Pantheon Report

Generated at 2017-10-12 12:23:44 (UTC).

Data path: Brazil Ethernet (*remote*) →AWS Brazil 1 Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

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

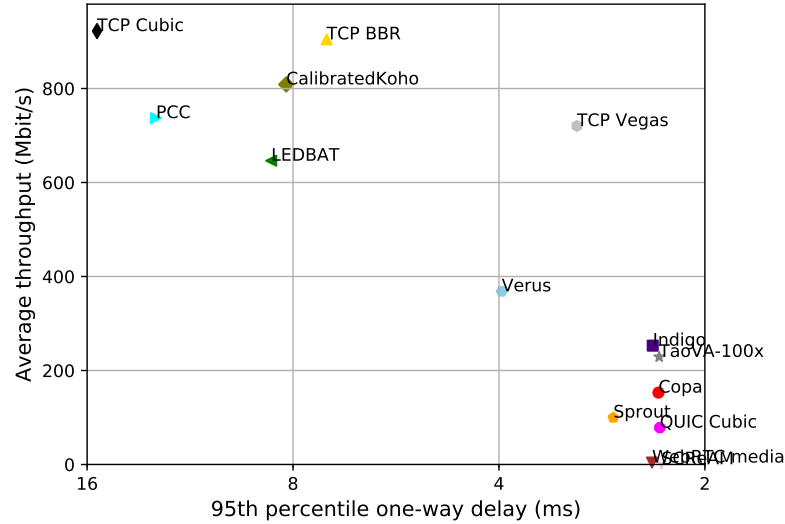Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

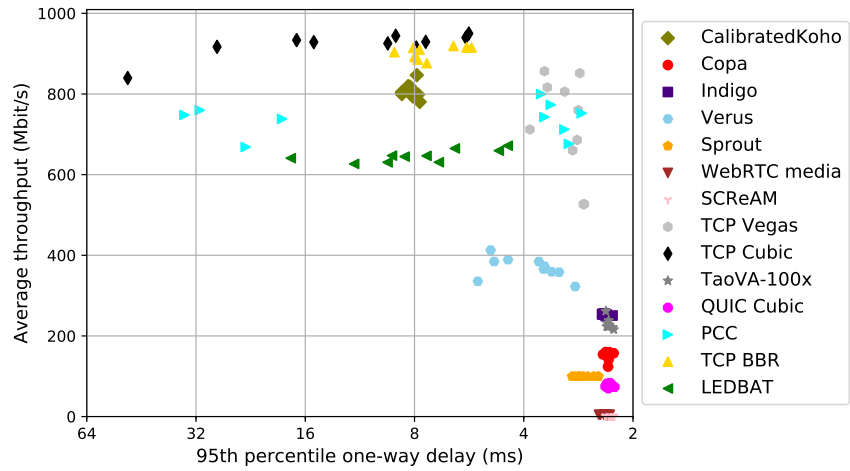NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: indigos @ 45998d6404be7c5106956530acb9cfc43bd06e7d
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
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 Brazil Ethernet to AWS Brazil 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from Brazil Ethernet to AWS Brazil 1 Ethernet, 10 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	10	524.70	408.56	324.85	7.19	6.38	5.81	0.02	0.03	0.08
TCP Cubic	10	546.84	411.31	306.10	18.48	6.94	5.75	0.05	0.07	0.19
LEDBAT	10	374.35	293.34	231.95	10.02	5.77	5.69	0.02	0.03	0.04
PCC	10	590.43	166.38	109.72	16.05	3.24	2.76	0.23	0.03	0.07
QUIC Cubic	10	1.05	78.85	78.38	2.53	2.33	2.33	0.00	0.02	0.05
SCReAM	10	0.22	0.22	0.22	2.32	2.31	2.32	0.00	0.18	0.03
WebRTC media	10	2.15	1.47	0.59	2.41	2.39	2.41	0.00	0.00	0.04
Sprout	10	50.11	50.01	49.82	2.65	2.75	2.81	0.01	0.03	0.06
TaoVA-100x	10	140.18	100.63	85.26	2.33	2.34	2.37	0.01	0.02	0.06
TCP Vegas	10	352.66	371.97	354.25	198.28	3.02	3.13	0.01	0.02	0.04
Verus	10	217.11	163.95	128.03	3.91	8.02	3.66	0.01	0.05	0.03
Copa	10	82.95	73.94	83.23	2.33	2.37	2.35	0.01	0.01	0.02
CalibratedKoho	10	447.62	381.55	322.86	8.22	7.88	8.03	0.02	0.04	0.07
Indigo	10	141.07	124.11	90.15	2.37	2.41	2.42	0.01	0.02	0.06

```
Run 1: Statistics of TCP BBR

Start at: 2017-10-12 03:45:13
End at: 2017-10-12 03:45:43
Local clock offset: -0.196 ms
Remote clock offset: 0.106 ms


# Below is generated by plot.py at 2017-10-12 10:38:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 909.60 Mbit/s
95th percentile per-packet one-way delay: 7.746 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 525.42 Mbit/s
95th percentile per-packet one-way delay: 7.881 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 412.01 Mbit/s
95th percentile per-packet one-way delay: 5.773 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 331.43 Mbit/s
95th percentile per-packet one-way delay: 5.729 ms
Loss rate: 0.09%
```
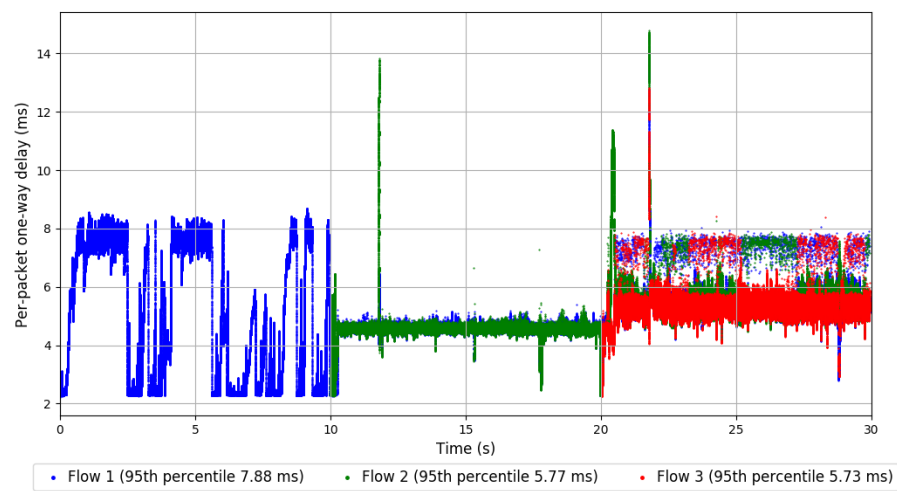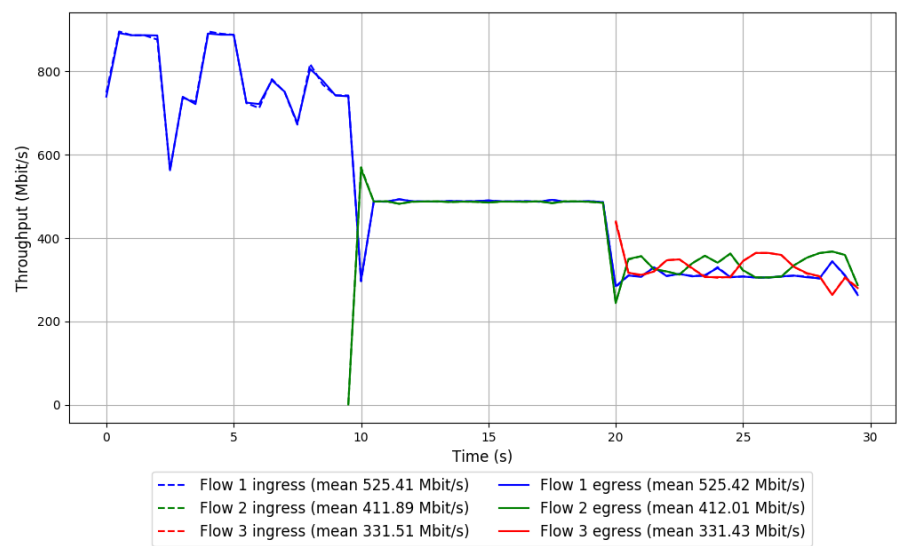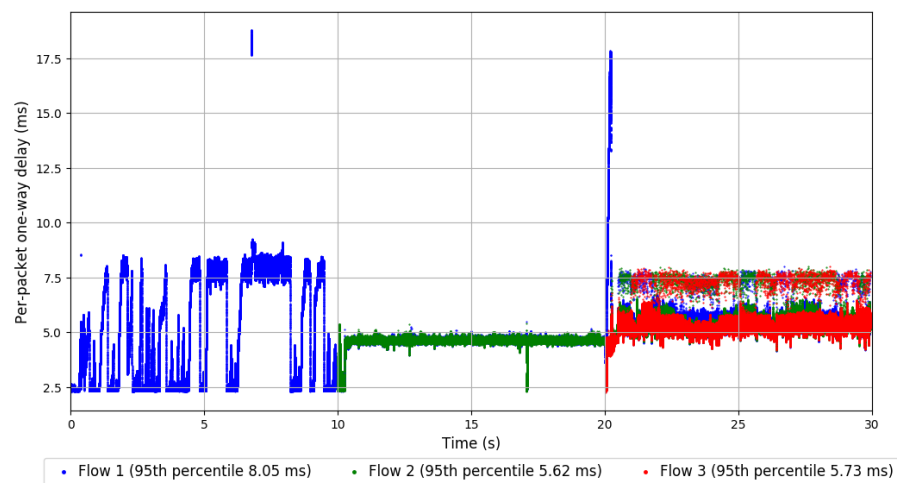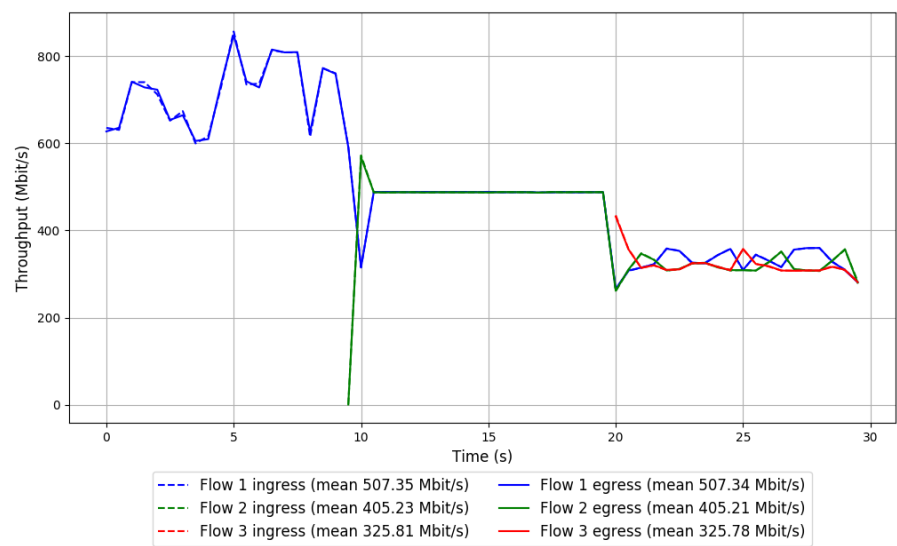
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2017-10-12 04:04:32
End at: 2017-10-12 04:05:02
Local clock offset: -0.16 ms
Remote clock offset: 0.351 ms


# Below is generated by plot.py at 2017-10-12 10:38:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 885.20 Mbit/s
95th percentile per-packet one-way delay: 7.845 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 507.34 Mbit/s
95th percentile per-packet one-way delay: 8.051 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 405.21 Mbit/s
95th percentile per-packet one-way delay: 5.617 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 325.78 Mbit/s
95th percentile per-packet one-way delay: 5.733 ms
Loss rate: 0.07%
```
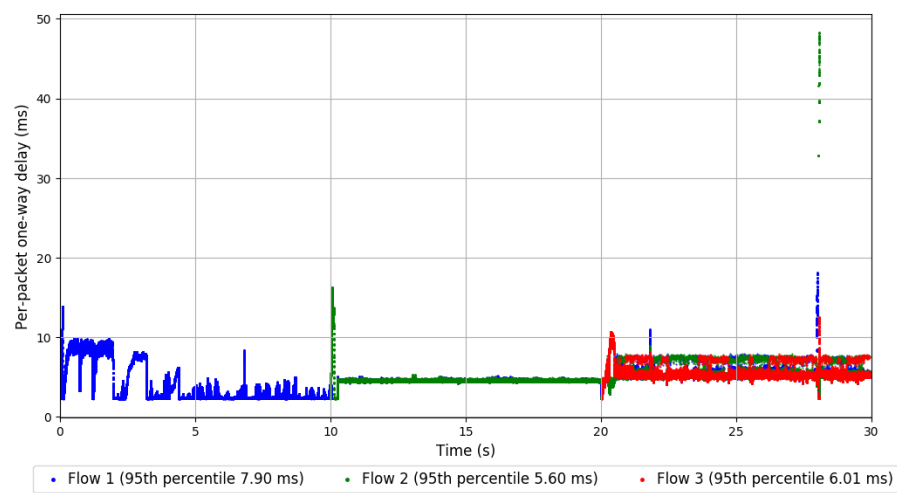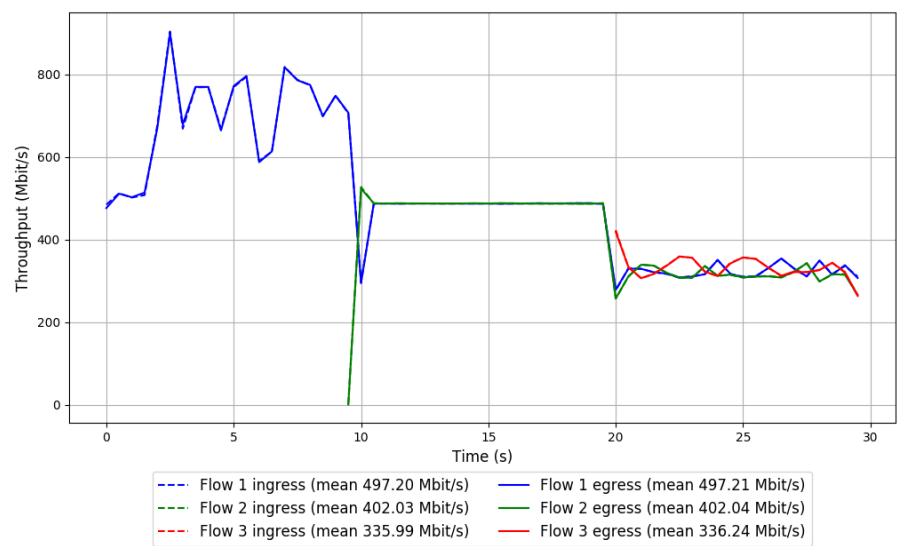
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 507.35 Mbit/s) ---- Flow 1 egress (mean 507.34 Mbit/s)
Flow 2 ingress (mean 405.23 Mbit/s) ---- Flow 2 egress (mean 405.21 Mbit/s)
Flow 3 ingress (mean 325.81 Mbit/s) ---- Flow 3 egress (mean 325.78 Mbit/s)

Flow 1 (95th percentile 8.05 ms)   Flow 2 (95th percentile 5.62 ms)   Flow 3 (95th percentile 5.73 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2017-10-12 04:24:03
End at: 2017-10-12 04:24:33
Local clock offset: -0.106 ms
Remote clock offset: 0.746 ms


# Below is generated by plot.py at 2017-10-12 10:38:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 876.44 Mbit/s
95th percentile per-packet one-way delay: 7.401 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 497.21 Mbit/s
95th percentile per-packet one-way delay: 7.900 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.04 Mbit/s
95th percentile per-packet one-way delay: 5.601 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 336.24 Mbit/s
95th percentile per-packet one-way delay: 6.009 ms
Loss rate: 0.07%
```
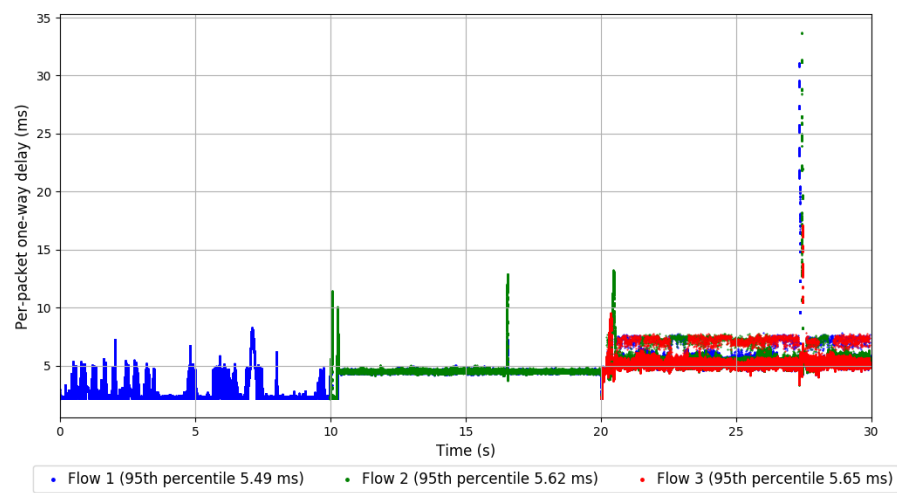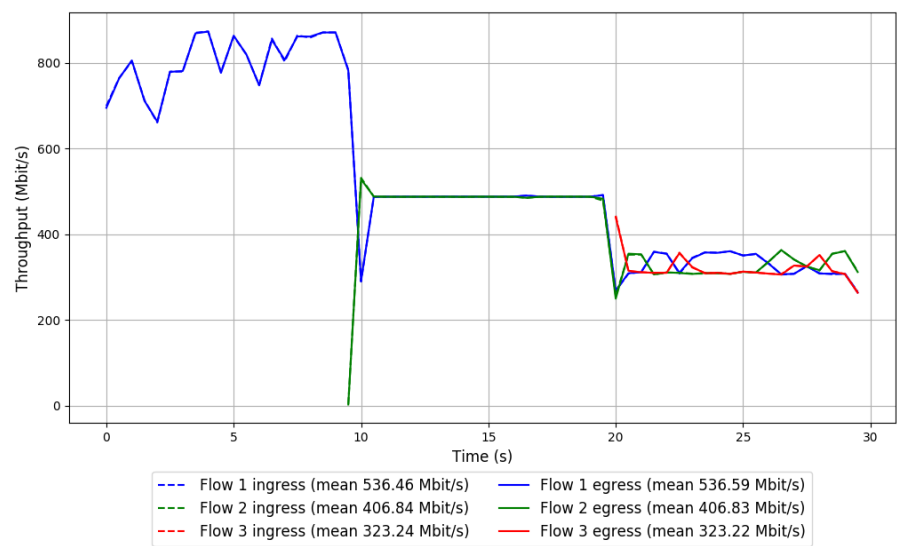
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 497.20 Mbit/s) — Flow 1 egress (mean 497.21 Mbit/s)
Flow 2 ingress (mean 402.03 Mbit/s) — Flow 2 egress (mean 402.04 Mbit/s)
Flow 3 ingress (mean 335.99 Mbit/s) — Flow 3 egress (mean 336.24 Mbit/s)

Flow 1 (95th percentile 7.90 ms)   Flow 2 (95th percentile 5.60 ms)   Flow 3 (95th percentile 6.01 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2017-10-12 04:43:34
End at: 2017-10-12 04:44:04
Local clock offset: -0.127 ms
Remote clock offset: 0.9 ms


# Below is generated by plot.py at 2017-10-12 10:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 914.98 Mbit/s
95th percentile per-packet one-way delay: 5.572 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 536.59 Mbit/s
95th percentile per-packet one-way delay: 5.489 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 406.83 Mbit/s
95th percentile per-packet one-way delay: 5.623 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 323.22 Mbit/s
95th percentile per-packet one-way delay: 5.654 ms
Loss rate: 0.07%
```
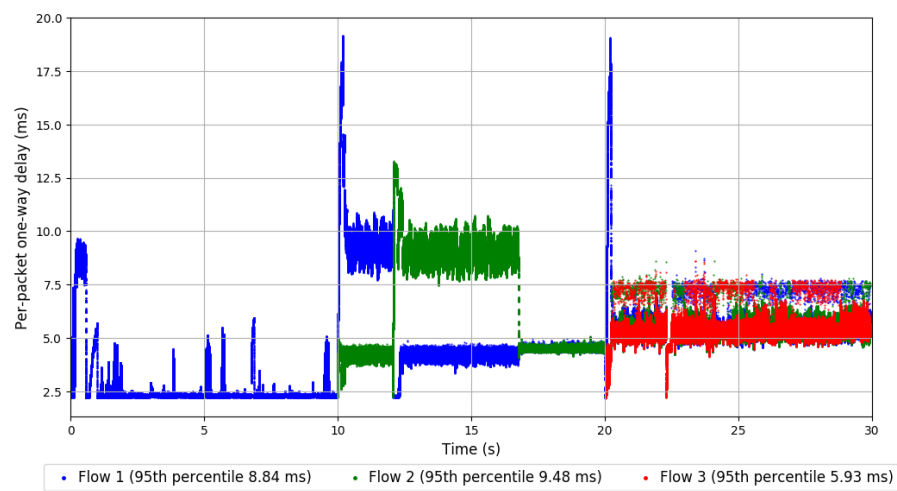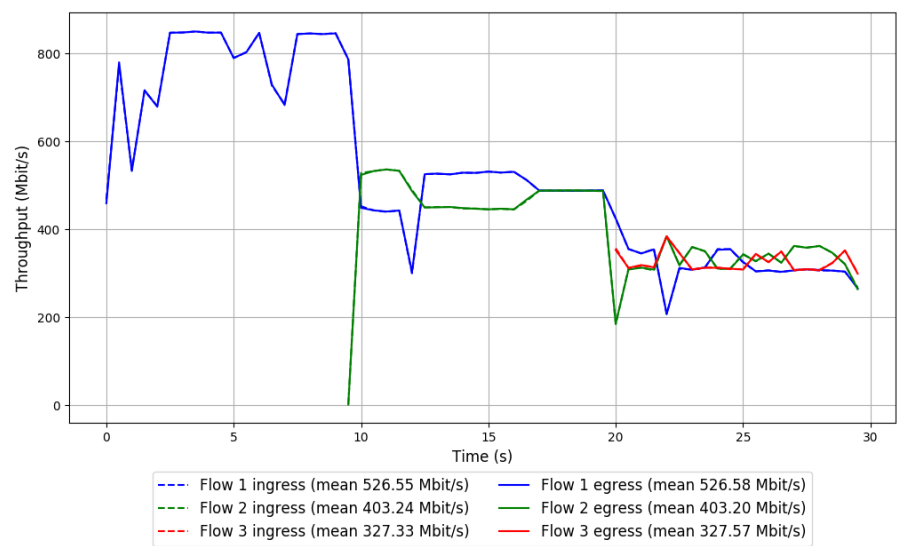
Run 4: Report of TCP BBR — Data Link

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Run 5: Statistics of TCP BBR

Start at: 2017-10-12 05:03:06
End at: 2017-10-12 05:03:36
Local clock offset: -0.09 ms
Remote clock offset: 0.961 ms


# Below is generated by plot.py at 2017-10-12 10:38:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 903.70 Mbit/s
95th percentile per-packet one-way delay: 9.092 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 526.58 Mbit/s
95th percentile per-packet one-way delay: 8.840 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 403.20 Mbit/s
95th percentile per-packet one-way delay: 9.485 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 327.57 Mbit/s
95th percentile per-packet one-way delay: 5.927 ms
Loss rate: 0.09%
```
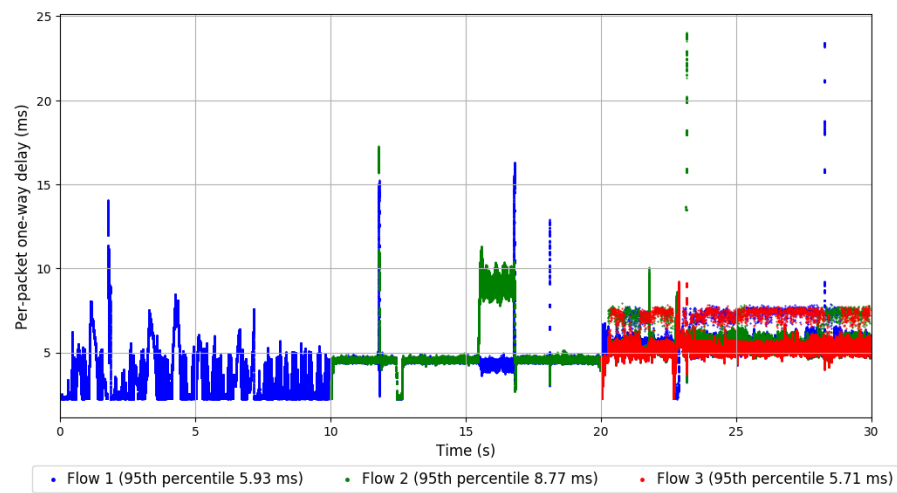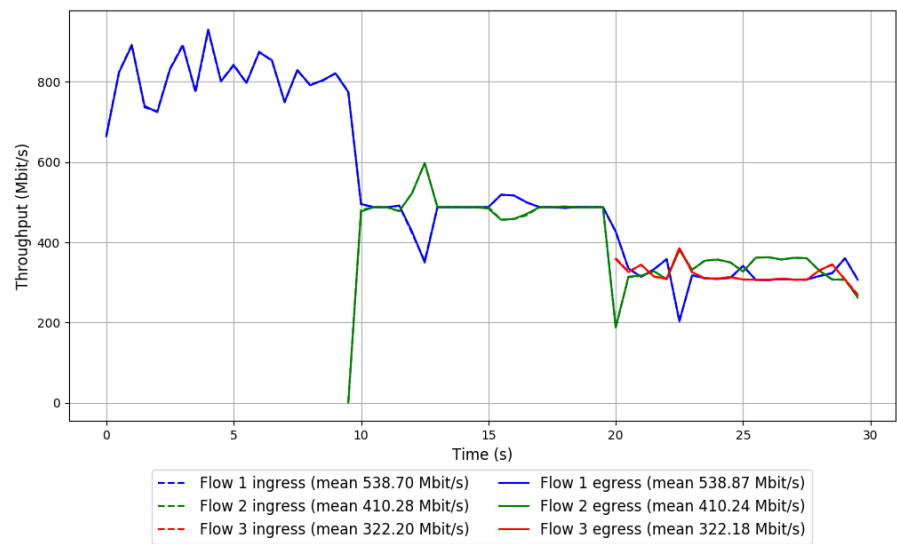
Run 5: Report of TCP BBR — Data Link

```
Run 6: Statistics of TCP BBR

Start at: 2017-10-12 05:22:39
End at: 2017-10-12 05:23:09
Local clock offset: -0.054 ms
Remote clock offset: 0.952 ms

# Below is generated by plot.py at 2017-10-12 10:38:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 919.05 Mbit/s
95th percentile per-packet one-way delay: 6.249 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 538.87 Mbit/s
95th percentile per-packet one-way delay: 5.932 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 410.24 Mbit/s
95th percentile per-packet one-way delay: 8.772 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 322.18 Mbit/s
95th percentile per-packet one-way delay: 5.712 ms
Loss rate: 0.08%
```
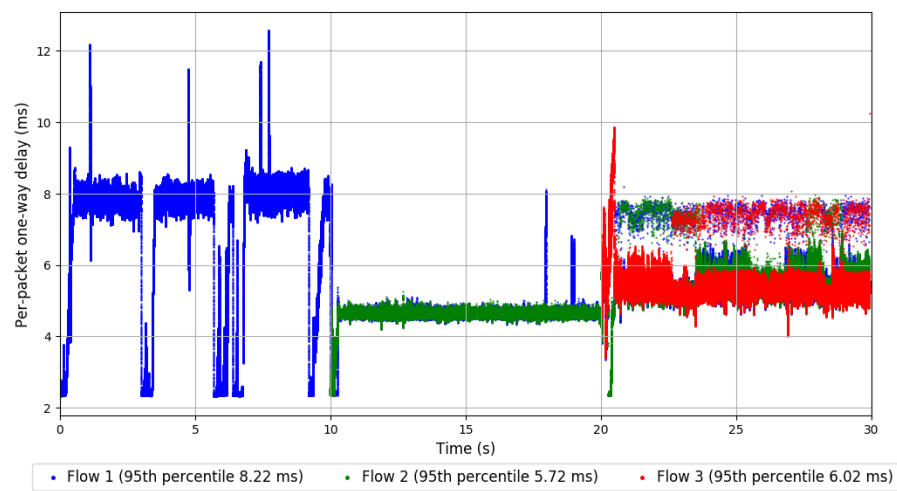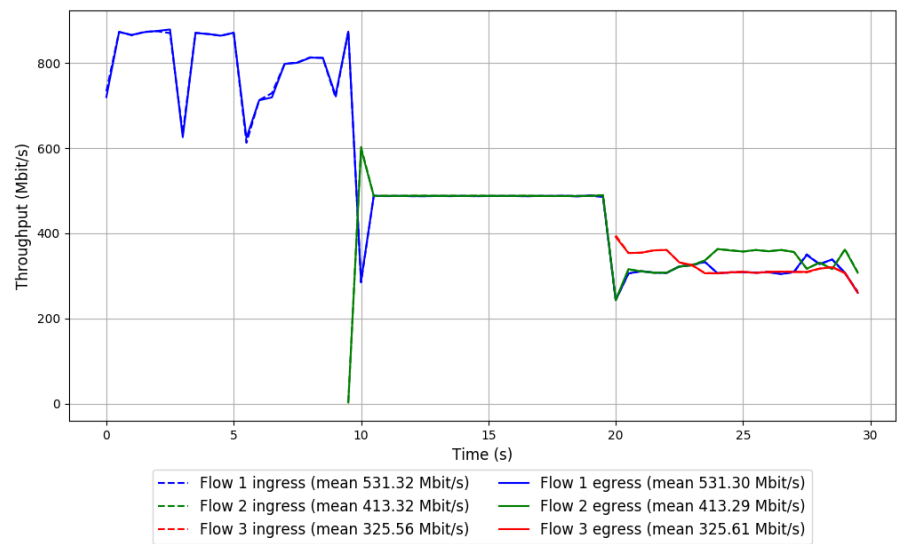
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 538.70 Mbit/s)   Flow 1 egress (mean 538.87 Mbit/s)
Flow 2 ingress (mean 410.28 Mbit/s)   Flow 2 egress (mean 410.24 Mbit/s)
Flow 3 ingress (mean 322.20 Mbit/s)   Flow 3 egress (mean 322.18 Mbit/s)

Flow 1 (95th percentile 5.93 ms)   Flow 2 (95th percentile 8.77 ms)   Flow 3 (95th percentile 5.71 ms)

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```
Run 7: Statistics of TCP BBR

Start at: 2017-10-12 05:42:06
End at: 2017-10-12 05:42:36
Local clock offset: -0.026 ms
Remote clock offset: 0.902 ms

# Below is generated by plot.py at 2017-10-12 10:38:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 914.54 Mbit/s
95th percentile per-packet one-way delay: 8.061 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 531.30 Mbit/s
95th percentile per-packet one-way delay: 8.219 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 413.29 Mbit/s
95th percentile per-packet one-way delay: 5.719 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 325.61 Mbit/s
95th percentile per-packet one-way delay: 6.016 ms
Loss rate: 0.07%
```
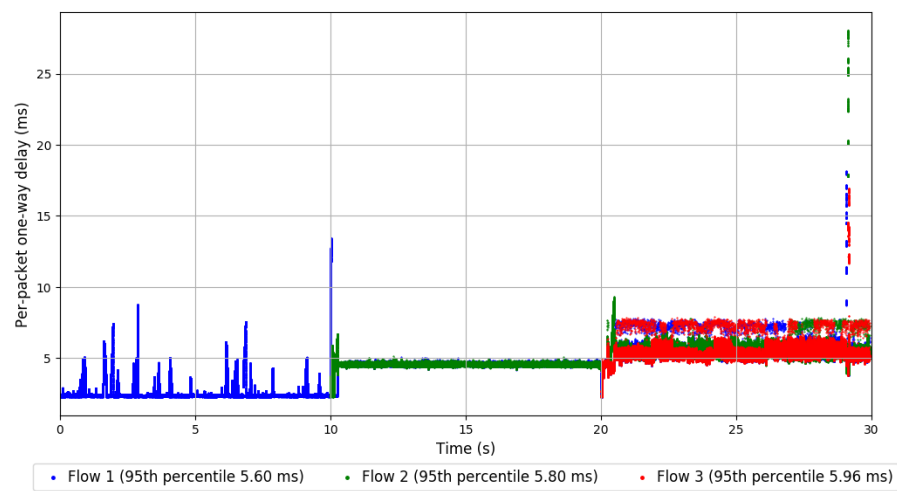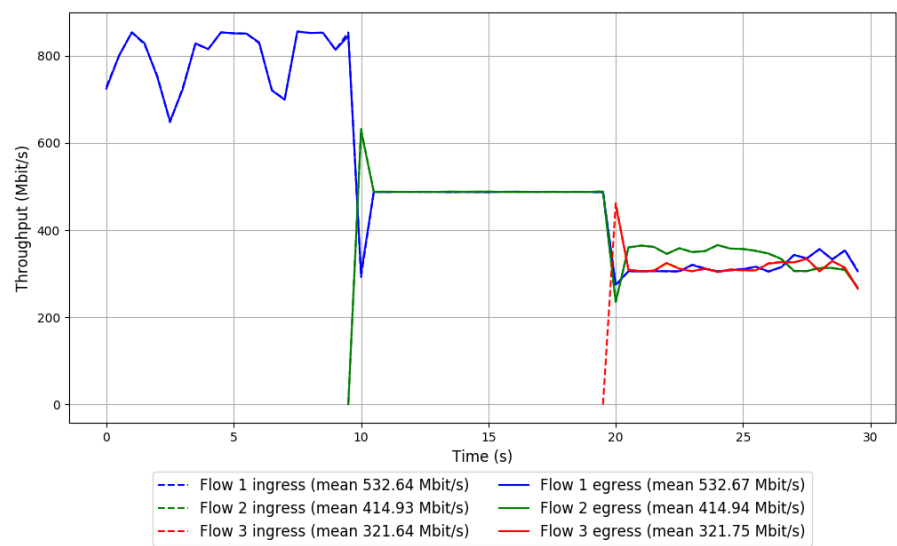
Run 7: Report of TCP BBR — Data Link

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```
Run 8: Statistics of TCP BBR

Start at: 2017-10-12 06:01:24
End at: 2017-10-12 06:01:54
Local clock offset: -0.106 ms
Remote clock offset: 0.576 ms


# Below is generated by plot.py at 2017-10-12 10:38:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 915.89 Mbit/s
95th percentile per-packet one-way delay: 5.747 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 532.67 Mbit/s
95th percentile per-packet one-way delay: 5.596 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 414.94 Mbit/s
95th percentile per-packet one-way delay: 5.805 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 321.75 Mbit/s
95th percentile per-packet one-way delay: 5.964 ms
Loss rate: 0.07%
```
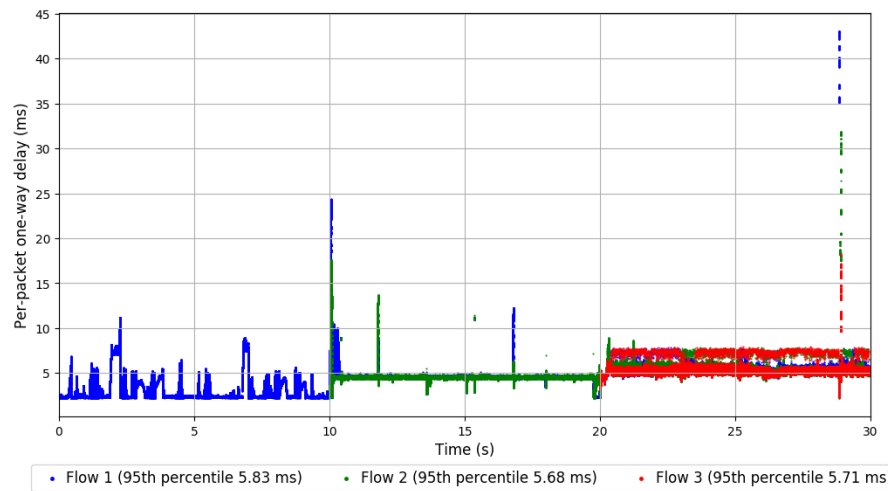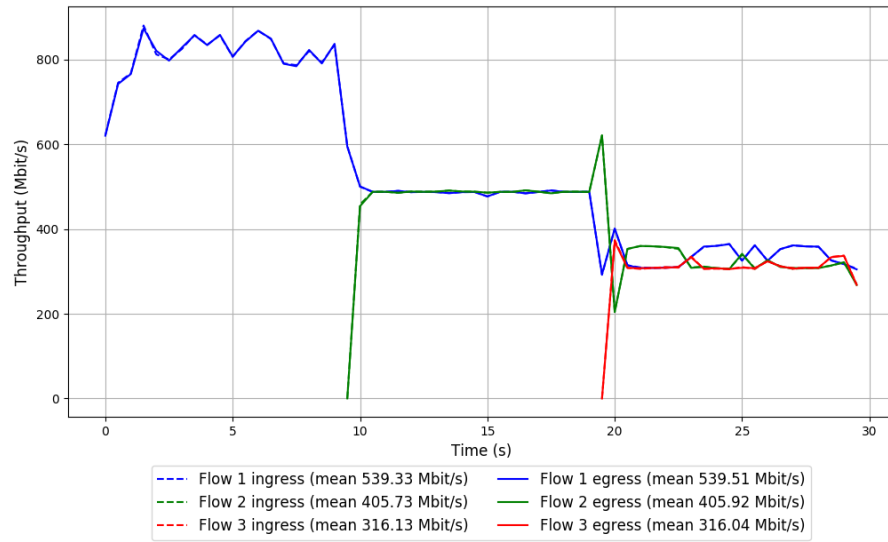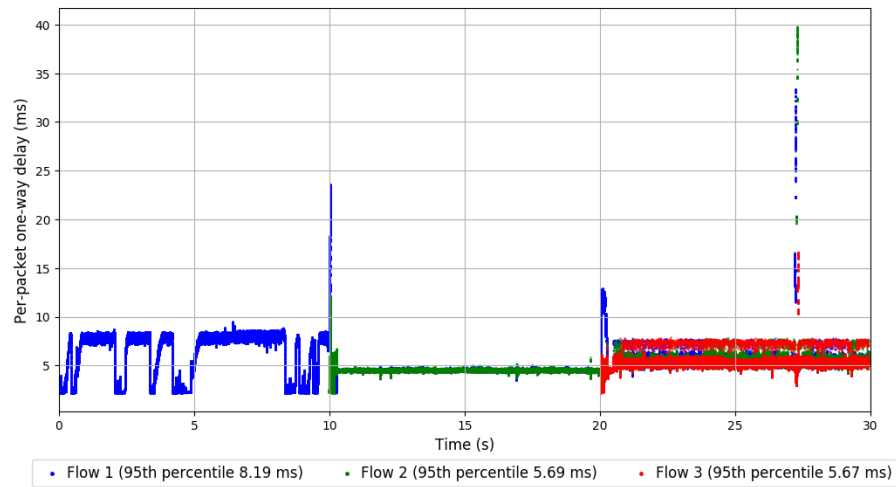
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 532.64 Mbit/s) --- Flow 1 egress (mean 532.67 Mbit/s)
Flow 2 ingress (mean 414.93 Mbit/s) --- Flow 2 egress (mean 414.94 Mbit/s)
Flow 3 ingress (mean 321.64 Mbit/s) --- Flow 3 egress (mean 321.75 Mbit/s)

