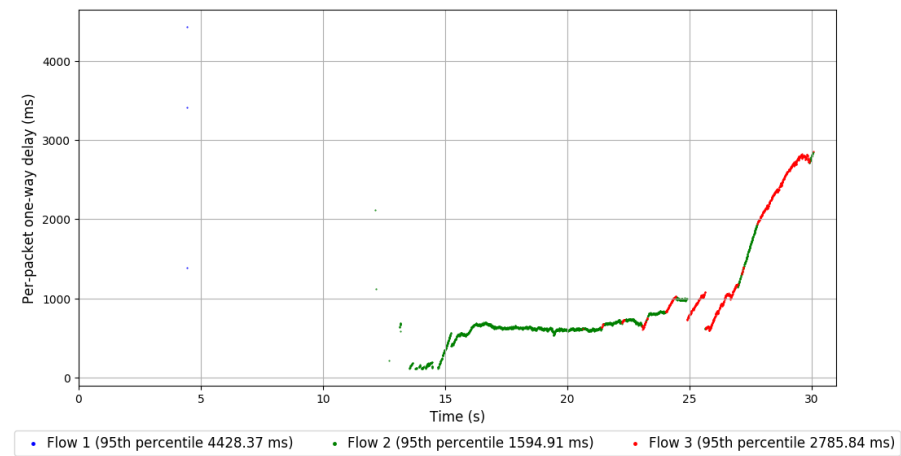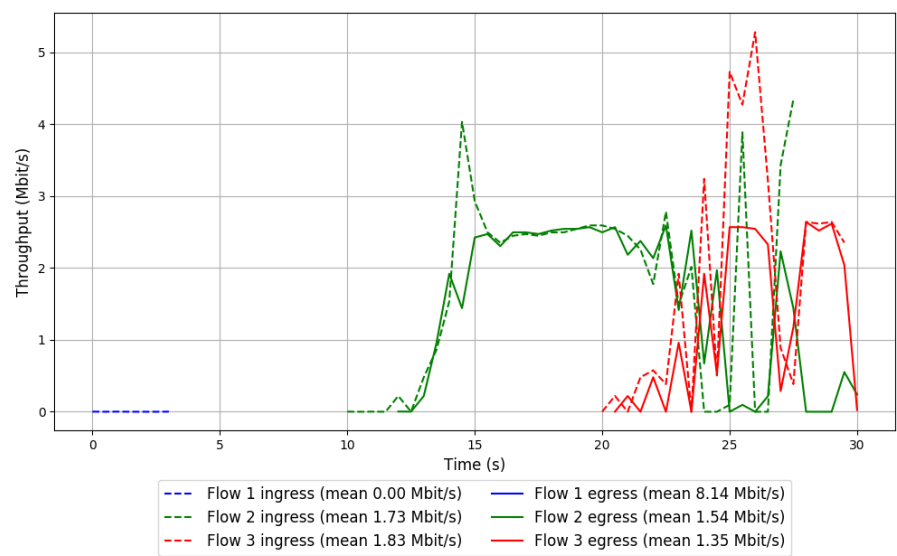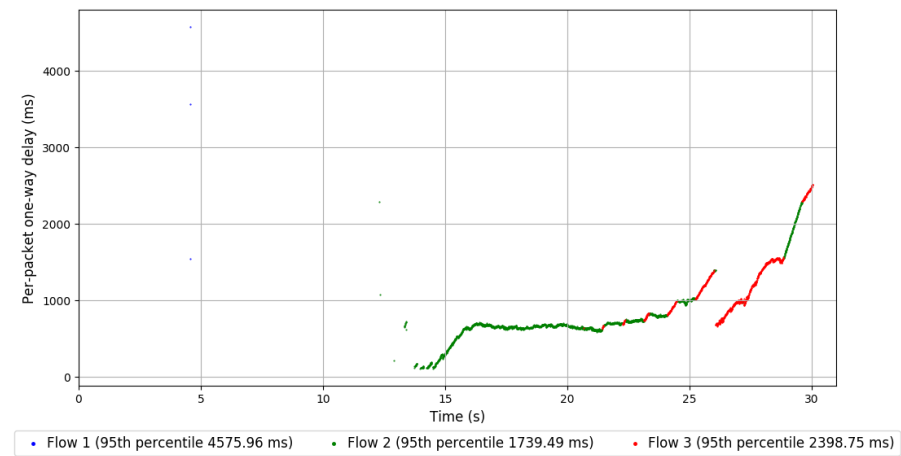
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 8.14 Mbit/s)
Flow 2 ingress (mean 1.73 Mbit/s) --- Flow 2 egress (mean 1.54 Mbit/s)
Flow 3 ingress (mean 1.83 Mbit/s) --- Flow 3 egress (mean 1.35 Mbit/s)

Flow 1 (95th percentile 4428.37 ms)   Flow 2 (95th percentile 1594.91 ms)   Flow 3 (95th percentile 2785.84 ms)

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```
Run 3: Statistics of TCP BBR

Start at: 2017-12-05 09:36:53
End at: 2017-12-05 09:37:23
Local clock offset: 1.007 ms
Remote clock offset: -1.15 ms

# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 1939.263 ms
Loss rate: 18.66%
-- Flow 1:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 4575.956 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 1739.488 ms
Loss rate: 12.04%
-- Flow 3:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 2398.747 ms
Loss rate: 31.20%
```
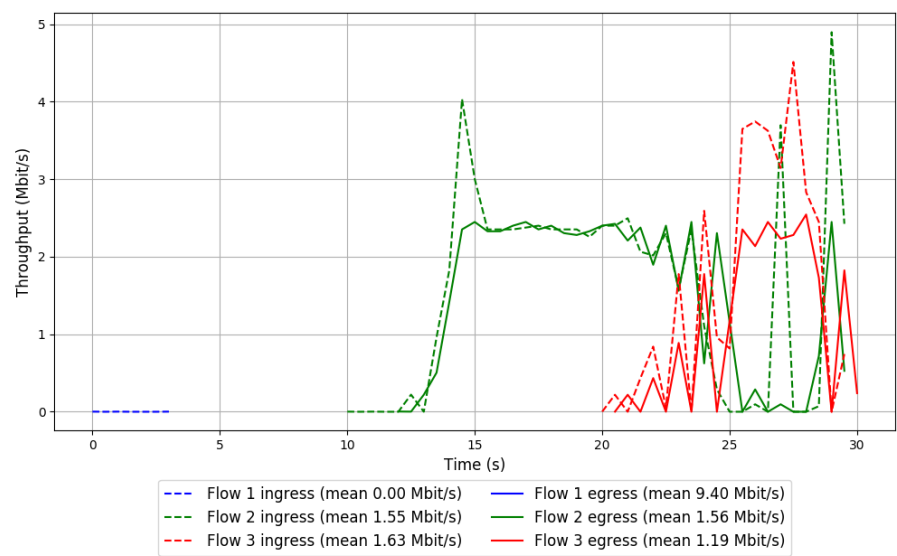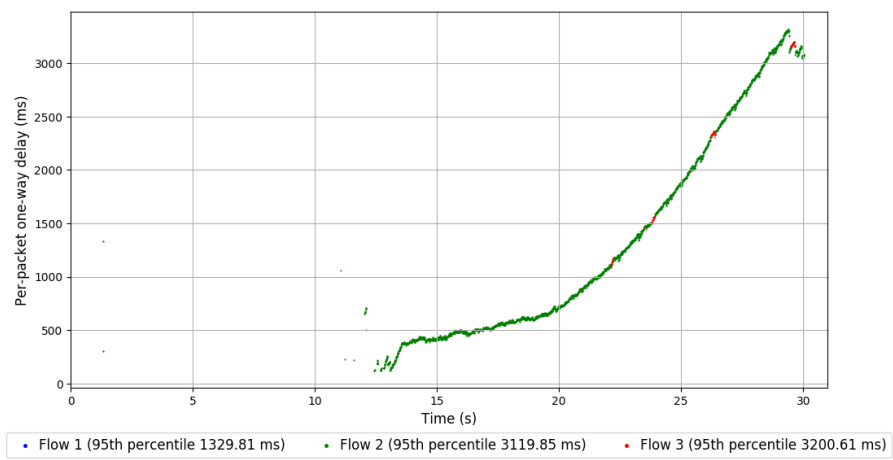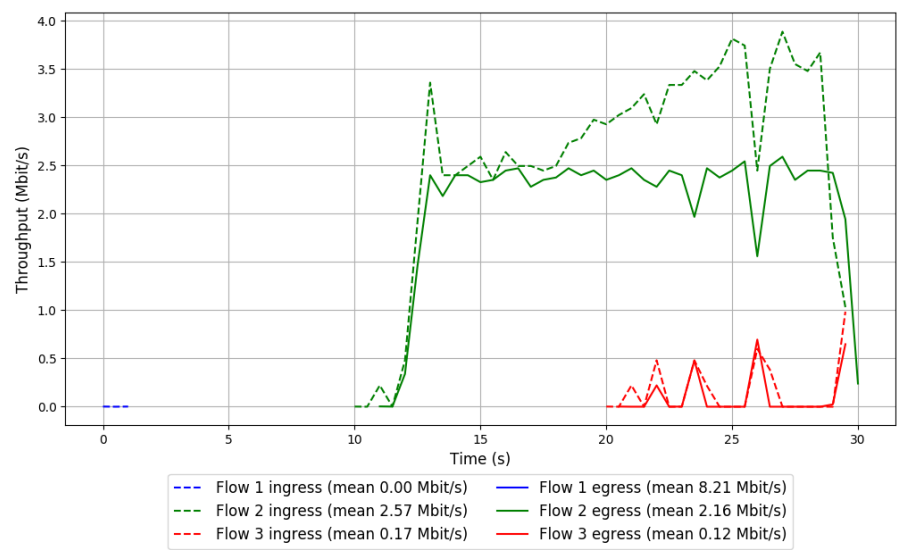
Run 3: Report of TCP BBR — Data Link

Throughput (Mbit/s) vs Time (s)

- - - Flow 1 ingress (mean 0.00 Mbit/s) —— Flow 1 egress (mean 9.40 Mbit/s)
- - - Flow 2 ingress (mean 1.55 Mbit/s) —— Flow 2 egress (mean 1.56 Mbit/s)
- - - Flow 3 ingress (mean 1.63 Mbit/s) —— Flow 3 egress (mean 1.19 Mbit/s)

Per-packet one-way delay (ms) vs Time (s)

- Flow 1 (95th percentile 4575.96 ms) • Flow 2 (95th percentile 1739.49 ms) • Flow 3 (95th percentile 2398.75 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2017-12-05 08:58:16
End at: 2017-12-05 08:58:46
Local clock offset: 1.394 ms
Remote clock offset: 1.985 ms


# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 3139.871 ms
Loss rate: 20.43%
-- Flow 1:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 1329.809 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 3119.849 ms
Loss rate: 19.84%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 3200.607 ms
Loss rate: 38.51%
```

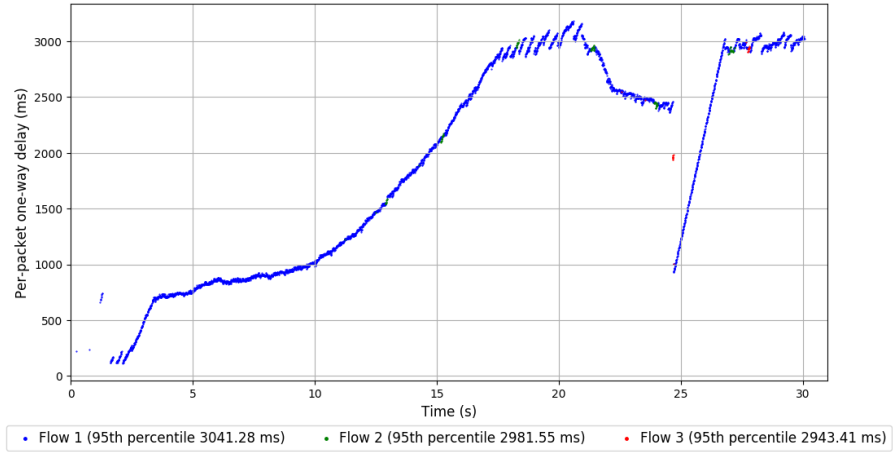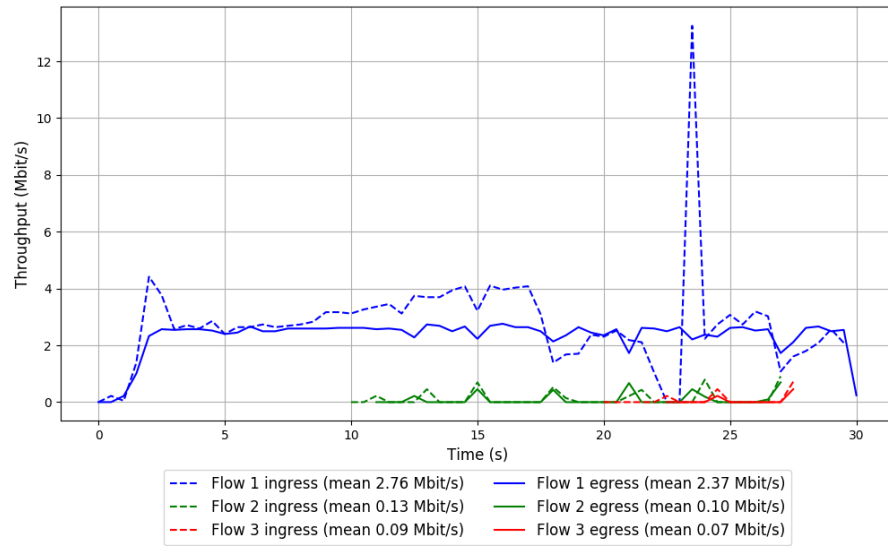Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2017-12-05 09:15:42
End at: 2017-12-05 09:16:12
Local clock offset: 0.907 ms
Remote clock offset: -2.075 ms


# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 3031.812 ms
Loss rate: 14.98%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3041.285 ms
Loss rate: 14.36%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 2981.549 ms
Loss rate: 26.73%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 2943.413 ms
Loss rate: 51.38%
```
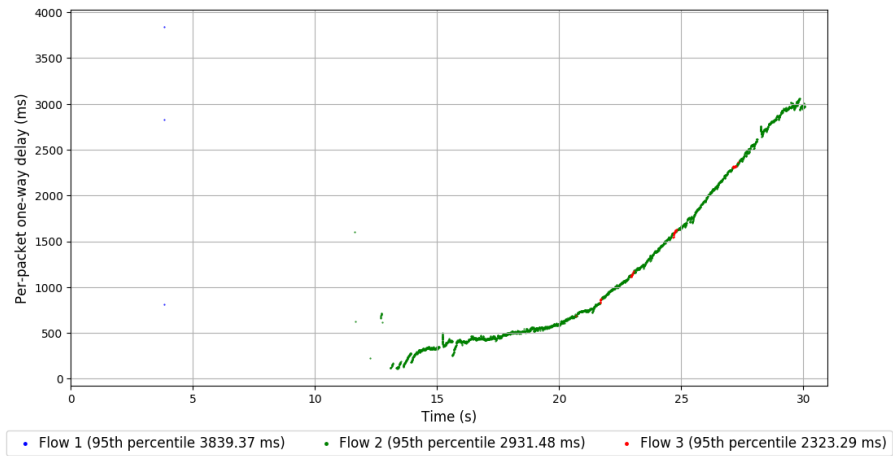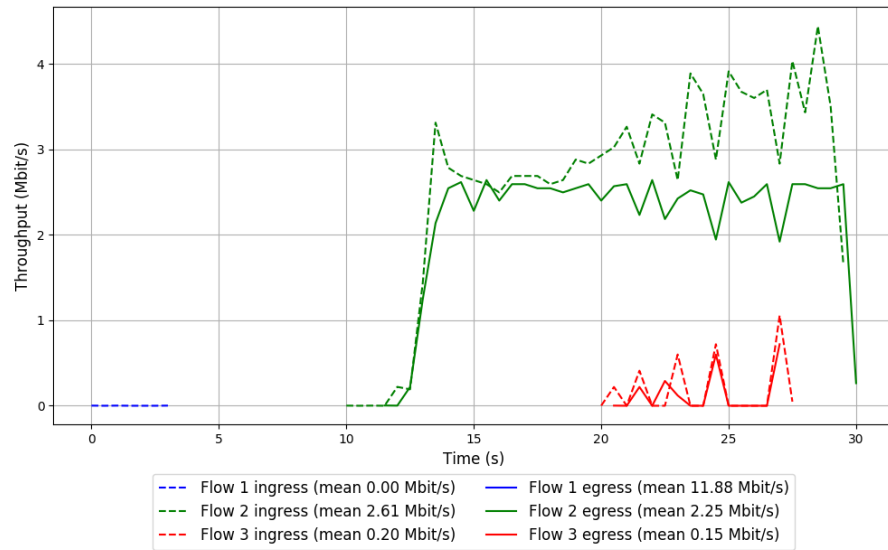
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 2.76 Mbit/s)   Flow 1 egress (mean 2.37 Mbit/s)
Flow 2 ingress (mean 0.13 Mbit/s)   Flow 2 egress (mean 0.10 Mbit/s)
Flow 3 ingress (mean 0.09 Mbit/s)   Flow 3 egress (mean 0.07 Mbit/s)

Flow 1 (95th percentile 3041.28 ms)   Flow 2 (95th percentile 2981.55 ms)   Flow 3 (95th percentile 2943.41 ms)

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```
Run 3: Statistics of TCP Cubic

Start at: 2017-12-05 09:33:09
End at: 2017-12-05 09:33:39
Local clock offset: 0.938 ms
Remote clock offset: 2.833 ms


# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 2931.436 ms
Loss rate: 20.58%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 3839.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 2931.480 ms
Loss rate: 20.13%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 2323.291 ms
Loss rate: 36.14%
```