Flow 1 (95th percentile 5.60 ms)   Flow 2 (95th percentile 5.80 ms)   Flow 3 (95th percentile 5.96 ms)

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```
Run 9: Statistics of TCP BBR

Start at: 2017-10-12 06:20:49
End at: 2017-10-12 06:21:19
Local clock offset: -0.193 ms
Remote clock offset: 0.407 ms


# Below is generated by plot.py at 2017-10-12 10:51:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 914.84 Mbit/s
95th percentile per-packet one-way delay: 5.739 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 539.51 Mbit/s
95th percentile per-packet one-way delay: 5.830 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 405.92 Mbit/s
95th percentile per-packet one-way delay: 5.676 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 316.04 Mbit/s
95th percentile per-packet one-way delay: 5.715 ms
Loss rate: 0.07%
```
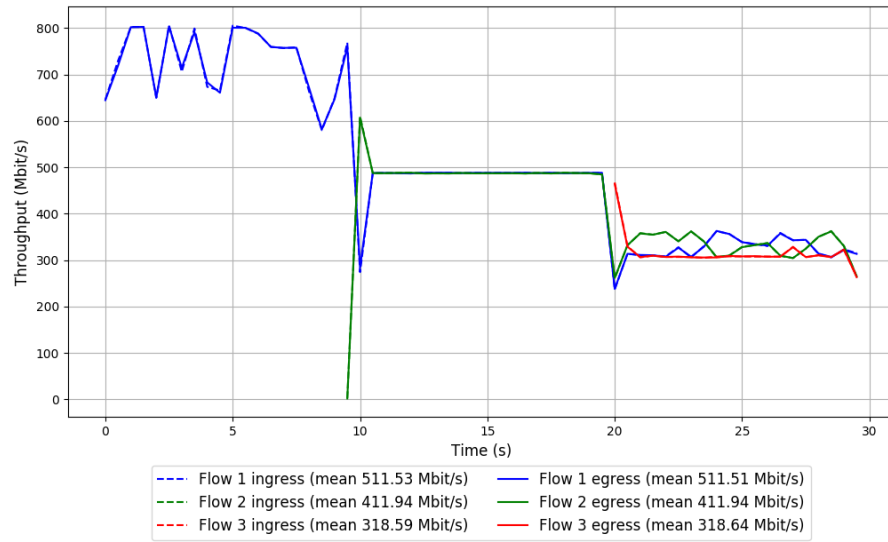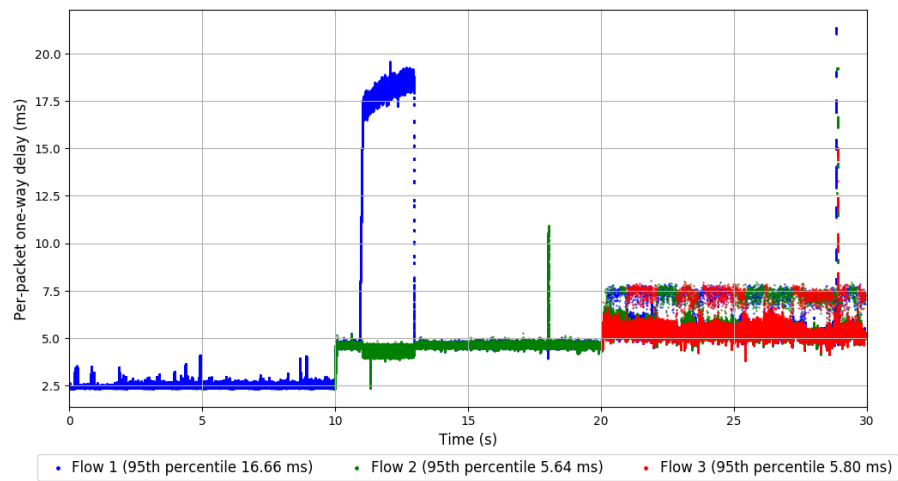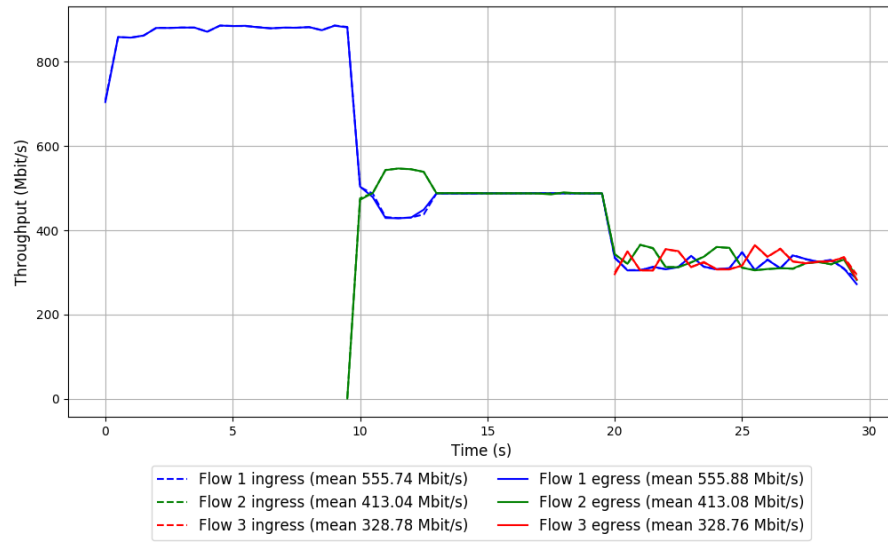
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 539.33 Mbit/s)   Flow 1 egress (mean 539.51 Mbit/s)
Flow 2 ingress (mean 405.73 Mbit/s)   Flow 2 egress (mean 405.92 Mbit/s)
Flow 3 ingress (mean 316.13 Mbit/s)   Flow 3 egress (mean 316.04 Mbit/s)

Flow 1 (95th percentile 5.83 ms)   Flow 2 (95th percentile 5.68 ms)   Flow 3 (95th percentile 5.71 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2017-10-12 06:40:15
End at: 2017-10-12 06:40:45
Local clock offset: -0.377 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2017-10-12 10:51:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 891.70 Mbit/s
95th percentile per-packet one-way delay: 8.001 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 511.51 Mbit/s
95th percentile per-packet one-way delay: 8.194 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 411.94 Mbit/s
95th percentile per-packet one-way delay: 5.690 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 318.64 Mbit/s
95th percentile per-packet one-way delay: 5.668 ms
Loss rate: 0.07%
```

Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2017-10-12 03:37:20
End at: 2017-10-12 03:37:50
Local clock offset: -0.213 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2017-10-12 10:52:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 939.82 Mbit/s
95th percentile per-packet one-way delay: 5.776 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 555.88 Mbit/s
95th percentile per-packet one-way delay: 16.657 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 413.08 Mbit/s
95th percentile per-packet one-way delay: 5.645 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 328.76 Mbit/s
95th percentile per-packet one-way delay: 5.796 ms
Loss rate: 0.23%
```
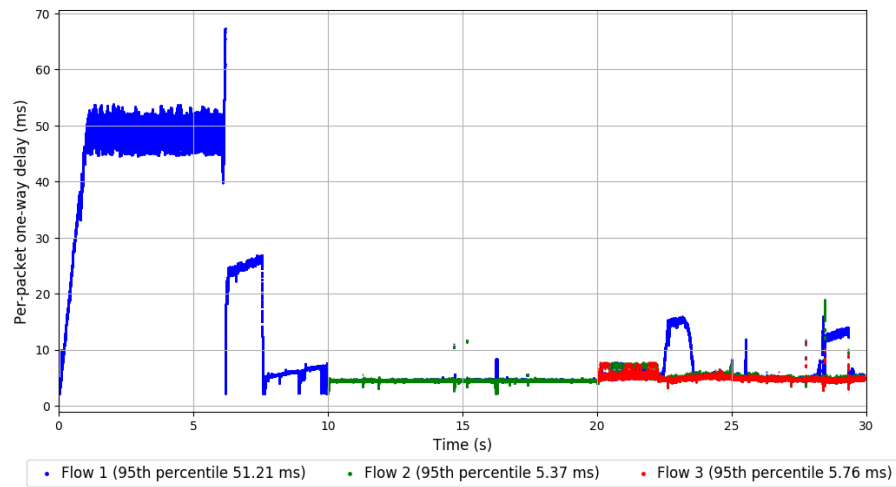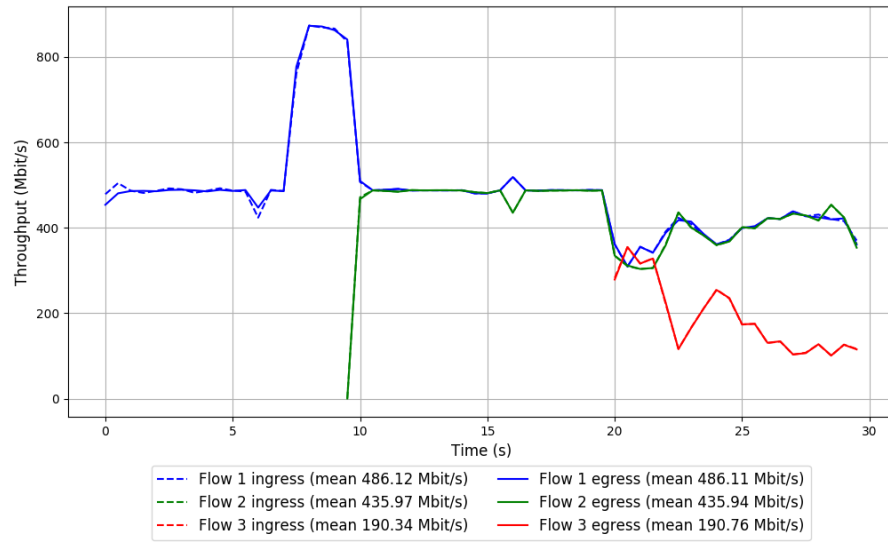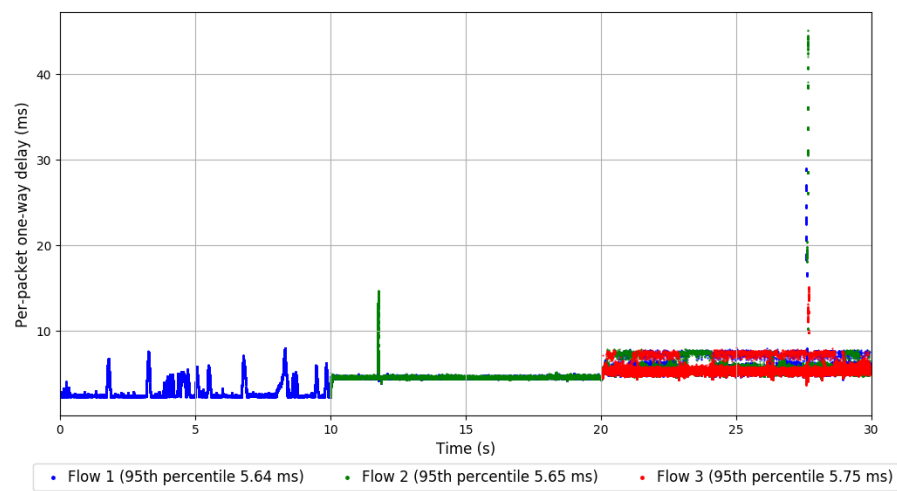
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2017-10-12 03:56:46
End at: 2017-10-12 03:57:16
Local clock offset: -0.208 ms
Remote clock offset: 0.302 ms

# Below is generated by plot.py at 2017-10-12 10:52:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 839.60 Mbit/s
95th percentile per-packet one-way delay: 49.366 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 486.11 Mbit/s
95th percentile per-packet one-way delay: 51.207 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 435.94 Mbit/s
95th percentile per-packet one-way delay: 5.372 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 190.76 Mbit/s
95th percentile per-packet one-way delay: 5.758 ms
Loss rate: 0.08%
```
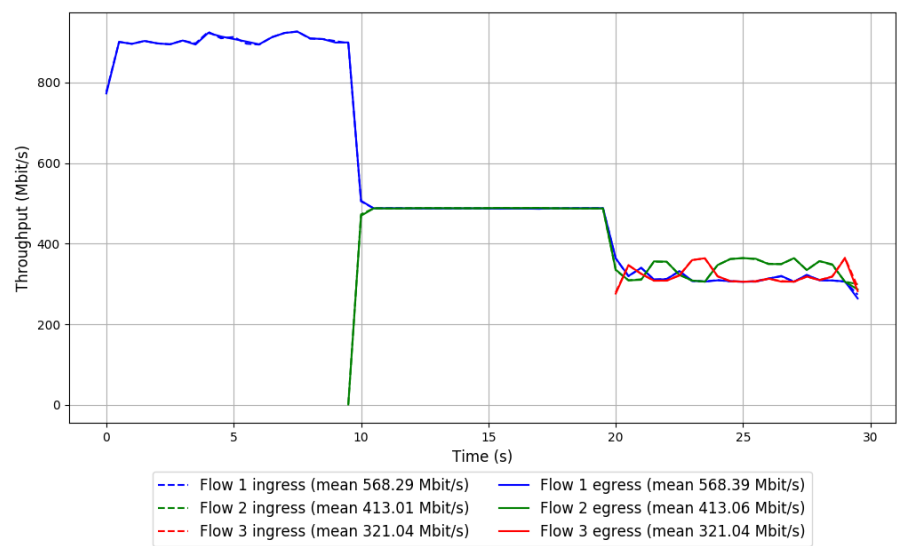
Run 2: Report of TCP Cubic — Data Link

Legend:
- Flow 1 ingress (mean 486.12 Mbit/s)
- Flow 1 egress (mean 486.11 Mbit/s)
- Flow 2 ingress (mean 435.97 Mbit/s)
- Flow 2 egress (mean 435.94 Mbit/s)
- Flow 3 ingress (mean 190.34 Mbit/s)
- Flow 3 egress (mean 190.76 Mbit/s)

Legend:
- Flow 1 (95th percentile 51.21 ms)
- Flow 2 (95th percentile 5.37 ms)
- Flow 3 (95th percentile 5.76 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2017-10-12 04:16:12
End at: 2017-10-12 04:16:42
Local clock offset: -0.117 ms
Remote clock offset: 0.627 ms

# Below is generated by plot.py at 2017-10-12 10:52:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 949.93 Mbit/s
95th percentile per-packet one-way delay: 5.669 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 568.39 Mbit/s
95th percentile per-packet one-way delay: 5.642 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 413.06 Mbit/s
95th percentile per-packet one-way delay: 5.652 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 321.04 Mbit/s
95th percentile per-packet one-way delay: 5.751 ms
Loss rate: 0.23%
```
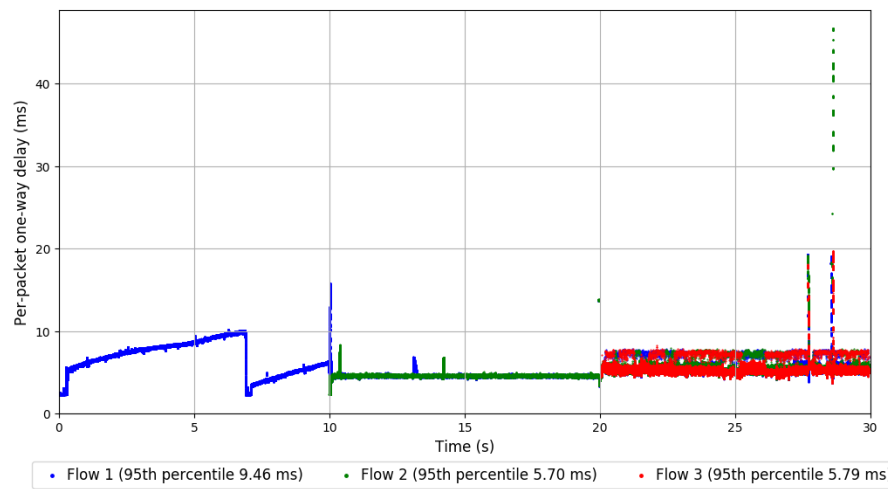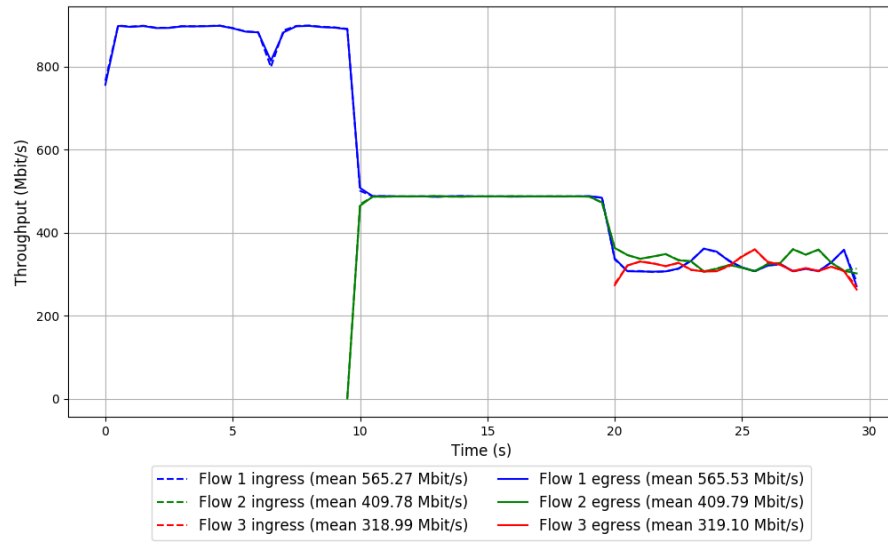
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 568.29 Mbit/s) --- Flow 1 egress (mean 568.39 Mbit/s)
Flow 2 ingress (mean 413.01 Mbit/s) --- Flow 2 egress (mean 413.06 Mbit/s)
Flow 3 ingress (mean 321.04 Mbit/s) --- Flow 3 egress (mean 321.04 Mbit/s)

Flow 1 (95th percentile 5.64 ms)   Flow 2 (95th percentile 5.65 ms)   Flow 3 (95th percentile 5.75 ms)

29

```
Run 4: Statistics of TCP Cubic

Start at: 2017-10-12 04:35:42
End at: 2017-10-12 04:36:12
Local clock offset: -0.054 ms
Remote clock offset: 0.859 ms


# Below is generated by plot.py at 2017-10-12 10:52:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 944.22 Mbit/s
95th percentile per-packet one-way delay: 9.012 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 565.53 Mbit/s
95th percentile per-packet one-way delay: 9.458 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 409.79 Mbit/s
95th percentile per-packet one-way delay: 5.695 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 319.10 Mbit/s
95th percentile per-packet one-way delay: 5.793 ms
Loss rate: 0.17%
```
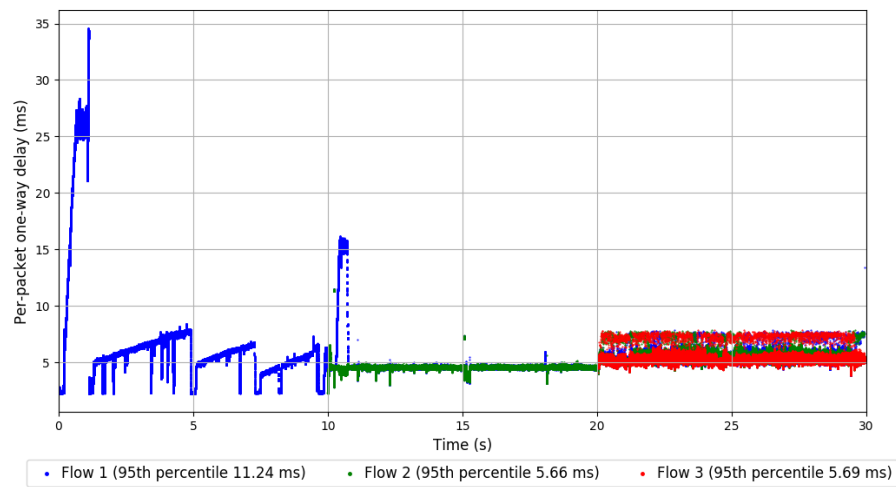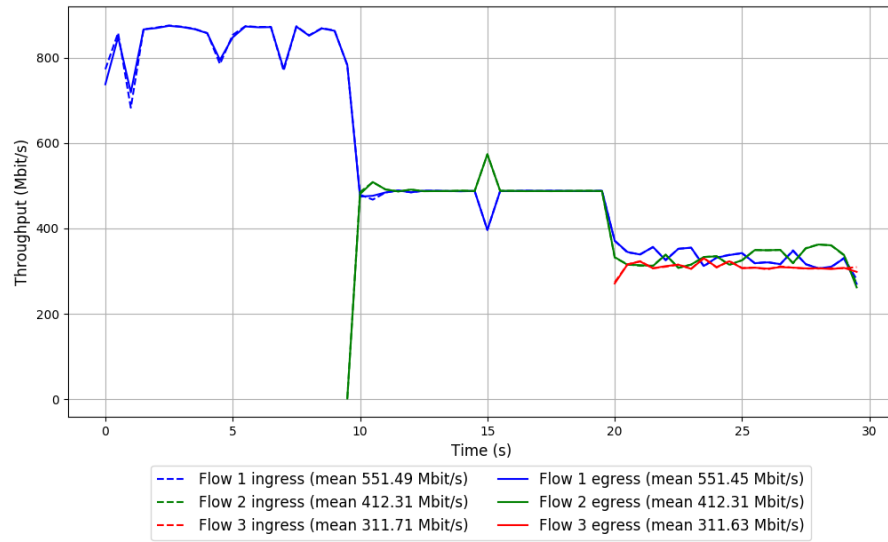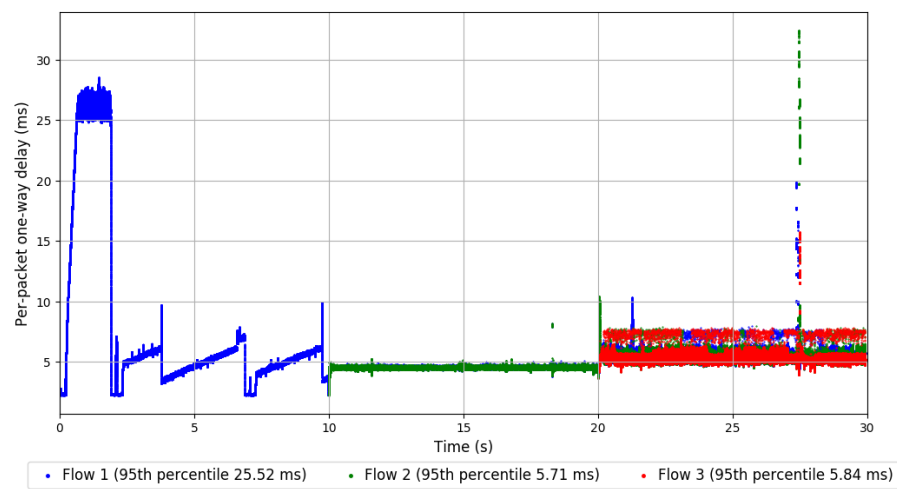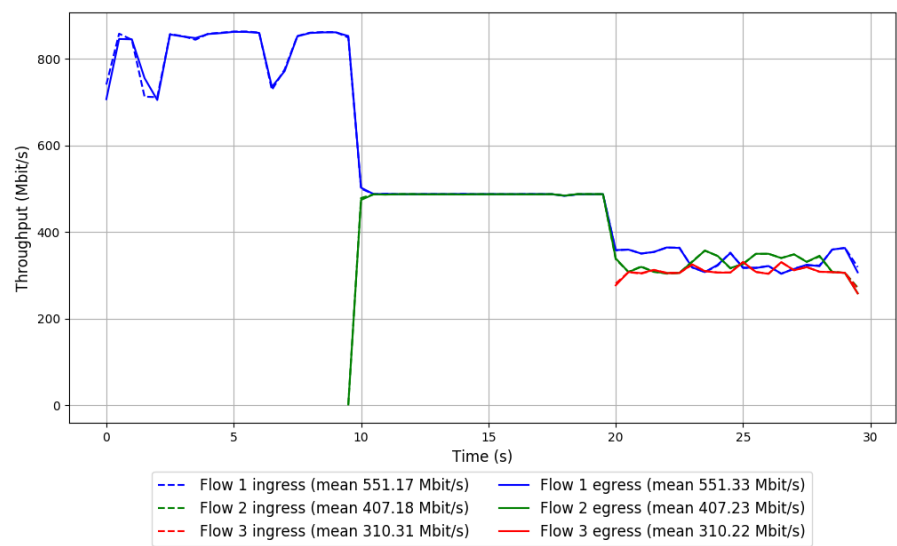
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 565.27 Mbit/s) --- Flow 1 egress (mean 565.53 Mbit/s)
Flow 2 ingress (mean 409.78 Mbit/s) --- Flow 2 egress (mean 409.79 Mbit/s)
Flow 3 ingress (mean 318.99 Mbit/s) --- Flow 3 egress (mean 319.10 Mbit/s)

Flow 1 (95th percentile 9.46 ms)   Flow 2 (95th percentile 5.70 ms)   Flow 3 (95th percentile 5.79 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2017-10-12 04:55:16
End at: 2017-10-12 04:55:46
Local clock offset: -0.052 ms
Remote clock offset: 0.957 ms


# Below is generated by plot.py at 2017-10-12 10:52:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 929.27 Mbit/s
95th percentile per-packet one-way delay: 7.452 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 551.45 Mbit/s
95th percentile per-packet one-way delay: 11.241 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 412.31 Mbit/s
95th percentile per-packet one-way delay: 5.664 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 311.63 Mbit/s
95th percentile per-packet one-way delay: 5.690 ms
Loss rate: 0.23%
```
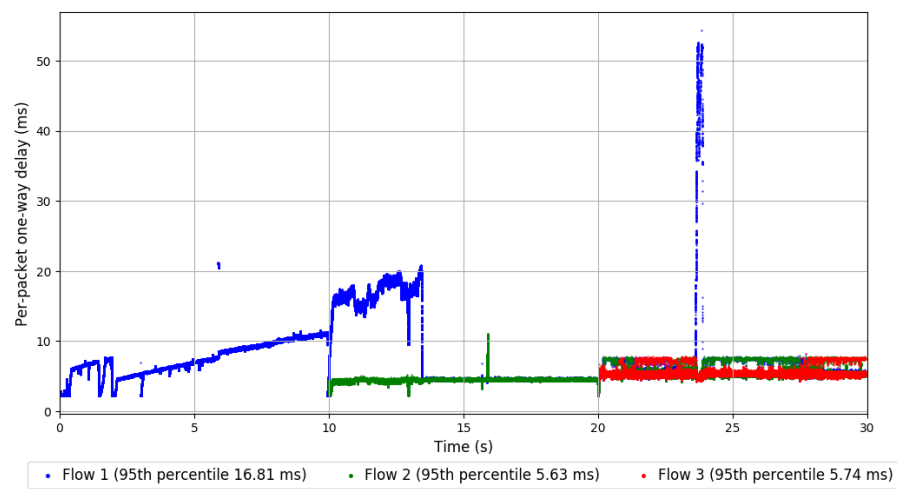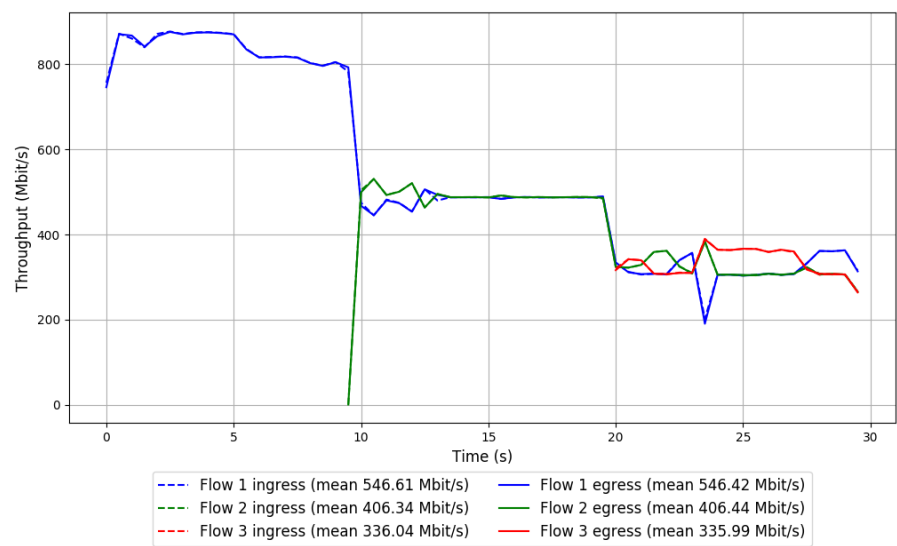
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 551.49 Mbit/s) --- Flow 1 egress (mean 551.45 Mbit/s)
Flow 2 ingress (mean 412.31 Mbit/s) --- Flow 2 egress (mean 412.31 Mbit/s)
Flow 3 ingress (mean 311.71 Mbit/s) --- Flow 3 egress (mean 311.63 Mbit/s)

Flow 1 (95th percentile 11.24 ms) • Flow 2 (95th percentile 5.66 ms) • Flow 3 (95th percentile 5.69 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2017-10-12 05:14:50
End at: 2017-10-12 05:15:20
Local clock offset: -0.044 ms
Remote clock offset: 0.96 ms


# Below is generated by plot.py at 2017-10-12 10:52:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 925.42 Mbit/s
95th percentile per-packet one-way delay: 9.480 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 551.33 Mbit/s
95th percentile per-packet one-way delay: 25.524 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 407.23 Mbit/s
95th percentile per-packet one-way delay: 5.708 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 310.22 Mbit/s
95th percentile per-packet one-way delay: 5.843 ms
Loss rate: 0.24%
```
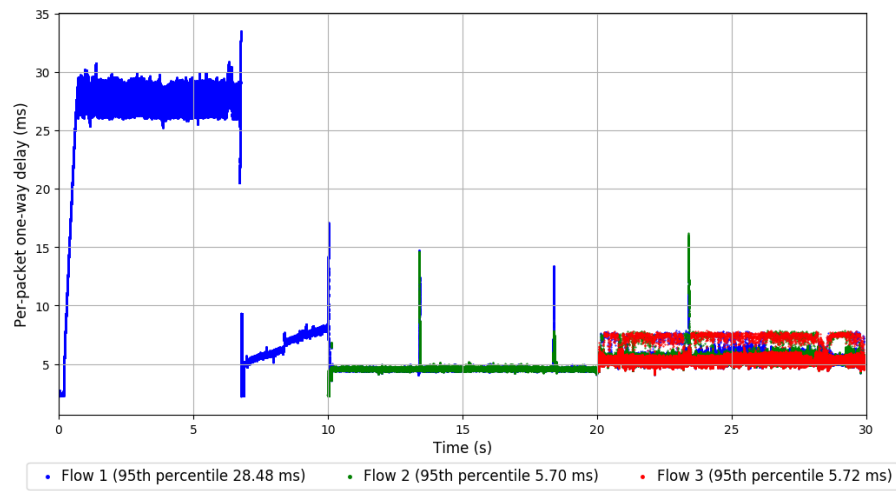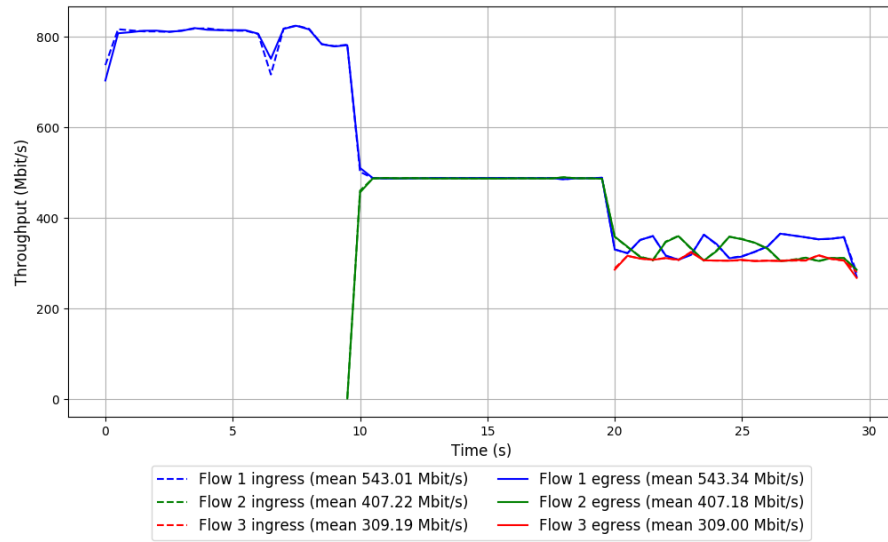
Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 551.17 Mbit/s) --- Flow 1 egress (mean 551.33 Mbit/s) ---
Flow 2 ingress (mean 407.18 Mbit/s) --- Flow 2 egress (mean 407.23 Mbit/s) ---
Flow 3 ingress (mean 310.31 Mbit/s) --- Flow 3 egress (mean 310.22 Mbit/s) ---

Flow 1 (95th percentile 25.52 ms)   Flow 2 (95th percentile 5.71 ms)   Flow 3 (95th percentile 5.84 ms)

35

```
Run 7: Statistics of TCP Cubic

Start at: 2017-10-12 05:34:15
End at: 2017-10-12 05:34:46
Local clock offset: -0.017 ms
Remote clock offset: 1.004 ms


# Below is generated by plot.py at 2017-10-12 11:04:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 928.64 Mbit/s
95th percentile per-packet one-way delay: 15.158 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 546.42 Mbit/s
95th percentile per-packet one-way delay: 16.807 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 406.44 Mbit/s
95th percentile per-packet one-way delay: 5.634 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 335.99 Mbit/s
95th percentile per-packet one-way delay: 5.736 ms
Loss rate: 0.07%
```
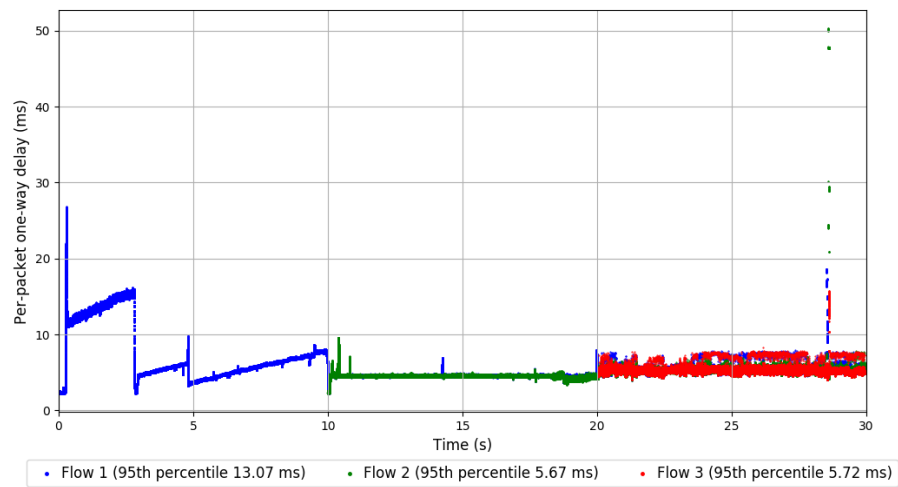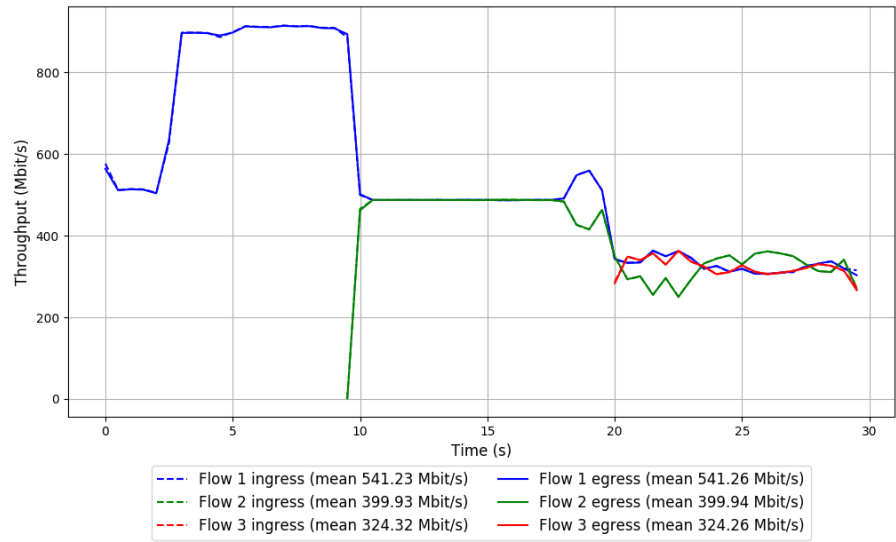
Run 7: Report of TCP Cubic — Data Link

- - - - Flow 1 ingress (mean 546.61 Mbit/s)   —— Flow 1 egress (mean 546.42 Mbit/s)
- - - - Flow 2 ingress (mean 406.34 Mbit/s)   —— Flow 2 egress (mean 406.44 Mbit/s)
- - - - Flow 3 ingress (mean 336.04 Mbit/s)   —— Flow 3 egress (mean 335.99 Mbit/s)

- Flow 1 (95th percentile 16.81 ms)   • Flow 2 (95th percentile 5.63 ms)   • Flow 3 (95th percentile 5.74 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2017-10-12 05:53:31
End at: 2017-10-12 05:54:01
Local clock offset: -0.048 ms
Remote clock offset: 0.8 ms


# Below is generated by plot.py at 2017-10-12 11:05:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 916.89 Mbit/s
95th percentile per-packet one-way delay: 28.003 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 543.34 Mbit/s
95th percentile per-packet one-way delay: 28.476 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 407.18 Mbit/s
95th percentile per-packet one-way delay: 5.696 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 309.00 Mbit/s
95th percentile per-packet one-way delay: 5.719 ms
Loss rate: 0.24%
```
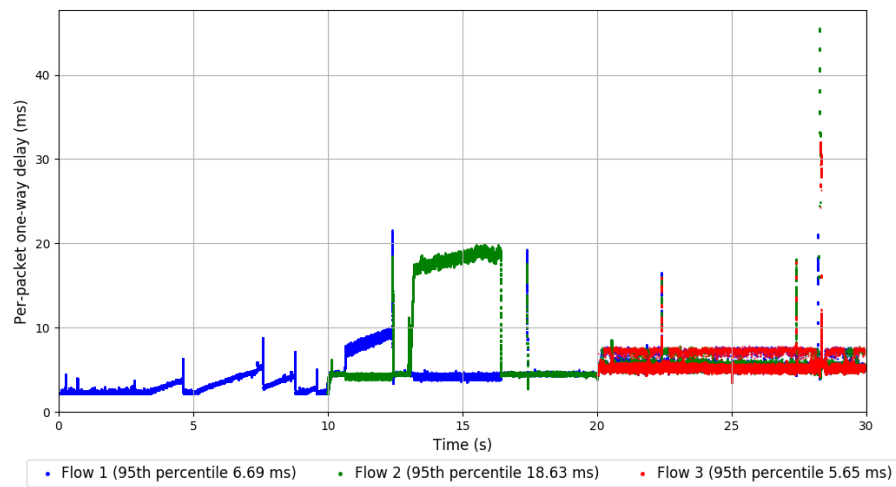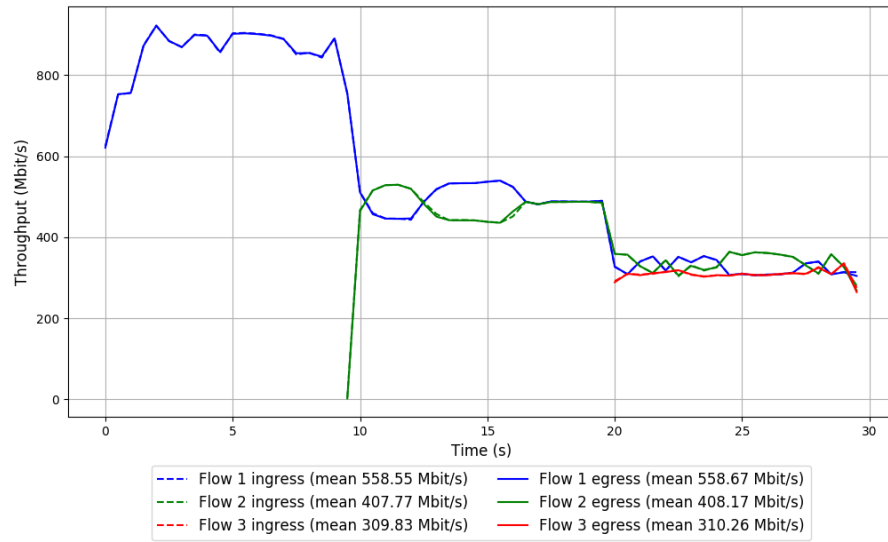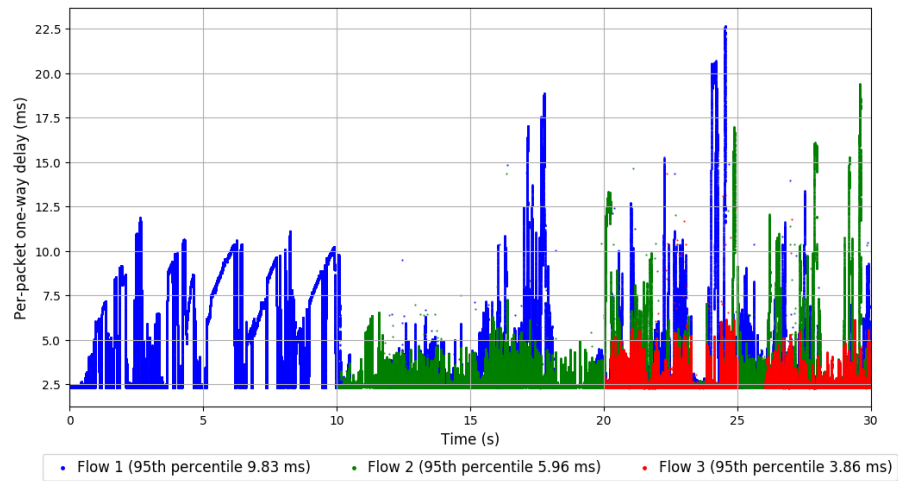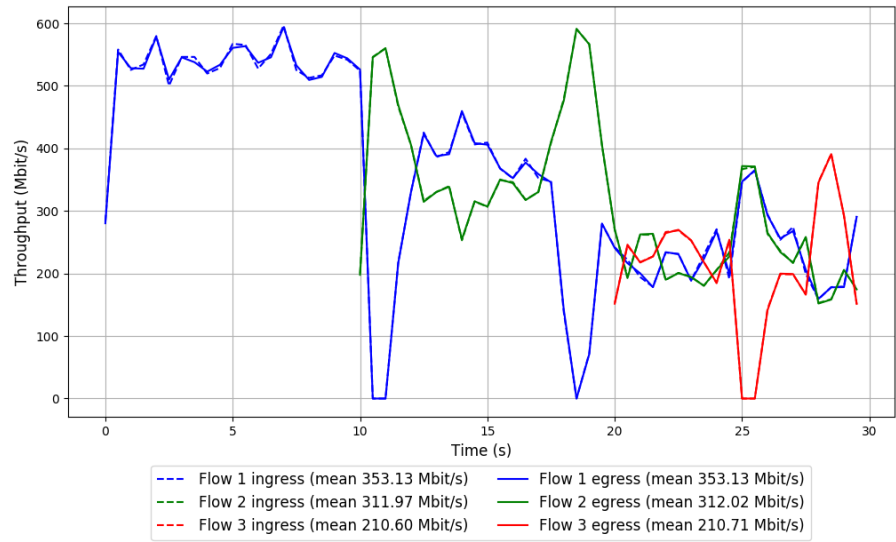
Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2017-10-12 06:12:59
End at: 2017-10-12 06:13:29
Local clock offset: -0.111 ms
Remote clock offset: 0.479 ms


# Below is generated by plot.py at 2017-10-12 11:05:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 915.11 Mbit/s
95th percentile per-packet one-way delay: 7.911 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 541.26 Mbit/s
95th percentile per-packet one-way delay: 13.071 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 399.94 Mbit/s
95th percentile per-packet one-way delay: 5.669 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 324.26 Mbit/s
95th percentile per-packet one-way delay: 5.717 ms
Loss rate: 0.15%
```

Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 541.23 Mbit/s)   Flow 1 egress (mean 541.26 Mbit/s)
Flow 2 ingress (mean 399.93 Mbit/s)   Flow 2 egress (mean 399.94 Mbit/s)
Flow 3 ingress (mean 324.32 Mbit/s)   Flow 3 egress (mean 324.26 Mbit/s)

Flow 1 (95th percentile 13.07 ms)   Flow 2 (95th percentile 5.67 ms)   Flow 3 (95th percentile 5.72 ms)

41

```
Run 10: Statistics of TCP Cubic

Start at: 2017-10-12 06:32:24
End at: 2017-10-12 06:32:54
Local clock offset: -0.335 ms
Remote clock offset: 0.123 ms


# Below is generated by plot.py at 2017-10-12 11:06:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 933.57 Mbit/s
95th percentile per-packet one-way delay: 16.904 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 558.67 Mbit/s
95th percentile per-packet one-way delay: 6.686 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 408.17 Mbit/s
95th percentile per-packet one-way delay: 18.630 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 310.26 Mbit/s
95th percentile per-packet one-way delay: 5.650 ms
Loss rate: 0.23%
```
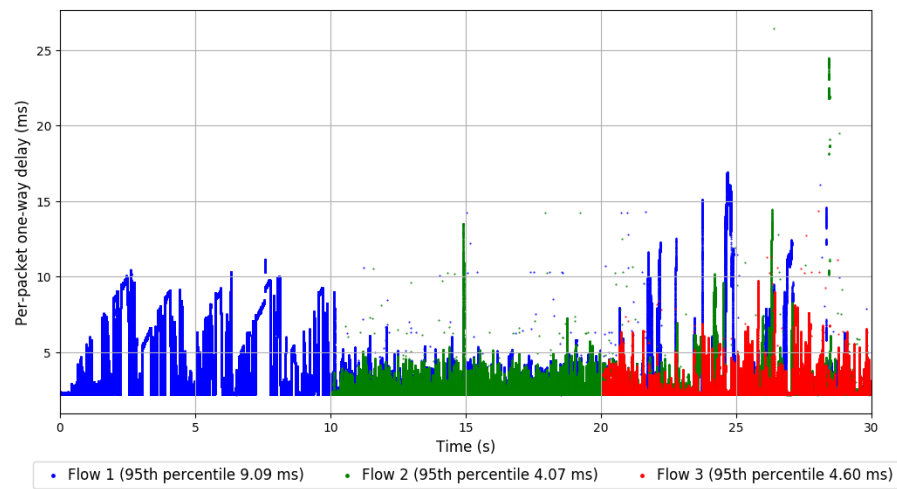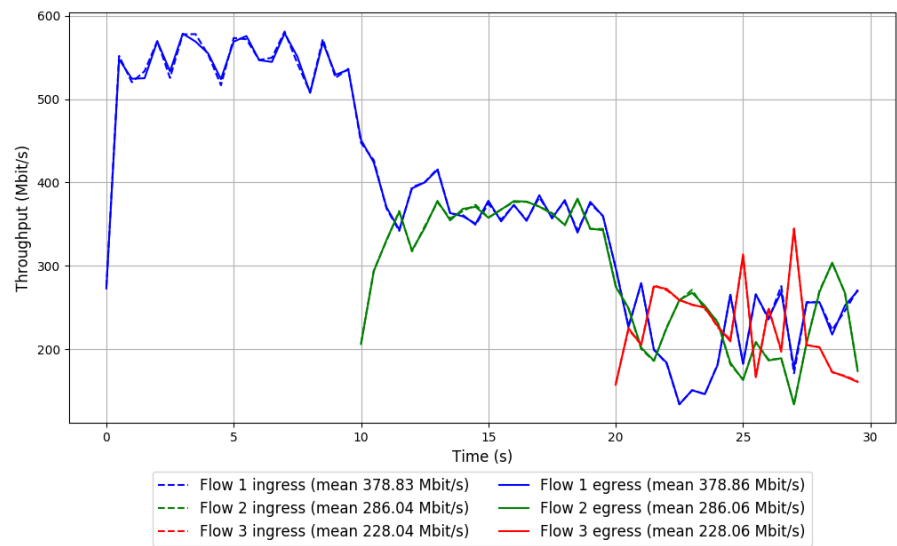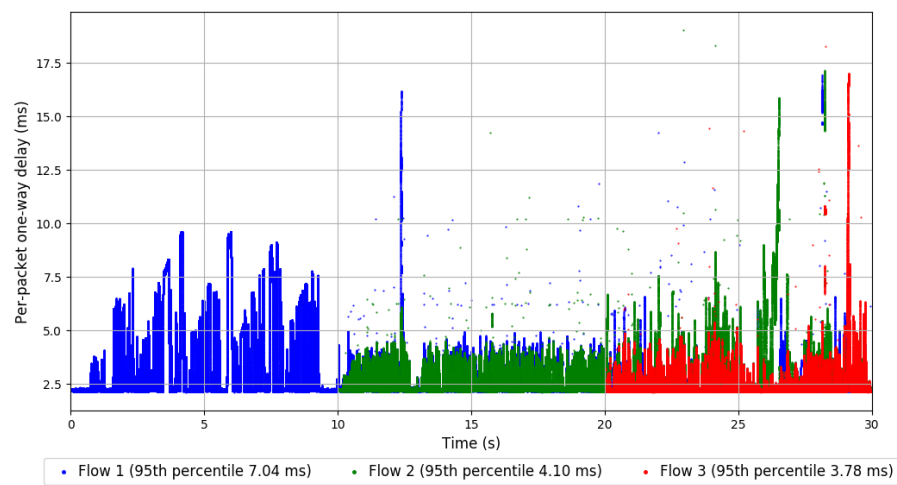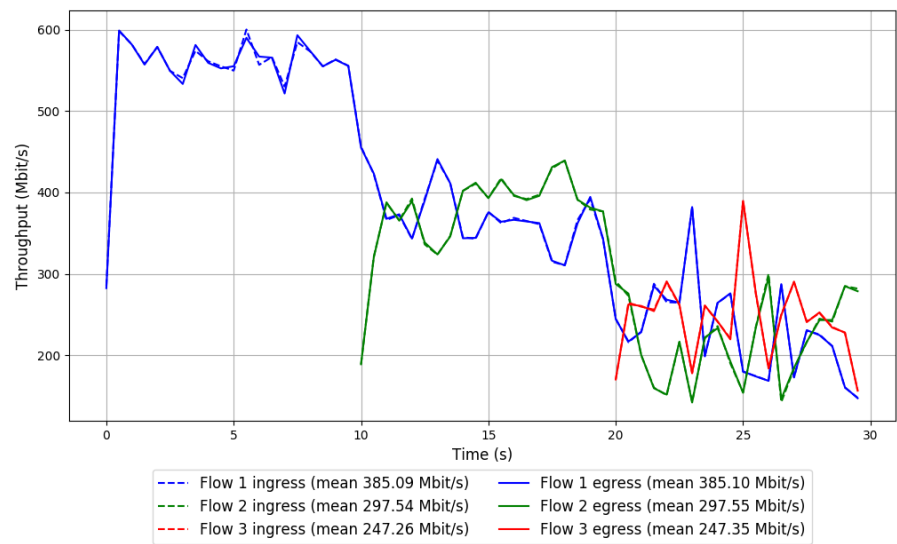
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 558.55 Mbit/s) --- Flow 1 egress (mean 558.67 Mbit/s)
Flow 2 ingress (mean 407.77 Mbit/s) --- Flow 2 egress (mean 408.17 Mbit/s)
Flow 3 ingress (mean 309.83 Mbit/s) --- Flow 3 egress (mean 310.26 Mbit/s)

Flow 1 (95th percentile 6.69 ms)   Flow 2 (95th percentile 18.63 ms)   Flow 3 (95th percentile 5.65 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2017-10-12 03:39:02
End at: 2017-10-12 03:39:32
Local clock offset: -0.221 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2017-10-12 11:06:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 630.49 Mbit/s
95th percentile per-packet one-way delay: 9.492 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 353.13 Mbit/s
95th percentile per-packet one-way delay: 9.826 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 312.02 Mbit/s
95th percentile per-packet one-way delay: 5.957 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 210.71 Mbit/s
95th percentile per-packet one-way delay: 3.864 ms
Loss rate: 0.02%
```
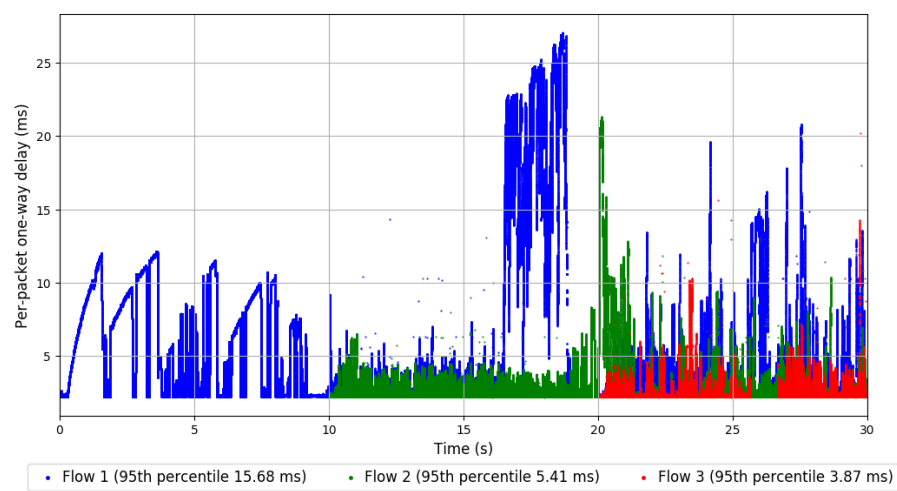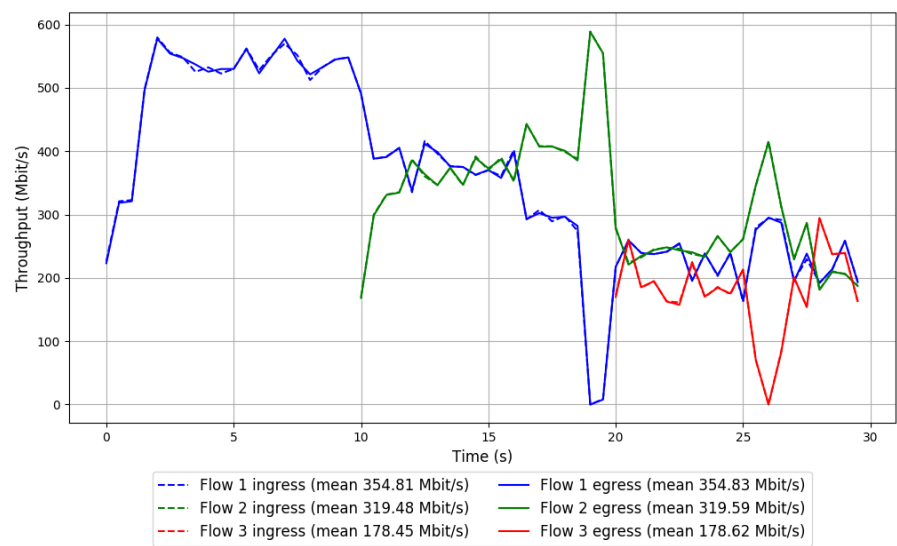
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2017-10-12 03:58:24
End at: 2017-10-12 03:58:54
Local clock offset: -0.221 ms
Remote clock offset: 0.331 ms

# Below is generated by plot.py at 2017-10-12 11:06:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 644.73 Mbit/s
95th percentile per-packet one-way delay: 8.519 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 378.86 Mbit/s
95th percentile per-packet one-way delay: 9.089 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 286.06 Mbit/s
95th percentile per-packet one-way delay: 4.074 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 228.06 Mbit/s
95th percentile per-packet one-way delay: 4.604 ms
Loss rate: 0.04%
```
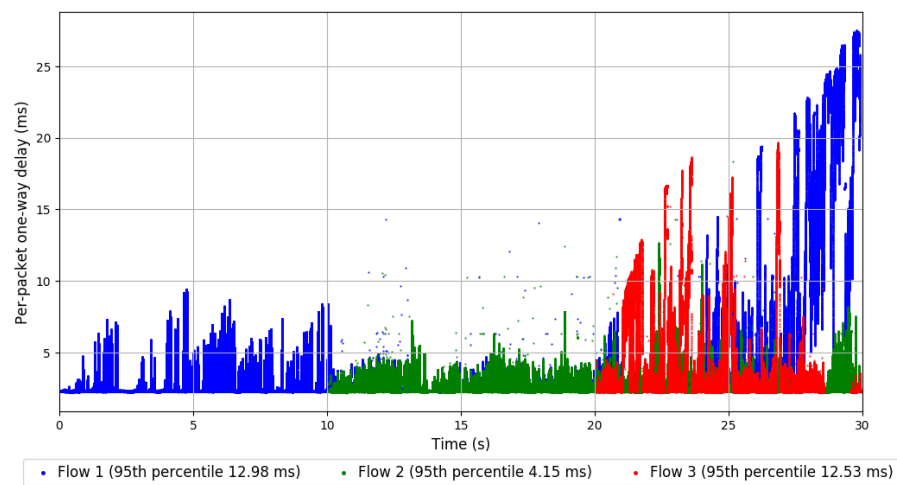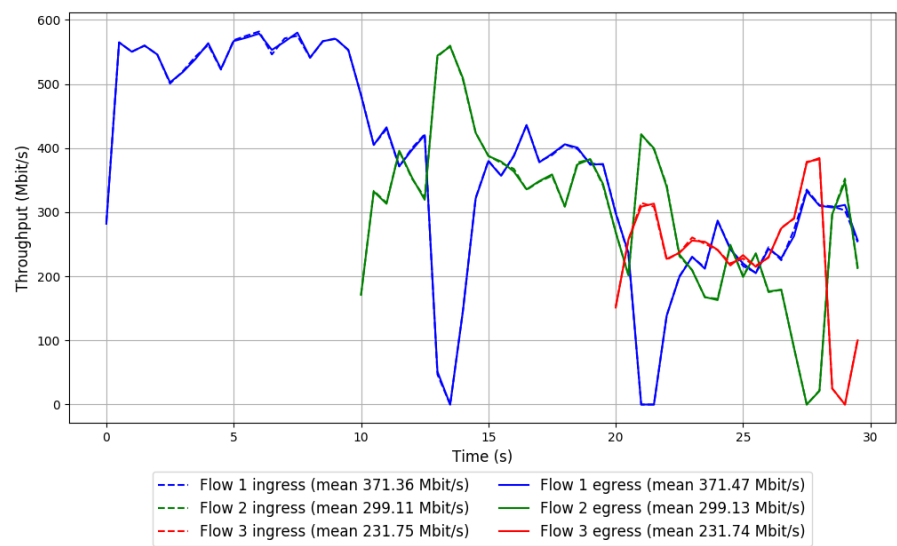
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 378.83 Mbit/s) ---- Flow 1 egress (mean 378.86 Mbit/s) ——
Flow 2 ingress (mean 286.04 Mbit/s) ---- Flow 2 egress (mean 286.06 Mbit/s) ——
Flow 3 ingress (mean 228.04 Mbit/s) ---- Flow 3 egress (mean 228.06 Mbit/s) ——

• Flow 1 (95th percentile 9.09 ms)   • Flow 2 (95th percentile 4.07 ms)   • Flow 3 (95th percentile 4.60 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2017-10-12 04:17:55
End at: 2017-10-12 04:18:25
Local clock offset: -0.152 ms
Remote clock offset: 0.706 ms

# Below is generated by plot.py at 2017-10-12 11:06:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 664.96 Mbit/s
95th percentile per-packet one-way delay: 6.194 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 385.10 Mbit/s
95th percentile per-packet one-way delay: 7.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 297.55 Mbit/s
95th percentile per-packet one-way delay: 4.104 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 247.35 Mbit/s
95th percentile per-packet one-way delay: 3.782 ms
Loss rate: 0.02%
```
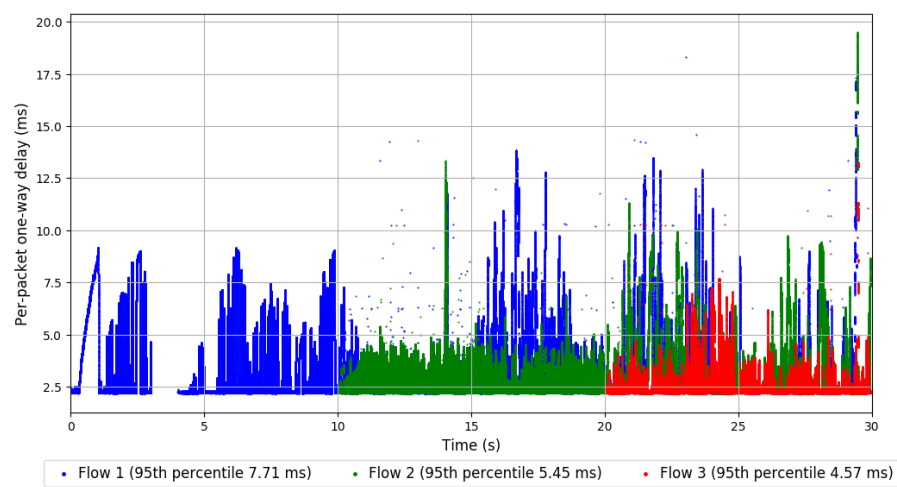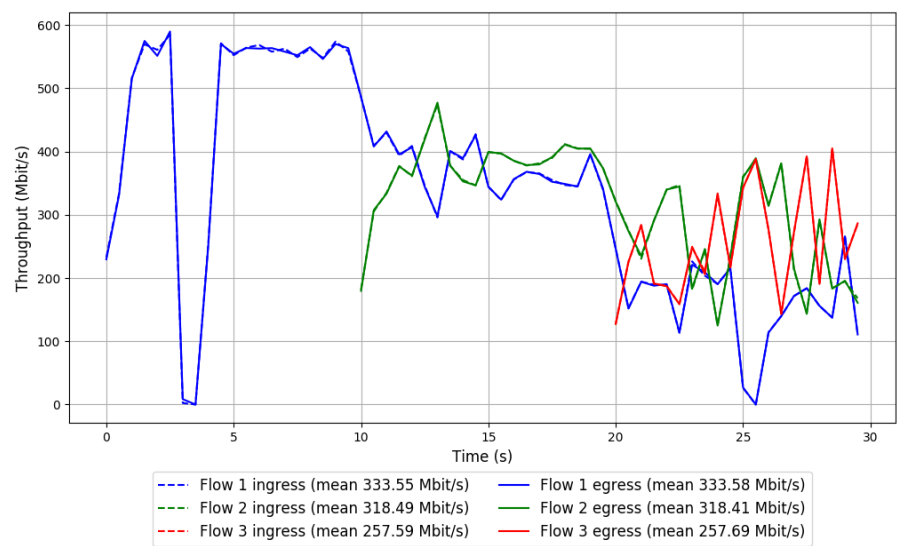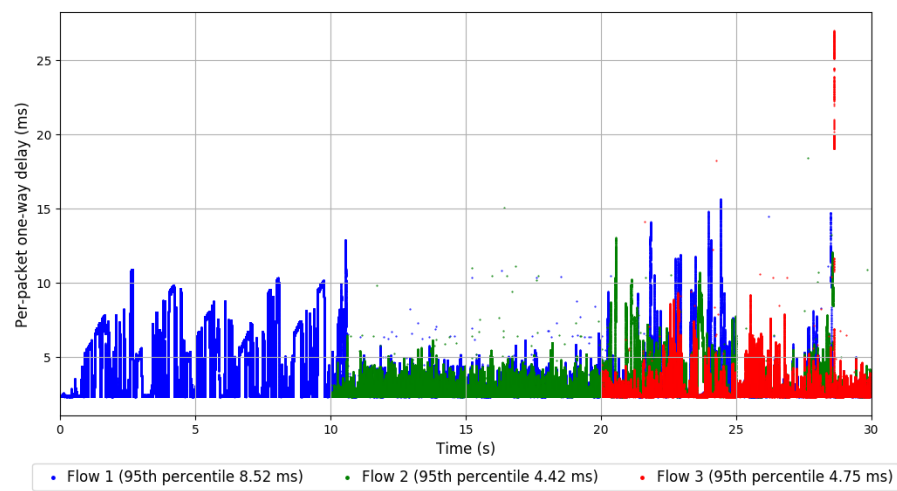
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 385.09 Mbit/s) ---- Flow 1 egress (mean 385.10 Mbit/s) ——
Flow 2 ingress (mean 297.54 Mbit/s) ---- Flow 2 egress (mean 297.55 Mbit/s) ——
Flow 3 ingress (mean 247.26 Mbit/s) ---- Flow 3 egress (mean 247.35 Mbit/s) ——

Flow 1 (95th percentile 7.04 ms)   Flow 2 (95th percentile 4.10 ms)   Flow 3 (95th percentile 3.78 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2017-10-12 04:37:25
End at: 2017-10-12 04:37:55
Local clock offset: -0.081 ms
Remote clock offset: 0.866 ms


# Below is generated by plot.py at 2017-10-12 11:06:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 626.61 Mbit/s
95th percentile per-packet one-way delay: 11.736 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 354.83 Mbit/s
95th percentile per-packet one-way delay: 15.675 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 319.59 Mbit/s
95th percentile per-packet one-way delay: 5.407 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 178.62 Mbit/s
95th percentile per-packet one-way delay: 3.874 ms
Loss rate: 0.00%
```
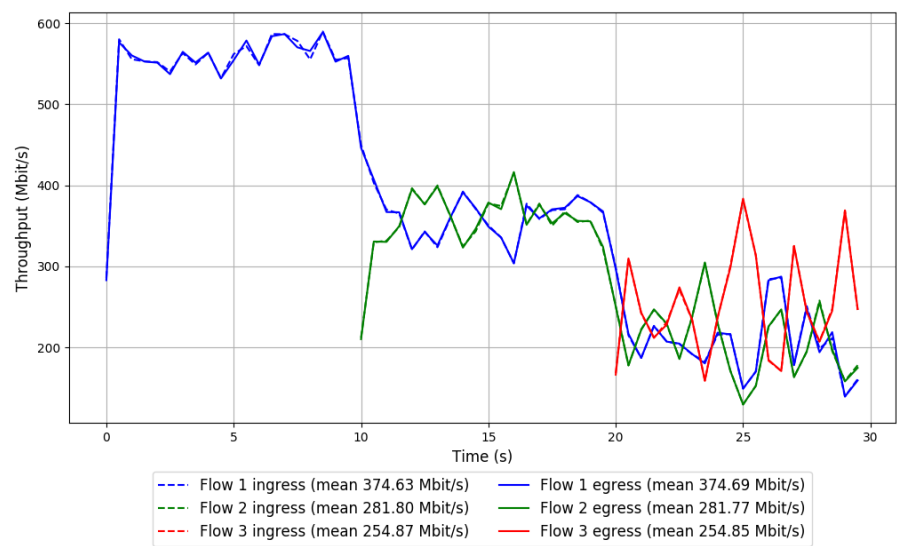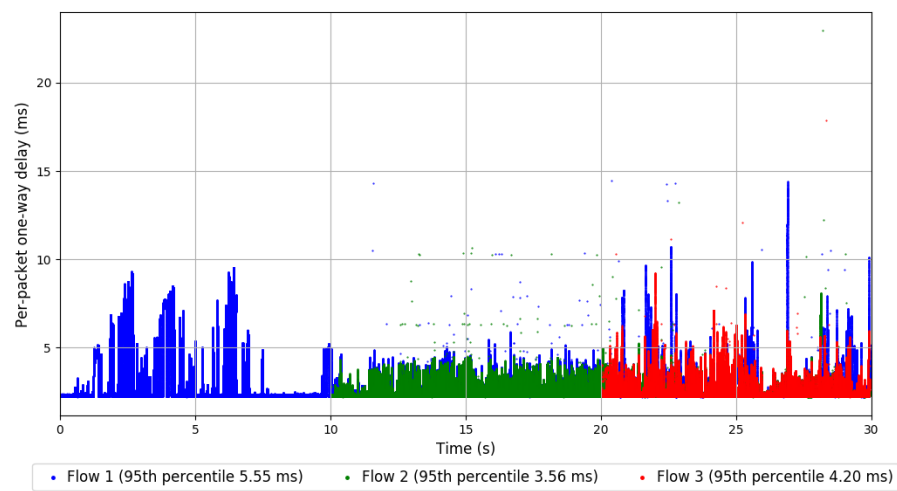
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2017-10-12 04:56:58
End at: 2017-10-12 04:57:28
Local clock offset: -0.104 ms
Remote clock offset: 0.879 ms


# Below is generated by plot.py at 2017-10-12 11:11:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 647.15 Mbit/s
95th percentile per-packet one-way delay: 9.229 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 371.47 Mbit/s
95th percentile per-packet one-way delay: 12.983 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 299.13 Mbit/s
95th percentile per-packet one-way delay: 4.154 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 231.74 Mbit/s
95th percentile per-packet one-way delay: 12.531 ms
Loss rate: 0.05%
```
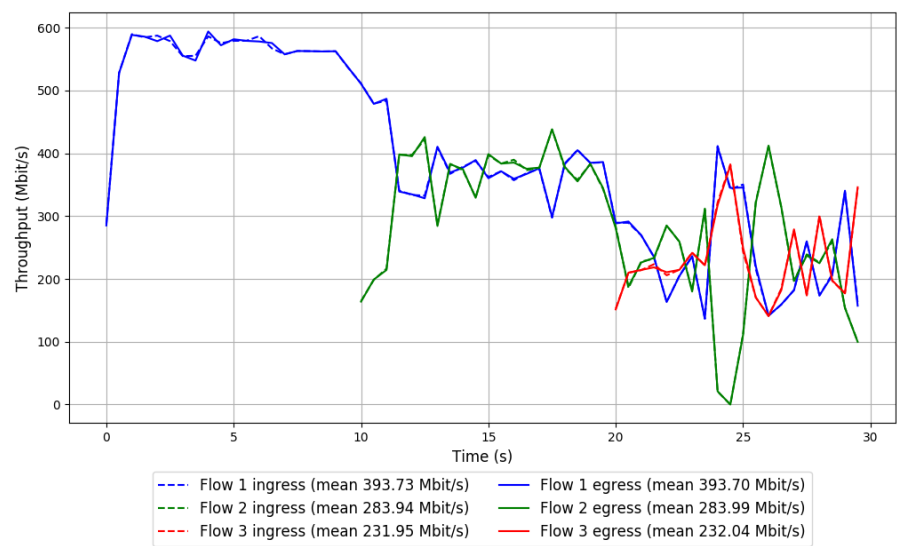
Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2017-10-12 05:16:31
End at: 2017-10-12 05:17:01
Local clock offset: -0.103 ms
Remote clock offset: 0.946 ms