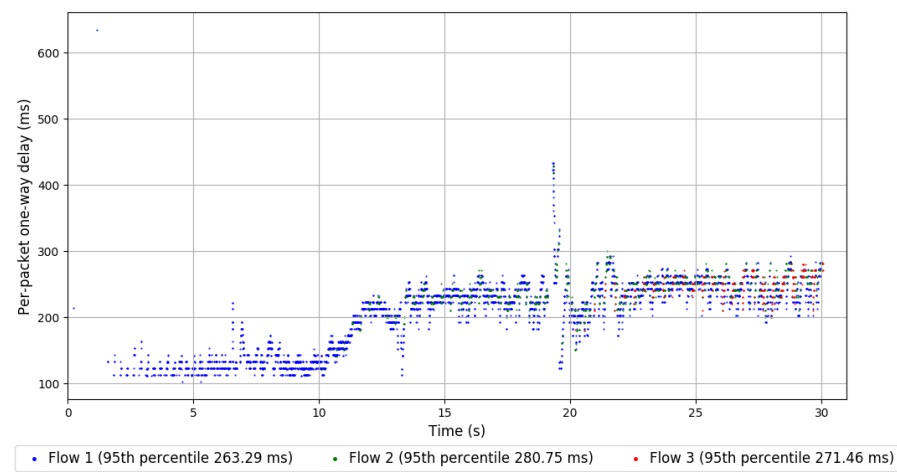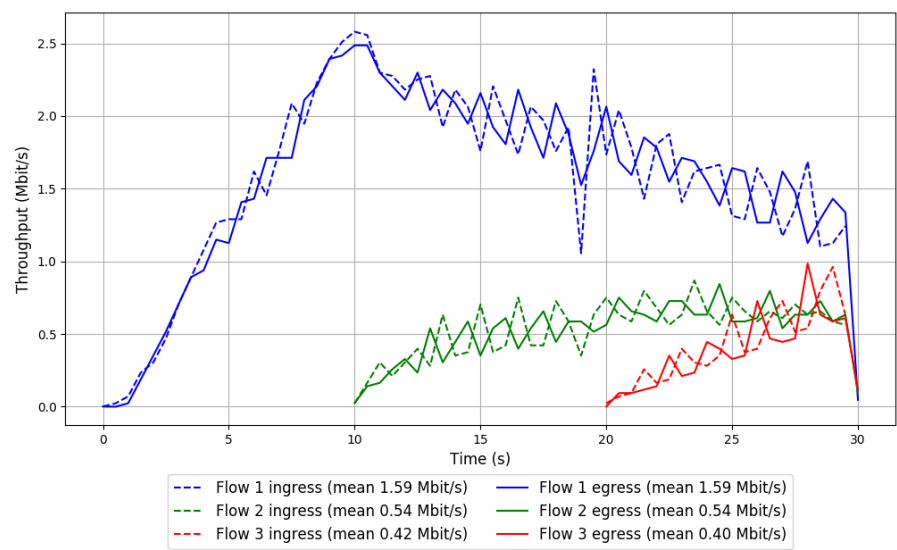Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 11.88 Mbit/s) ———
Flow 2 ingress (mean 2.61 Mbit/s) --- Flow 2 egress (mean 2.25 Mbit/s) ———
Flow 3 ingress (mean 0.20 Mbit/s) --- Flow 3 egress (mean 0.15 Mbit/s) ———

• Flow 1 (95th percentile 3839.37 ms) • Flow 2 (95th percentile 2931.48 ms) • Flow 3 (95th percentile 2323.29 ms)
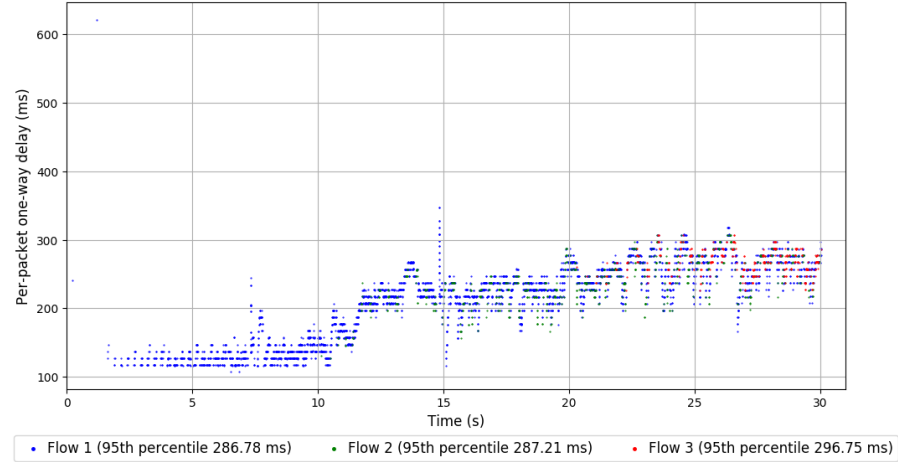
```
Run 1: Statistics of LEDBAT

Start at: 2017-12-05 09:09:28
End at: 2017-12-05 09:09:58
Local clock offset: 1.131 ms
Remote clock offset: -1.786 ms

# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 271.157 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 263.290 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 280.749 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 271.461 ms
Loss rate: 6.20%
```
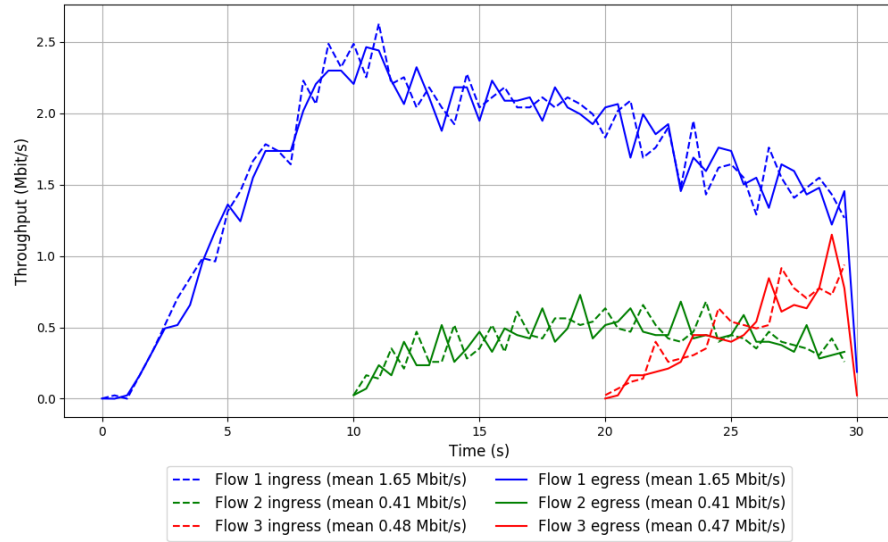
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2017-12-05 09:26:55
End at: 2017-12-05 09:27:25
Local clock offset: 0.839 ms
Remote clock offset: -2.115 ms

# Below is generated by plot.py at 2017-12-05 09:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 287.163 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 286.779 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 287.215 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 296.751 ms
Loss rate: 3.22%
```
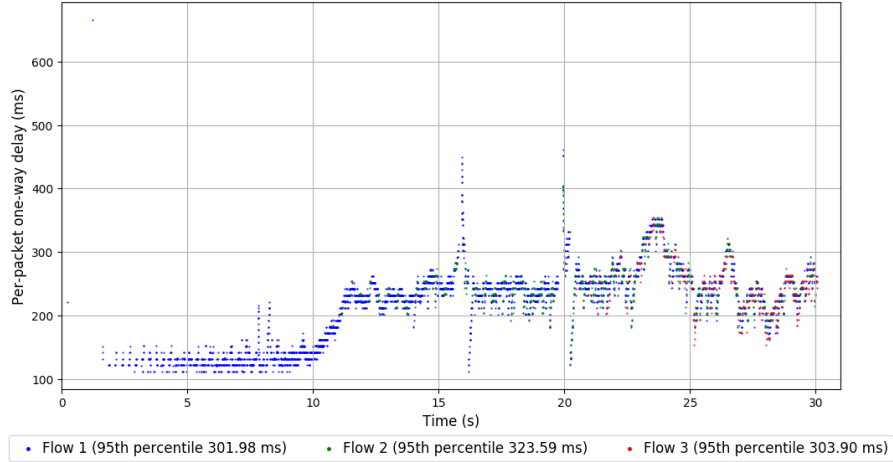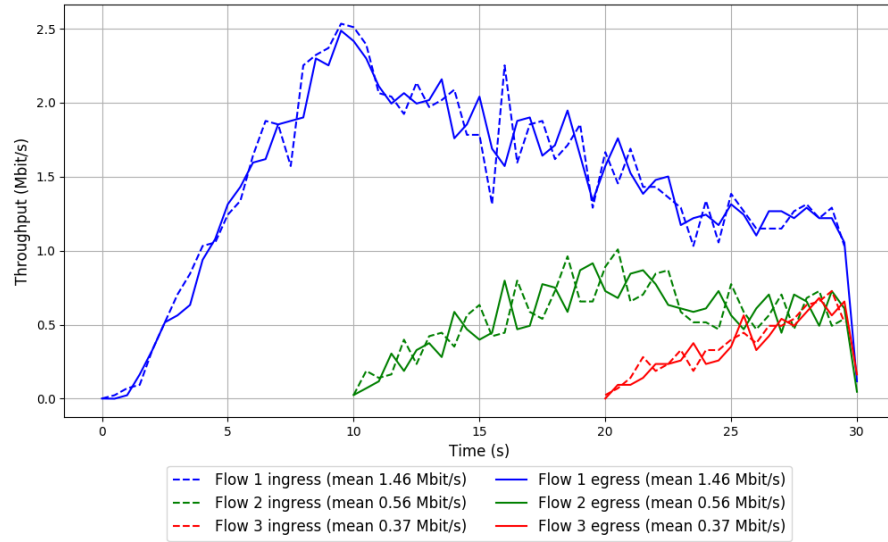
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2017-12-05 09:44:21
End at: 2017-12-05 09:44:51
Local clock offset: 1.126 ms
Remote clock offset: -1.177 ms


# Below is generated by plot.py at 2017-12-05 09:45:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 304.018 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 301.983 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 323.590 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 303.902 ms
Loss rate: 1.59%
```
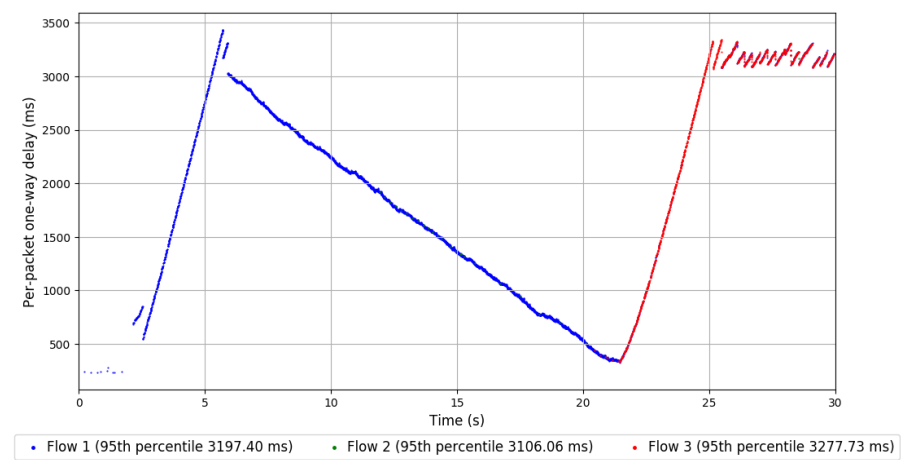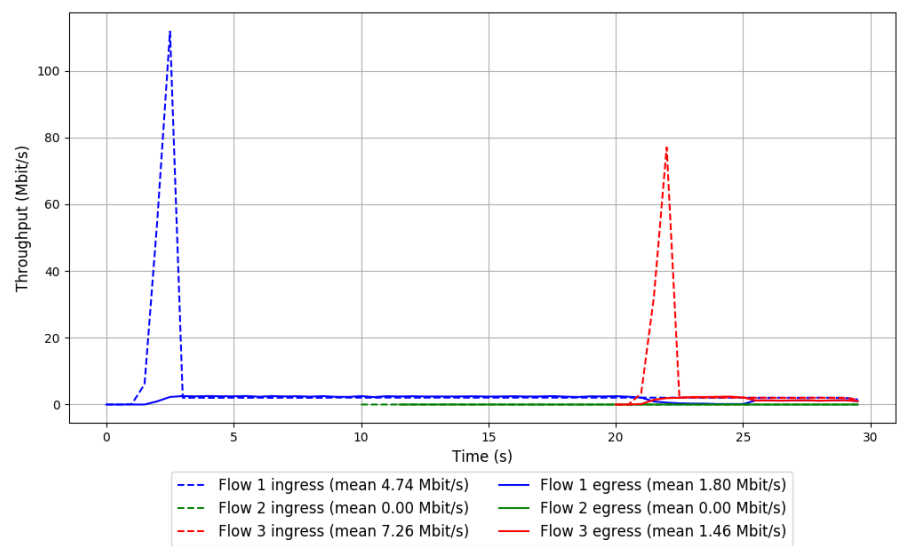
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 1.46 Mbit/s) — Flow 1 egress (mean 1.46 Mbit/s)
Flow 2 ingress (mean 0.56 Mbit/s) — Flow 2 egress (mean 0.56 Mbit/s)
Flow 3 ingress (mean 0.37 Mbit/s) — Flow 3 egress (mean 0.37 Mbit/s)

Flow 1 (95th percentile 301.98 ms) • Flow 2 (95th percentile 323.59 ms) • Flow 3 (95th percentile 303.90 ms)

```
Run 1: Statistics of PCC

Start at: 2017-12-05 09:08:13
End at: 2017-12-05 09:08:43
Local clock offset: 1.172 ms
Remote clock offset: 3.0 ms

# Below is generated by plot.py at 2017-12-05 09:46:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 3226.156 ms
Loss rate: 68.45%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 3197.404 ms
Loss rate: 62.36%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3106.061 ms
Loss rate: 13.28%
-- Flow 3:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 3277.730 ms
Loss rate: 80.55%
```
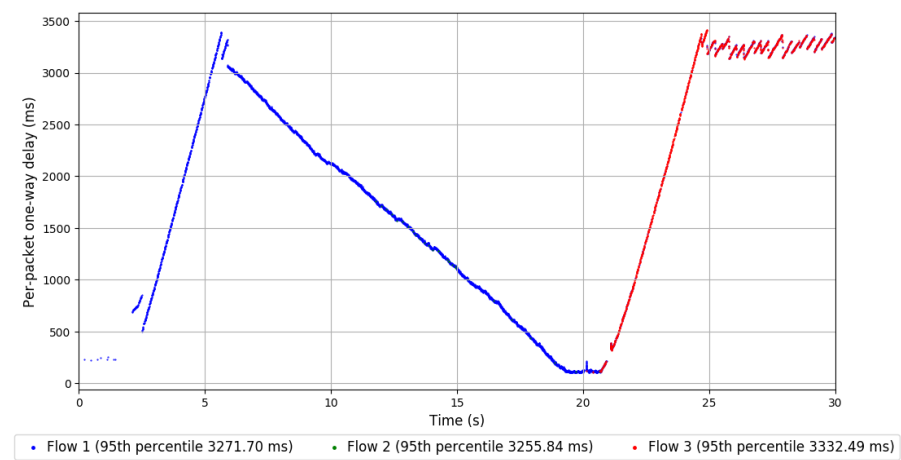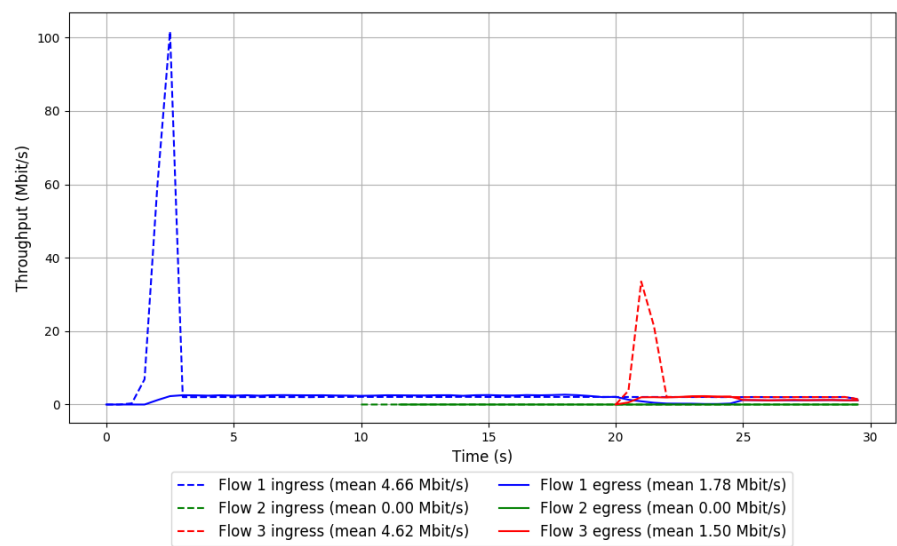
Run 1: Report of PCC — Data Link

- Flow 1 ingress (mean 4.74 Mbit/s) —— Flow 1 egress (mean 1.80 Mbit/s)
- Flow 2 ingress (mean 0.00 Mbit/s) —— Flow 2 egress (mean 0.00 Mbit/s)
- Flow 3 ingress (mean 7.26 Mbit/s) —— Flow 3 egress (mean 1.46 Mbit/s)

- Flow 1 (95th percentile 3197.40 ms) • Flow 2 (95th percentile 3106.06 ms) • Flow 3 (95th percentile 3277.73 ms)

```
Run 2: Statistics of PCC

Start at: 2017-12-05 09:25:40
End at: 2017-12-05 09:26:10
Local clock offset: 0.908 ms
Remote clock offset: -2.204 ms


# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 3300.064 ms
Loss rate: 63.32%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 3271.695 ms
Loss rate: 61.96%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3255.835 ms
Loss rate: 16.45%
-- Flow 3:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 3332.495 ms
Loss rate: 67.53%
```
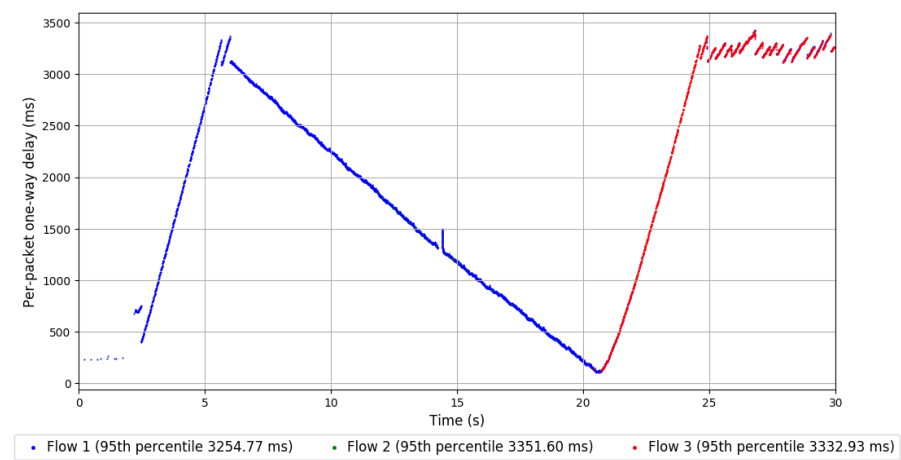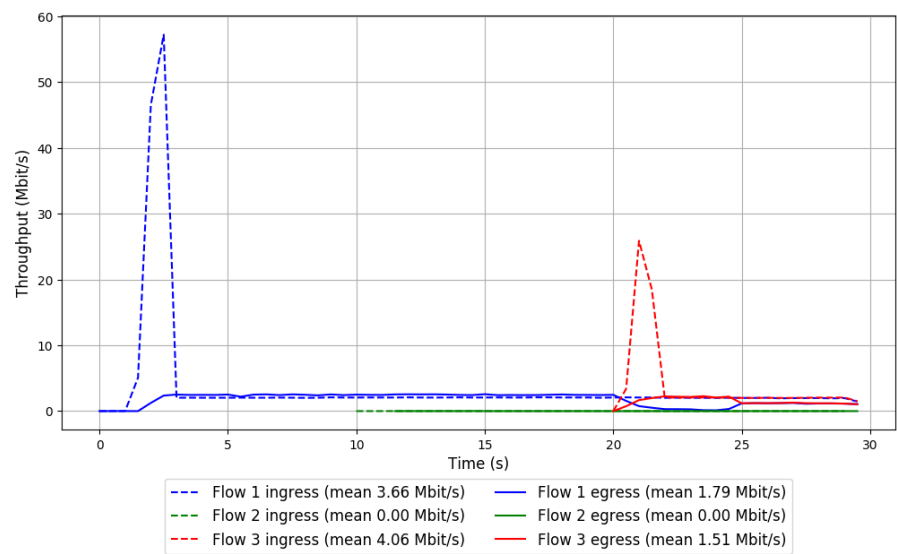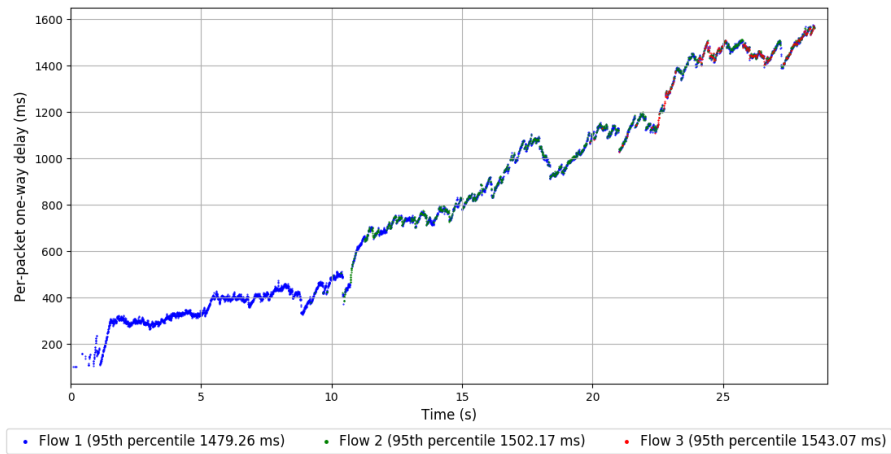
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 4.66 Mbit/s) --- Flow 1 egress (mean 1.78 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) --- Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 4.62 Mbit/s) --- Flow 3 egress (mean 1.50 Mbit/s)

Flow 1 (95th percentile 3271.70 ms)   Flow 2 (95th percentile 3255.84 ms)   Flow 3 (95th percentile 3332.49 ms)

```
Run 3: Statistics of PCC

Start at: 2017-12-05 09:43:06
End at: 2017-12-05 09:43:36
Local clock offset: 1.022 ms
Remote clock offset: -1.949 ms


# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 3285.047 ms
Loss rate: 54.51%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 3254.772 ms
Loss rate: 51.36%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3351.598 ms
Loss rate: 8.10%
-- Flow 3:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 3332.926 ms
Loss rate: 63.16%
```
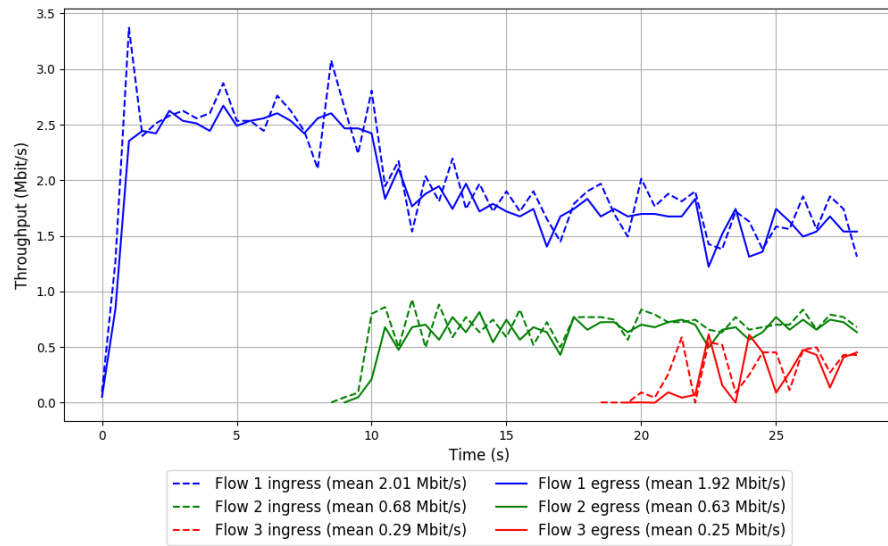
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 3.66 Mbit/s) --- Flow 1 egress (mean 1.79 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) --- Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 4.06 Mbit/s) --- Flow 3 egress (mean 1.51 Mbit/s)

Flow 1 (95th percentile 3254.77 ms) · Flow 2 (95th percentile 3351.60 ms) · Flow 3 (95th percentile 3332.93 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-05 09:05:44
End at: 2017-12-05 09:06:14
Local clock offset: 1.266 ms
Remote clock offset: -2.692 ms


# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 1489.264 ms
Loss rate: 5.82%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 1479.255 ms
Loss rate: 4.40%
-- Flow 2:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 1502.174 ms
Loss rate: 8.63%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 1543.072 ms
Loss rate: 21.75%
```
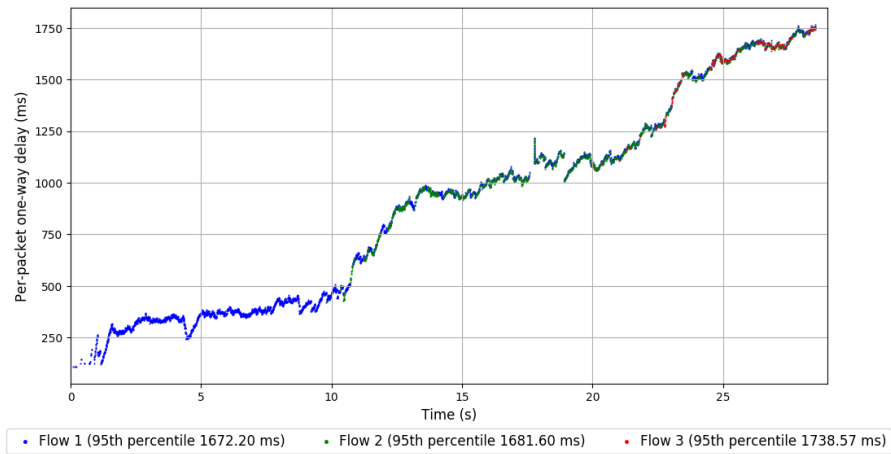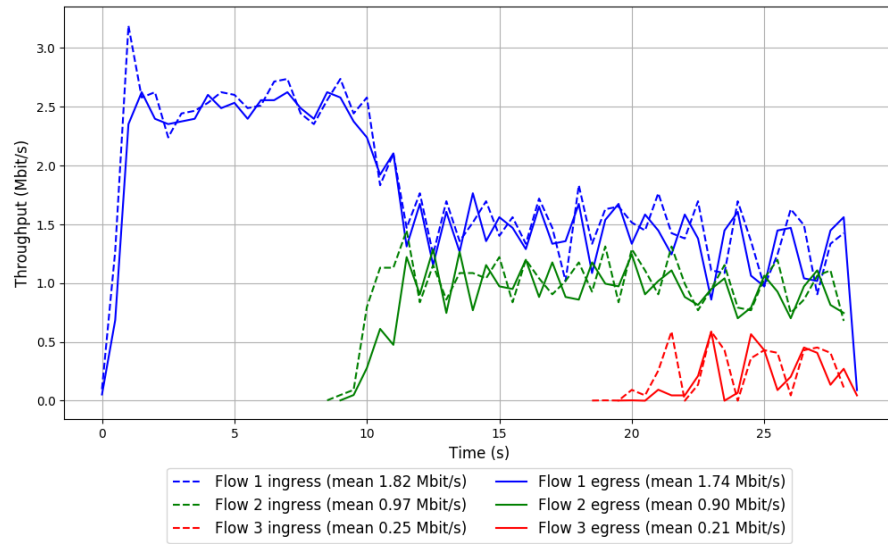
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-12-05 09:23:10
End at: 2017-12-05 09:23:40
Local clock offset: 0.913 ms
Remote clock offset: 2.474 ms


# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 1678.246 ms
Loss rate: 5.95%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 1672.202 ms
Loss rate: 4.12%
-- Flow 2:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 1681.597 ms
Loss rate: 8.71%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 1738.571 ms
Loss rate: 23.62%
```
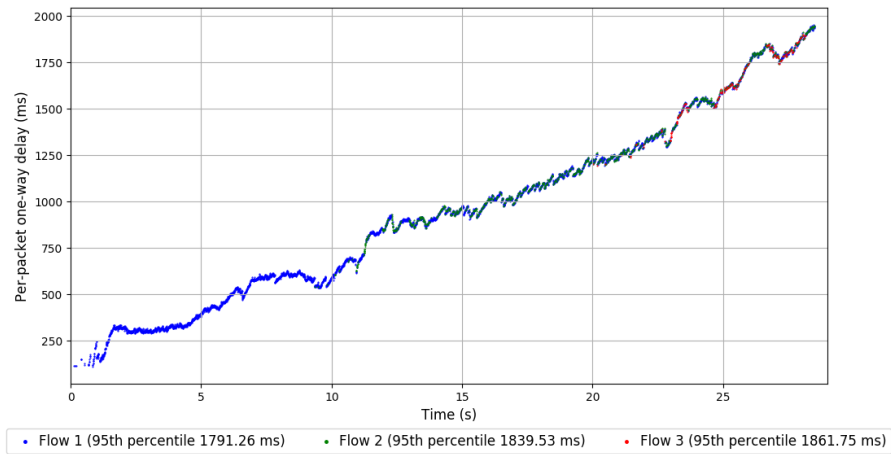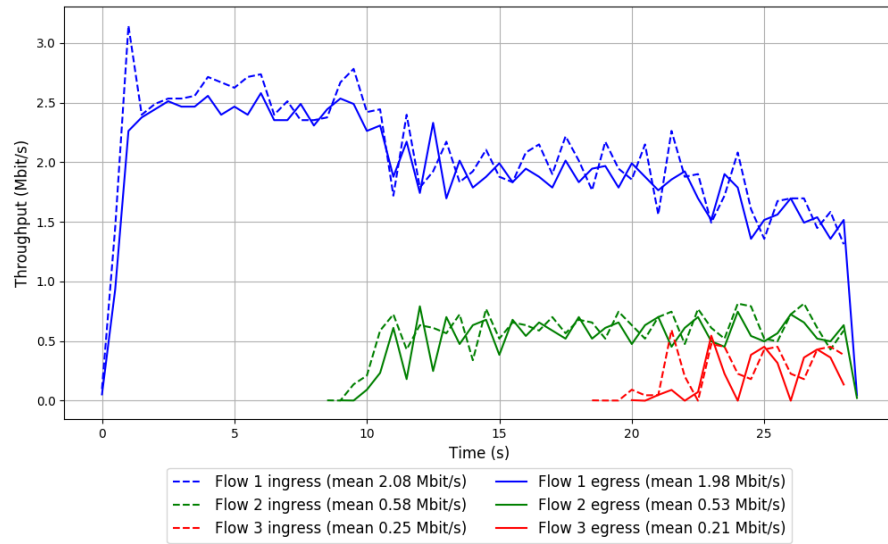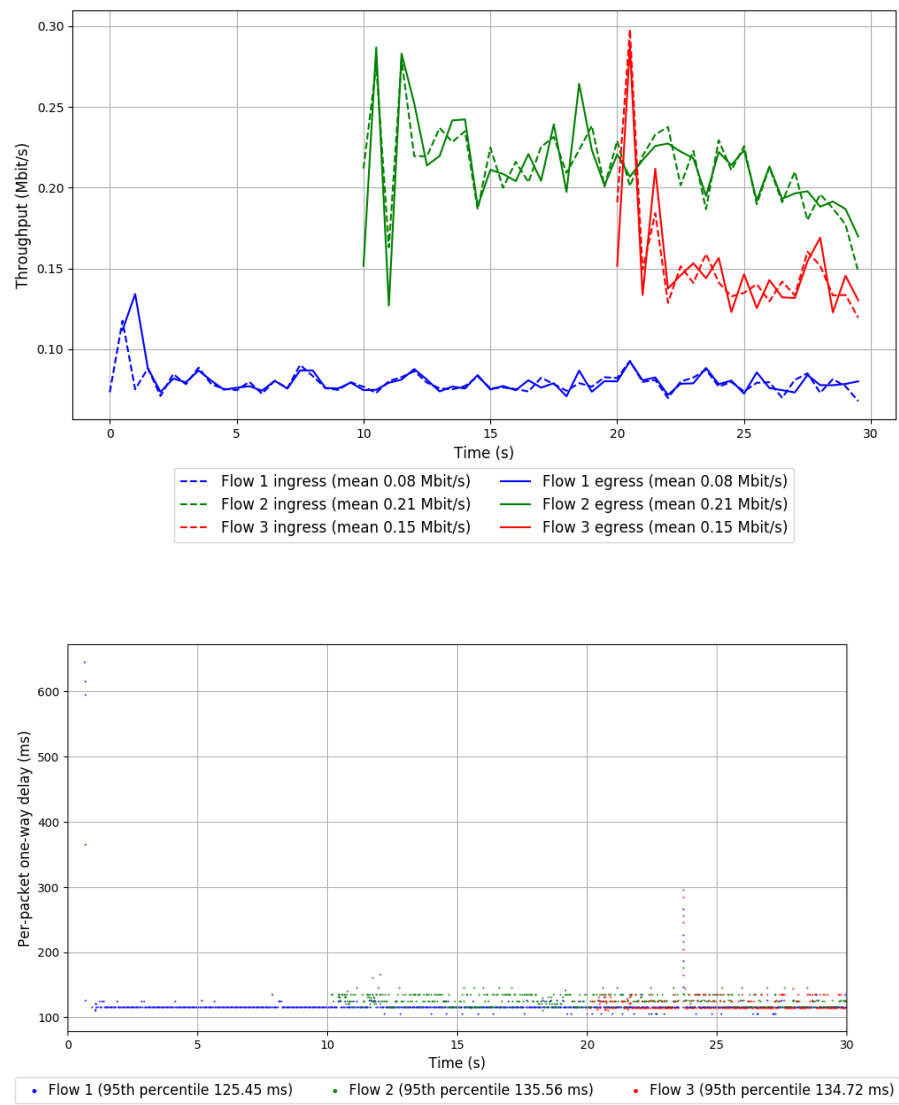
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.82 Mbit/s)
Flow 2 ingress (mean 0.97 Mbit/s)
Flow 3 ingress (mean 0.25 Mbit/s)
Flow 1 egress (mean 1.74 Mbit/s)
Flow 2 egress (mean 0.90 Mbit/s)
Flow 3 egress (mean 0.21 Mbit/s)