# Below is generated by plot.py at 2017-10-12 11:11:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 630.71 Mbit/s
95th percentile per-packet one-way delay: 6.856 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 333.58 Mbit/s
95th percentile per-packet one-way delay: 7.712 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 318.41 Mbit/s
95th percentile per-packet one-way delay: 5.450 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 257.69 Mbit/s
95th percentile per-packet one-way delay: 4.571 ms
Loss rate: 0.02%
```
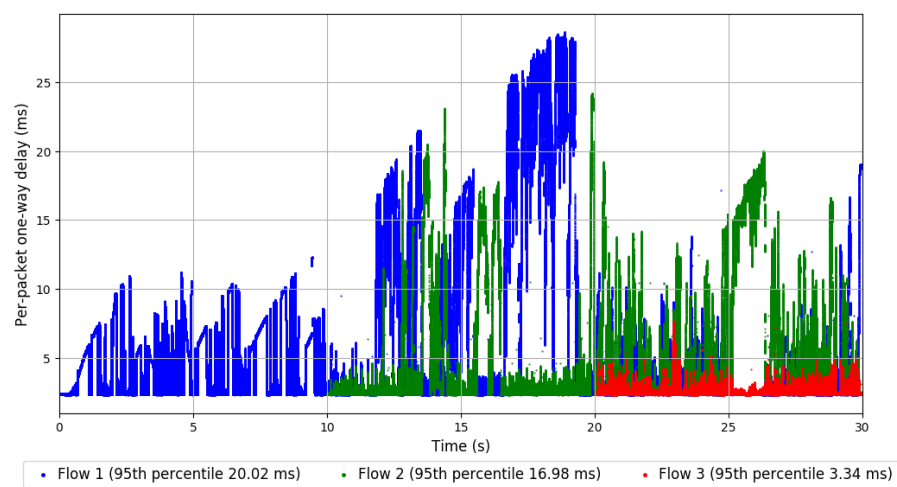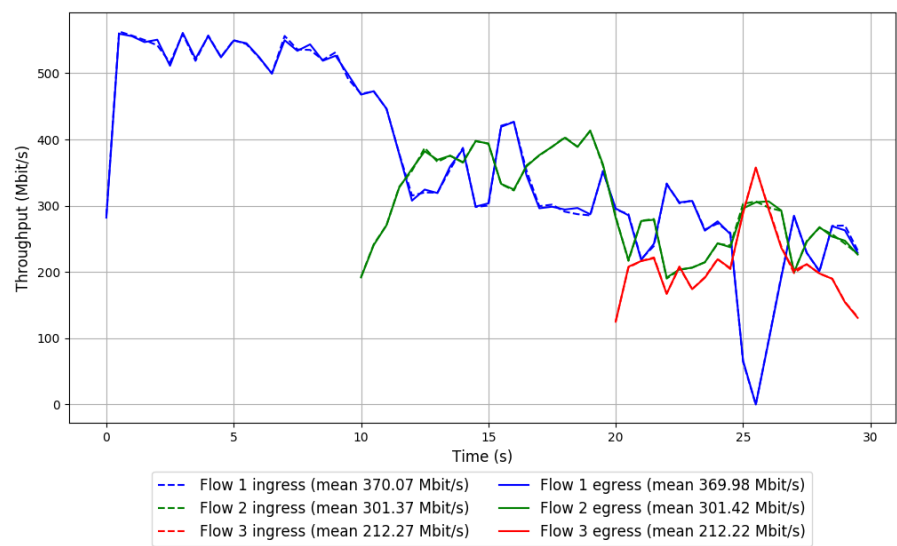
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 333.55 Mbit/s) — Flow 1 egress (mean 333.58 Mbit/s)
Flow 2 ingress (mean 318.49 Mbit/s) — Flow 2 egress (mean 318.41 Mbit/s)
Flow 3 ingress (mean 257.59 Mbit/s) — Flow 3 egress (mean 257.69 Mbit/s)

Flow 1 (95th percentile 7.71 ms) • Flow 2 (95th percentile 5.45 ms) • Flow 3 (95th percentile 4.57 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2017-10-12 05:35:57
End at: 2017-10-12 05:36:27
Local clock offset: -0.038 ms
Remote clock offset: 0.909 ms


# Below is generated by plot.py at 2017-10-12 11:12:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 646.56 Mbit/s
95th percentile per-packet one-way delay: 7.415 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 374.69 Mbit/s
95th percentile per-packet one-way delay: 8.521 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 281.77 Mbit/s
95th percentile per-packet one-way delay: 4.417 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 254.85 Mbit/s
95th percentile per-packet one-way delay: 4.752 ms
Loss rate: 0.06%
```
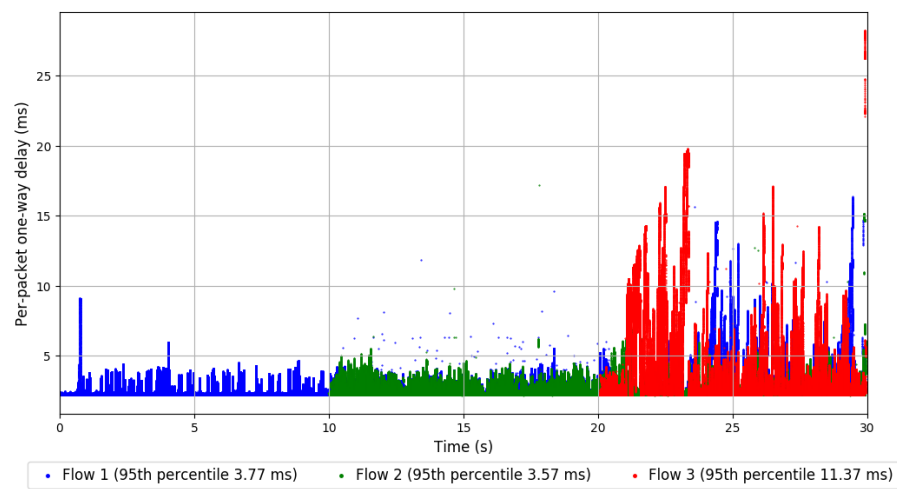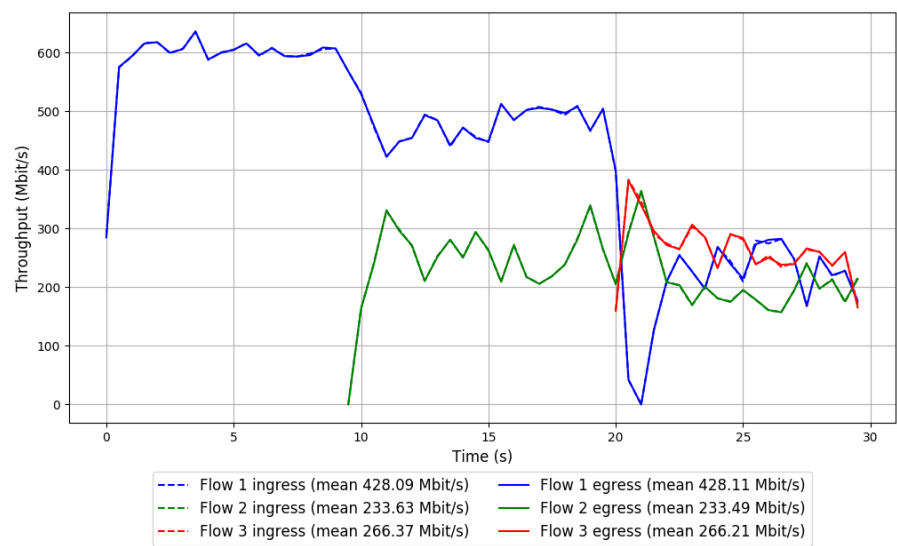
Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2017-10-12 05:55:14
End at: 2017-10-12 05:55:44
Local clock offset: -0.056 ms
Remote clock offset: 0.767 ms


# Below is generated by plot.py at 2017-10-12 11:12:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 659.44 Mbit/s
95th percentile per-packet one-way delay: 4.687 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 393.70 Mbit/s
95th percentile per-packet one-way delay: 5.553 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 283.99 Mbit/s
95th percentile per-packet one-way delay: 3.562 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 232.04 Mbit/s
95th percentile per-packet one-way delay: 4.200 ms
Loss rate: 0.00%
```
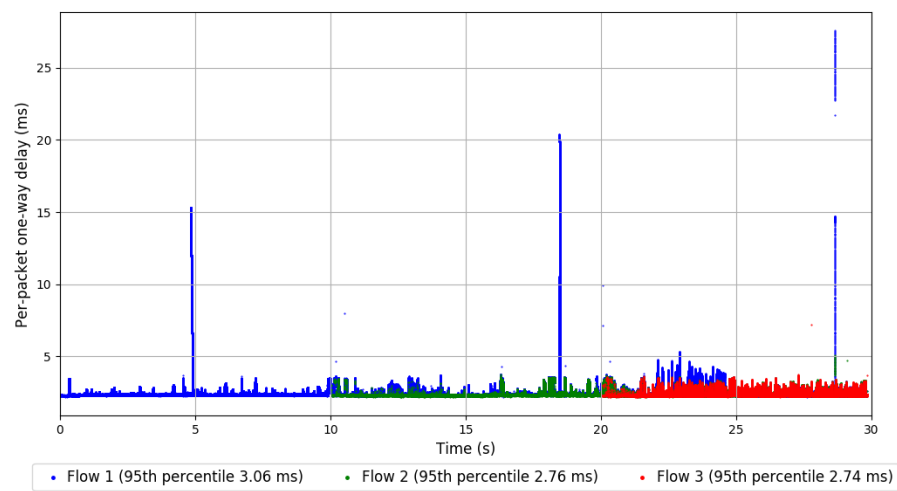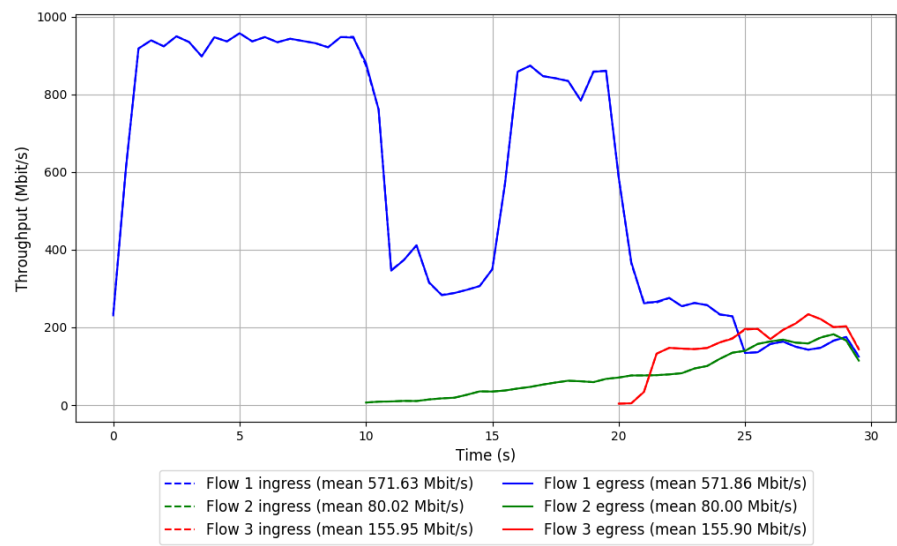
Run 8: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 393.73 Mbit/s) —— Flow 1 egress (mean 393.70 Mbit/s)
- - - Flow 2 ingress (mean 283.94 Mbit/s) —— Flow 2 egress (mean 283.99 Mbit/s)
- - - Flow 3 ingress (mean 231.95 Mbit/s) —— Flow 3 egress (mean 232.04 Mbit/s)

• Flow 1 (95th percentile 5.55 ms)   • Flow 2 (95th percentile 3.56 ms)   • Flow 3 (95th percentile 4.20 ms)

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```
Run 9: Statistics of LEDBAT

Start at: 2017-10-12 06:14:41
End at: 2017-10-12 06:15:11
Local clock offset: -0.113 ms
Remote clock offset: 0.399 ms

# Below is generated by plot.py at 2017-10-12 11:14:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 640.80 Mbit/s
95th percentile per-packet one-way delay: 17.543 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 369.98 Mbit/s
95th percentile per-packet one-way delay: 20.015 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 301.42 Mbit/s
95th percentile per-packet one-way delay: 16.983 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 212.22 Mbit/s
95th percentile per-packet one-way delay: 3.337 ms
Loss rate: 0.08%
```
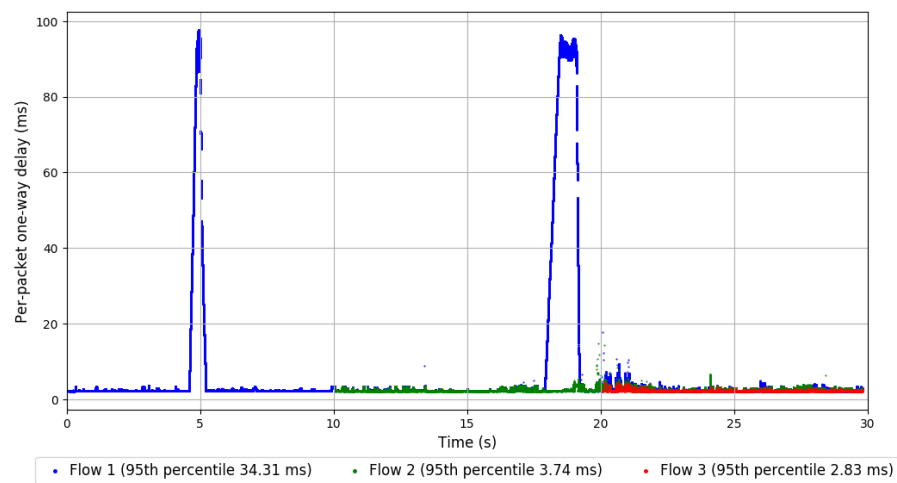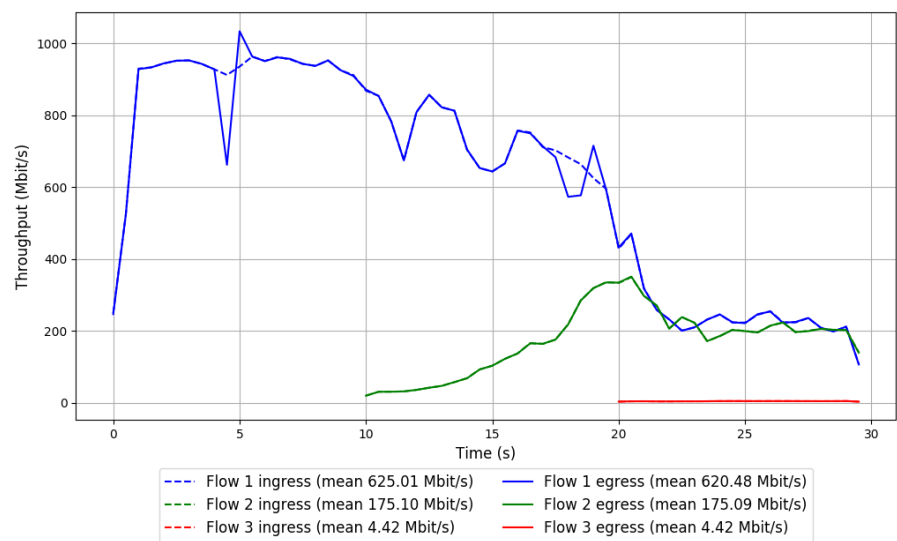
Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2017-10-12 06:34:06
End at: 2017-10-12 06:34:36
Local clock offset: -0.299 ms
Remote clock offset: 0.089 ms


# Below is generated by plot.py at 2017-10-12 11:15:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 671.73 Mbit/s
95th percentile per-packet one-way delay: 4.428 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 428.11 Mbit/s
95th percentile per-packet one-way delay: 3.766 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 233.49 Mbit/s
95th percentile per-packet one-way delay: 3.570 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 266.21 Mbit/s
95th percentile per-packet one-way delay: 11.373 ms
Loss rate: 0.10%
```
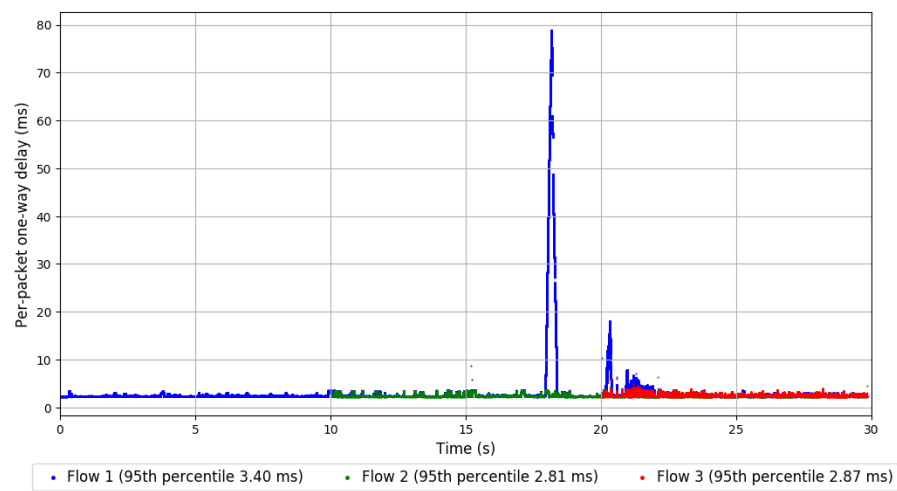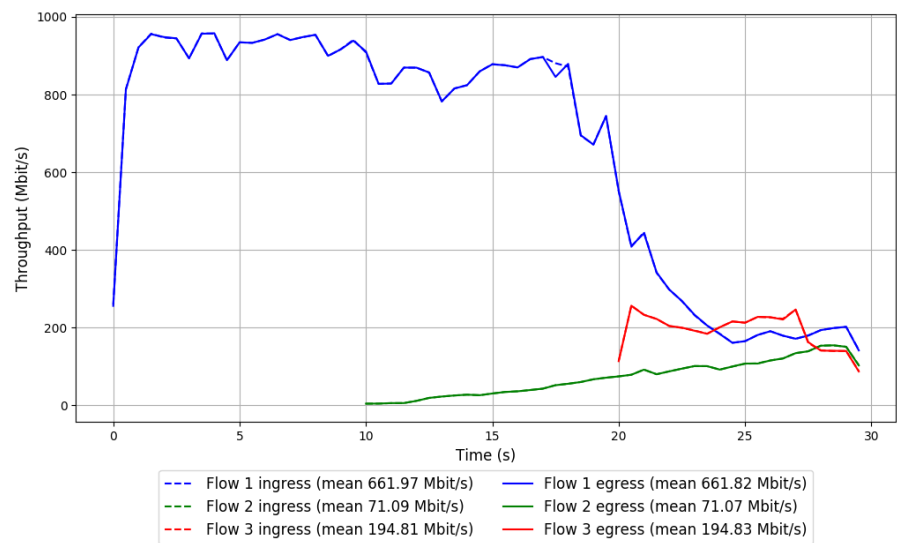
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2017-10-12 03:46:54
End at: 2017-10-12 03:47:24
Local clock offset: -0.168 ms
Remote clock offset: 0.165 ms


# Below is generated by plot.py at 2017-10-12 11:15:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 676.17 Mbit/s
95th percentile per-packet one-way delay: 3.004 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 571.86 Mbit/s
95th percentile per-packet one-way delay: 3.063 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 80.00 Mbit/s
95th percentile per-packet one-way delay: 2.764 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 155.90 Mbit/s
95th percentile per-packet one-way delay: 2.741 ms
Loss rate: 0.07%
```
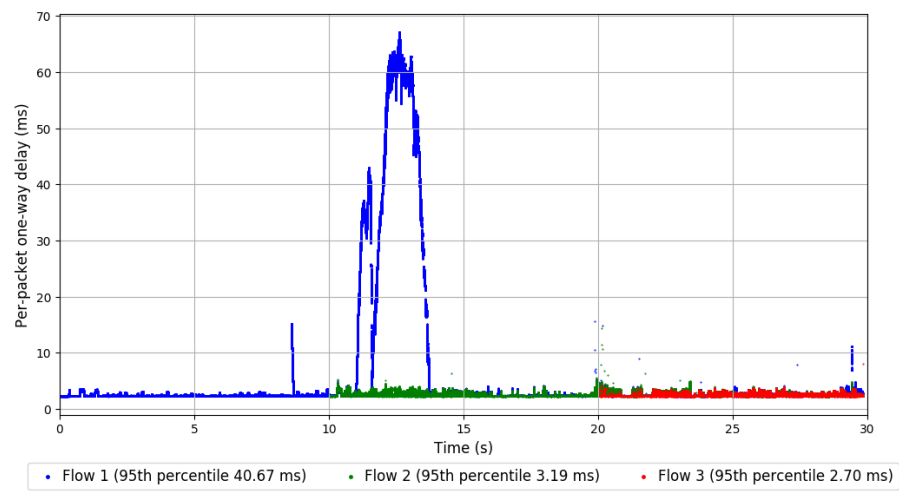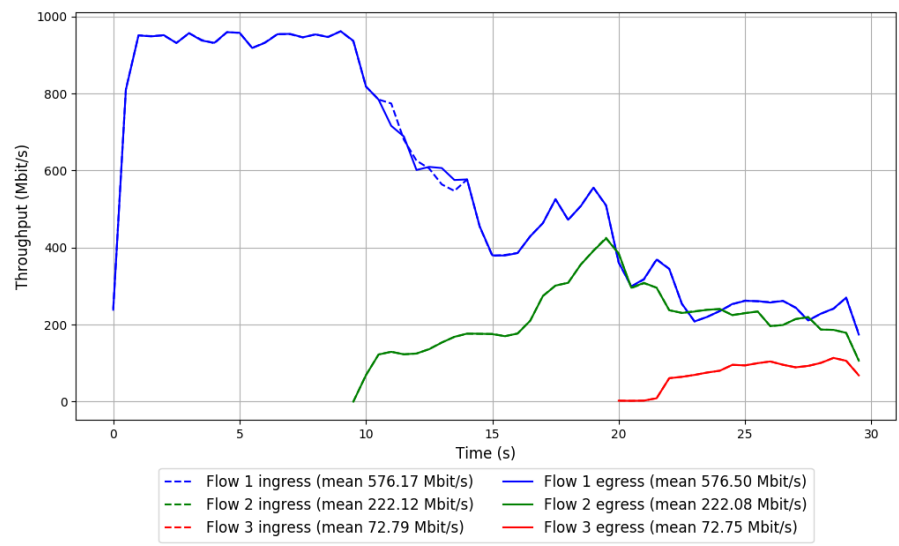
Run 1: Report of PCC — Data Link

```
Run 2: Statistics of PCC

Start at: 2017-10-12 04:06:13
End at: 2017-10-12 04:06:43
Local clock offset: -0.206 ms
Remote clock offset: 0.449 ms


# Below is generated by plot.py at 2017-10-12 11:17:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 738.20 Mbit/s
95th percentile per-packet one-way delay: 18.530 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 620.48 Mbit/s
95th percentile per-packet one-way delay: 34.306 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 175.09 Mbit/s
95th percentile per-packet one-way delay: 3.741 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 2.826 ms
Loss rate: 0.06%
```
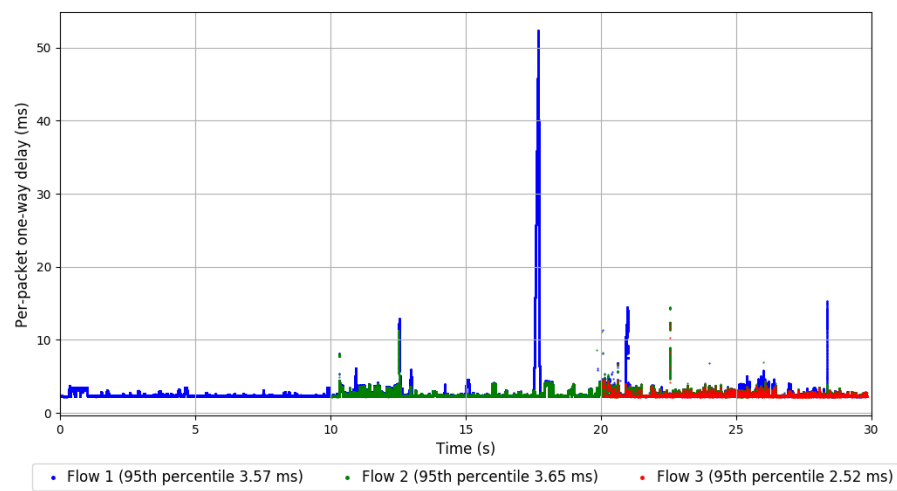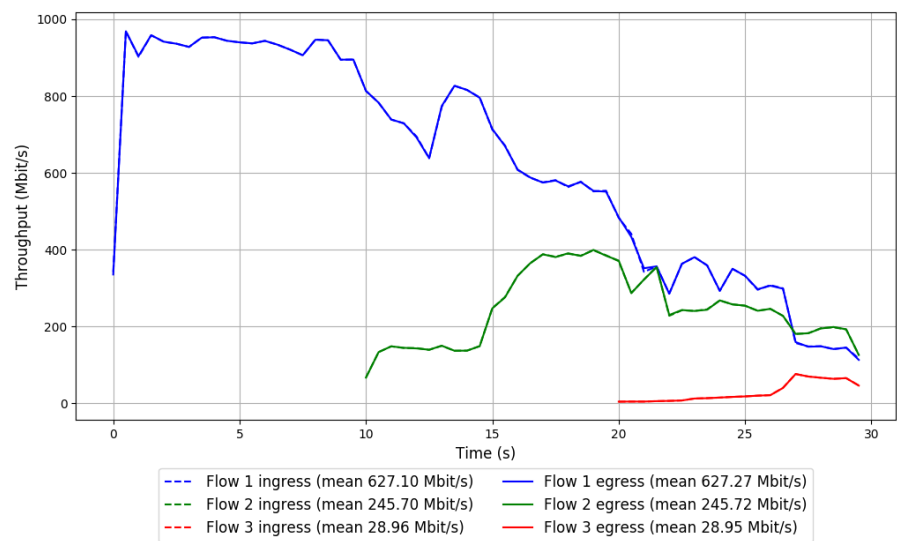
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 625.01 Mbit/s) -------- Flow 1 egress (mean 620.48 Mbit/s)
Flow 2 ingress (mean 175.10 Mbit/s) -------- Flow 2 egress (mean 175.09 Mbit/s)
Flow 3 ingress (mean 4.42 Mbit/s) -------- Flow 3 egress (mean 4.42 Mbit/s)

Flow 1 (95th percentile 34.31 ms)   Flow 2 (95th percentile 3.74 ms)   Flow 3 (95th percentile 2.83 ms)

```
Run 3: Statistics of PCC

Start at: 2017-10-12 04:25:43
End at: 2017-10-12 04:26:13
Local clock offset: -0.118 ms
Remote clock offset: 0.756 ms

# Below is generated by plot.py at 2017-10-12 11:23:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 773.07 Mbit/s
95th percentile per-packet one-way delay: 3.369 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 661.82 Mbit/s
95th percentile per-packet one-way delay: 3.398 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 71.07 Mbit/s
95th percentile per-packet one-way delay: 2.808 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 194.83 Mbit/s
95th percentile per-packet one-way delay: 2.873 ms
Loss rate: 0.03%
```
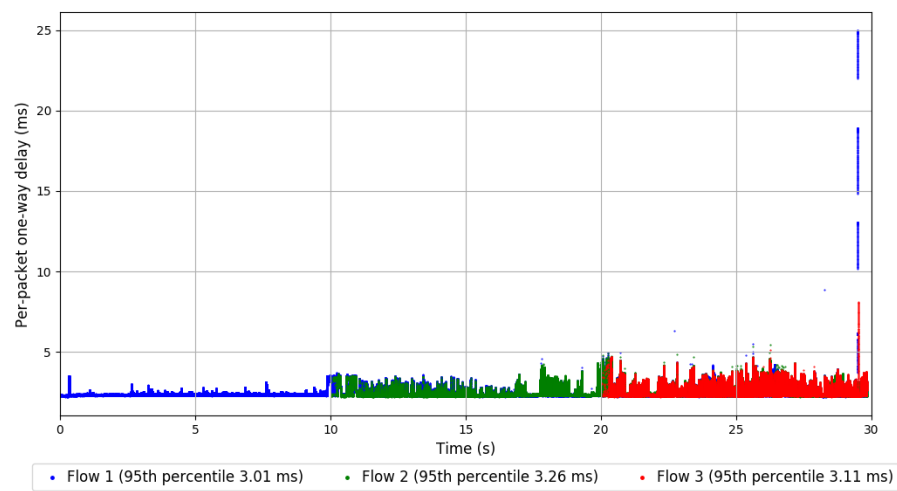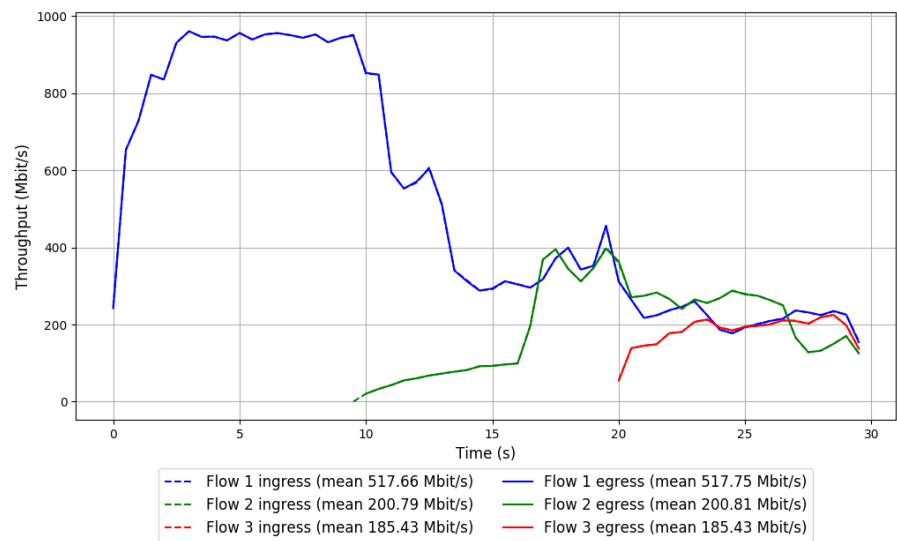
Run 3: Report of PCC — Data Link

- - - - Flow 1 ingress (mean 661.97 Mbit/s) —— Flow 1 egress (mean 661.82 Mbit/s)
- - - - Flow 2 ingress (mean 71.09 Mbit/s) —— Flow 2 egress (mean 71.07 Mbit/s)
- - - - Flow 3 ingress (mean 194.81 Mbit/s) —— Flow 3 egress (mean 194.83 Mbit/s)