Flow 1 (95th percentile 1672.20 ms)
Flow 2 (95th percentile 1681.60 ms)
Flow 3 (95th percentile 1738.57 ms)

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```
Run 3: Statistics of QUIC Cubic

Start at: 2017-12-05 09:40:37
End at: 2017-12-05 09:41:07
Local clock offset: 1.086 ms
Remote clock offset: 4.13 ms


# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 1801.472 ms
Loss rate: 6.54%
-- Flow 1:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 1791.256 ms
Loss rate: 4.87%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 1839.534 ms
Loss rate: 10.23%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 1861.749 ms
Loss rate: 29.68%
```

Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 2.08 Mbit/s) --- Flow 1 egress (mean 1.98 Mbit/s)
Flow 2 ingress (mean 0.58 Mbit/s) --- Flow 2 egress (mean 0.53 Mbit/s)
Flow 3 ingress (mean 0.25 Mbit/s) --- Flow 3 egress (mean 0.21 Mbit/s)

Flow 1 (95th percentile 1791.26 ms) • Flow 2 (95th percentile 1839.53 ms) • Flow 3 (95th percentile 1861.75 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-12-05 09:03:15
End at: 2017-12-05 09:03:45
Local clock offset: 1.293 ms
Remote clock offset: 2.432 ms

# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 135.390 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 125.449 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 135.565 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 134.715 ms
Loss rate: 0.33%
```
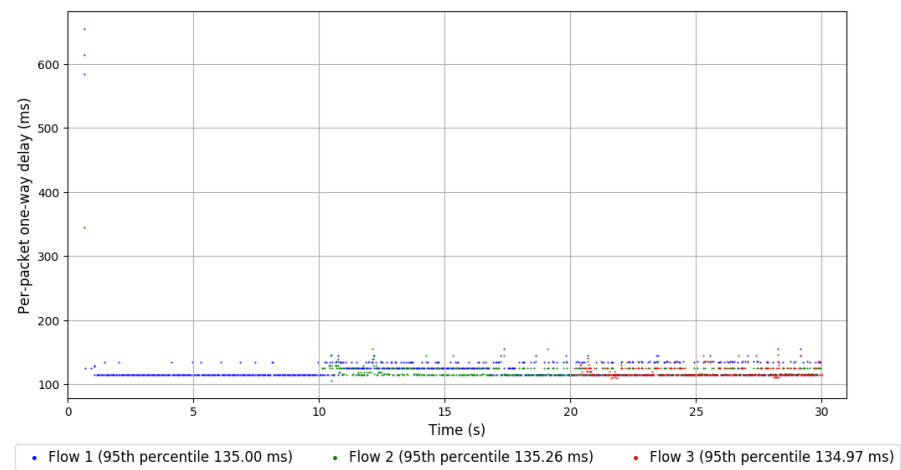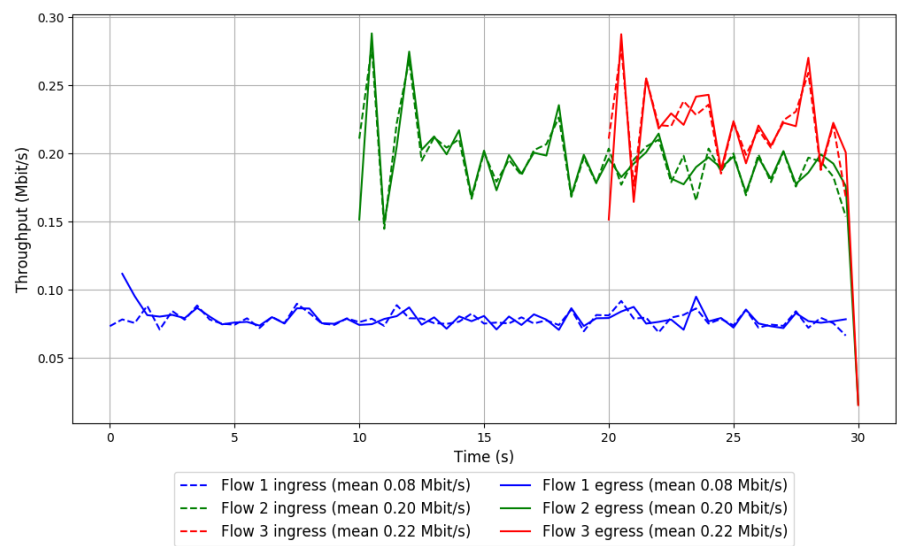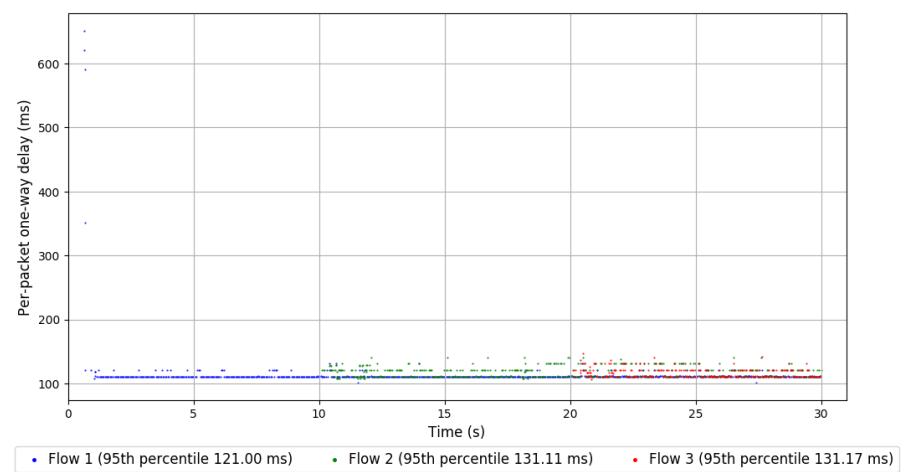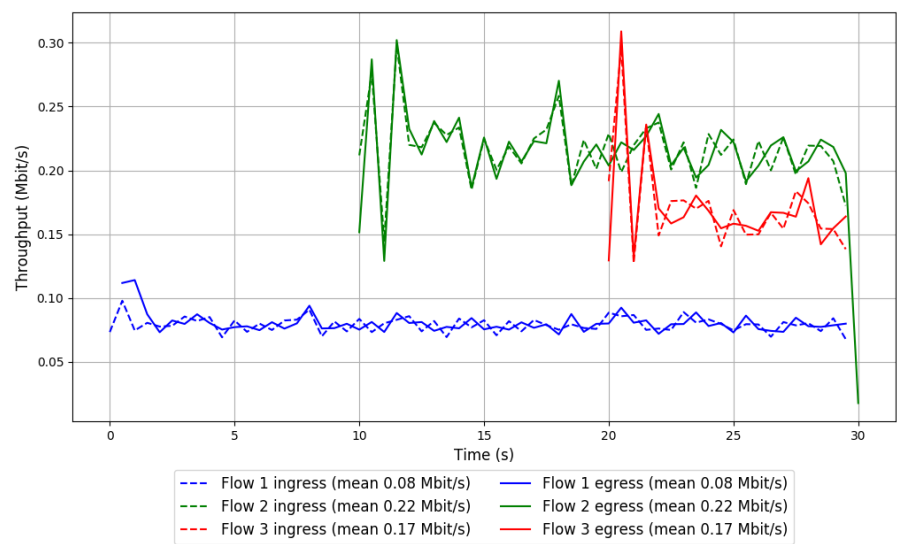
Run 1: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.08 Mbit/s) — Flow 1 egress (mean 0.08 Mbit/s)
Flow 2 ingress (mean 0.21 Mbit/s) — Flow 2 egress (mean 0.21 Mbit/s)
Flow 3 ingress (mean 0.15 Mbit/s) — Flow 3 egress (mean 0.15 Mbit/s)

Flow 1 (95th percentile 125.45 ms)   Flow 2 (95th percentile 135.56 ms)   Flow 3 (95th percentile 134.72 ms)

```
Run 2: Statistics of SCReAM

Start at: 2017-12-05 09:20:42
End at: 2017-12-05 09:21:12
Local clock offset: 0.925 ms
Remote clock offset: 2.821 ms

# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 135.003 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 135.002 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 135.264 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.965 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2017-12-05 09:38:08
End at: 2017-12-05 09:38:38
Local clock offset: 1.021 ms
Remote clock offset: -1.147 ms


# Below is generated by plot.py at 2017-12-05 09:46:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 131.051 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 120.996 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 131.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 131.171 ms
Loss rate: 0.34%
```
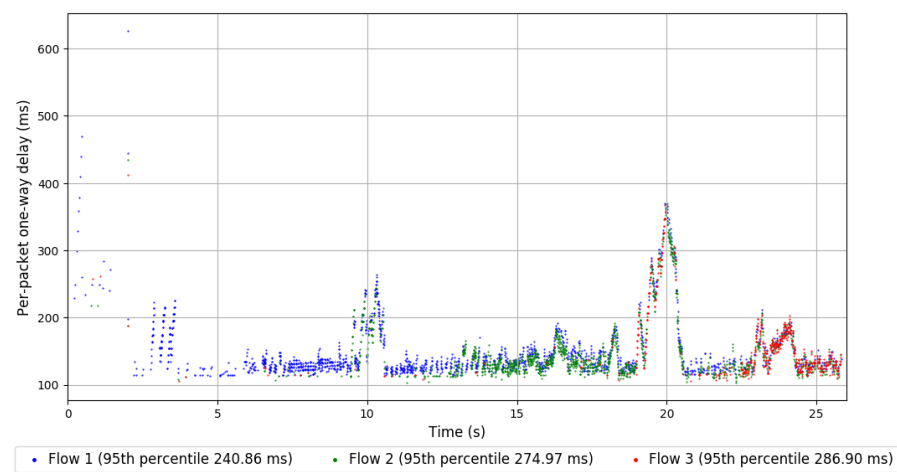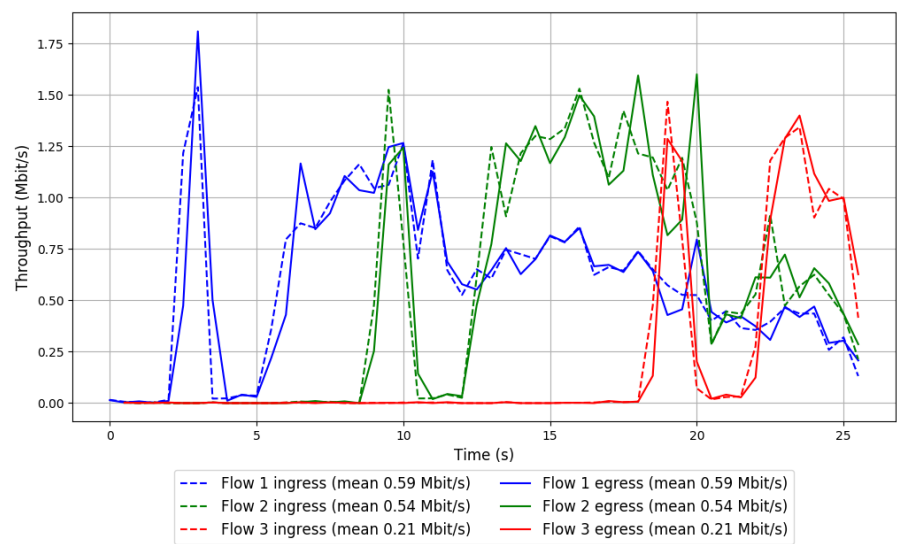
Run 3: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2017-12-05 09:04:29
End at: 2017-12-05 09:04:59
Local clock offset: 1.3 ms
Remote clock offset: 3.812 ms


# Below is generated by plot.py at 2017-12-05 09:46:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 266.873 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 240.862 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 274.970 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 286.900 ms
Loss rate: 0.17%
```
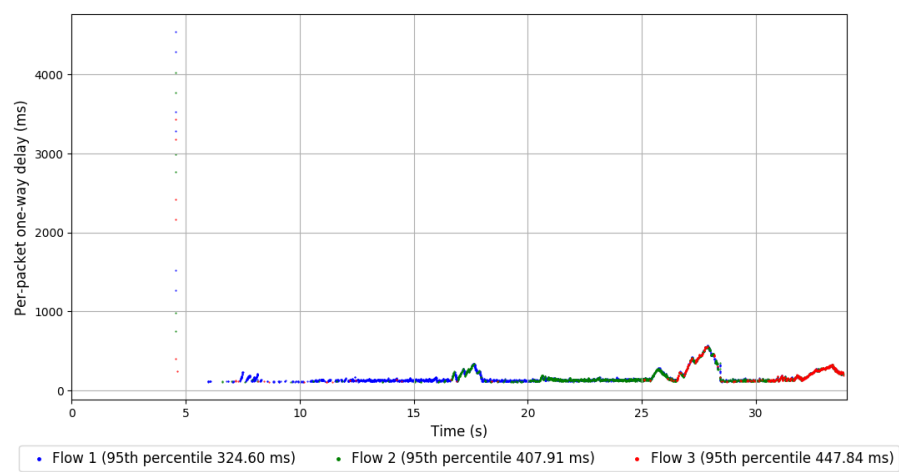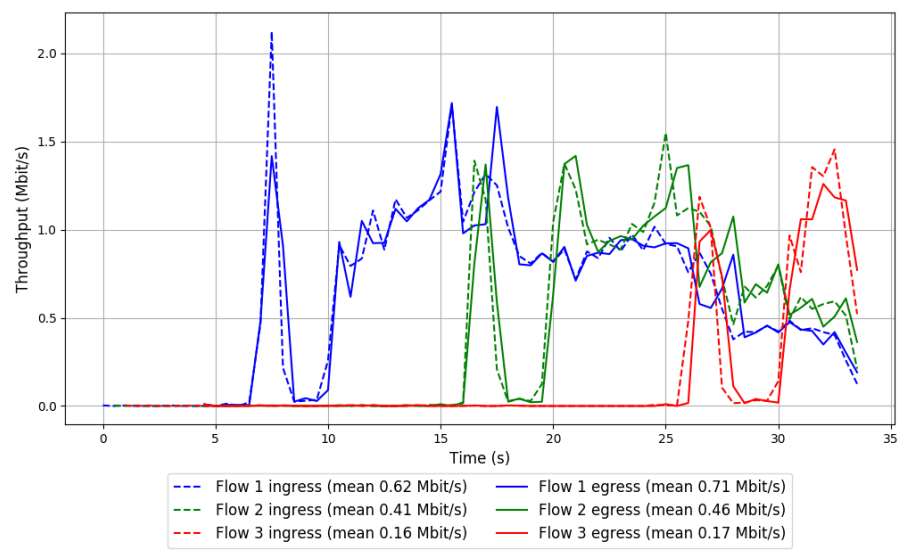
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2017-12-05 09:21:56
End at: 2017-12-05 09:22:26
Local clock offset: 0.892 ms
Remote clock offset: 2.533 ms


# Below is generated by plot.py at 2017-12-05 09:46:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 381.836 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 324.595 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 407.906 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 447.842 ms
Loss rate: 2.90%
```
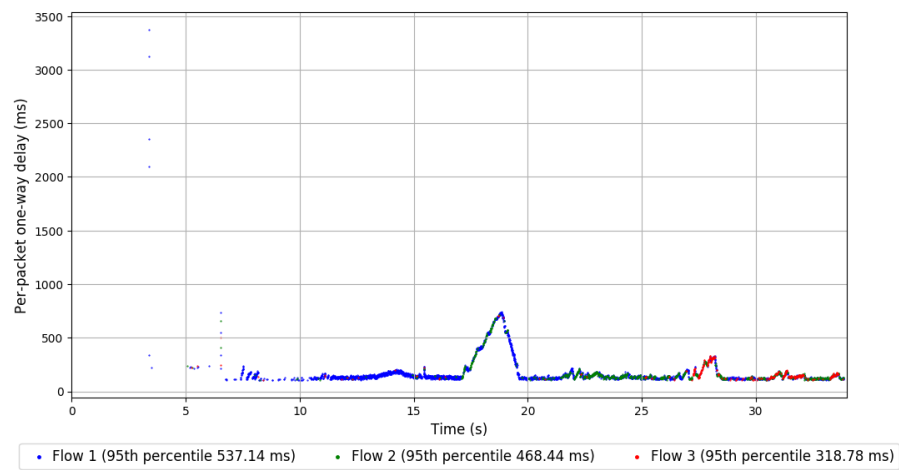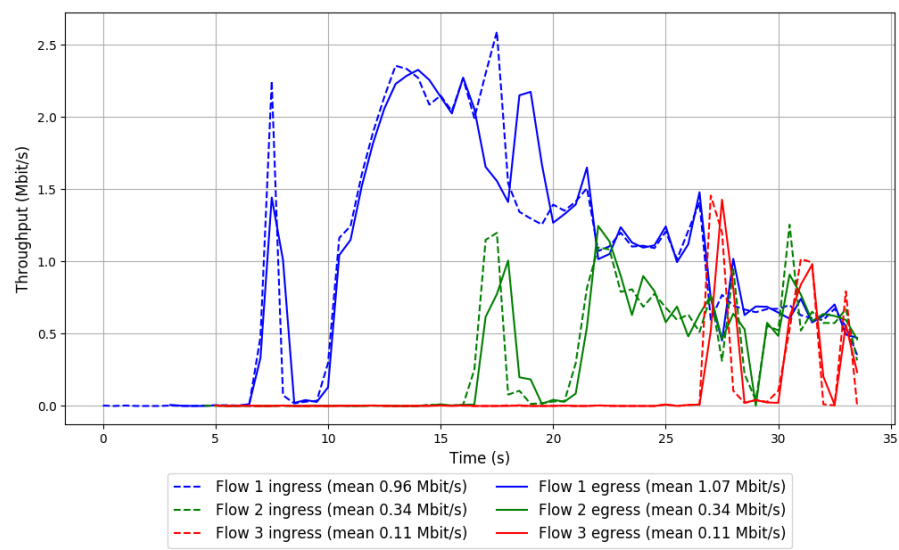
Run 2: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.62 Mbit/s) ---- Flow 1 egress (mean 0.71 Mbit/s) ——
Flow 2 ingress (mean 0.41 Mbit/s) ---- Flow 2 egress (mean 0.46 Mbit/s) ——
Flow 3 ingress (mean 0.16 Mbit/s) ---- Flow 3 egress (mean 0.17 Mbit/s) ——

• Flow 1 (95th percentile 324.60 ms) • Flow 2 (95th percentile 407.91 ms) • Flow 3 (95th percentile 447.84 ms)

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```
Run 3: Statistics of WebRTC media

Start at: 2017-12-05 09:39:22
End at: 2017-12-05 09:39:52
Local clock offset: 1.025 ms
Remote clock offset: 3.675 ms


# Below is generated by plot.py at 2017-12-05 09:46:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 511.110 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 537.140 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 468.440 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 318.777 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

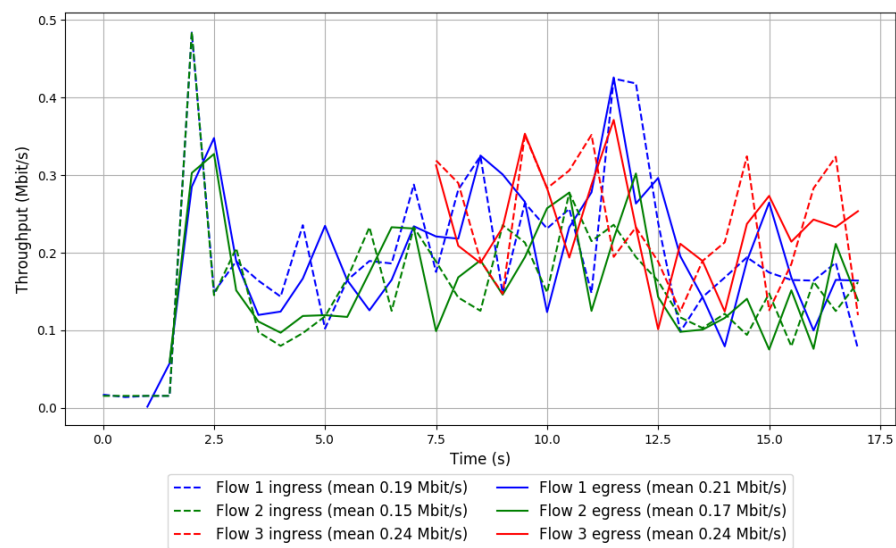Flow 1 ingress (mean 0.96 Mbit/s) — Flow 1 egress (mean 1.07 Mbit/s)
Flow 2 ingress (mean 0.34 Mbit/s) — Flow 2 egress (mean 0.34 Mbit/s)
Flow 3 ingress (mean 0.11 Mbit/s) — Flow 3 egress (mean 0.11 Mbit/s)

Flow 1 (95th percentile 537.14 ms) • Flow 2 (95th percentile 468.44 ms) • Flow 3 (95th percentile 318.78 ms)

```
Run 1: Statistics of Sprout

Start at: 2017-12-05 08:53:18
End at: 2017-12-05 08:53:48
Local clock offset: 1.607 ms
Remote clock offset: -2.067 ms
```
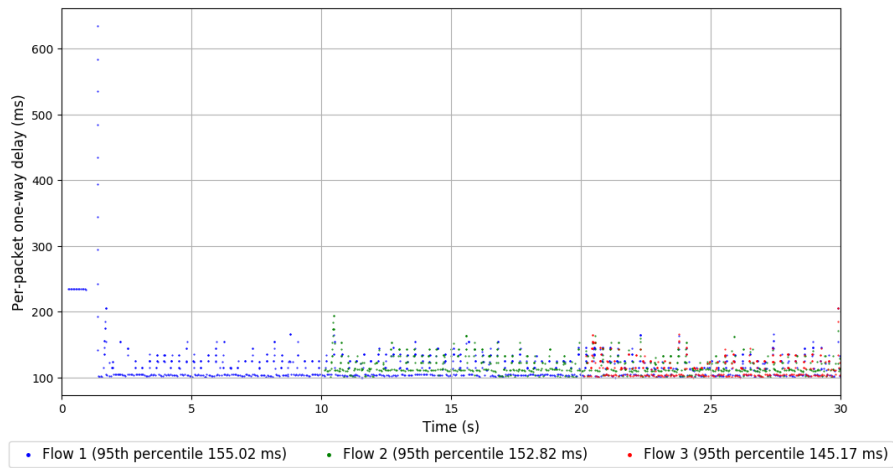
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2017-12-05 09:10:43
End at: 2017-12-05 09:11:13
Local clock offset: 1.1 ms
Remote clock offset: -1.784 ms


# Below is generated by plot.py at 2017-12-05 09:46:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 146.901 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 144.515 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 146.979 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 137.580 ms
Loss rate: 0.04%
```
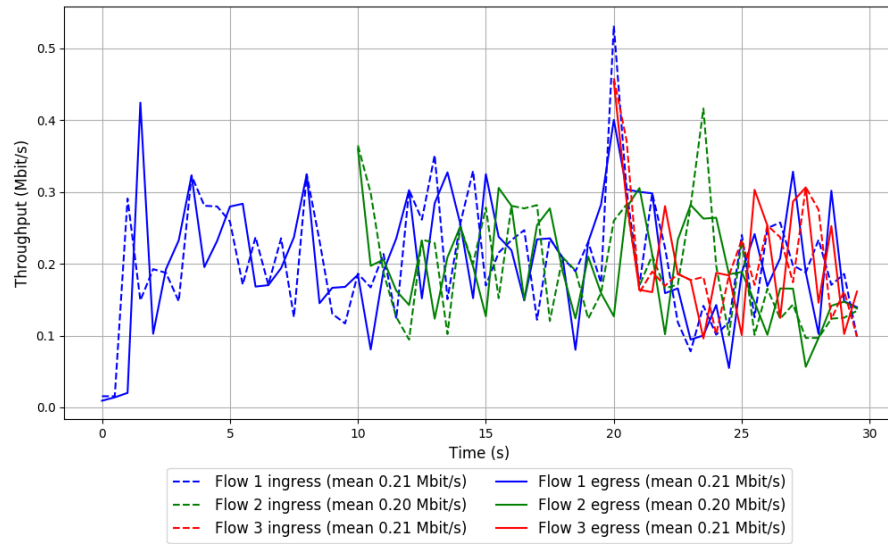
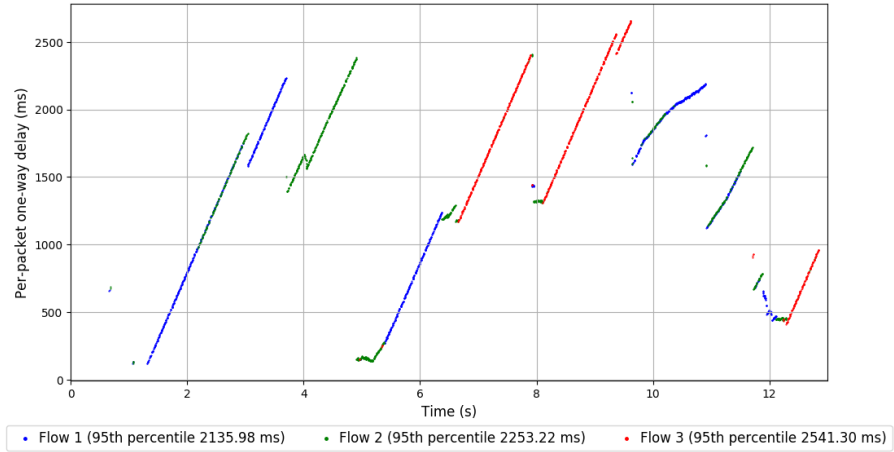Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2017-12-05 09:28:10
End at: 2017-12-05 09:28:40
Local clock offset: 0.835 ms
Remote clock offset: -1.357 ms


# Below is generated by plot.py at 2017-12-05 09:46:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 153.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 155.018 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 152.821 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 145.170 ms
Loss rate: 0.00%
```
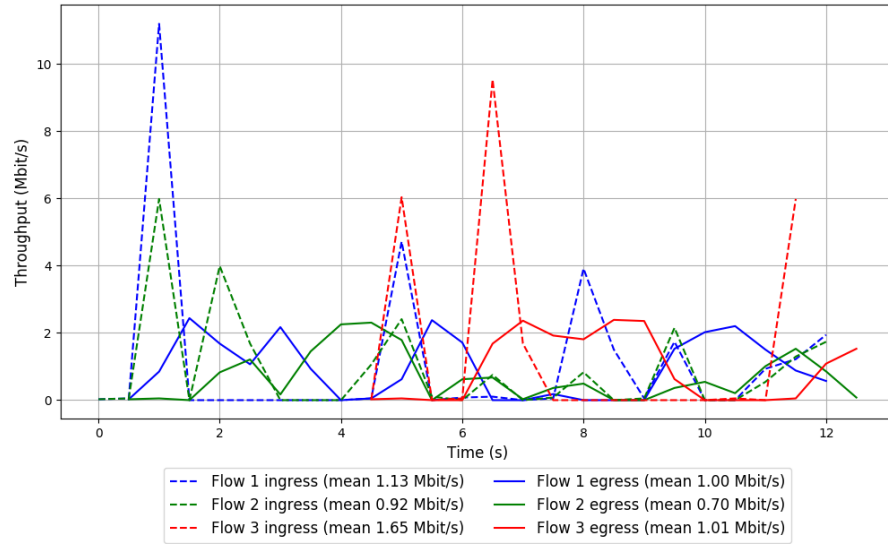
Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 0.21 Mbit/s)   Flow 1 egress (mean 0.21 Mbit/s)
Flow 2 ingress (mean 0.20 Mbit/s)   Flow 2 egress (mean 0.20 Mbit/s)
Flow 3 ingress (mean 0.21 Mbit/s)   Flow 3 egress (mean 0.21 Mbit/s)

Flow 1 (95th percentile 155.02 ms)   Flow 2 (95th percentile 152.82 ms)   Flow 3 (95th percentile 145.17 ms)

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

Start at: 2017-12-05 09:00:45
End at: 2017-12-05 09:01:15
Local clock offset: 1.346 ms
Remote clock offset: 3.255 ms
```

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

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

Start at: 2017-12-05 09:18:12
End at: 2017-12-05 09:18:42
Local clock offset: 0.91 ms
Remote clock offset: 3.534 ms


# Below is generated by plot.py at 2017-12-05 09:46:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 1341.120 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 1271.941 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 1658.611 ms
Loss rate: 6.14%
-- Flow 3:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 1417.908 ms
Loss rate: 2.76%
```
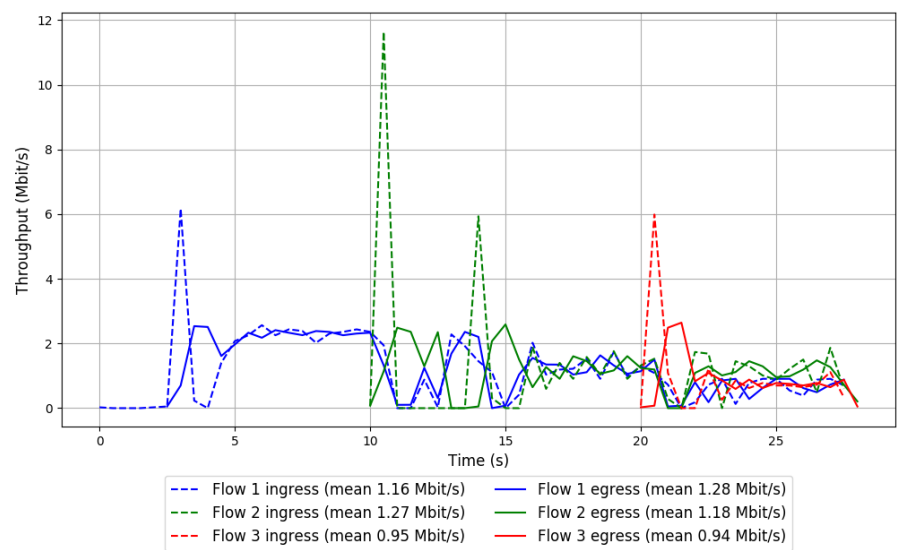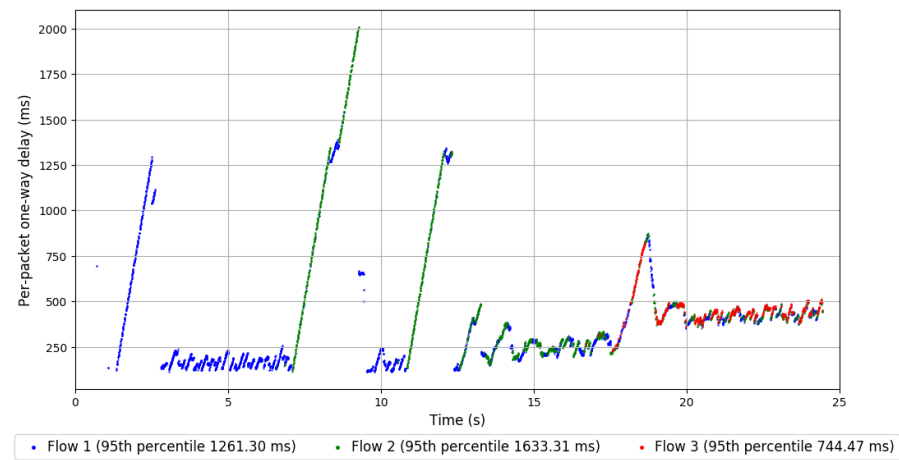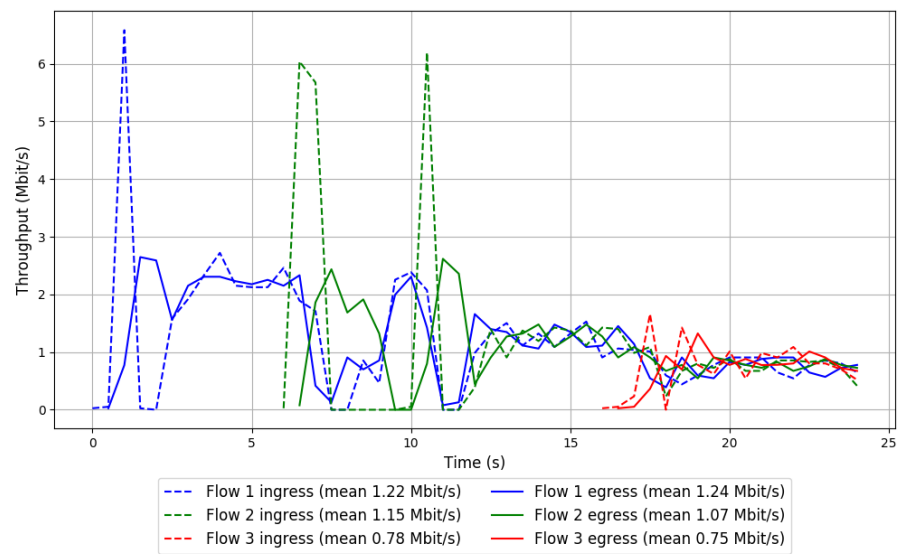
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 1.16 Mbit/s)   Flow 1 egress (mean 1.28 Mbit/s)
Flow 2 ingress (mean 1.27 Mbit/s)   Flow 2 egress (mean 1.18 Mbit/s)
Flow 3 ingress (mean 0.95 Mbit/s)   Flow 3 egress (mean 0.94 Mbit/s)