• Flow 1 (95th percentile 3.40 ms)　　• Flow 2 (95th percentile 2.81 ms)　　• Flow 3 (95th percentile 2.87 ms)

```
Run 4: Statistics of PCC

Start at: 2017-10-12 04:45:15
End at: 2017-10-12 04:45:45
Local clock offset: -0.042 ms
Remote clock offset: 0.91 ms


# Below is generated by plot.py at 2017-10-12 11:23:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 747.91 Mbit/s
95th percentile per-packet one-way delay: 34.439 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 576.50 Mbit/s
95th percentile per-packet one-way delay: 40.674 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 222.08 Mbit/s
95th percentile per-packet one-way delay: 3.193 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 72.75 Mbit/s
95th percentile per-packet one-way delay: 2.701 ms
Loss rate: 0.07%
```
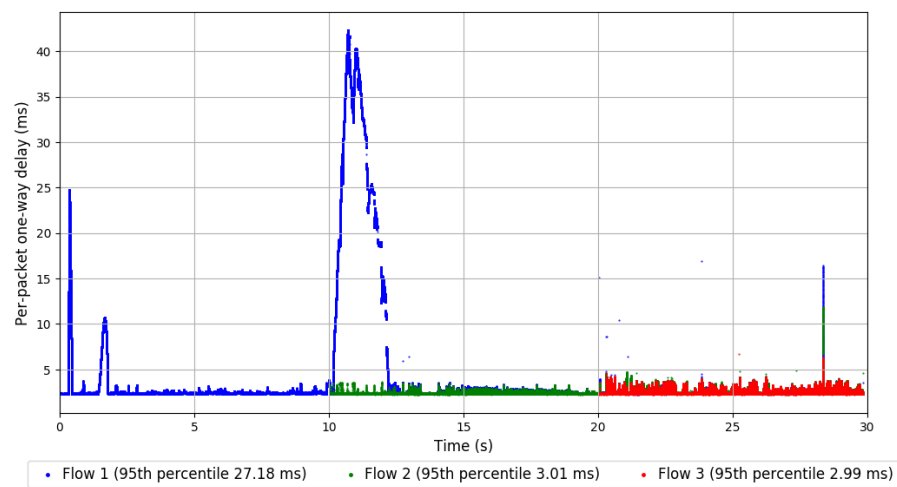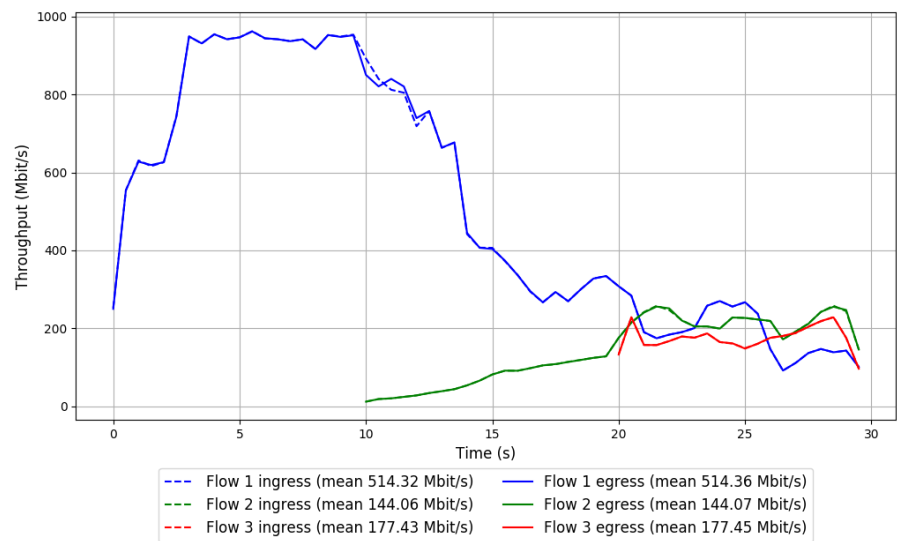
Run 4: Report of PCC — Data Link

```
Run 5: Statistics of PCC

Start at: 2017-10-12 05:04:47
End at: 2017-10-12 05:05:17
Local clock offset: -0.106 ms
Remote clock offset: 0.885 ms


# Below is generated by plot.py at 2017-10-12 11:25:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 799.95 Mbit/s
95th percentile per-packet one-way delay: 3.579 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 627.27 Mbit/s
95th percentile per-packet one-way delay: 3.573 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 245.72 Mbit/s
95th percentile per-packet one-way delay: 3.647 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.95 Mbit/s
95th percentile per-packet one-way delay: 2.520 ms
Loss rate: 0.10%
```
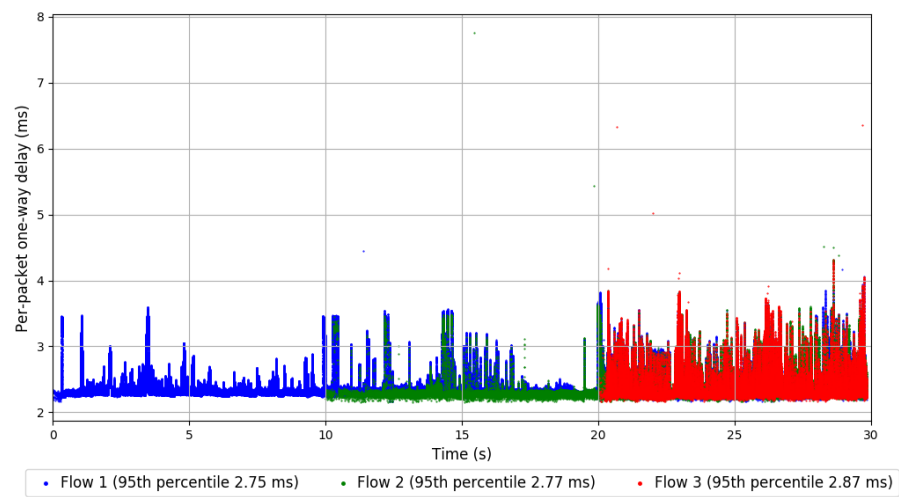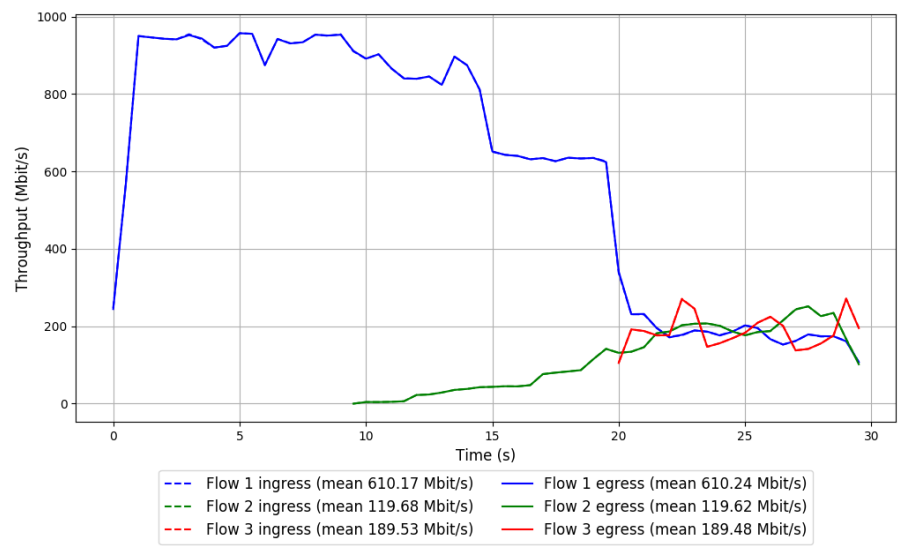
Run 5: Report of PCC — Data Link

```
Run 6: Statistics of PCC

Start at: 2017-10-12 05:24:21
End at: 2017-10-12 05:24:52
Local clock offset: -0.032 ms
Remote clock offset: 0.969 ms


# Below is generated by plot.py at 2017-10-12 11:25:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 712.16 Mbit/s
95th percentile per-packet one-way delay: 3.090 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 517.75 Mbit/s
95th percentile per-packet one-way delay: 3.009 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 200.81 Mbit/s
95th percentile per-packet one-way delay: 3.264 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 185.43 Mbit/s
95th percentile per-packet one-way delay: 3.112 ms
Loss rate: 0.08%
```
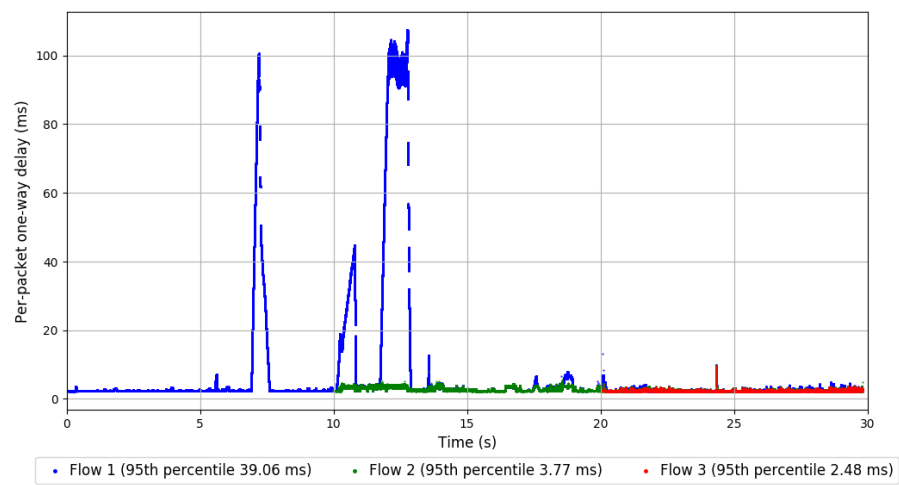
Run 6: Report of PCC — Data Link

```
Run 7: Statistics of PCC

Start at: 2017-10-12 05:43:48
End at: 2017-10-12 05:44:18
Local clock offset: -0.058 ms
Remote clock offset: 0.897 ms


# Below is generated by plot.py at 2017-10-12 11:25:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 668.45 Mbit/s
95th percentile per-packet one-way delay: 23.340 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 514.36 Mbit/s
95th percentile per-packet one-way delay: 27.182 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 144.07 Mbit/s
95th percentile per-packet one-way delay: 3.012 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 177.45 Mbit/s
95th percentile per-packet one-way delay: 2.991 ms
Loss rate: 0.03%
```
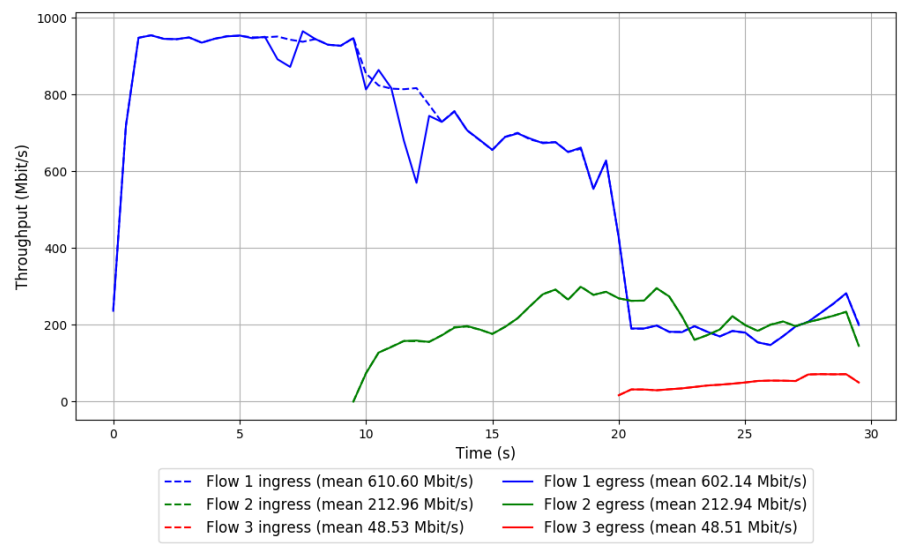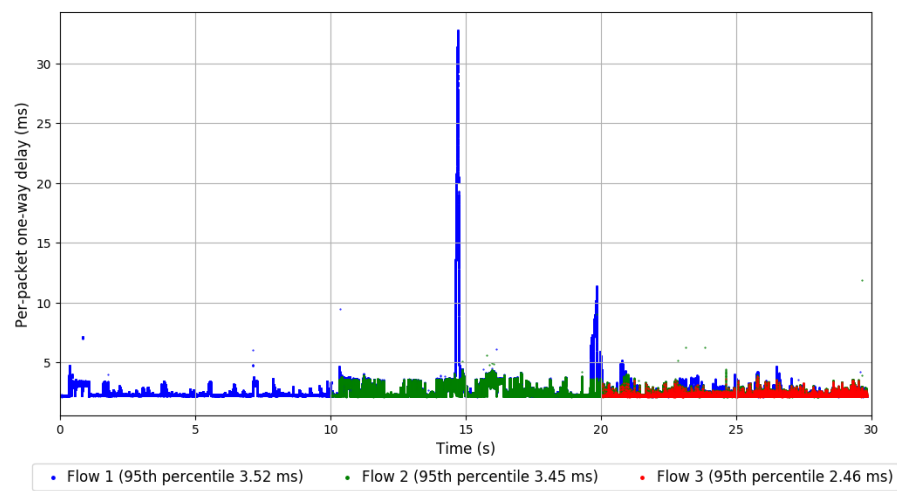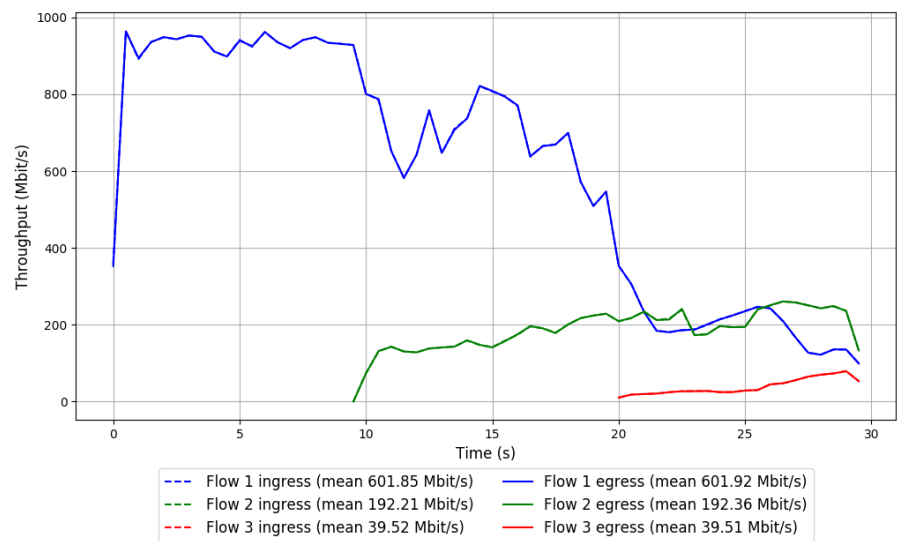
Run 7: Report of PCC — Data Link

Flow 1 ingress (mean 514.32 Mbit/s)   Flow 1 egress (mean 514.36 Mbit/s)
Flow 2 ingress (mean 144.06 Mbit/s)   Flow 2 egress (mean 144.07 Mbit/s)
Flow 3 ingress (mean 177.43 Mbit/s)   Flow 3 egress (mean 177.45 Mbit/s)

Flow 1 (95th percentile 27.18 ms)   Flow 2 (95th percentile 3.01 ms)   Flow 3 (95th percentile 2.99 ms)

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```
Run 8: Statistics of PCC

Start at: 2017-10-12 06:03:05
End at: 2017-10-12 06:03:35
Local clock offset: -0.061 ms
Remote clock offset: 0.635 ms


# Below is generated by plot.py at 2017-10-12 11:28:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 752.13 Mbit/s
95th percentile per-packet one-way delay: 2.768 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 610.24 Mbit/s
95th percentile per-packet one-way delay: 2.751 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.62 Mbit/s
95th percentile per-packet one-way delay: 2.768 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 189.48 Mbit/s
95th percentile per-packet one-way delay: 2.869 ms
Loss rate: 0.07%
```
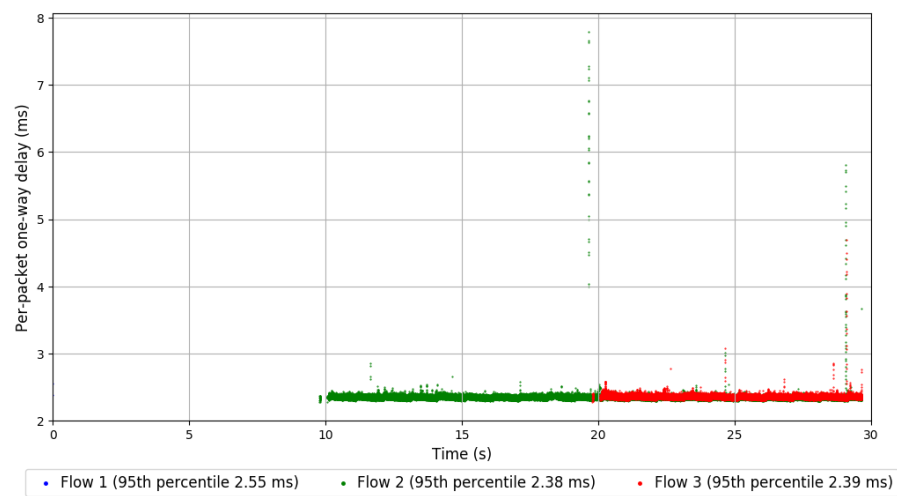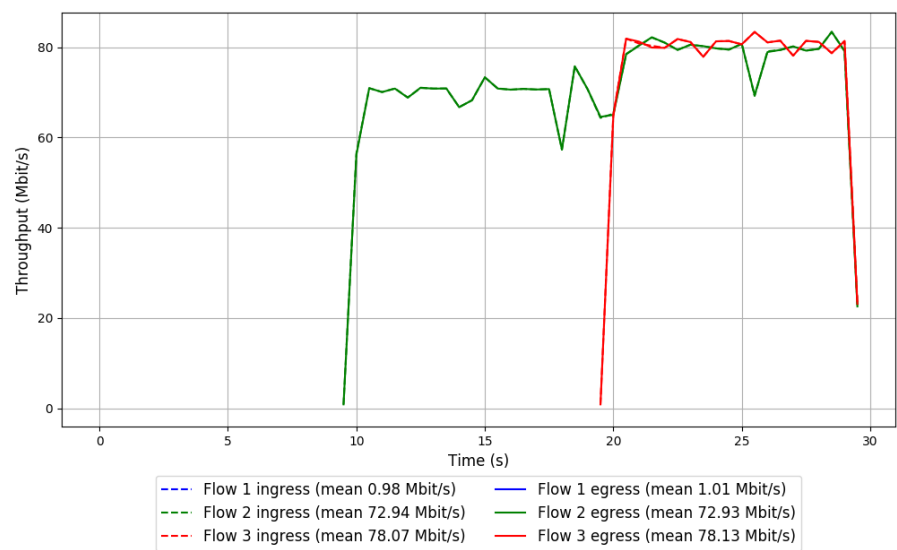
Run 8: Report of PCC — Data Link

Flow 1 ingress (mean 610.17 Mbit/s)
Flow 2 ingress (mean 119.68 Mbit/s)
Flow 3 ingress (mean 189.53 Mbit/s)
Flow 1 egress (mean 610.24 Mbit/s)
Flow 2 egress (mean 119.62 Mbit/s)
Flow 3 egress (mean 189.48 Mbit/s)

Flow 1 (95th percentile 2.75 ms)
Flow 2 (95th percentile 2.77 ms)
Flow 3 (95th percentile 2.87 ms)

```
Run 9: Statistics of PCC

Start at: 2017-10-12 06:22:31
End at: 2017-10-12 06:23:01
Local clock offset: -0.204 ms
Remote clock offset: 0.39 ms


# Below is generated by plot.py at 2017-10-12 11:28:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 759.74 Mbit/s
95th percentile per-packet one-way delay: 31.254 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 602.14 Mbit/s
95th percentile per-packet one-way delay: 39.057 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 212.94 Mbit/s
95th percentile per-packet one-way delay: 3.769 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 48.51 Mbit/s
95th percentile per-packet one-way delay: 2.477 ms
Loss rate: 0.07%
```
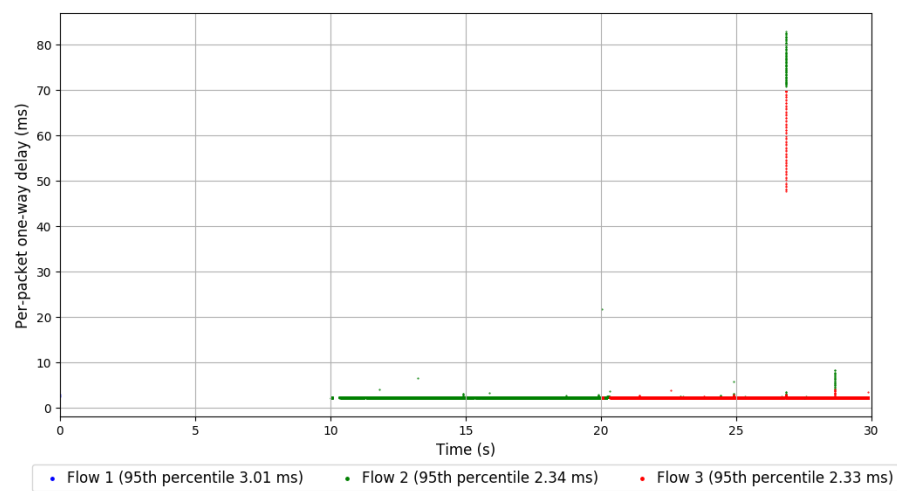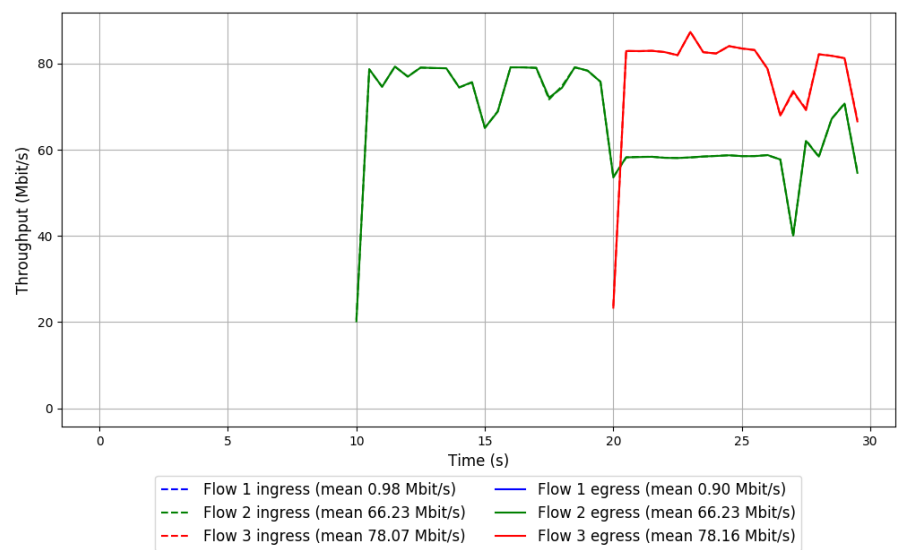
Run 9: Report of PCC — Data Link

- - - - Flow 1 ingress (mean 610.60 Mbit/s) ——— Flow 1 egress (mean 602.14 Mbit/s)
- - - - Flow 2 ingress (mean 212.96 Mbit/s) ——— Flow 2 egress (mean 212.94 Mbit/s)
- - - - Flow 3 ingress (mean 48.53 Mbit/s) ——— Flow 3 egress (mean 48.51 Mbit/s)

- Flow 1 (95th percentile 39.06 ms)   • Flow 2 (95th percentile 3.77 ms)   • Flow 3 (95th percentile 2.48 ms)

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```
Run 10: Statistics of PCC

Start at: 2017-10-12 06:41:55
End at: 2017-10-12 06:42:25
Local clock offset: -0.398 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 742.80 Mbit/s
95th percentile per-packet one-way delay: 3.508 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 601.92 Mbit/s
95th percentile per-packet one-way delay: 3.522 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.36 Mbit/s
95th percentile per-packet one-way delay: 3.449 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 2.457 ms
Loss rate: 0.08%
```
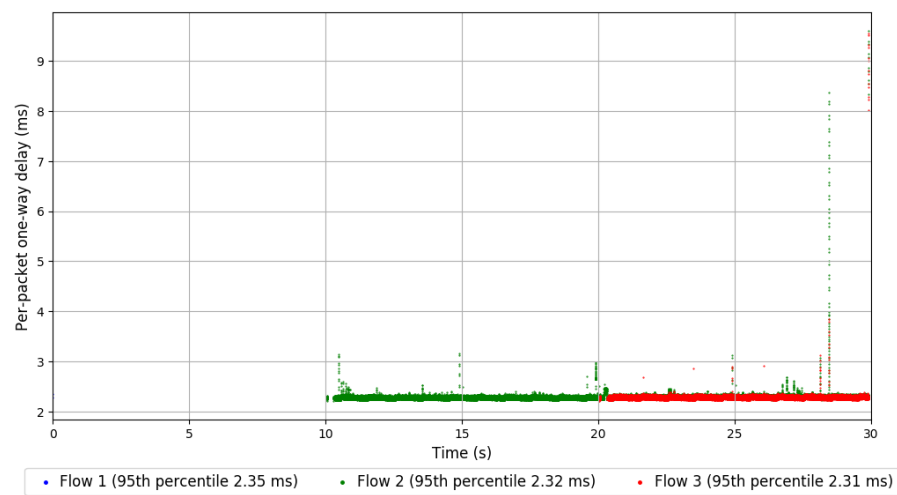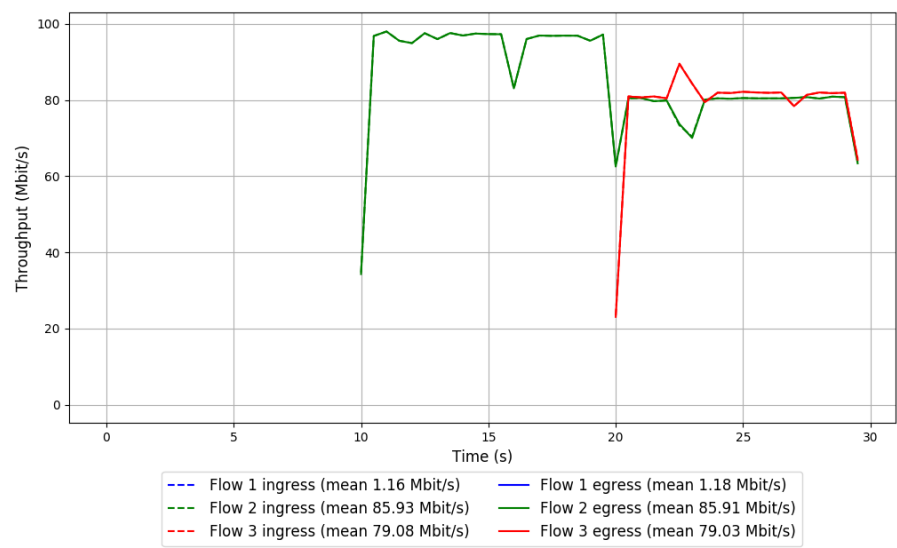
Run 10: Report of PCC — Data Link

Flow 1 ingress (mean 601.85 Mbit/s)   Flow 1 egress (mean 601.92 Mbit/s)
Flow 2 ingress (mean 192.21 Mbit/s)   Flow 2 egress (mean 192.36 Mbit/s)
Flow 3 ingress (mean 39.52 Mbit/s)   Flow 3 egress (mean 39.51 Mbit/s)

Flow 1 (95th percentile 3.52 ms)   Flow 2 (95th percentile 3.45 ms)   Flow 3 (95th percentile 2.46 ms)

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```
Run 1: Statistics of QUIC Cubic

Start at: 2017-10-12 03:36:12
End at: 2017-10-12 03:36:42
Local clock offset: -0.234 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.96 Mbit/s
95th percentile per-packet one-way delay: 2.384 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 2.552 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.93 Mbit/s
95th percentile per-packet one-way delay: 2.381 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 2.389 ms
Loss rate: 0.05%
```
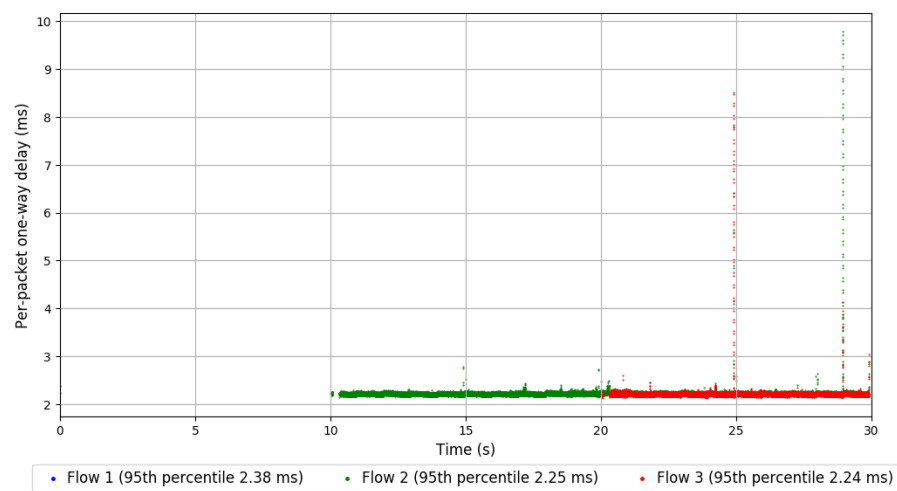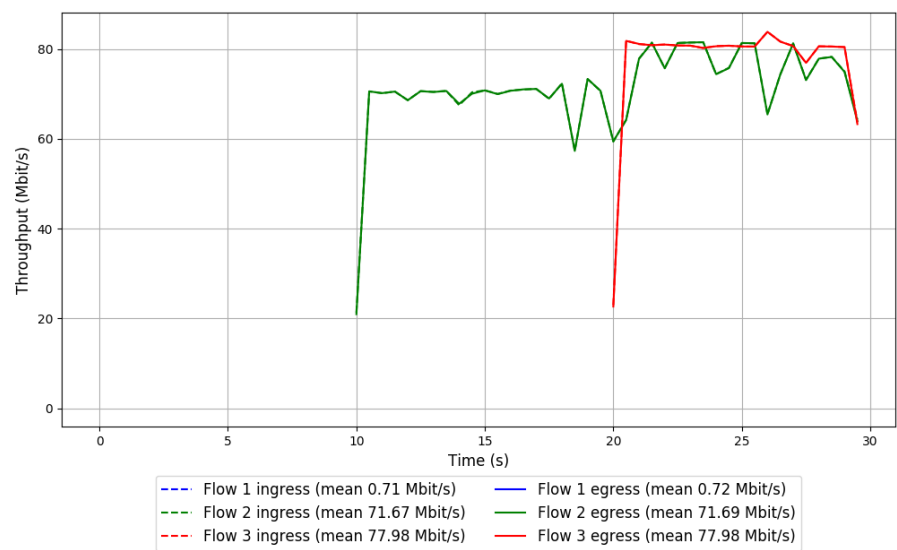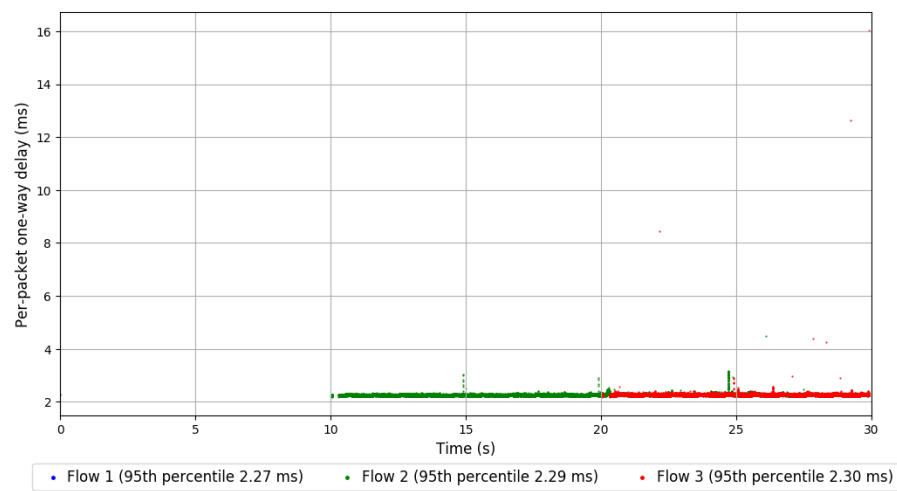
Run 1: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.98 Mbit/s)   Flow 1 egress (mean 1.01 Mbit/s)
Flow 2 ingress (mean 72.94 Mbit/s)   Flow 2 egress (mean 72.93 Mbit/s)
Flow 3 ingress (mean 78.07 Mbit/s)   Flow 3 egress (mean 78.13 Mbit/s)

Flow 1 (95th percentile 2.55 ms)   Flow 2 (95th percentile 2.38 ms)   Flow 3 (95th percentile 2.39 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-10-12 03:55:39
End at: 2017-10-12 03:56:09
Local clock offset: -0.185 ms
Remote clock offset: 0.28 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.84 Mbit/s
95th percentile per-packet one-way delay: 2.339 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 3.008 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.23 Mbit/s
95th percentile per-packet one-way delay: 2.342 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.16 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.05%
```
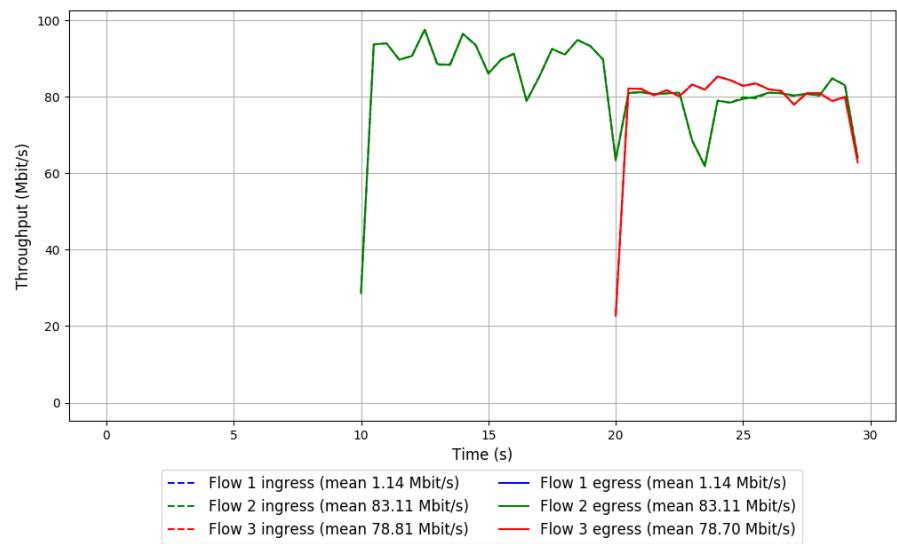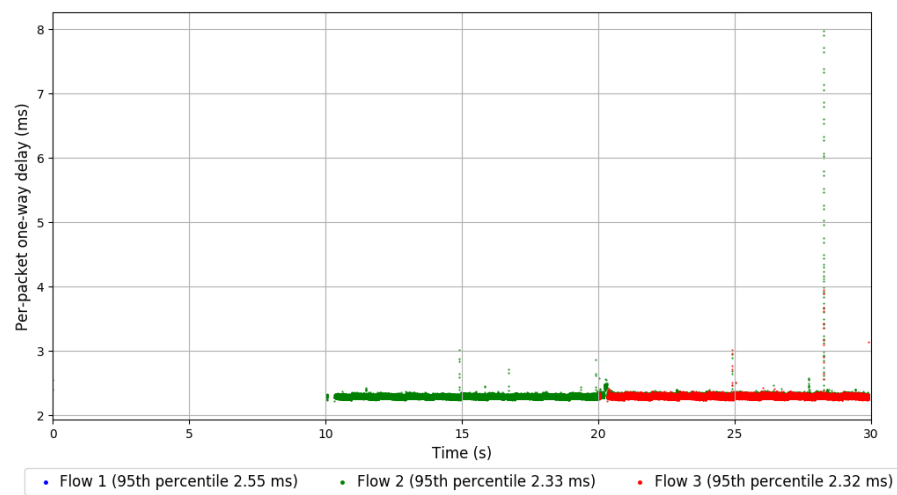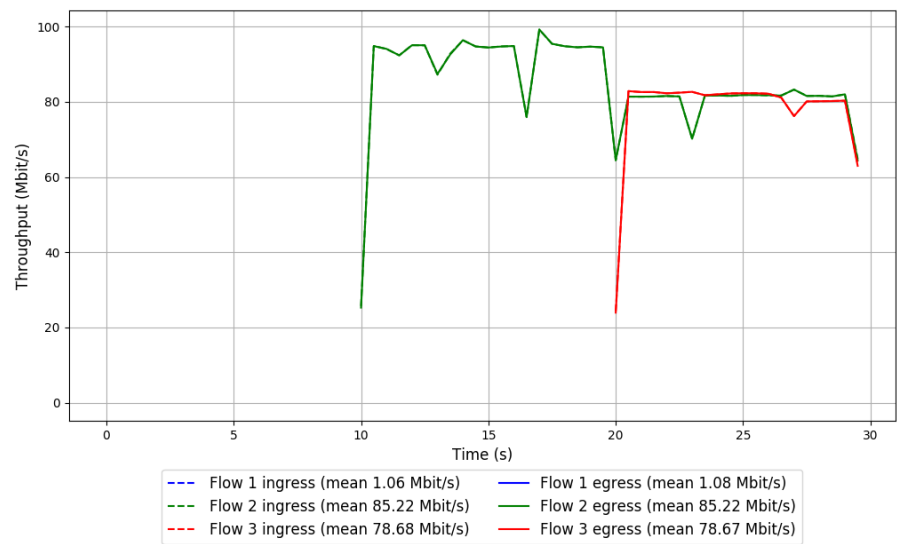
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.98 Mbit/s) --- Flow 1 egress (mean 0.90 Mbit/s)
Flow 2 ingress (mean 66.23 Mbit/s) --- Flow 2 egress (mean 66.23 Mbit/s)
Flow 3 ingress (mean 78.07 Mbit/s) --- Flow 3 egress (mean 78.16 Mbit/s)