Flow 1 (95th percentile 1271.94 ms)   Flow 2 (95th percentile 1658.61 ms)   Flow 3 (95th percentile 1417.91 ms)

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

Start at: 2017-12-05 09:35:38
End at: 2017-12-05 09:36:08
Local clock offset: 0.981 ms
Remote clock offset: 4.546 ms
```

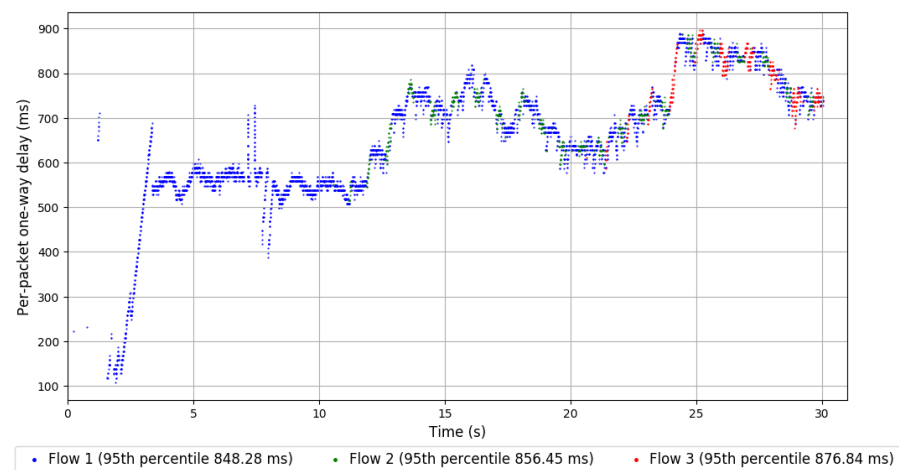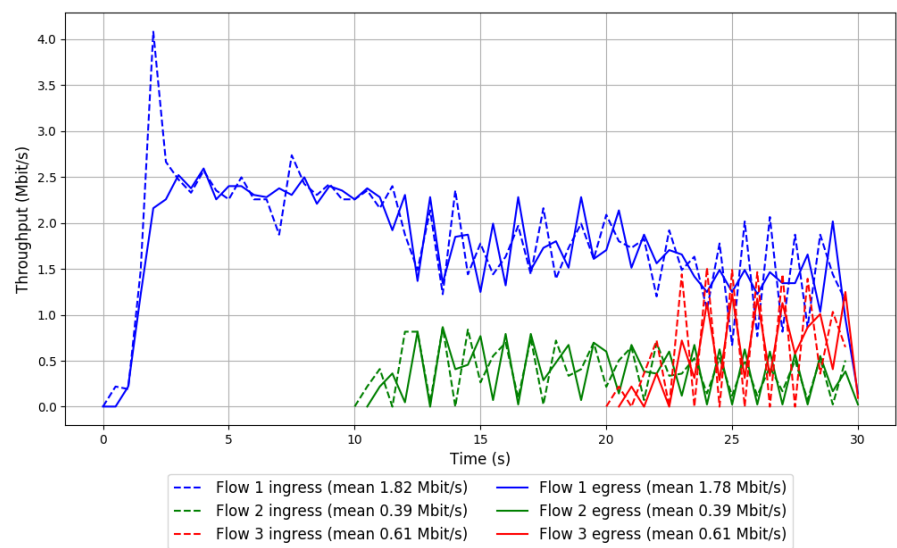Run 3: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2017-12-05 08:55:47
End at: 2017-12-05 08:56:17
Local clock offset: 1.418 ms
Remote clock offset: -1.573 ms


# Below is generated by plot.py at 2017-12-05 09:46:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 856.638 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 848.278 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 856.451 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 876.839 ms
Loss rate: 5.56%
```
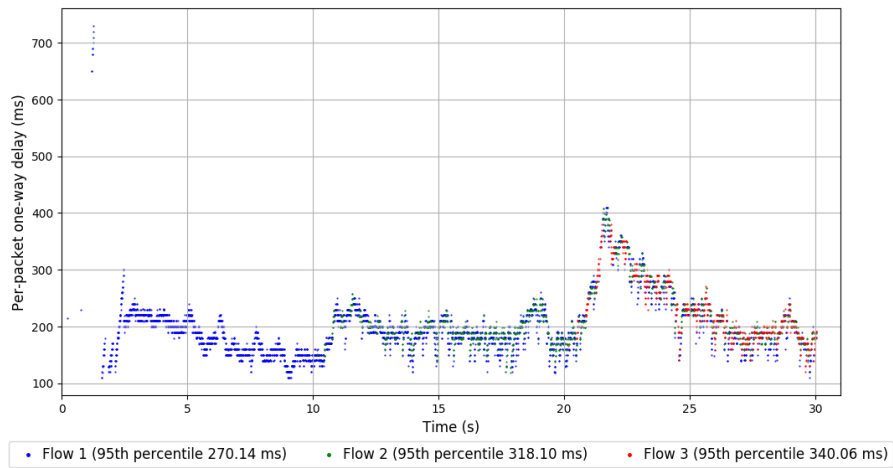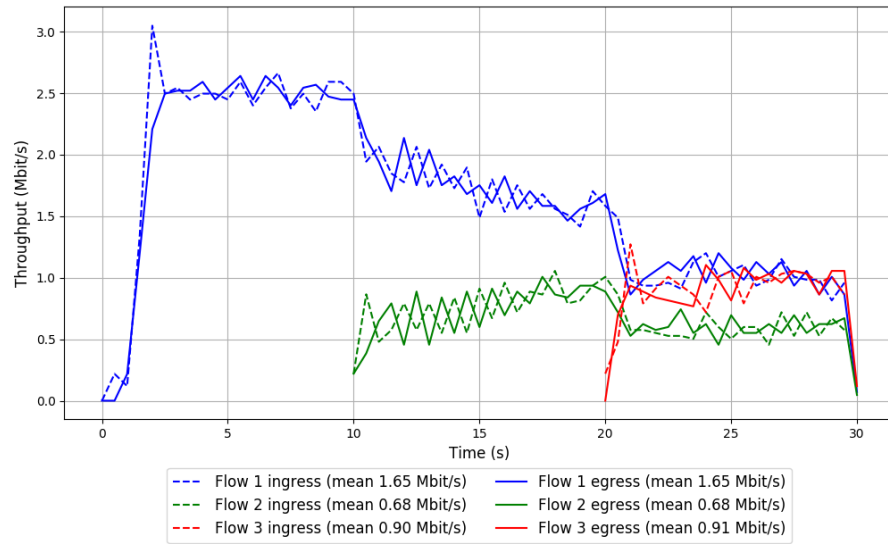
Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 1.82 Mbit/s) — Flow 1 egress (mean 1.78 Mbit/s)
Flow 2 ingress (mean 0.39 Mbit/s) — Flow 2 egress (mean 0.39 Mbit/s)
Flow 3 ingress (mean 0.61 Mbit/s) — Flow 3 egress (mean 0.61 Mbit/s)

Flow 1 (95th percentile 848.28 ms)   Flow 2 (95th percentile 856.45 ms)   Flow 3 (95th percentile 876.84 ms)

```
Run 2: Statistics of TCP Vegas

Start at: 2017-12-05 09:13:13
End at: 2017-12-05 09:13:43
Local clock offset: 0.953 ms
Remote clock offset: -1.779 ms


# Below is generated by plot.py at 2017-12-05 09:46:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 299.922 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 270.138 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 318.099 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 340.055 ms
Loss rate: 0.53%
```
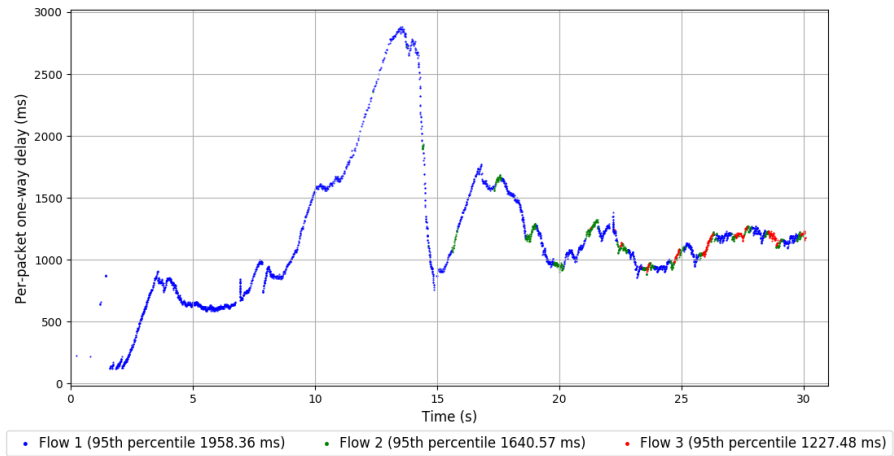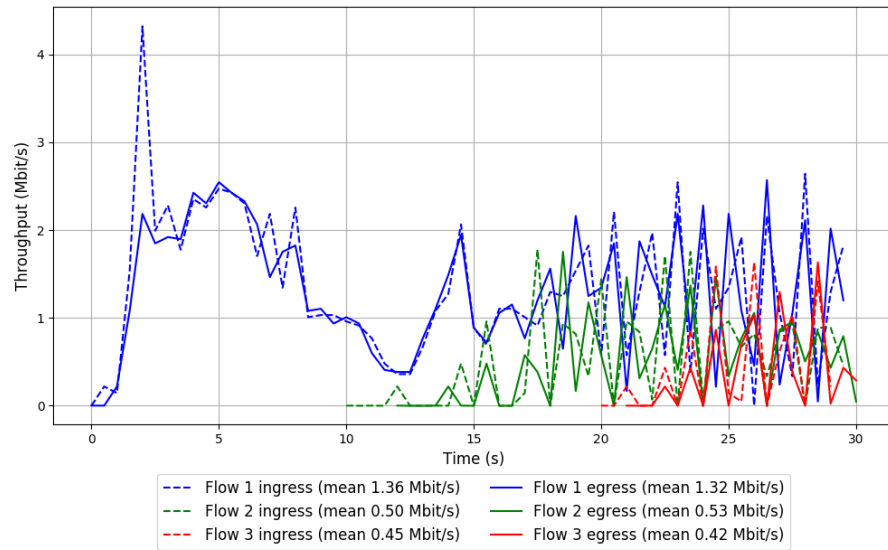
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 1.65 Mbit/s)   Flow 1 egress (mean 1.65 Mbit/s)
Flow 2 ingress (mean 0.68 Mbit/s)   Flow 2 egress (mean 0.68 Mbit/s)
Flow 3 ingress (mean 0.90 Mbit/s)   Flow 3 egress (mean 0.91 Mbit/s)

• Flow 1 (95th percentile 270.14 ms)   • Flow 2 (95th percentile 318.10 ms)   • Flow 3 (95th percentile 340.06 ms)

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```
Run 3: Statistics of TCP Vegas

Start at: 2017-12-05 09:30:39
End at: 2017-12-05 09:31:09
Local clock offset: 0.929 ms
Remote clock offset: 3.926 ms


# Below is generated by plot.py at 2017-12-05 09:46:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 1727.614 ms
Loss rate: 4.95%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 1958.360 ms
Loss rate: 3.84%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 1640.574 ms
Loss rate: 6.91%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 1227.480 ms
Loss rate: 11.10%
```

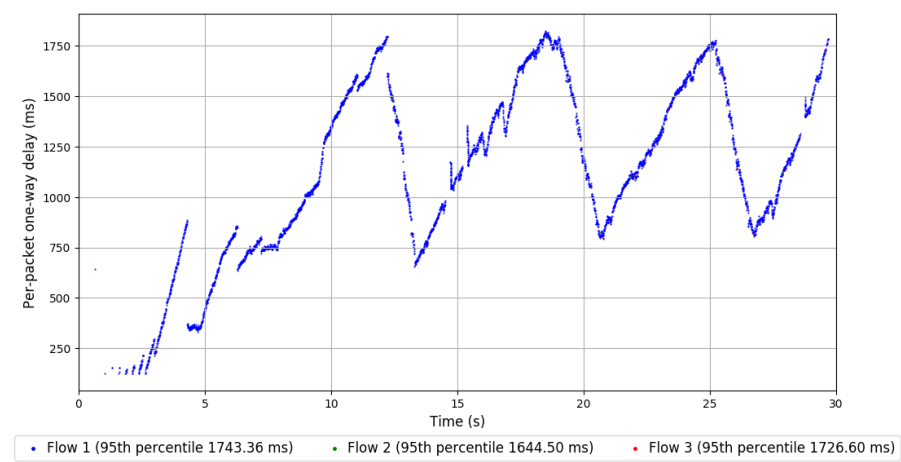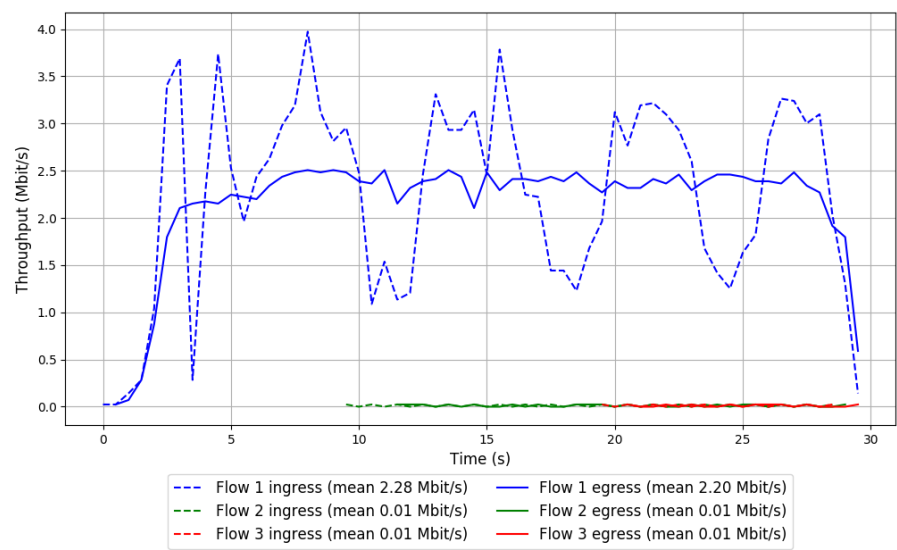Run 3: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2017-12-05 08:59:31
End at: 2017-12-05 09:00:01
Local clock offset: 1.3 ms
Remote clock offset: 2.93 ms

# Below is generated by plot.py at 2017-12-05 09:46:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 1743.345 ms
Loss rate: 5.11%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 1743.361 ms
Loss rate: 5.11%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1644.503 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1726.596 ms
Loss rate: 10.00%
```
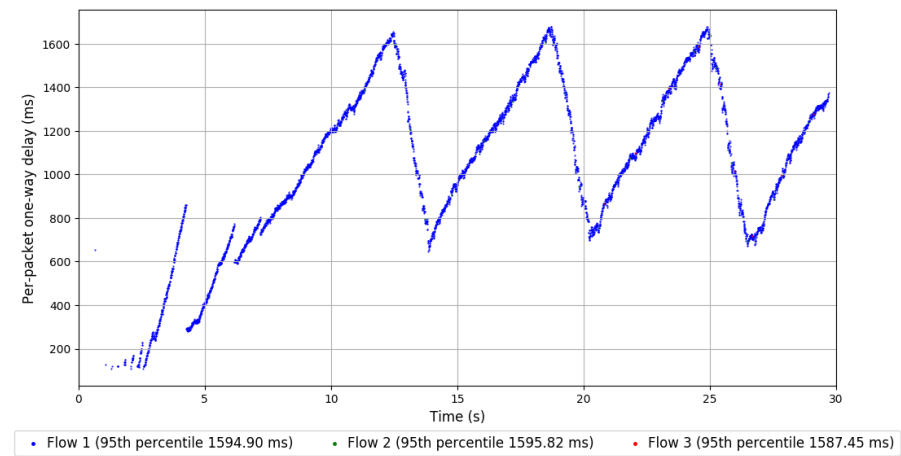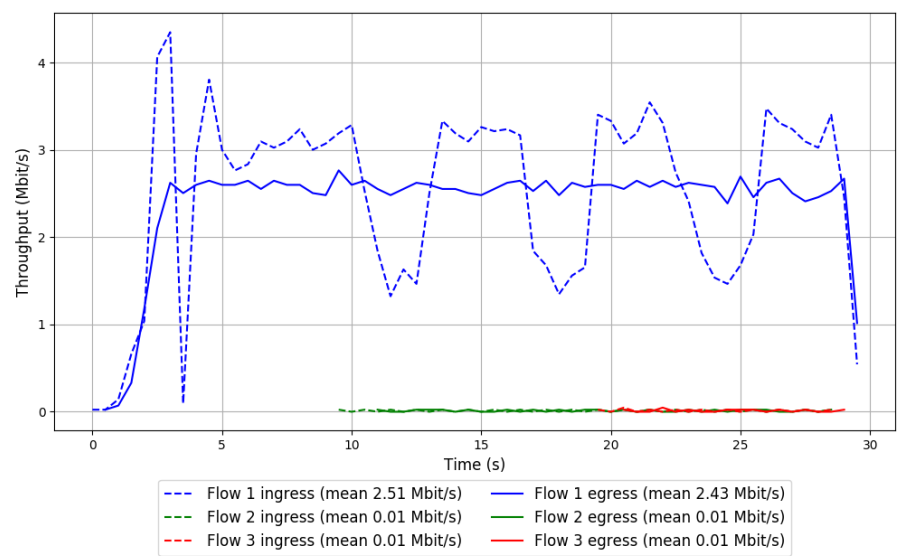
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2017-12-05 09:16:57
End at: 2017-12-05 09:17:27
Local clock offset: 0.932 ms
Remote clock offset: -2.455 ms


# Below is generated by plot.py at 2017-12-05 09:46:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 1595.207 ms
Loss rate: 4.98%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 1594.904 ms
Loss rate: 4.97%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1595.822 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1587.451 ms
Loss rate: 9.09%
```

Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2017-12-05 09:34:23
End at: 2017-12-05 09:34:53
Local clock offset: 0.973 ms
Remote clock offset: 3.946 ms


# Below is generated by plot.py at 2017-12-05 09:46:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 1872.399 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 1874.624 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1675.987 ms
Loss rate: 13.04%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1727.181 ms
Loss rate: 23.08%
```
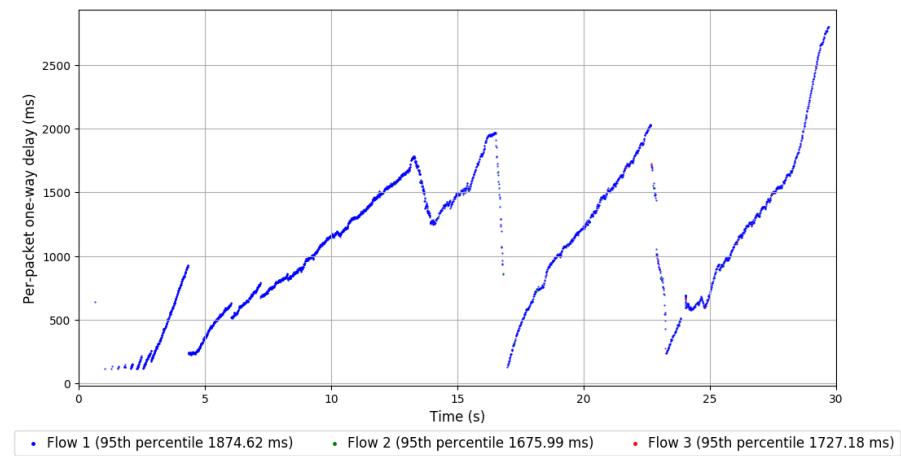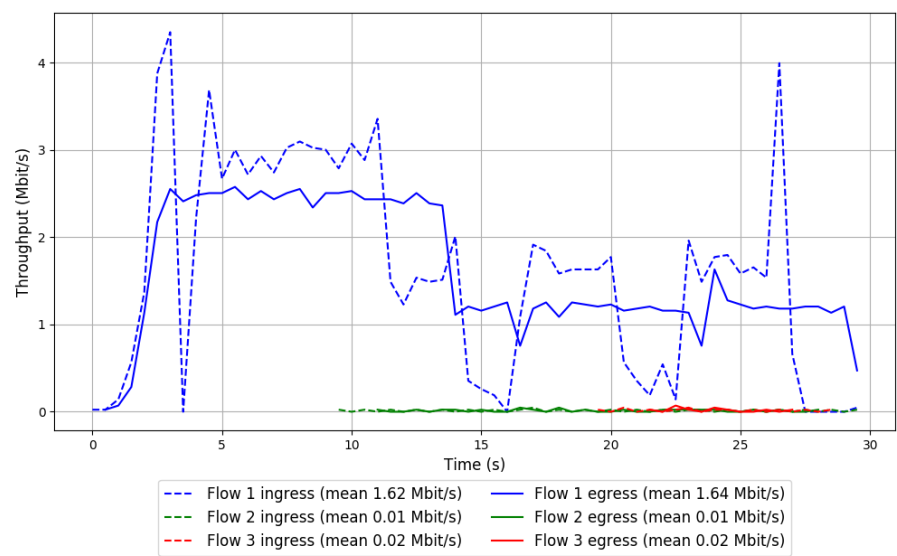
Run 3: Report of Verus — Data Link

- Flow 1 ingress (mean 1.62 Mbit/s)
- Flow 1 egress (mean 1.64 Mbit/s)
- Flow 2 ingress (mean 0.01 Mbit/s)
- Flow 2 egress (mean 0.01 Mbit/s)
- Flow 3 ingress (mean 0.02 Mbit/s)
- Flow 3 egress (mean 0.02 Mbit/s)

- Flow 1 (95th percentile 1874.62 ms)
- Flow 2 (95th percentile 1675.99 ms)
- Flow 3 (95th percentile 1727.18 ms)

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```
Run 1: Statistics of Copa

Start at: 2017-12-05 09:06:59
End at: 2017-12-05 09:07:29
Local clock offset: 1.234 ms
Remote clock offset: 4.228 ms


# Below is generated by plot.py at 2017-12-05 09:46:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 181.937 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 2952.603 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 175.918 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 193.982 ms
Loss rate: 0.84%
```
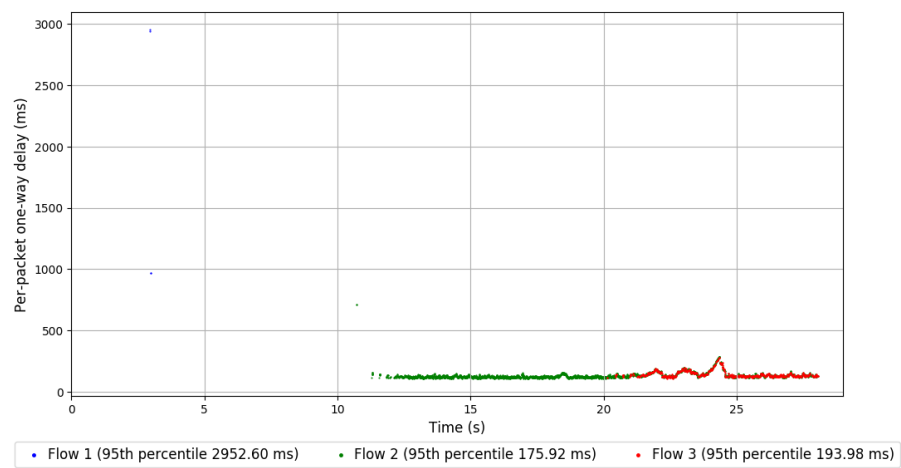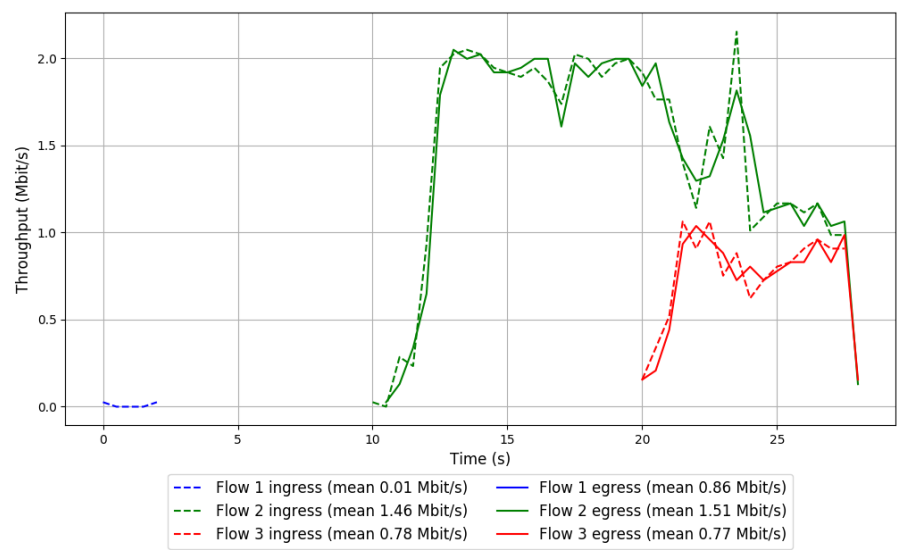
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2017-12-05 09:24:25
End at: 2017-12-05 09:24:55
Local clock offset: 0.916 ms
Remote clock offset: -1.96 ms


# Below is generated by plot.py at 2017-12-05 09:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 193.568 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 175.14 Mbit/s
95th percentile per-packet one-way delay: 2706.775 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 187.068 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 216.849 ms
Loss rate: 0.72%
```
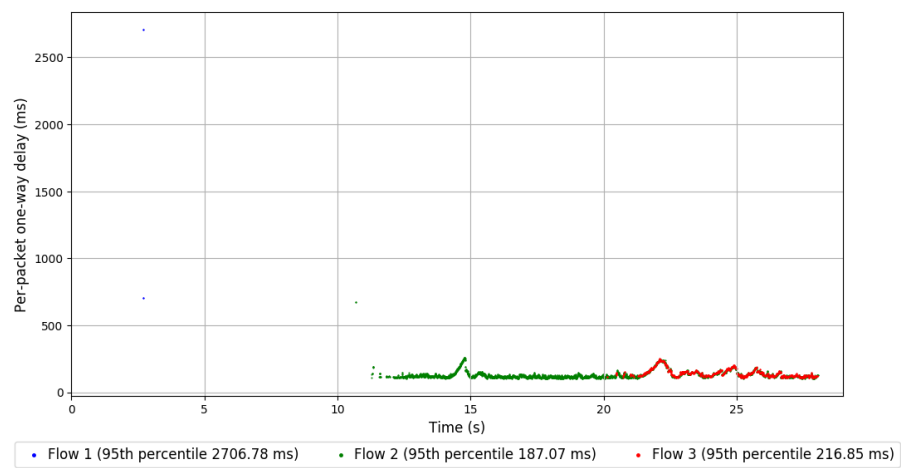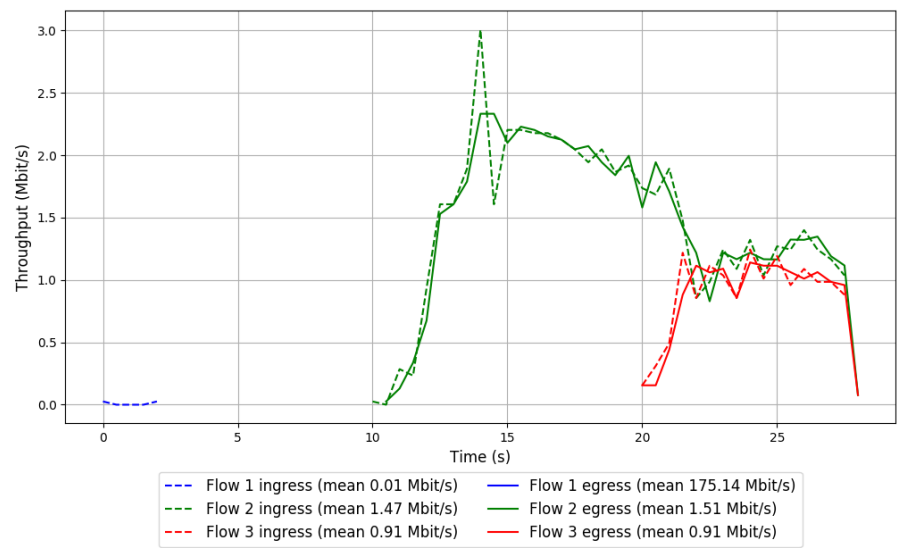
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 0.01 Mbit/s) --- Flow 1 egress (mean 175.14 Mbit/s)
Flow 2 ingress (mean 1.47 Mbit/s) --- Flow 2 egress (mean 1.51 Mbit/s)
Flow 3 ingress (mean 0.91 Mbit/s) --- Flow 3 egress (mean 0.91 Mbit/s)