Flow 1 (95th percentile 3.01 ms)   Flow 2 (95th percentile 2.34 ms)   Flow 3 (95th percentile 2.33 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2017-10-12 04:15:04
End at: 2017-10-12 04:15:34
Local clock offset: -0.139 ms
Remote clock offset: 0.591 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.23 Mbit/s
95th percentile per-packet one-way delay: 2.317 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 2.348 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 85.91 Mbit/s
95th percentile per-packet one-way delay: 2.318 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 79.03 Mbit/s
95th percentile per-packet one-way delay: 2.315 ms
Loss rate: 0.04%
```
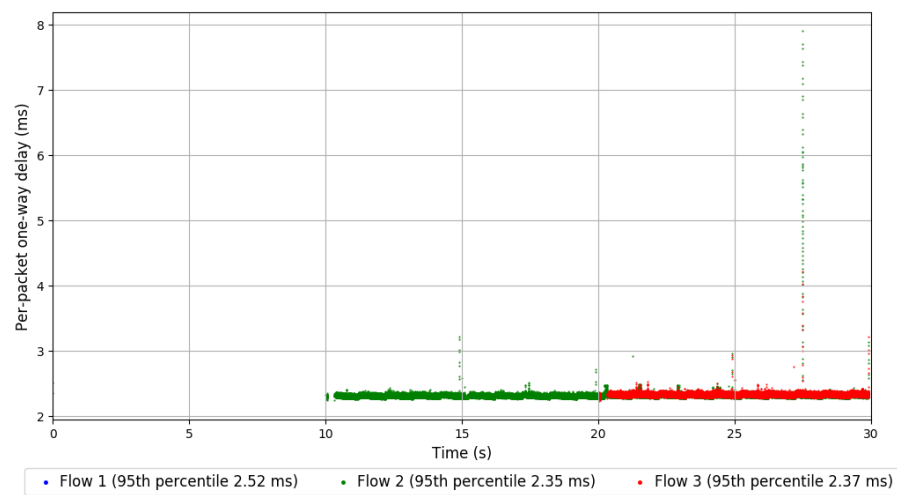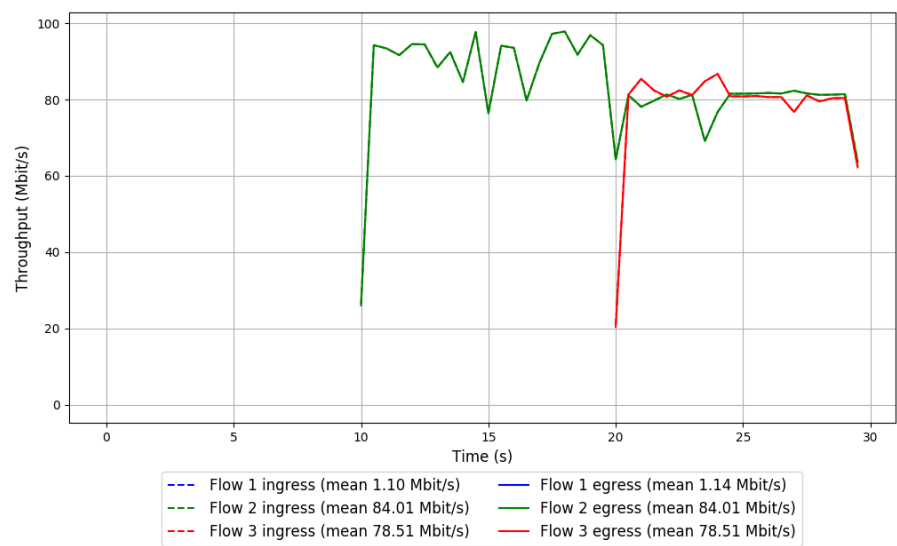
Run 3: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 1.16 Mbit/s) ——— Flow 1 egress (mean 1.18 Mbit/s)
- - - Flow 2 ingress (mean 85.93 Mbit/s) ——— Flow 2 egress (mean 85.91 Mbit/s)
- - - Flow 3 ingress (mean 79.08 Mbit/s) ——— Flow 3 egress (mean 79.03 Mbit/s)

- Flow 1 (95th percentile 2.35 ms)   - Flow 2 (95th percentile 2.32 ms)   - Flow 3 (95th percentile 2.31 ms)

89

```
Run 4: Statistics of QUIC Cubic

Start at: 2017-10-12 04:34:35
End at: 2017-10-12 04:35:05
Local clock offset: -0.153 ms
Remote clock offset: 0.846 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.42 Mbit/s
95th percentile per-packet one-way delay: 2.247 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 2.376 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.69 Mbit/s
95th percentile per-packet one-way delay: 2.249 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 77.98 Mbit/s
95th percentile per-packet one-way delay: 2.241 ms
Loss rate: 0.05%
```
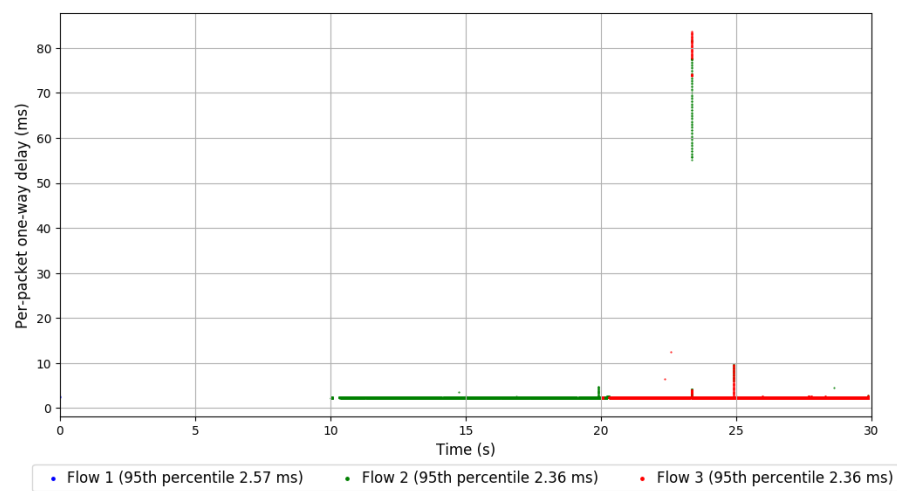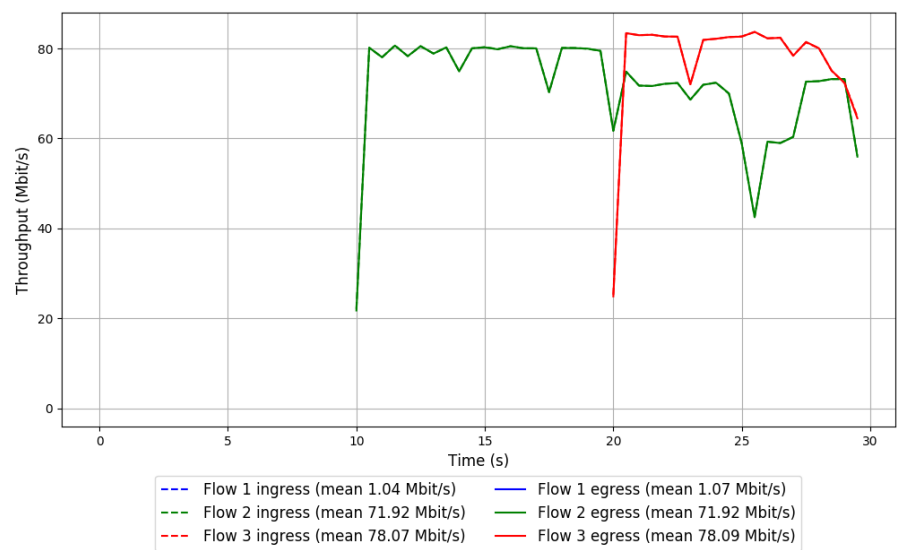
Run 4: Report of QUIC Cubic — Data Link

- - - - Flow 1 ingress (mean 0.71 Mbit/s) ——— Flow 1 egress (mean 0.72 Mbit/s)
- - - - Flow 2 ingress (mean 71.67 Mbit/s) ——— Flow 2 egress (mean 71.69 Mbit/s)
- - - - Flow 3 ingress (mean 77.98 Mbit/s) ——— Flow 3 egress (mean 77.98 Mbit/s)

- Flow 1 (95th percentile 2.38 ms) • Flow 2 (95th percentile 2.25 ms) • Flow 3 (95th percentile 2.24 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2017-10-12 04:54:08
End at: 2017-10-12 04:54:39
Local clock offset: -0.068 ms
Remote clock offset: 0.944 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.27 Mbit/s
95th percentile per-packet one-way delay: 2.299 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 2.271 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.11 Mbit/s
95th percentile per-packet one-way delay: 2.295 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.70 Mbit/s
95th percentile per-packet one-way delay: 2.304 ms
Loss rate: 0.08%
```
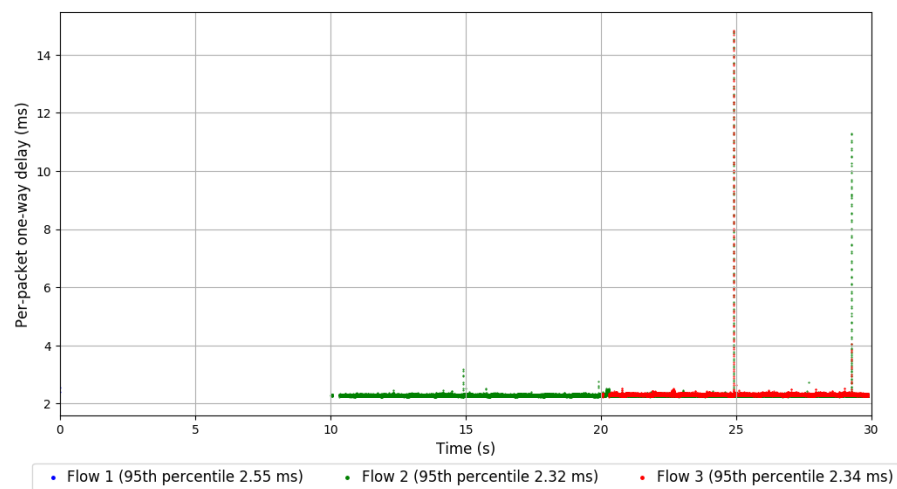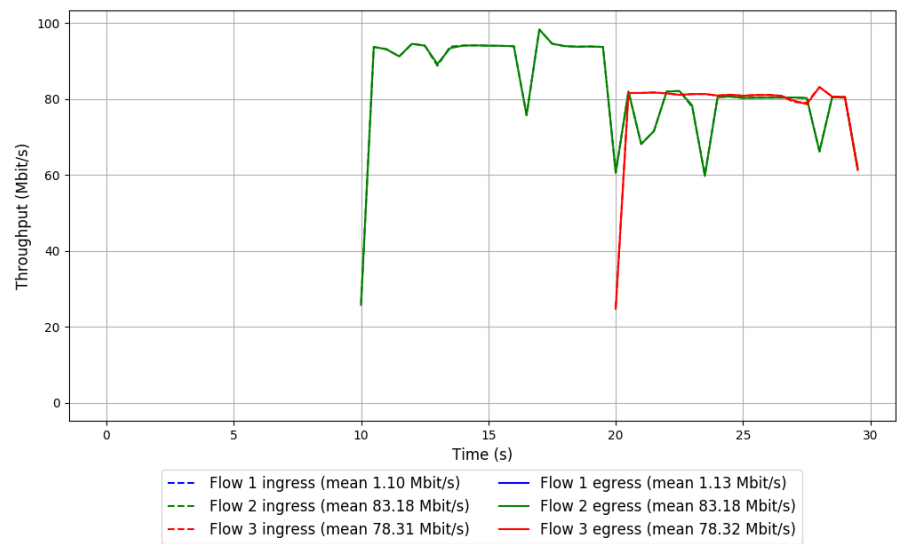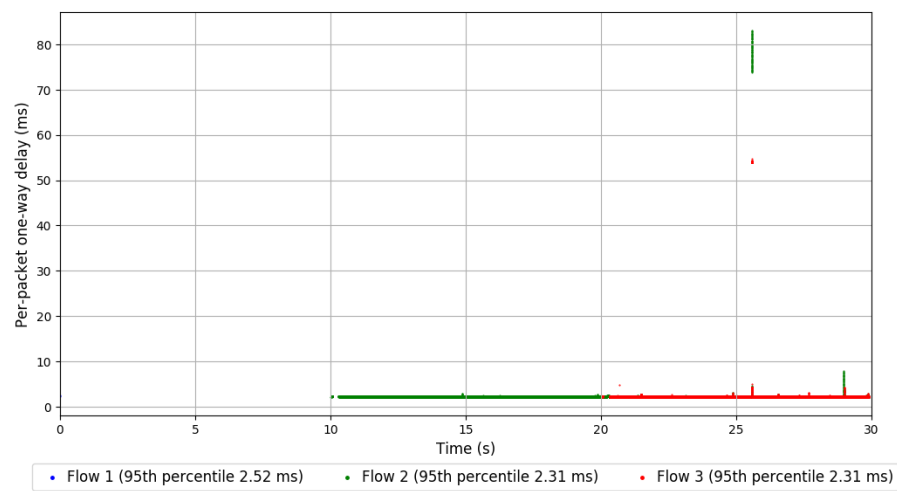
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.14 Mbit/s) — — — Flow 1 egress (mean 1.14 Mbit/s)
Flow 2 ingress (mean 83.11 Mbit/s) — — — Flow 2 egress (mean 83.11 Mbit/s)
Flow 3 ingress (mean 78.81 Mbit/s) — — — Flow 3 egress (mean 78.70 Mbit/s)

Flow 1 (95th percentile 2.27 ms)   •   Flow 2 (95th percentile 2.29 ms)   •   Flow 3 (95th percentile 2.30 ms)

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```
Run 6: Statistics of QUIC Cubic

Start at: 2017-10-12 05:13:42
End at: 2017-10-12 05:14:12
Local clock offset: -0.098 ms
Remote clock offset: 0.895 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.66 Mbit/s
95th percentile per-packet one-way delay: 2.325 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 2.546 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 85.22 Mbit/s
95th percentile per-packet one-way delay: 2.326 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.67 Mbit/s
95th percentile per-packet one-way delay: 2.323 ms
Loss rate: 0.05%
```
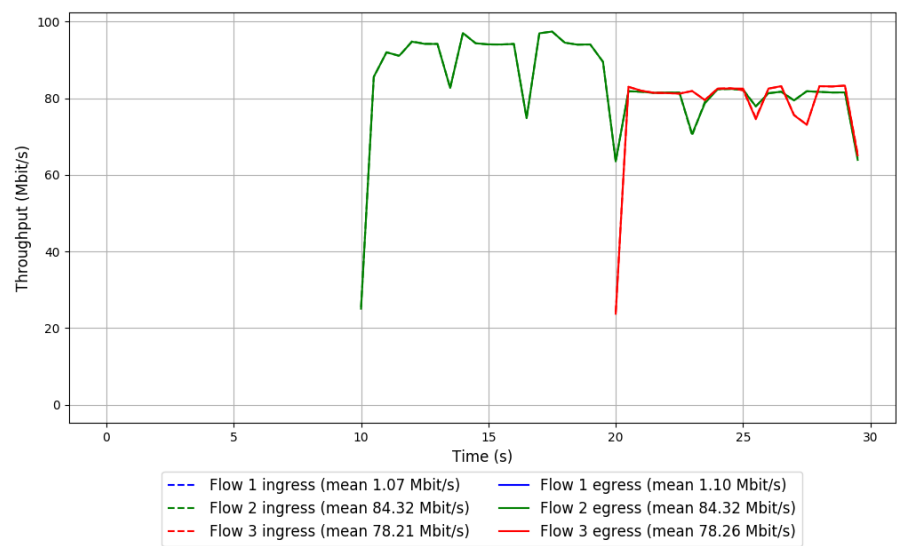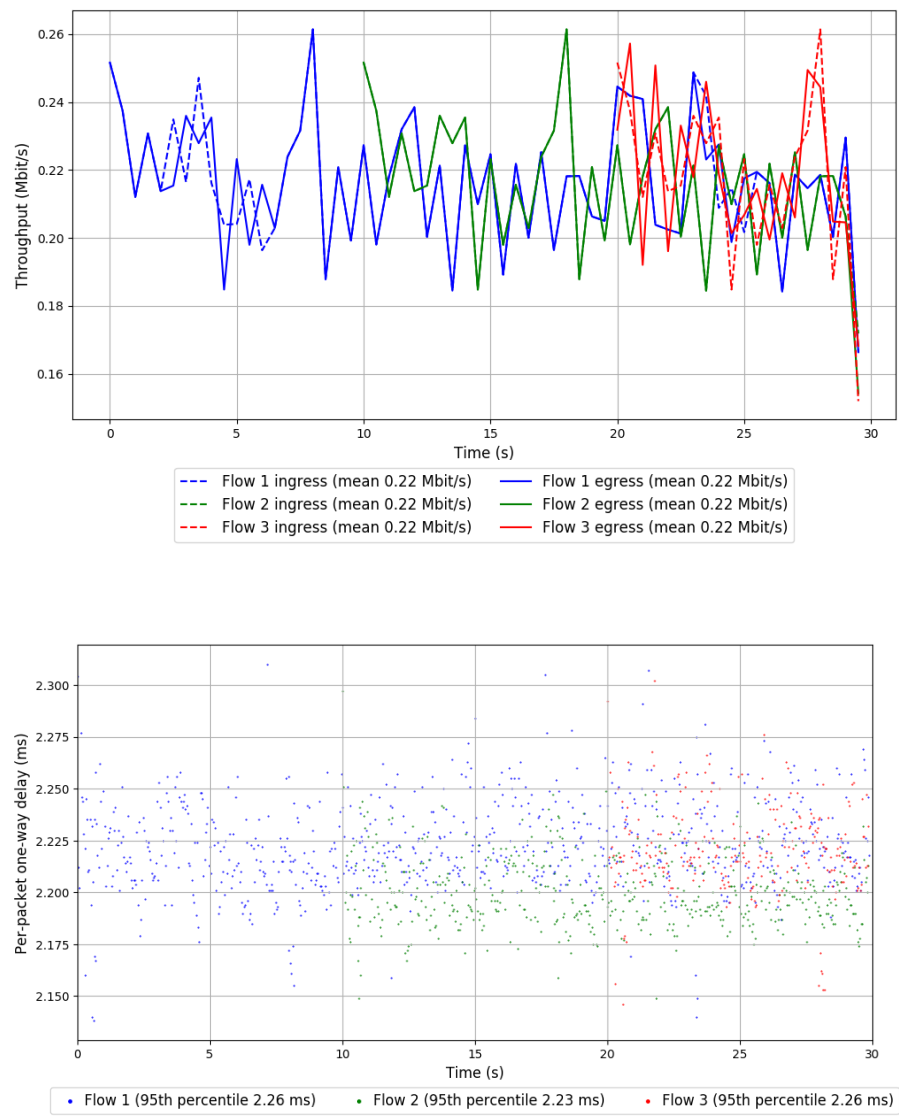
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.06 Mbit/s)   Flow 1 egress (mean 1.08 Mbit/s)
Flow 2 ingress (mean 85.22 Mbit/s)   Flow 2 egress (mean 85.22 Mbit/s)
Flow 3 ingress (mean 78.68 Mbit/s)   Flow 3 egress (mean 78.67 Mbit/s)

Flow 1 (95th percentile 2.55 ms)   Flow 2 (95th percentile 2.33 ms)   Flow 3 (95th percentile 2.32 ms)

95

```
Run 7: Statistics of QUIC Cubic

Start at: 2017-10-12 05:33:08
End at: 2017-10-12 05:33:38
Local clock offset: -0.049 ms
Remote clock offset: 0.927 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.81 Mbit/s
95th percentile per-packet one-way delay: 2.361 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 2.515 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 84.01 Mbit/s
95th percentile per-packet one-way delay: 2.354 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.51 Mbit/s
95th percentile per-packet one-way delay: 2.369 ms
Loss rate: 0.04%
```
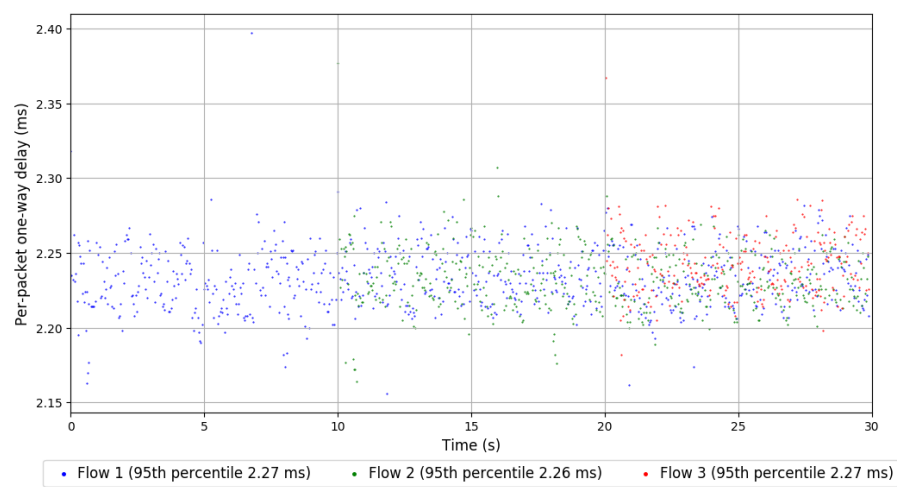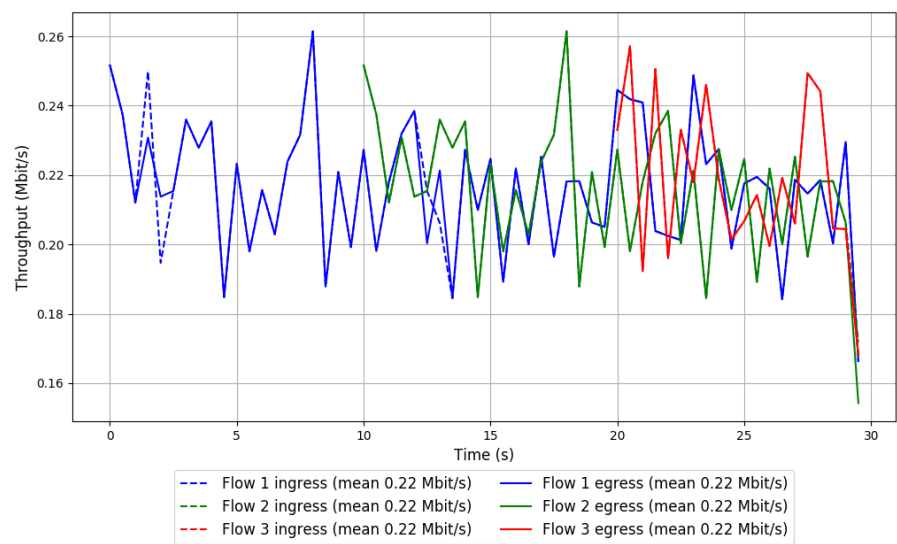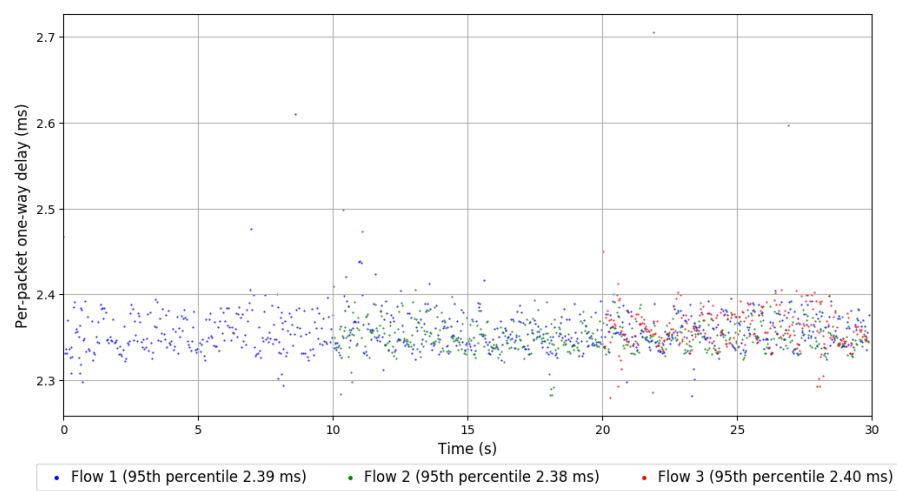
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.10 Mbit/s) --- Flow 1 egress (mean 1.14 Mbit/s)
Flow 2 ingress (mean 84.01 Mbit/s) --- Flow 2 egress (mean 84.01 Mbit/s)
Flow 3 ingress (mean 78.51 Mbit/s) --- Flow 3 egress (mean 78.51 Mbit/s)

• Flow 1 (95th percentile 2.52 ms)   • Flow 2 (95th percentile 2.35 ms)   • Flow 3 (95th percentile 2.37 ms)
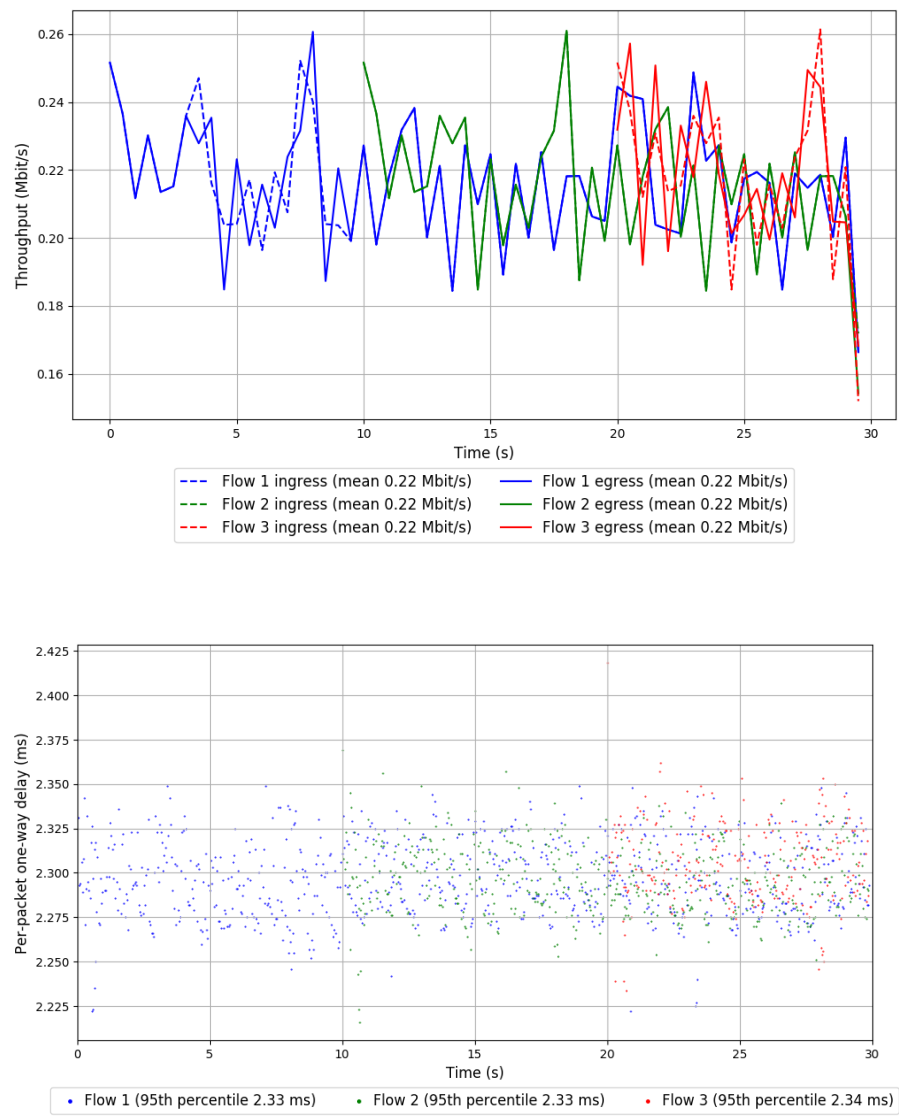
```
Run 8: Statistics of QUIC Cubic

Start at: 2017-10-12 05:52:24
End at: 2017-10-12 05:52:54
Local clock offset: -0.059 ms
Remote clock offset: 0.764 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.62 Mbit/s
95th percentile per-packet one-way delay: 2.363 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 2.574 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.92 Mbit/s
95th percentile per-packet one-way delay: 2.363 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.09 Mbit/s
95th percentile per-packet one-way delay: 2.364 ms
Loss rate: 0.04%
```

Run 8: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 1.04 Mbit/s)   —— Flow 1 egress (mean 1.07 Mbit/s)
- - - Flow 2 ingress (mean 71.92 Mbit/s)   —— Flow 2 egress (mean 71.92 Mbit/s)
- - - Flow 3 ingress (mean 78.07 Mbit/s)   —— Flow 3 egress (mean 78.09 Mbit/s)

- Flow 1 (95th percentile 2.57 ms)   • Flow 2 (95th percentile 2.36 ms)   • Flow 3 (95th percentile 2.36 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2017-10-12 06:11:51
End at: 2017-10-12 06:12:21
Local clock offset: -0.07 ms
Remote clock offset: 0.504 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.16 Mbit/s
95th percentile per-packet one-way delay: 2.331 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 2.551 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.18 Mbit/s
95th percentile per-packet one-way delay: 2.320 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.32 Mbit/s
95th percentile per-packet one-way delay: 2.343 ms
Loss rate: 0.05%
```
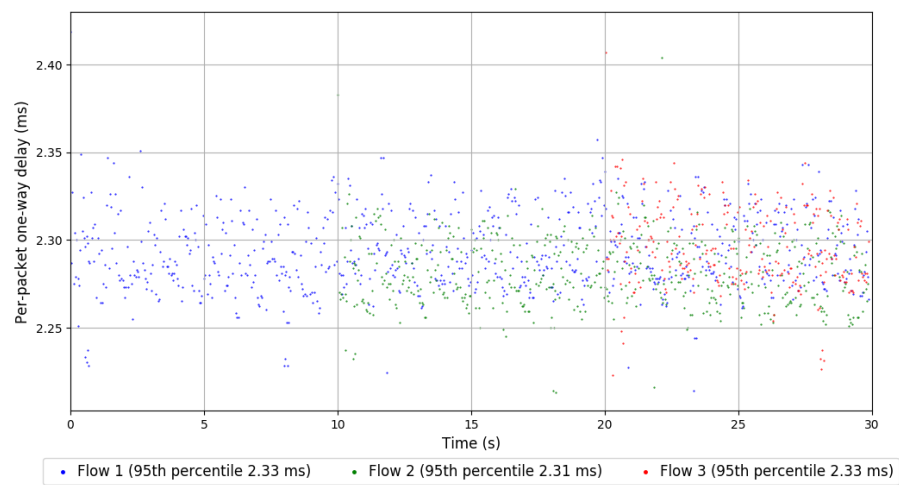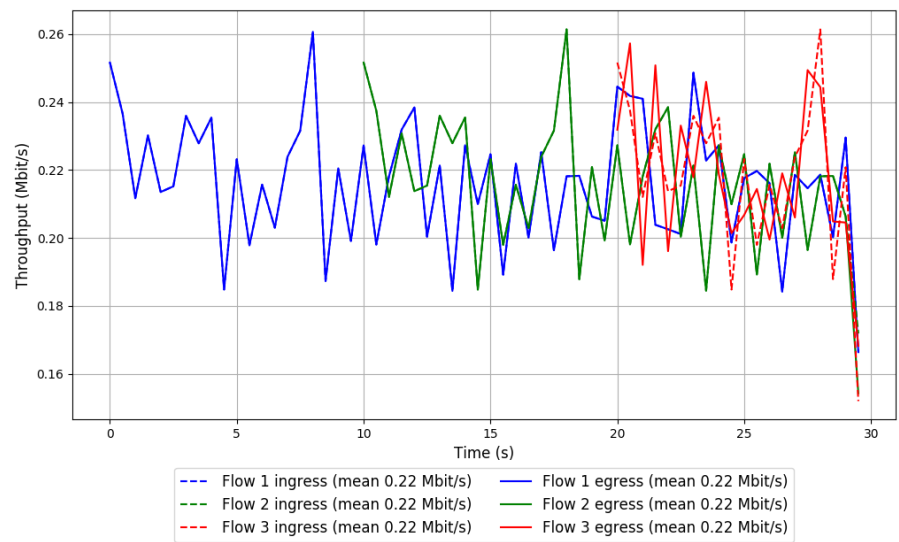
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.10 Mbit/s)   Flow 1 egress (mean 1.13 Mbit/s)
Flow 2 ingress (mean 83.18 Mbit/s)   Flow 2 egress (mean 83.18 Mbit/s)
Flow 3 ingress (mean 78.31 Mbit/s)   Flow 3 egress (mean 78.32 Mbit/s)