• Flow 1 (95th percentile 2706.78 ms)   • Flow 2 (95th percentile 187.07 ms)   • Flow 3 (95th percentile 216.85 ms)

```
Run 3: Statistics of Copa

Start at: 2017-12-05 09:41:51
End at: 2017-12-05 09:42:21
Local clock offset: 1.073 ms
Remote clock offset: -0.84 ms

# Below is generated by plot.py at 2017-12-05 09:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 164.439 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 178.76 Mbit/s
95th percentile per-packet one-way delay: 2781.524 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 157.008 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 176.773 ms
Loss rate: 0.62%
```
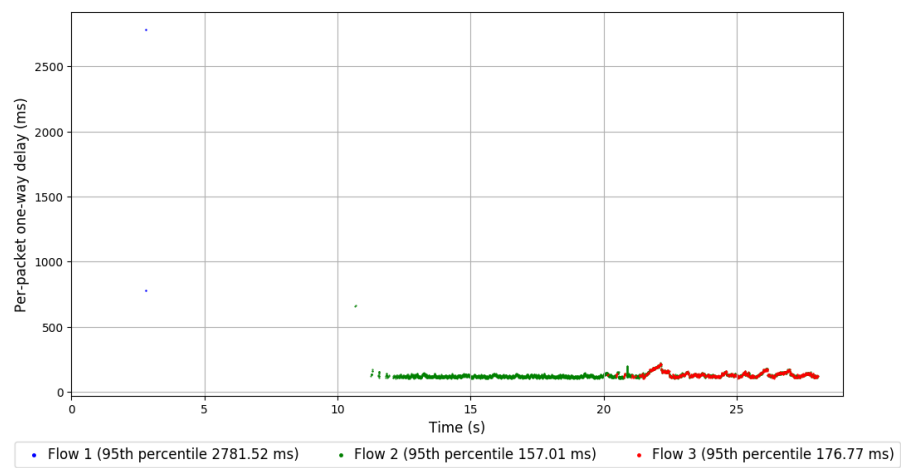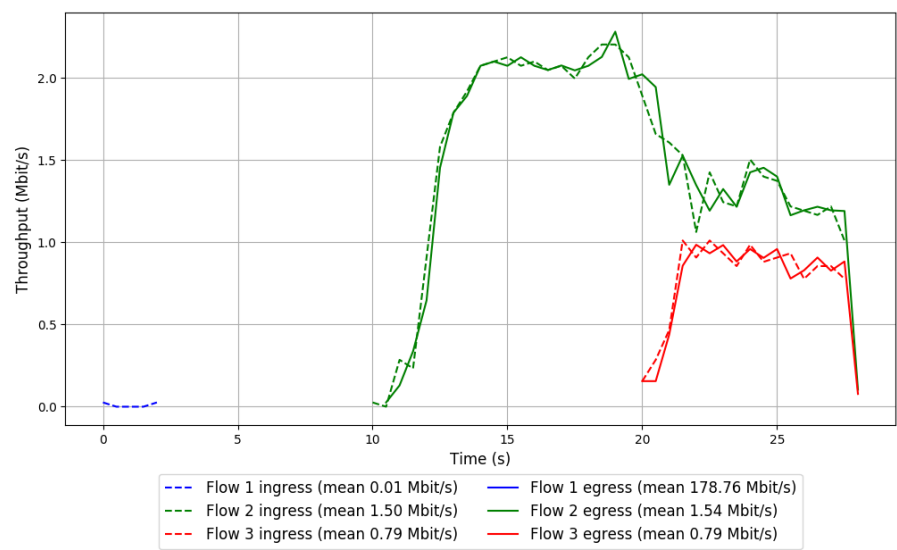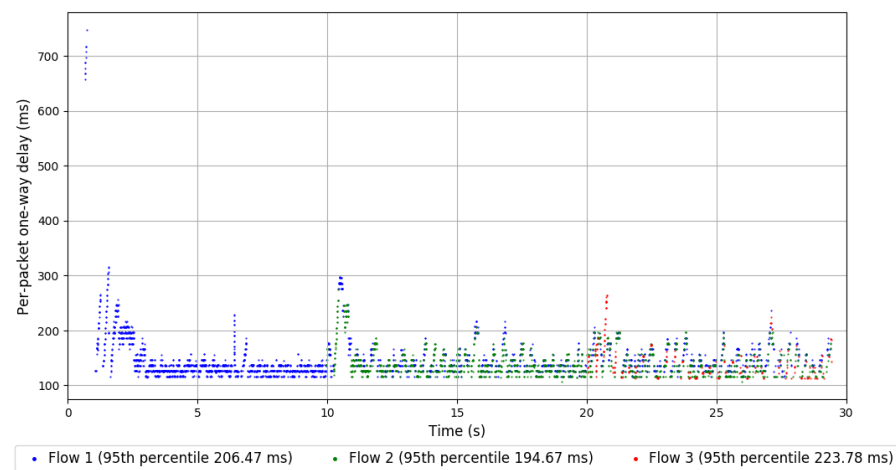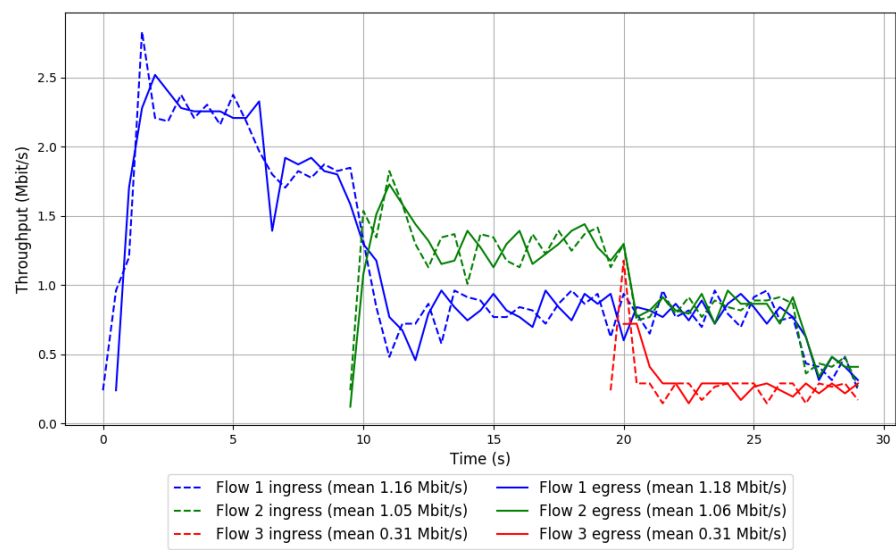
Run 3: Report of Copa — Data Link

```
Run 1: Statistics of Indigo

Start at: 2017-12-05 08:54:32
End at: 2017-12-05 08:55:02
Local clock offset: 1.552 ms
Remote clock offset: -1.549 ms

# Below is generated by plot.py at 2017-12-05 09:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 205.341 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 206.467 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 194.673 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 223.783 ms
Loss rate: 0.00%
```
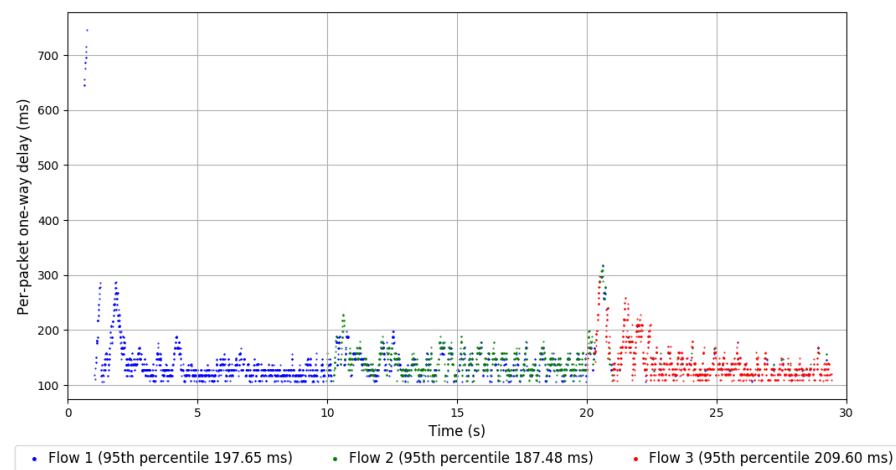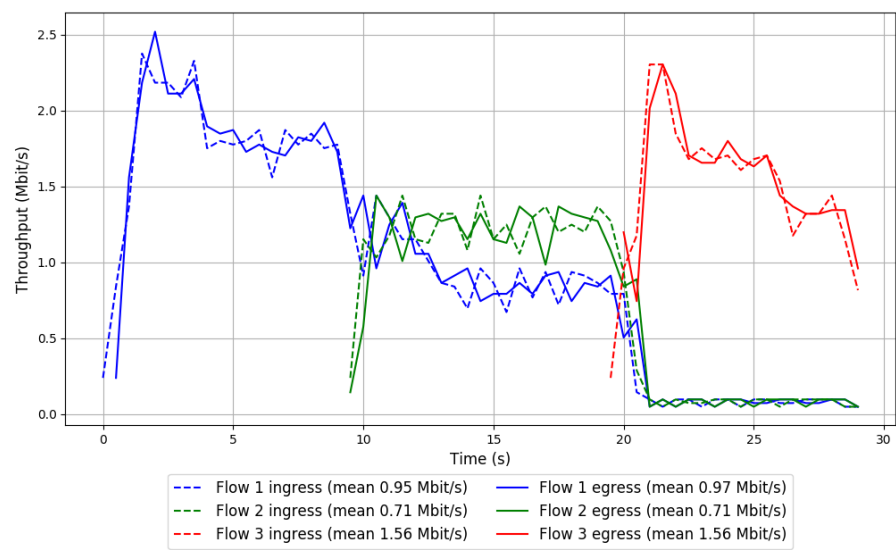
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2017-12-05 09:11:58
End at: 2017-12-05 09:12:28
Local clock offset: 1.071 ms
Remote clock offset: -1.728 ms


# Below is generated by plot.py at 2017-12-05 09:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 207.364 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 197.646 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 187.481 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 209.599 ms
Loss rate: 0.33%
```

Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2017-12-05 09:29:25
End at: 2017-12-05 09:29:55
Local clock offset: 0.908 ms
Remote clock offset: 3.495 ms

# Below is generated by plot.py at 2017-12-05 09:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 287.322 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 228.055 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 218.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 427.151 ms
Loss rate: 0.16%
```
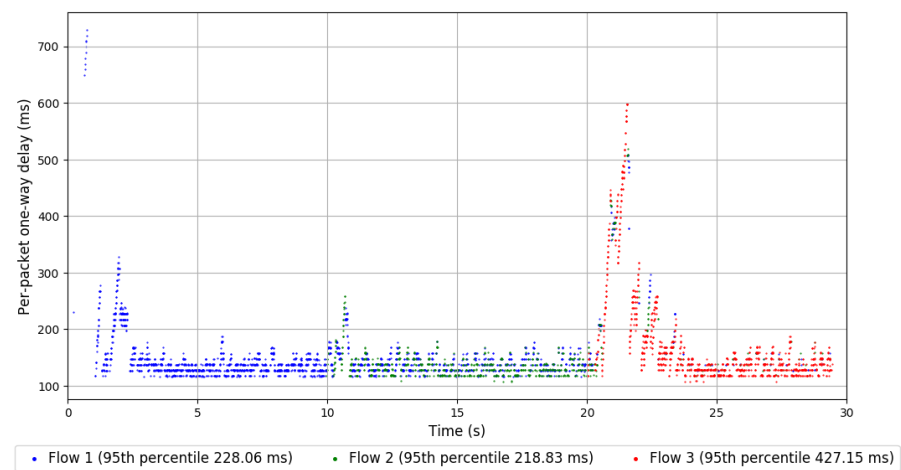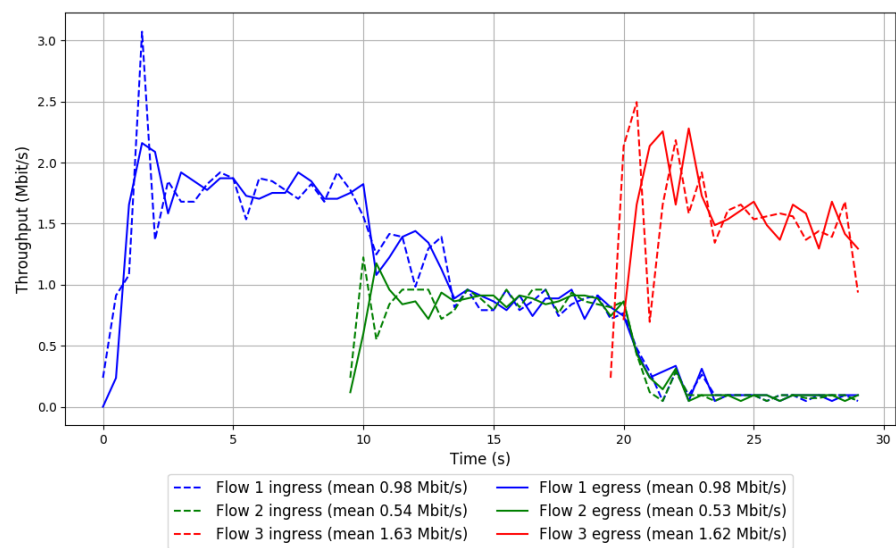
Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 0.98 Mbit/s)   Flow 1 egress (mean 0.98 Mbit/s)
Flow 2 ingress (mean 0.54 Mbit/s)   Flow 2 egress (mean 0.53 Mbit/s)
Flow 3 ingress (mean 1.63 Mbit/s)   Flow 3 egress (mean 1.62 Mbit/s)

Flow 1 (95th percentile 228.06 ms)   Flow 2 (95th percentile 218.83 ms)   Flow 3 (95th percentile 427.15 ms)
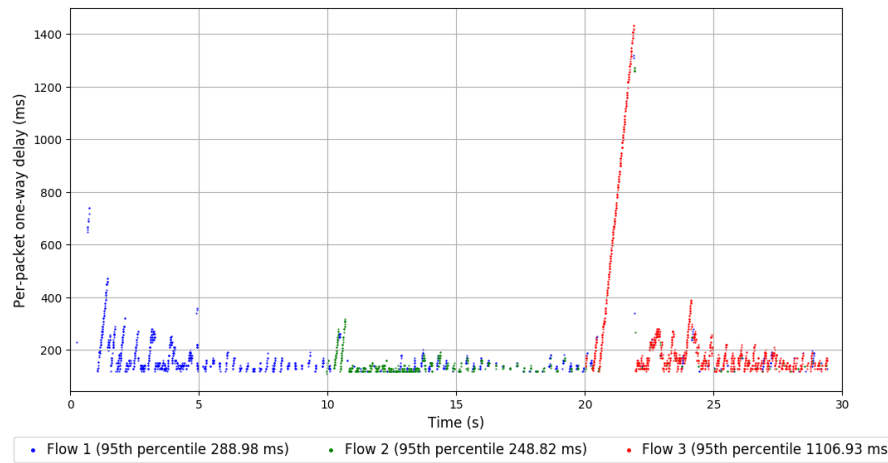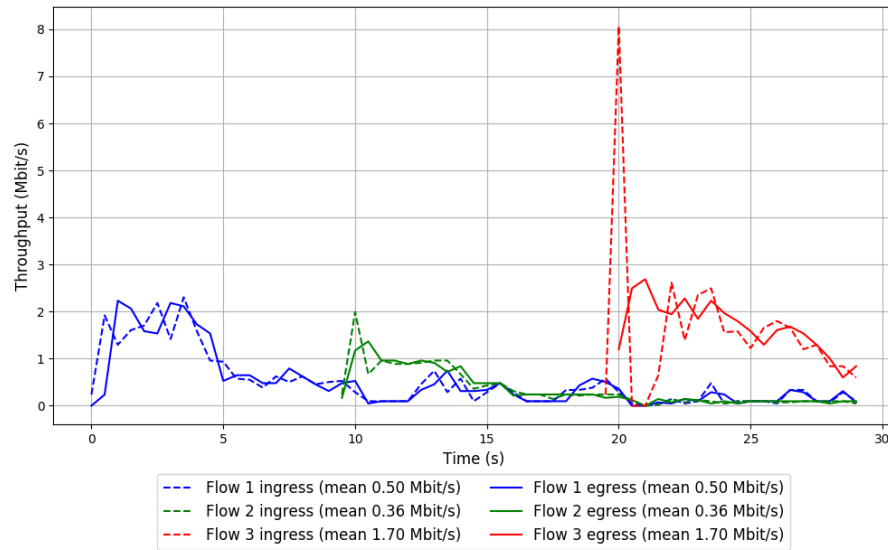
```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-05 08:57:01
End at: 2017-12-05 08:57:31
Local clock offset: 1.478 ms
Remote clock offset: 3.986 ms

# Below is generated by plot.py at 2017-12-05 09:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 737.856 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 288.982 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 248.821 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 1106.929 ms
Loss rate: 0.37%
```

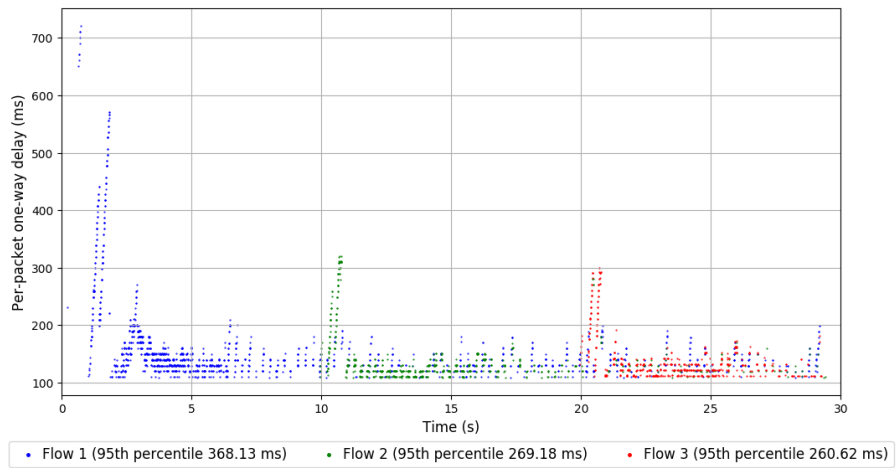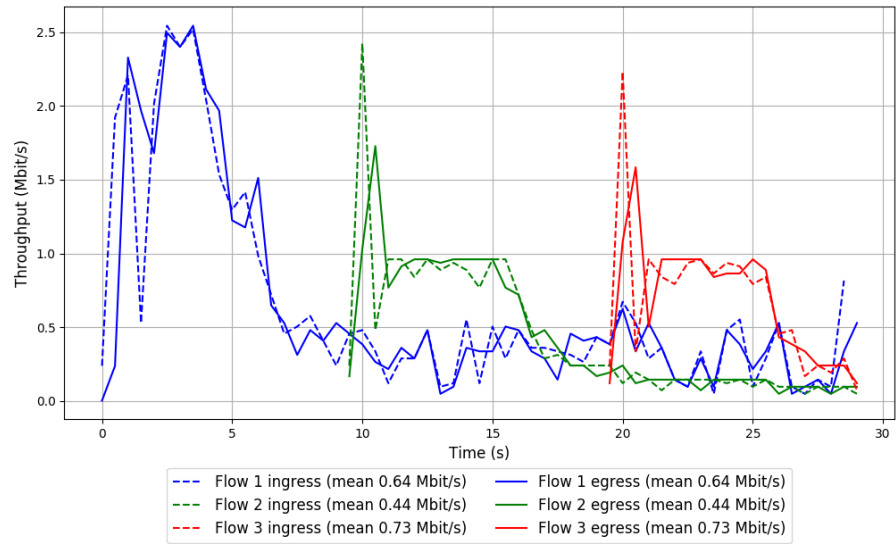Run 1: Report of Indigo-calib — Data Link

```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-05 09:14:28
End at: 2017-12-05 09:14:58
Local clock offset: 0.975 ms
Remote clock offset: -1.348 ms


# Below is generated by plot.py at 2017-12-05 09:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 291.442 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 368.127 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 269.177 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 260.622 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 0.64 Mbit/s)
Flow 2 ingress (mean 0.44 Mbit/s)
Flow 3 ingress (mean 0.73 Mbit/s)
Flow 1 egress (mean 0.64 Mbit/s)
Flow 2 egress (mean 0.44 Mbit/s)
Flow 3 egress (mean 0.73 Mbit/s)

Flow 1 (95th percentile 368.13 ms)
Flow 2 (95th percentile 269.18 ms)
Flow 3 (95th percentile 260.62 ms)

```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-05 09:31:54
End at: 2017-12-05 09:32:24
Local clock offset: 0.888 ms
Remote clock offset: 3.593 ms

# Below is generated by plot.py at 2017-12-05 09:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 243.628 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 254.328 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 231.038 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 230.765 ms
Loss rate: 0.19%
```

Run 3: Report of Indigo-calib — Data Link