Flow 1 (95th percentile 2.55 ms)   Flow 2 (95th percentile 2.32 ms)   Flow 3 (95th percentile 2.34 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2017-10-12 06:31:17
End at: 2017-10-12 06:31:47
Local clock offset: -0.256 ms
Remote clock offset: 0.156 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.93 Mbit/s
95th percentile per-packet one-way delay: 2.313 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 2.520 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 84.32 Mbit/s
95th percentile per-packet one-way delay: 2.313 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 78.26 Mbit/s
95th percentile per-packet one-way delay: 2.315 ms
Loss rate: 0.05%
```
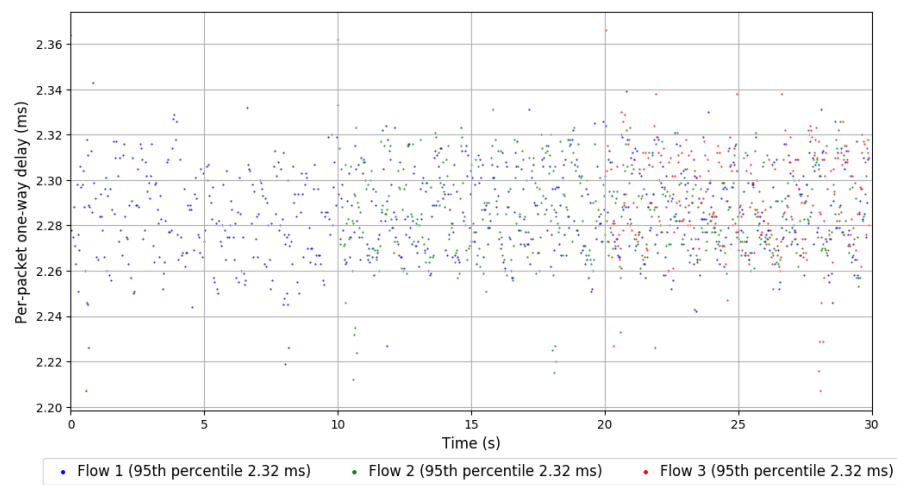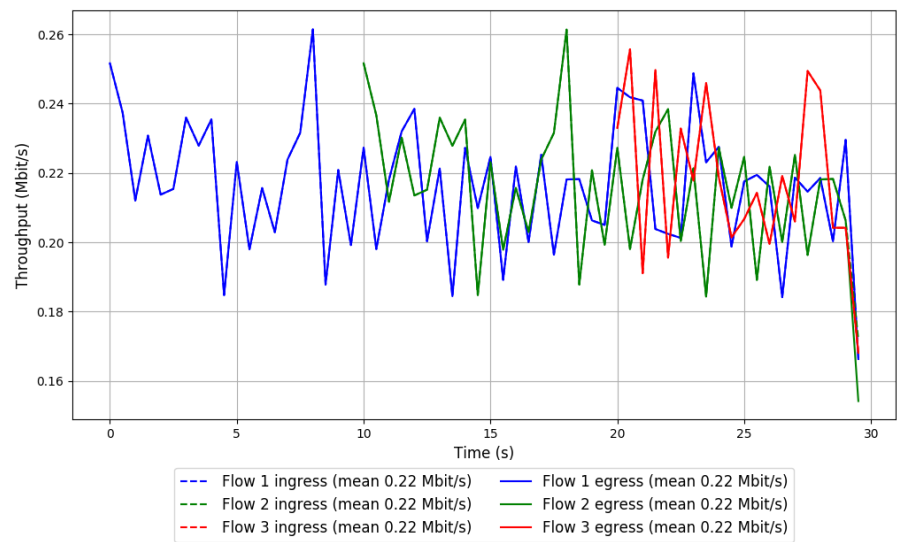
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.07 Mbit/s)   Flow 1 egress (mean 1.10 Mbit/s)
Flow 2 ingress (mean 84.32 Mbit/s)   Flow 2 egress (mean 84.32 Mbit/s)
Flow 3 ingress (mean 78.21 Mbit/s)   Flow 3 egress (mean 78.26 Mbit/s)

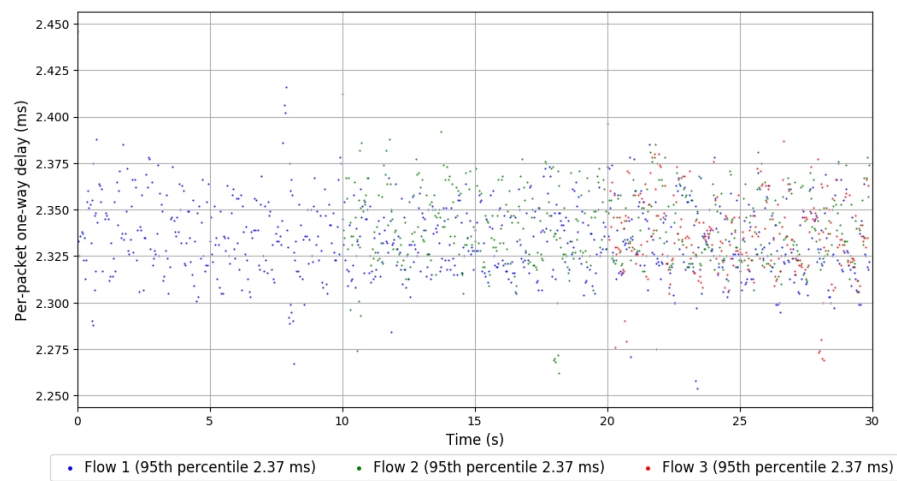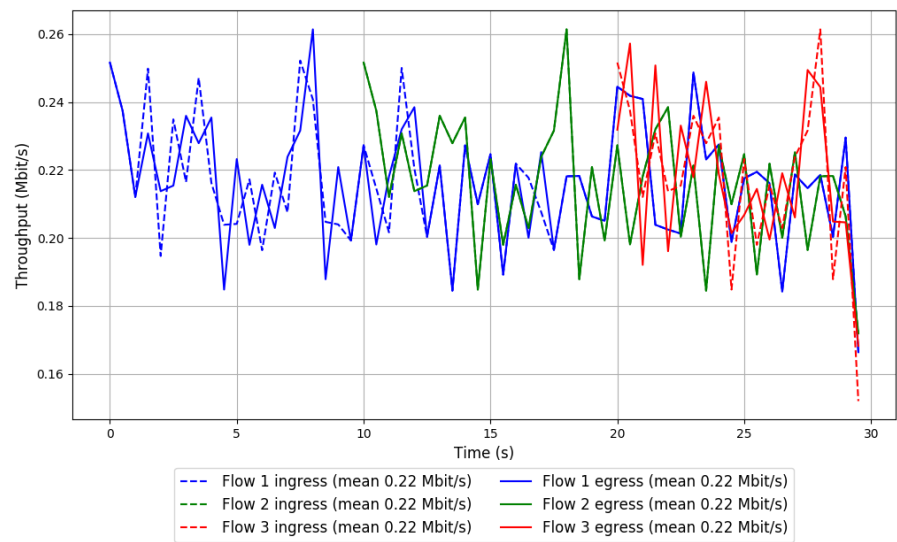Flow 1 (95th percentile 2.52 ms)   Flow 2 (95th percentile 2.31 ms)   Flow 3 (95th percentile 2.31 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-10-12 03:54:34
End at: 2017-10-12 03:55:04
Local clock offset: -0.215 ms
Remote clock offset: 0.322 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.255 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.232 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.257 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2017-10-12 04:14:00
End at: 2017-10-12 04:14:30
Local clock offset: -0.176 ms
Remote clock offset: 0.595 ms

# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.263 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.275 ms
Loss rate: 0.00%
```
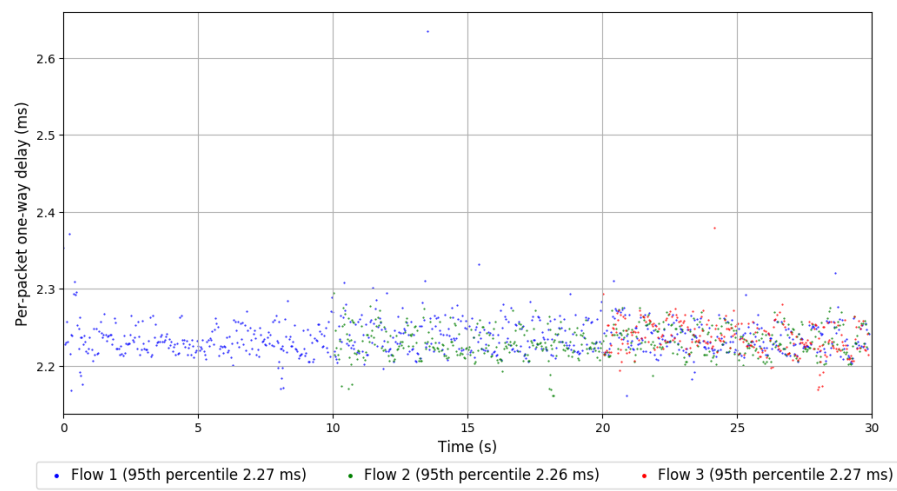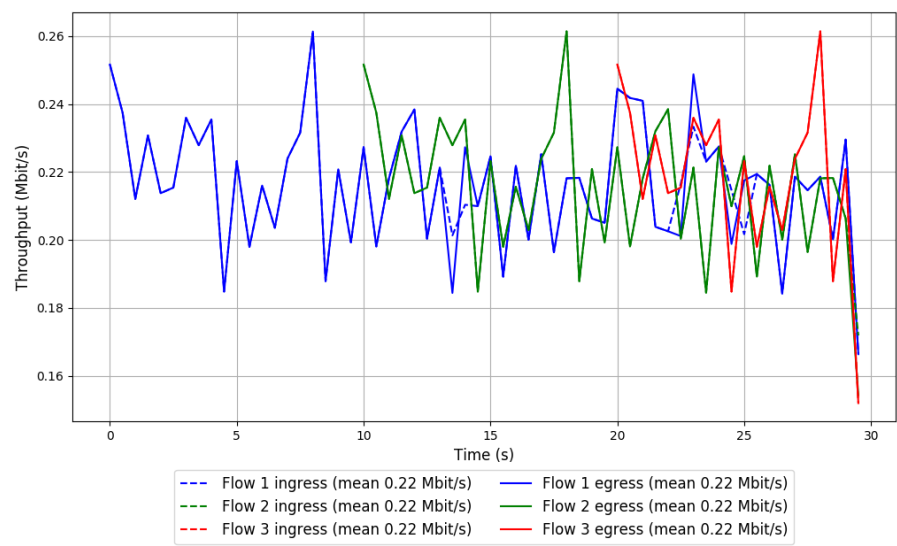
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2017-10-12 04:33:31
End at: 2017-10-12 04:34:01
Local clock offset: -0.075 ms
Remote clock offset: 0.778 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.390 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.383 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.398 ms
Loss rate: 0.35%
```
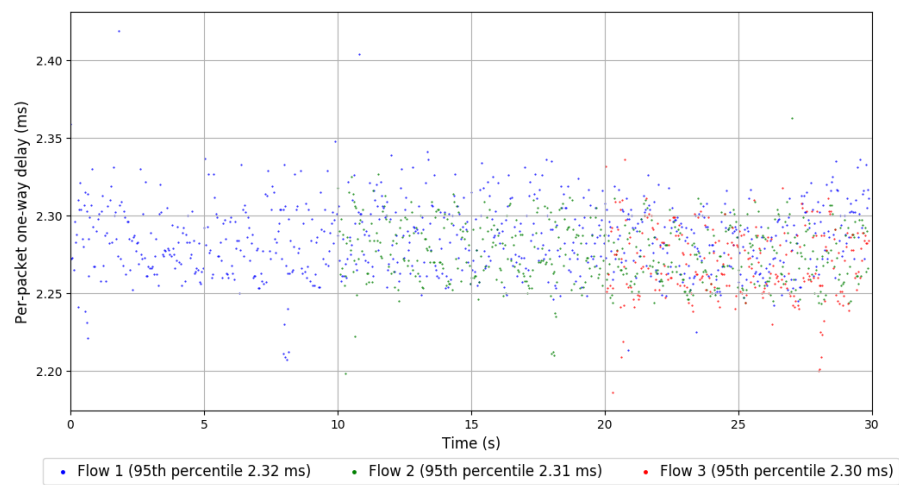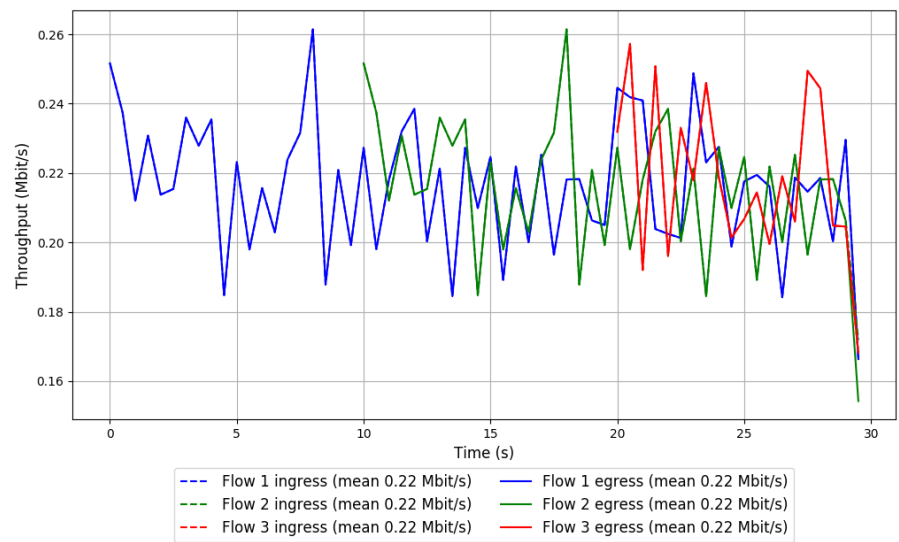
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2017-10-12 04:53:04
End at: 2017-10-12 04:53:34
Local clock offset: -0.056 ms
Remote clock offset: 0.917 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.327 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.343 ms
Loss rate: 0.00%
```
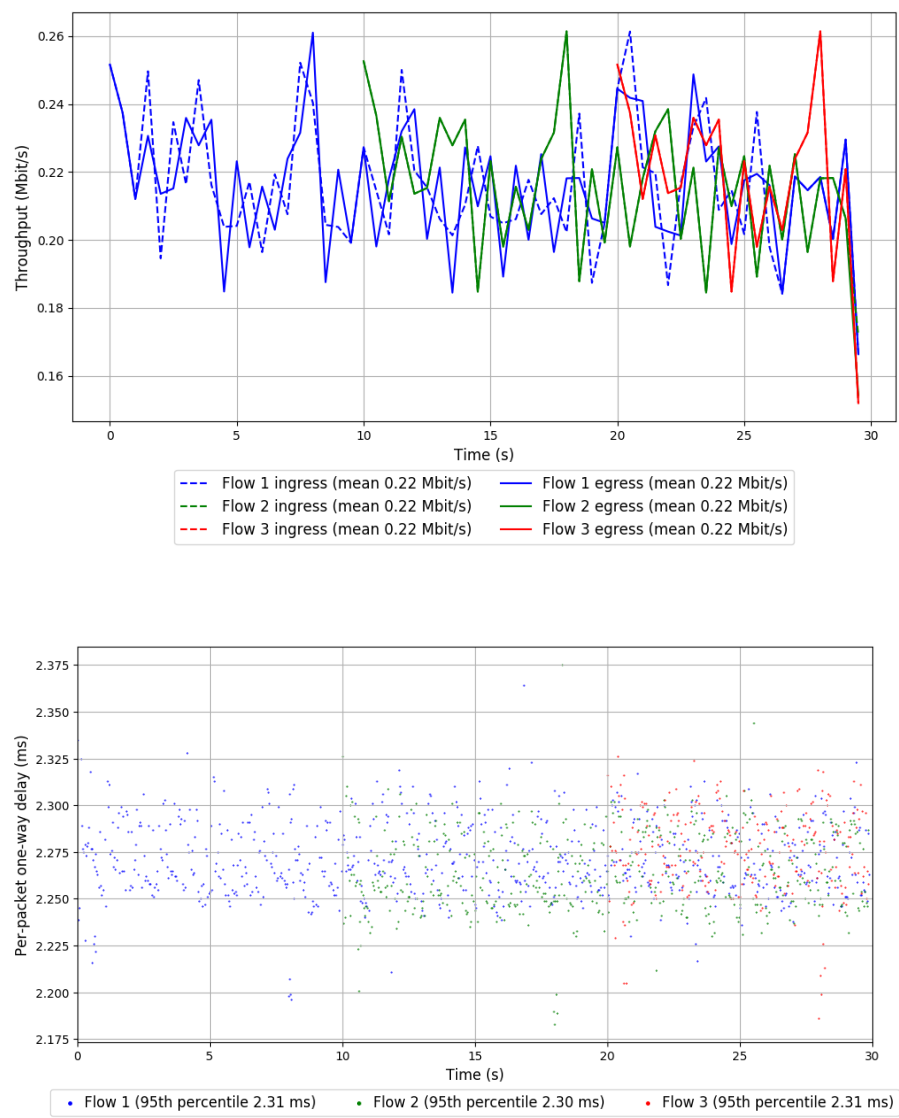
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2017-10-12 05:12:38
End at: 2017-10-12 05:13:08
Local clock offset: -0.053 ms
Remote clock offset: 0.949 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.327 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.328 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.312 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.00%
```
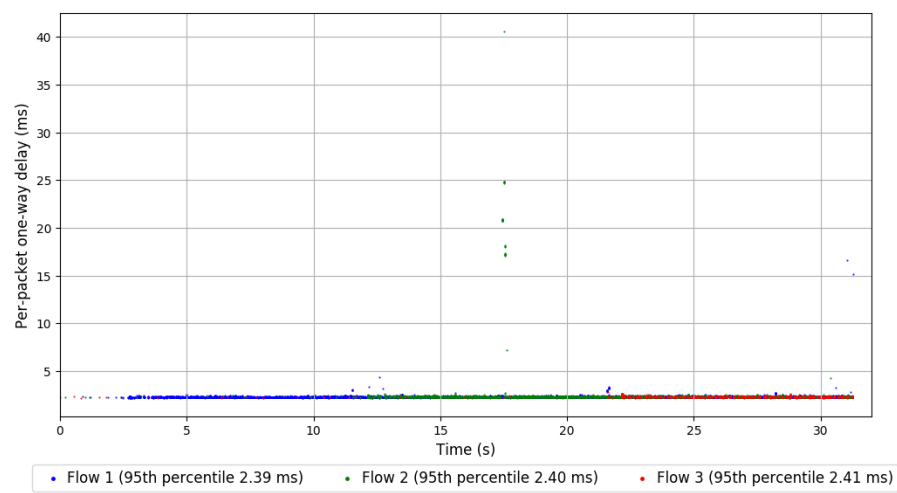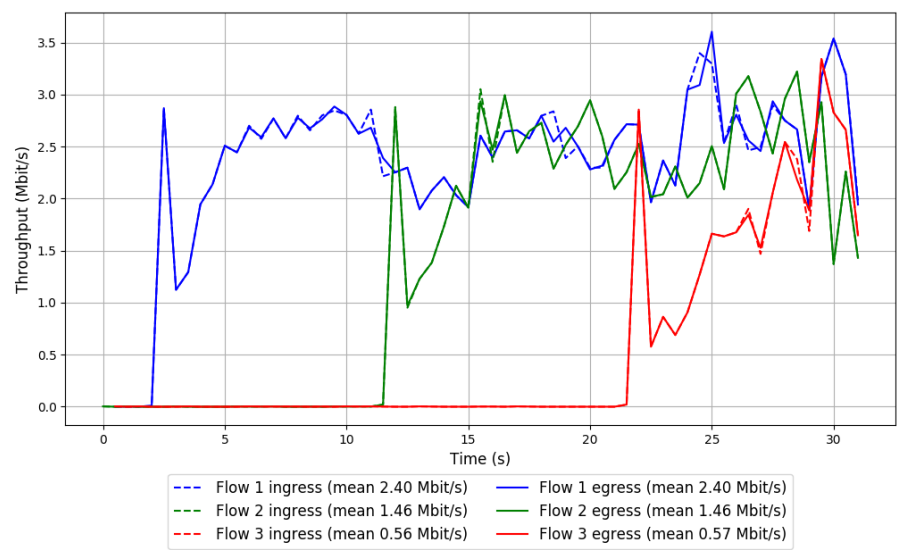
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2017-10-12 05:32:04
End at: 2017-10-12 05:32:34
Local clock offset: -0.045 ms
Remote clock offset: 0.972 ms

# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.318 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.317 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.316 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.322 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2017-10-12 05:51:20
End at: 2017-10-12 05:51:50
Local clock offset: -0.061 ms
Remote clock offset: 0.793 ms

# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.370 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.366 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.373 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.371 ms
Loss rate: 0.00%
```
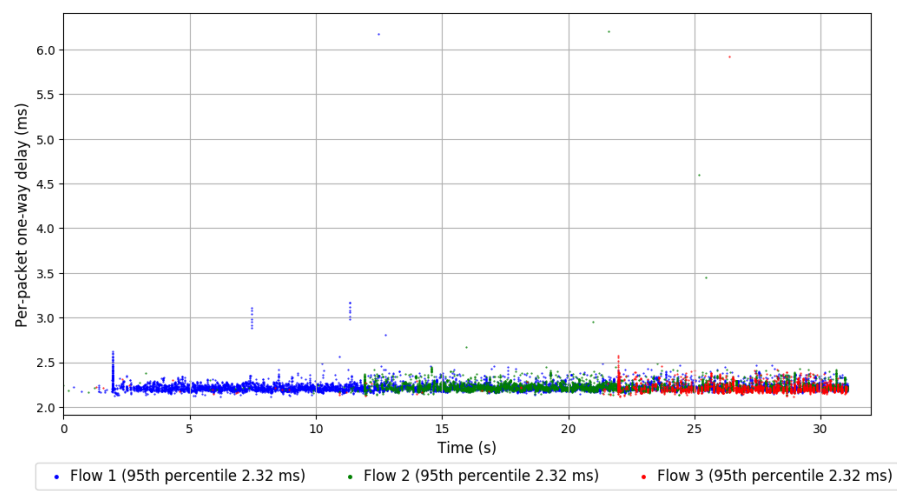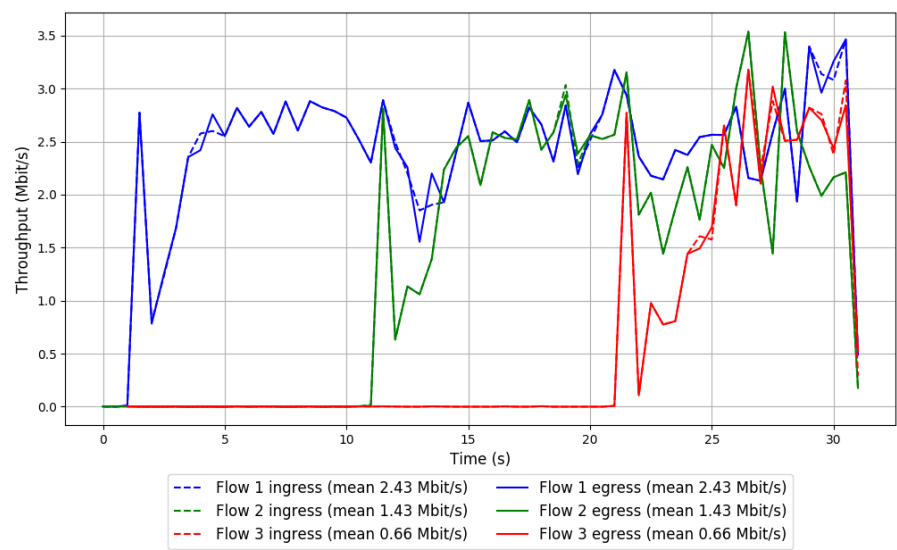
Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2017-10-12 06:10:47
End at: 2017-10-12 06:11:17
Local clock offset: -0.14 ms
Remote clock offset: 0.501 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.271 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.263 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.00%
```
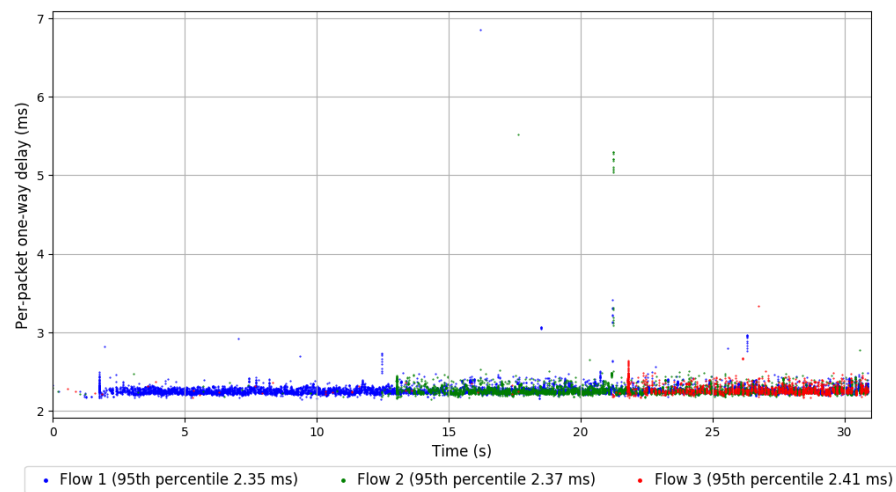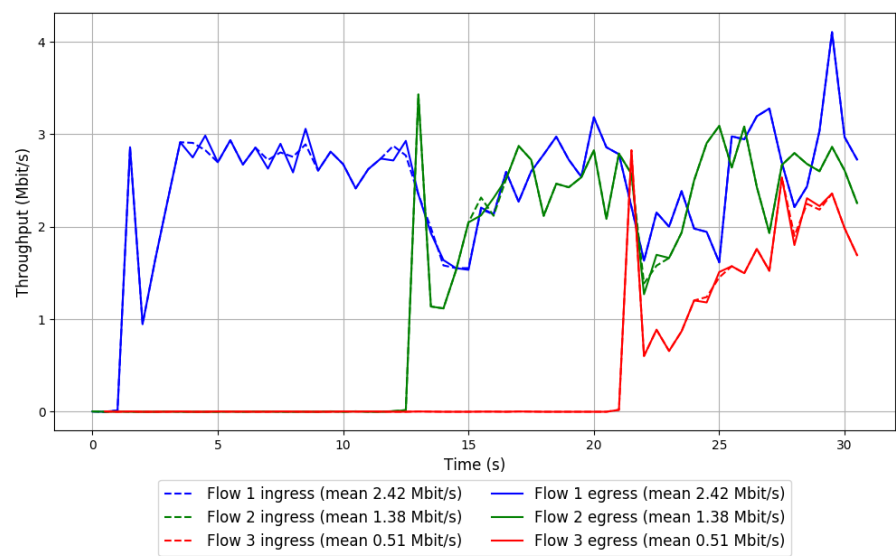
Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2017-10-12 06:30:12
End at: 2017-10-12 06:30:42
Local clock offset: -0.26 ms
Remote clock offset: 0.189 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.316 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.324 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.308 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.303 ms
Loss rate: 0.00%
```
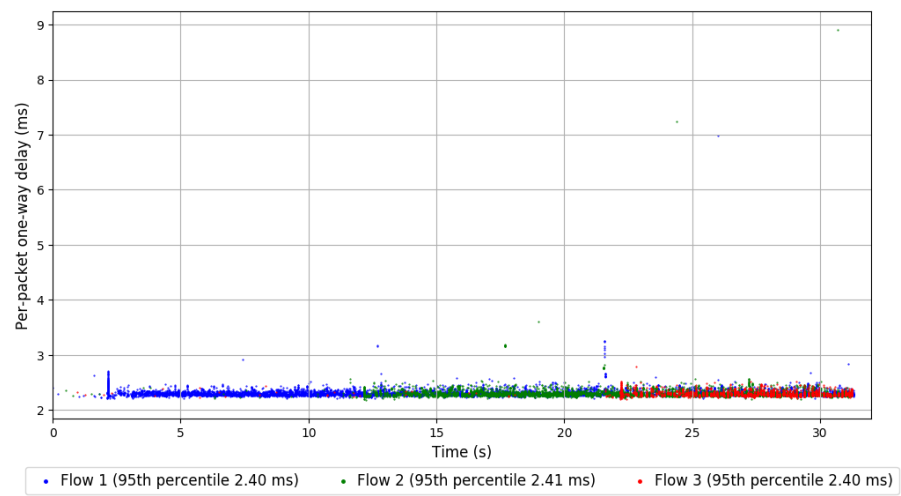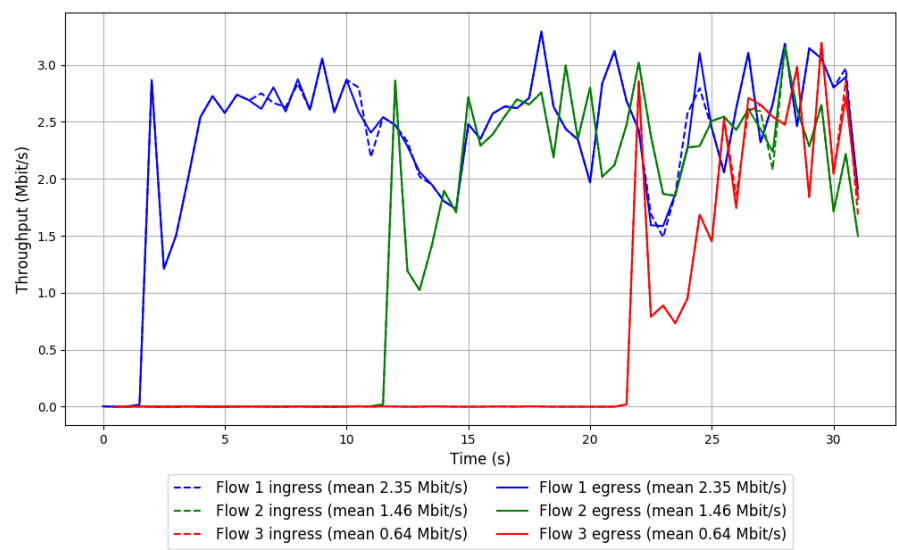
Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2017-10-12 06:49:29
End at: 2017-10-12 06:49:59
Local clock offset: -0.312 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.304 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.297 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.309 ms
Loss rate: 0.00%
```
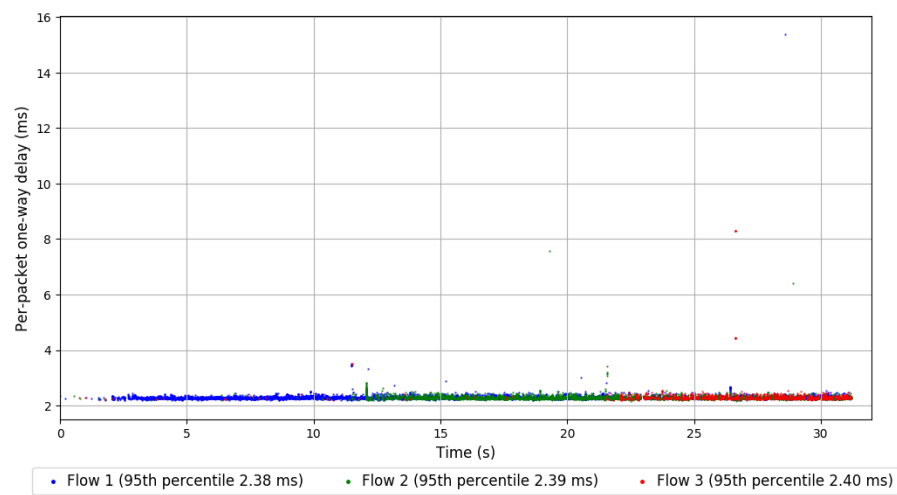
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2017-10-12 03:53:30
End at: 2017-10-12 03:54:00
Local clock offset: -0.128 ms
Remote clock offset: 0.336 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.35 Mbit/s
95th percentile per-packet one-way delay: 2.394 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 2.389 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 2.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 2.410 ms
Loss rate: 0.01%
```
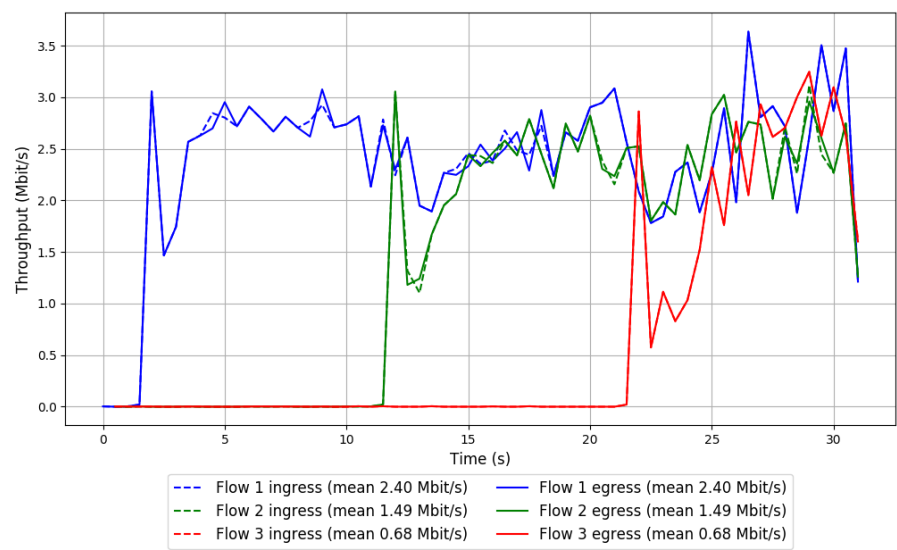
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2017-10-12 04:12:56
End at: 2017-10-12 04:13:26
Local clock offset: -0.193 ms
Remote clock offset: 0.587 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 2.318 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 2.316 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 2.319 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 2.320 ms
Loss rate: 0.00%
```
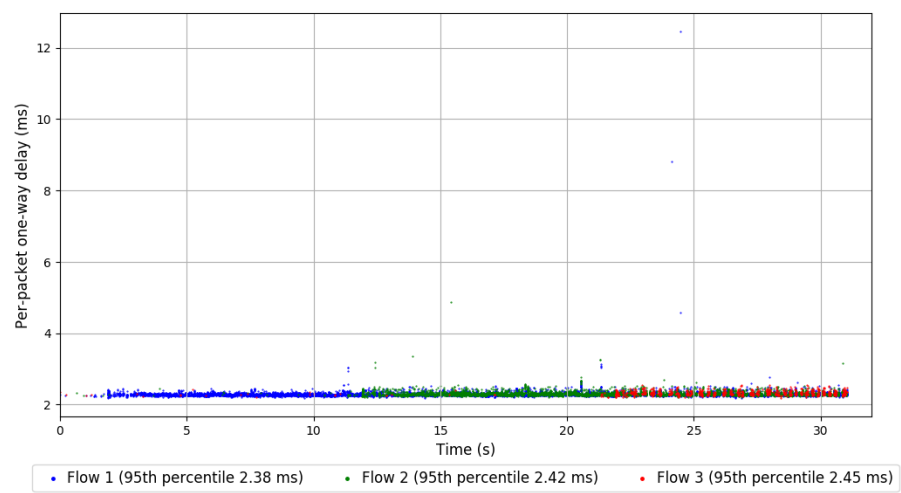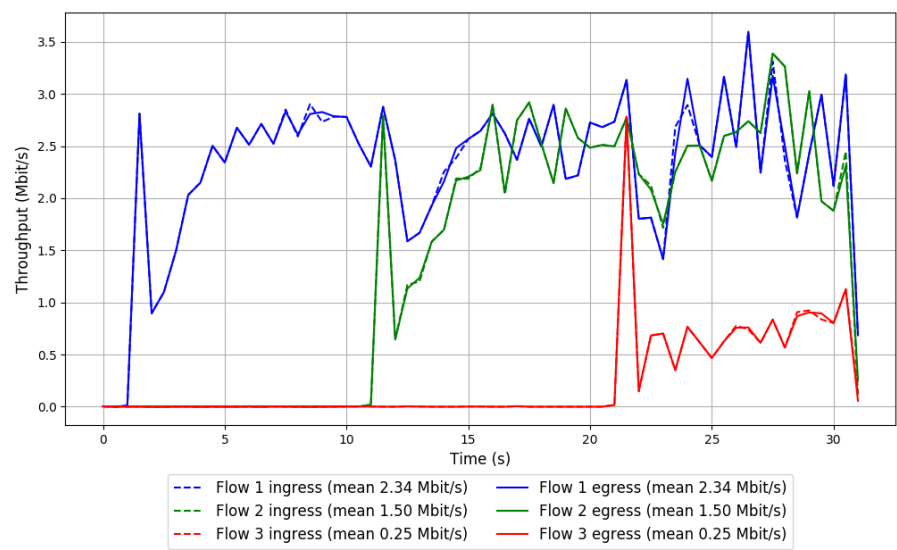
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2017-10-12 04:32:26
End at: 2017-10-12 04:32:56
Local clock offset: -0.093 ms
Remote clock offset: 0.872 ms

# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 2.364 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 2.352 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 2.366 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 2.410 ms
Loss rate: 0.00%
```
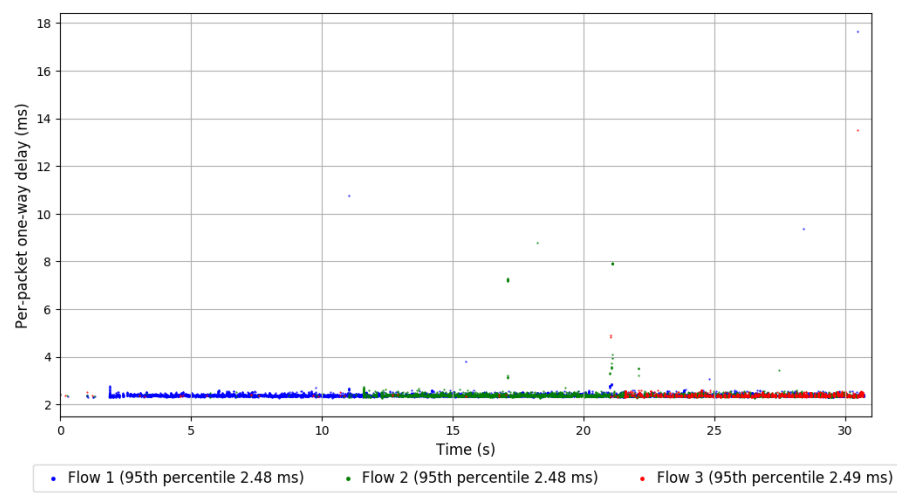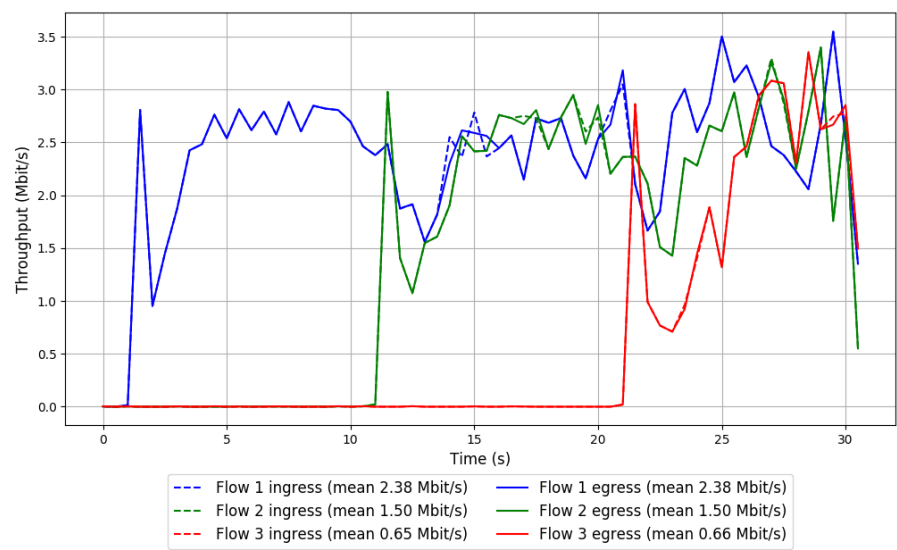
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2017-10-12 04:52:00
End at: 2017-10-12 04:52:30
Local clock offset: -0.06 ms
Remote clock offset: 0.919 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 2.403 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 2.401 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 2.407 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 2.396 ms
Loss rate: 0.00%
```
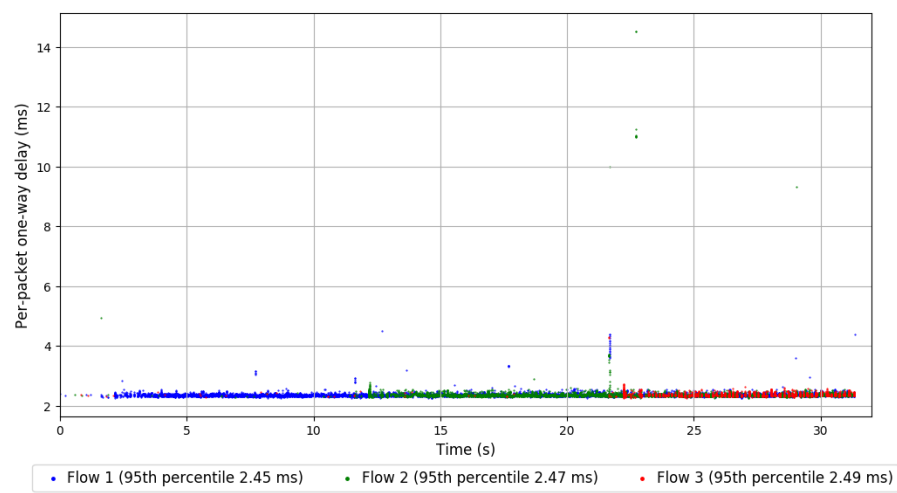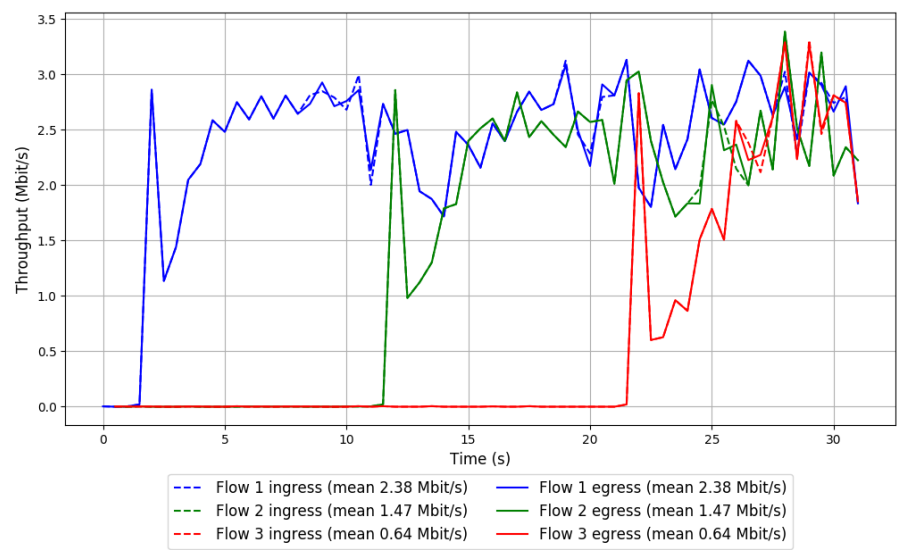
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2017-10-12 05:11:34
End at: 2017-10-12 05:12:04
Local clock offset: -0.105 ms
Remote clock offset: 0.905 ms


# Below is generated by plot.py at 2017-10-12 11:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 2.389 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 2.382 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 2.394 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 2.395 ms
Loss rate: 0.05%
```
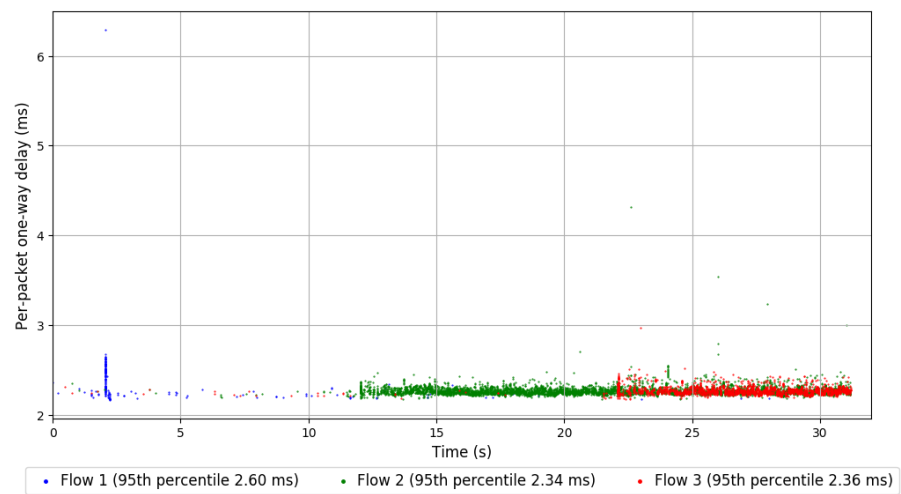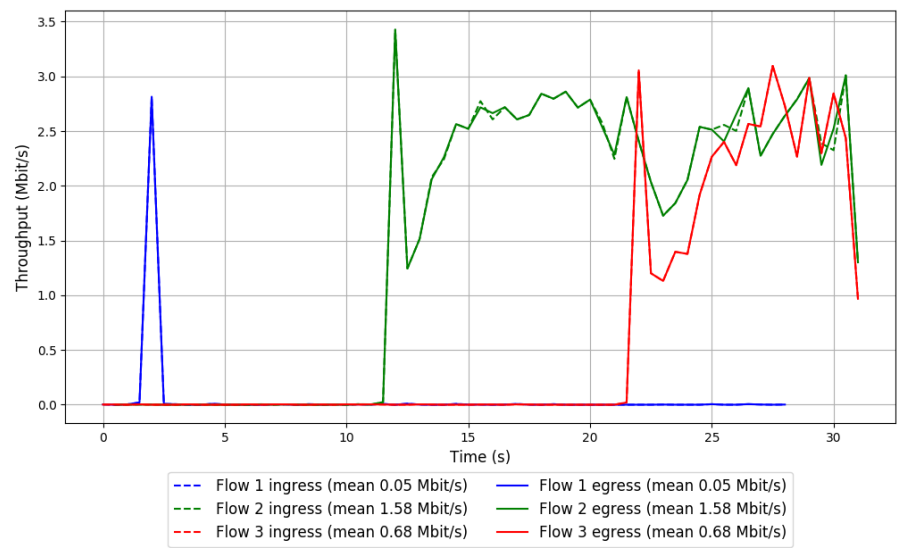
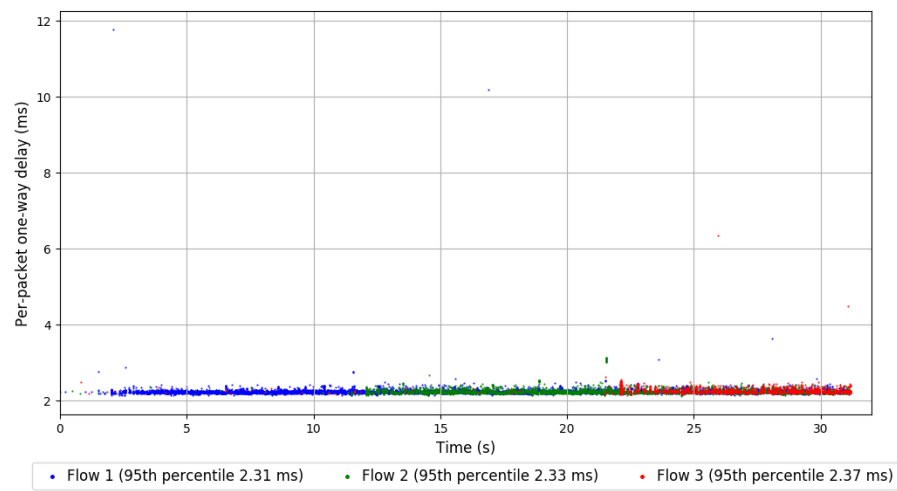Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2017-10-12 05:30:59
End at: 2017-10-12 05:31:29
Local clock offset: -0.015 ms
Remote clock offset: 1.001 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 2.400 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 2.383 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 2.416 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 2.449 ms
Loss rate: 0.37%
```
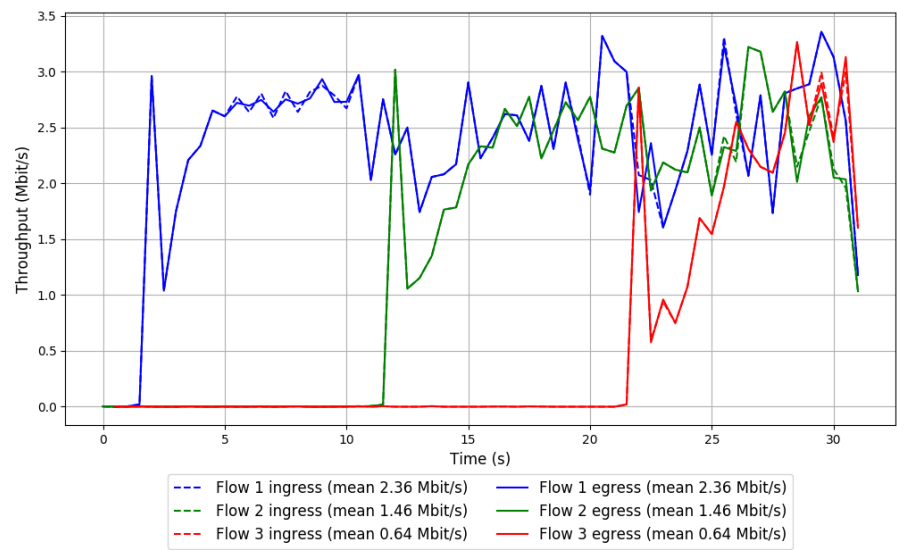
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2017-10-12 05:50:16
End at: 2017-10-12 05:50:46
Local clock offset: -0.037 ms
Remote clock offset: 0.809 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 2.484 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 2.480 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 2.485 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 2.488 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2017-10-12 06:09:43
End at: 2017-10-12 06:10:13
Local clock offset: -0.065 ms
Remote clock offset: 0.459 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 2.460 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 2.447 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 2.466 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 2.490 ms
Loss rate: 0.00%
```
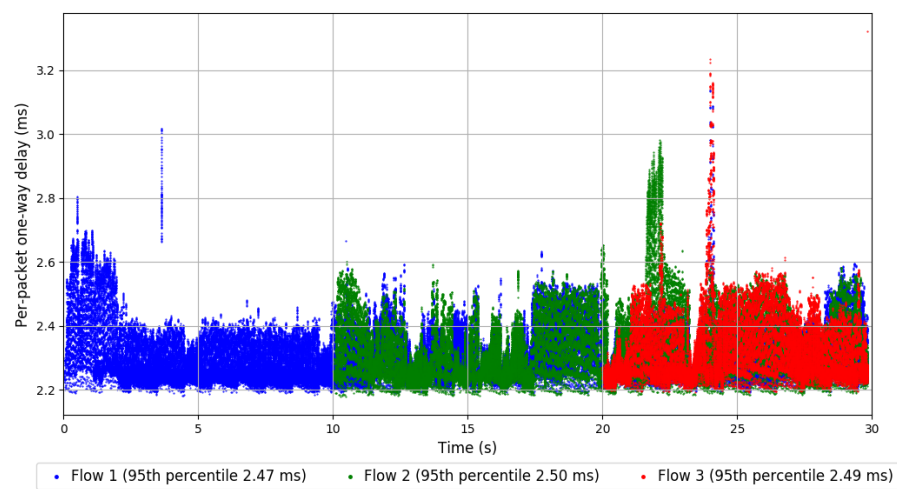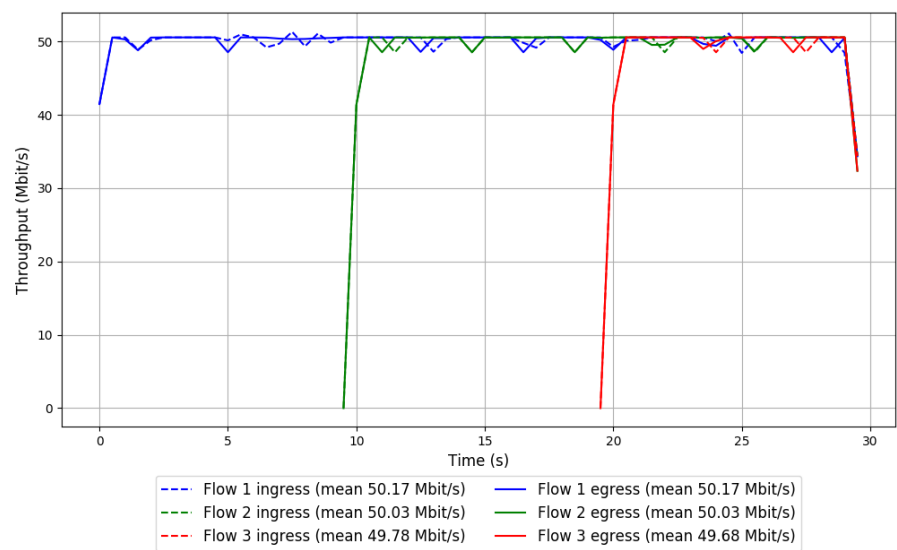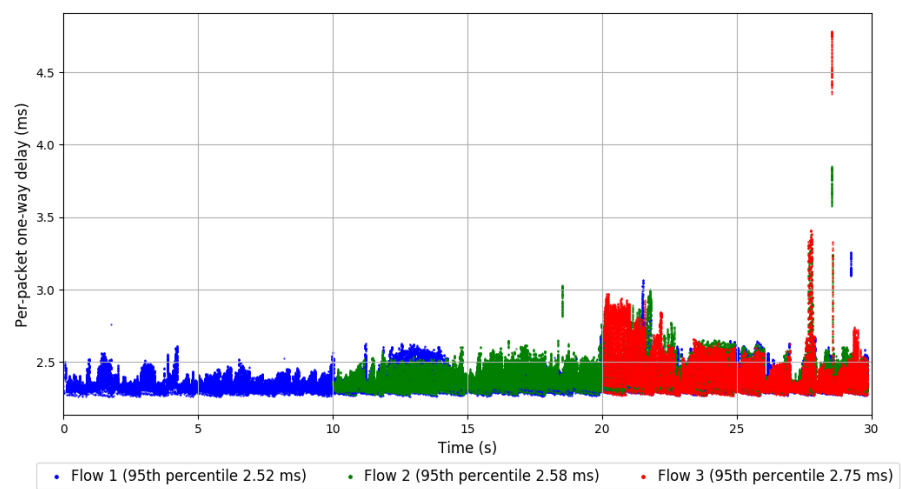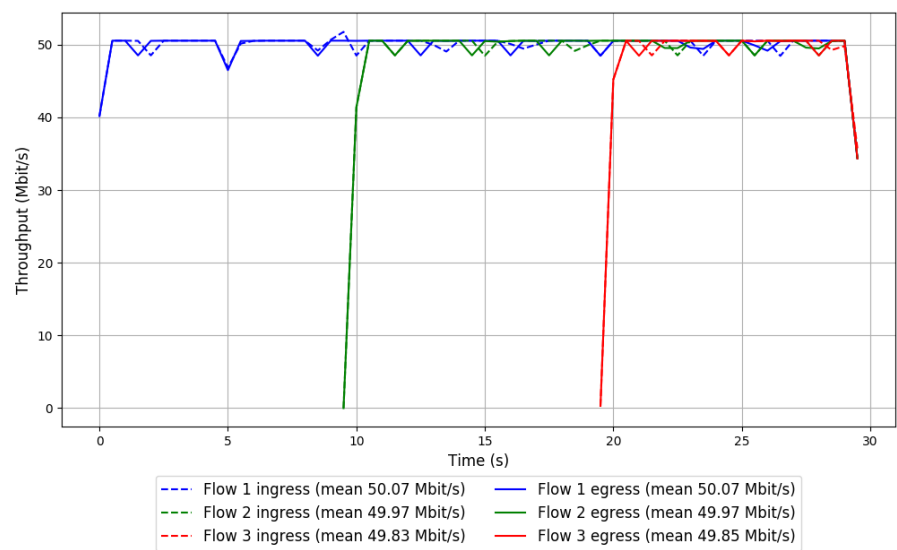
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2017-10-12 06:29:08
End at: 2017-10-12 06:29:38
Local clock offset: -0.243 ms
Remote clock offset: 0.23 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 2.357 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.603 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 2.342 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 2.357 ms
Loss rate: 0.00%
```
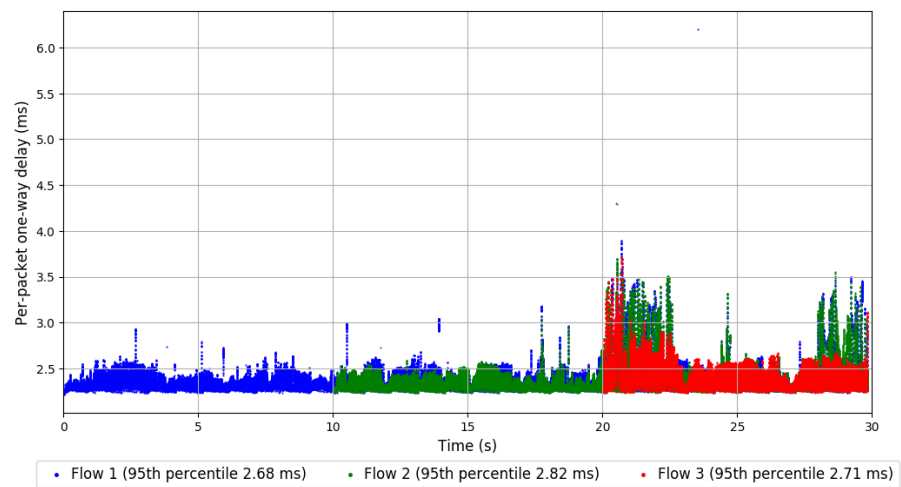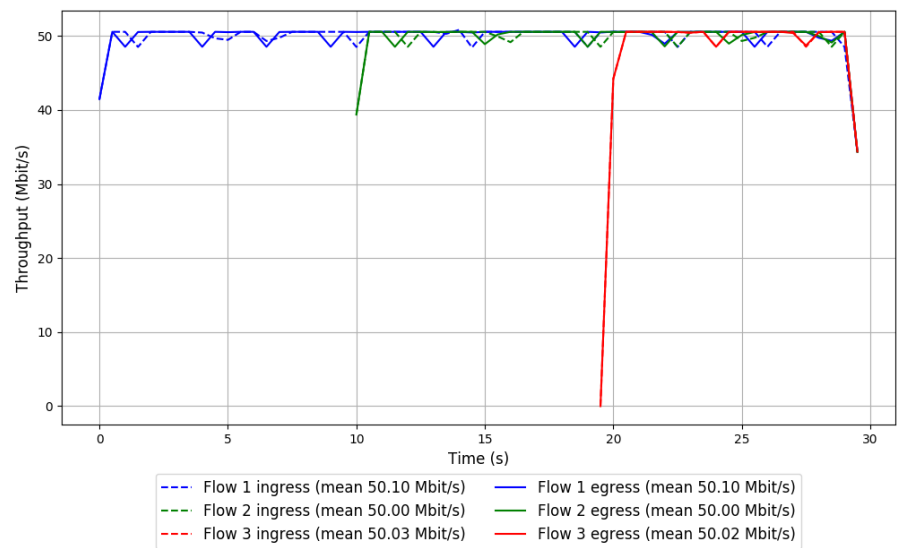
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2017-10-12 06:48:25
End at: 2017-10-12 06:48:55
Local clock offset: -0.388 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 2.327 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 2.309 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 2.369 ms
Loss rate: 0.00%
```
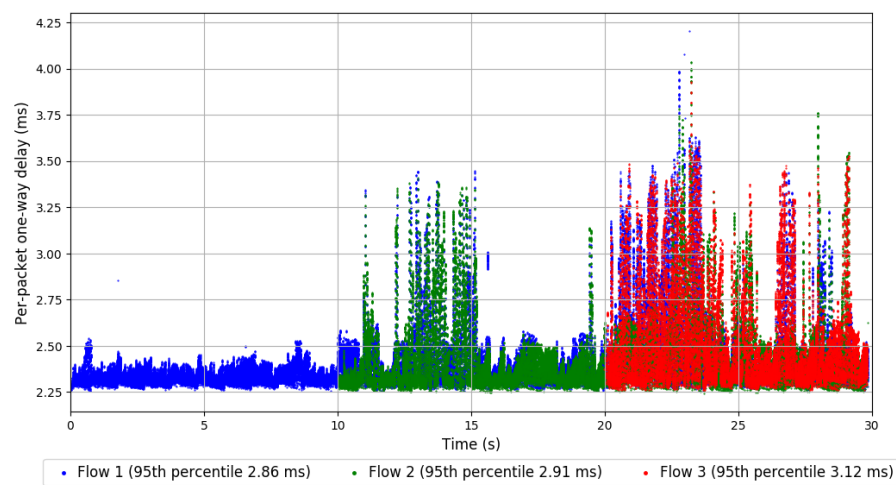
Run 10: Report of WebRTC media — Data Link

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```
Run 1: Statistics of Sprout

Start at: 2017-10-12 03:52:23
End at: 2017-10-12 03:52:53
Local clock offset: -0.251 ms
Remote clock offset: 0.251 ms

# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.82 Mbit/s
95th percentile per-packet one-way delay: 2.488 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 50.17 Mbit/s
95th percentile per-packet one-way delay: 2.469 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 2.503 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 49.68 Mbit/s
95th percentile per-packet one-way delay: 2.493 ms
Loss rate: 0.20%
```
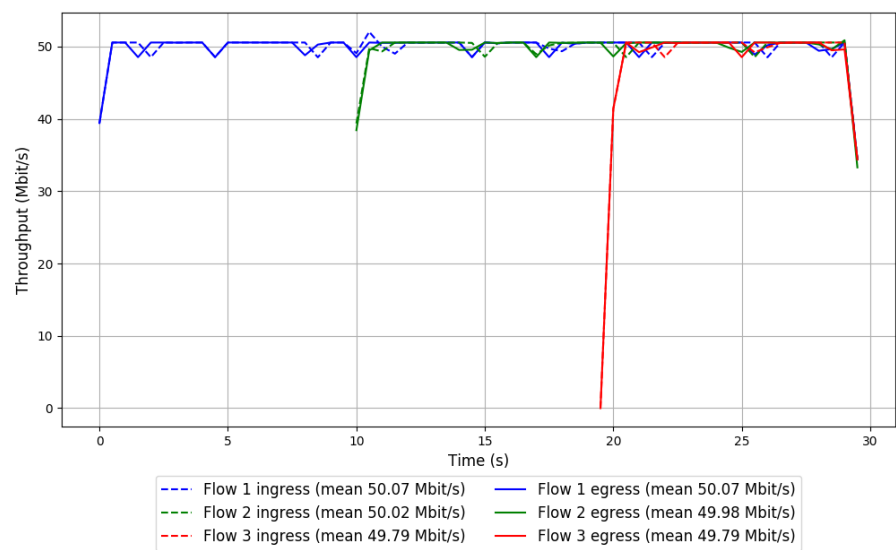
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2017-10-12 04:11:49
End at: 2017-10-12 04:12:19
Local clock offset: -0.137 ms
Remote clock offset: 0.537 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.80 Mbit/s
95th percentile per-packet one-way delay: 2.569 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.07 Mbit/s
95th percentile per-packet one-way delay: 2.515 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.97 Mbit/s
95th percentile per-packet one-way delay: 2.575 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.85 Mbit/s
95th percentile per-packet one-way delay: 2.751 ms
Loss rate: 0.16%
```
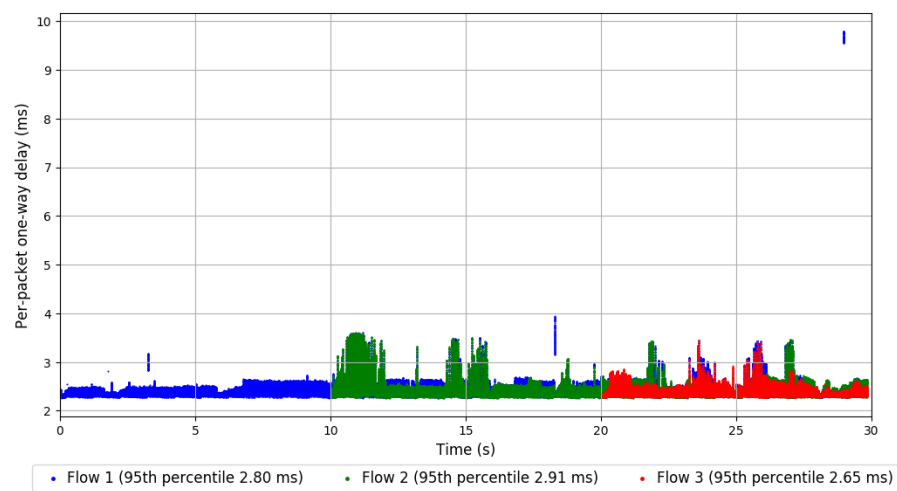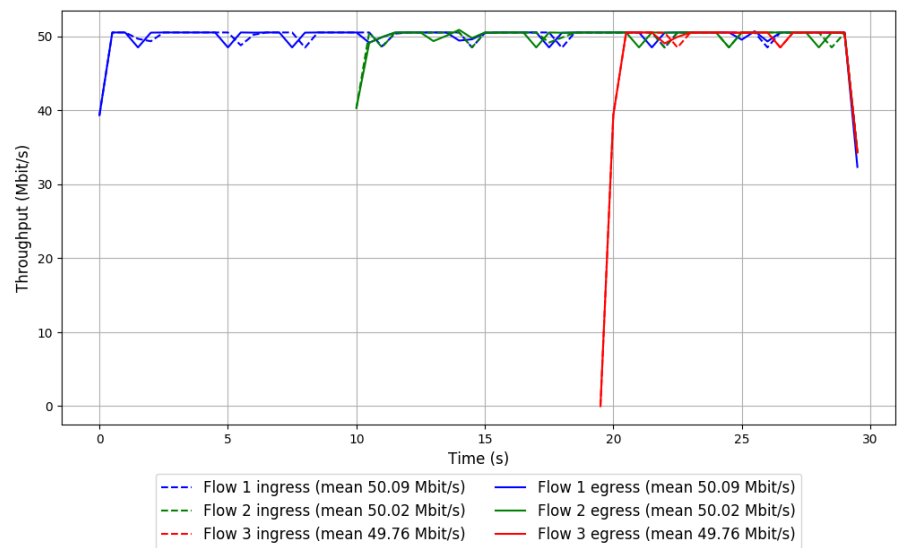
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2017-10-12 04:31:20
End at: 2017-10-12 04:31:50
Local clock offset: -0.095 ms
Remote clock offset: 0.853 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.83 Mbit/s
95th percentile per-packet one-way delay: 2.737 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 2.680 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.00 Mbit/s
95th percentile per-packet one-way delay: 2.822 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.02 Mbit/s
95th percentile per-packet one-way delay: 2.708 ms
Loss rate: 0.00%
```
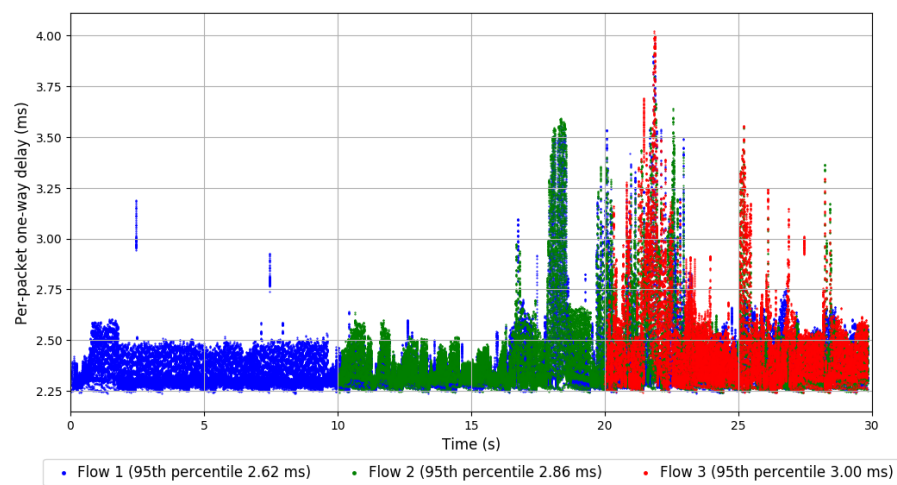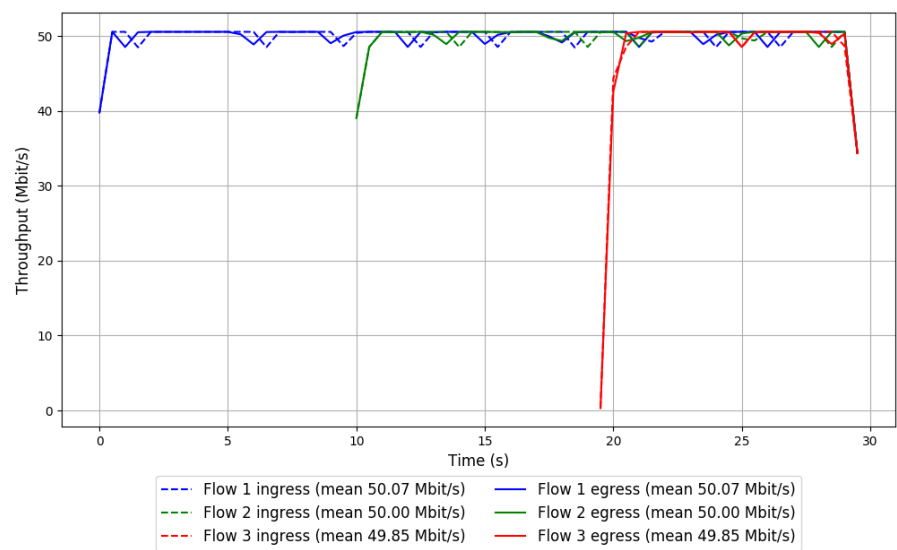
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2017-10-12 04:50:53
End at: 2017-10-12 04:51:23
Local clock offset: -0.05 ms
Remote clock offset: 0.93 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.68 Mbit/s
95th percentile per-packet one-way delay: 2.946 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 50.07 Mbit/s
95th percentile per-packet one-way delay: 2.862 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.98 Mbit/s
95th percentile per-packet one-way delay: 2.908 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 49.79 Mbit/s
95th percentile per-packet one-way delay: 3.125 ms
Loss rate: 0.21%
```
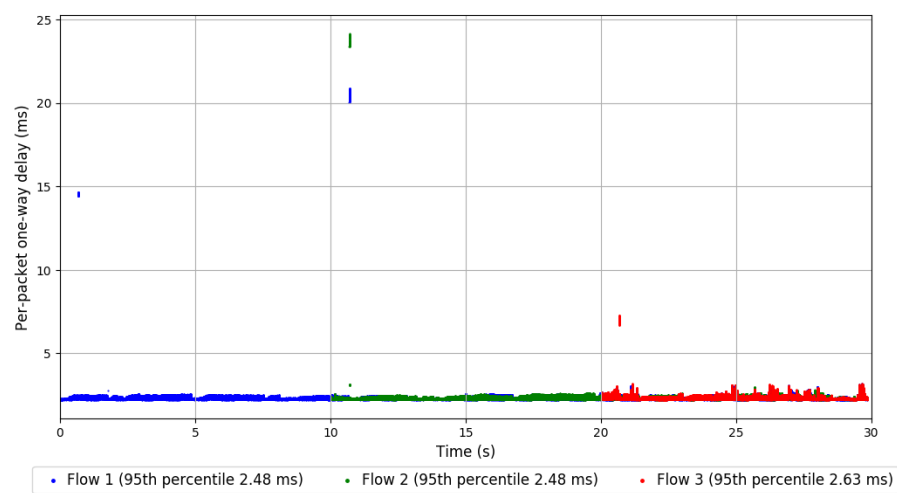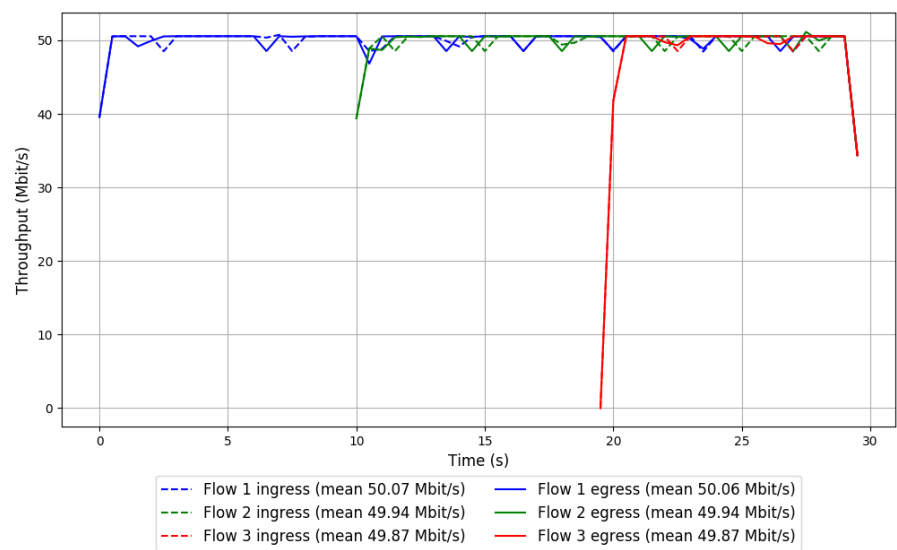
Run 4: Report of Sprout — Data Link

Flow 1 ingress (mean 50.07 Mbit/s) Flow 1 egress (mean 50.07 Mbit/s)
Flow 2 ingress (mean 50.02 Mbit/s) Flow 2 egress (mean 49.98 Mbit/s)
Flow 3 ingress (mean 49.79 Mbit/s) Flow 3 egress (mean 49.79 Mbit/s)

Flow 1 (95th percentile 2.86 ms)   Flow 2 (95th percentile 2.91 ms)   Flow 3 (95th percentile 3.12 ms)

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```
Run 5: Statistics of Sprout

Start at: 2017-10-12 05:10:27
End at: 2017-10-12 05:10:57
Local clock offset: 0.018 ms
Remote clock offset: 1.004 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.71 Mbit/s
95th percentile per-packet one-way delay: 2.797 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.09 Mbit/s
95th percentile per-packet one-way delay: 2.800 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 50.02 Mbit/s
95th percentile per-packet one-way delay: 2.909 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.76 Mbit/s
95th percentile per-packet one-way delay: 2.651 ms
Loss rate: 0.00%
```
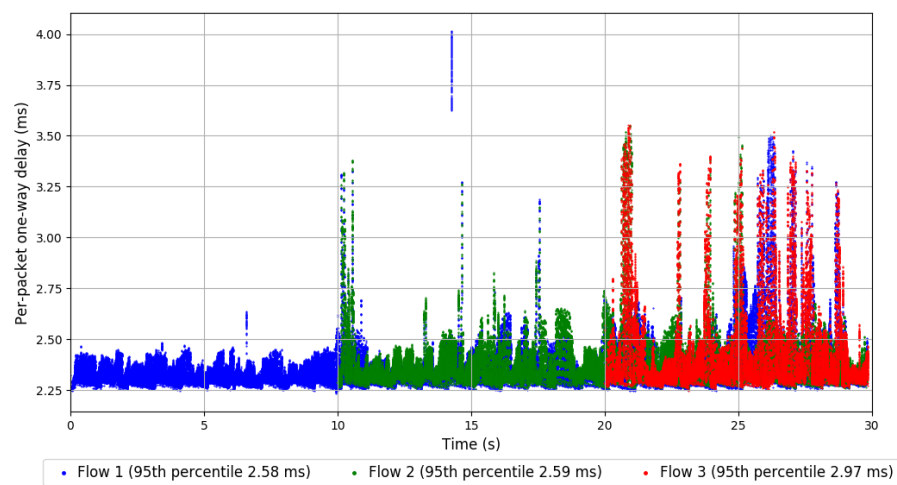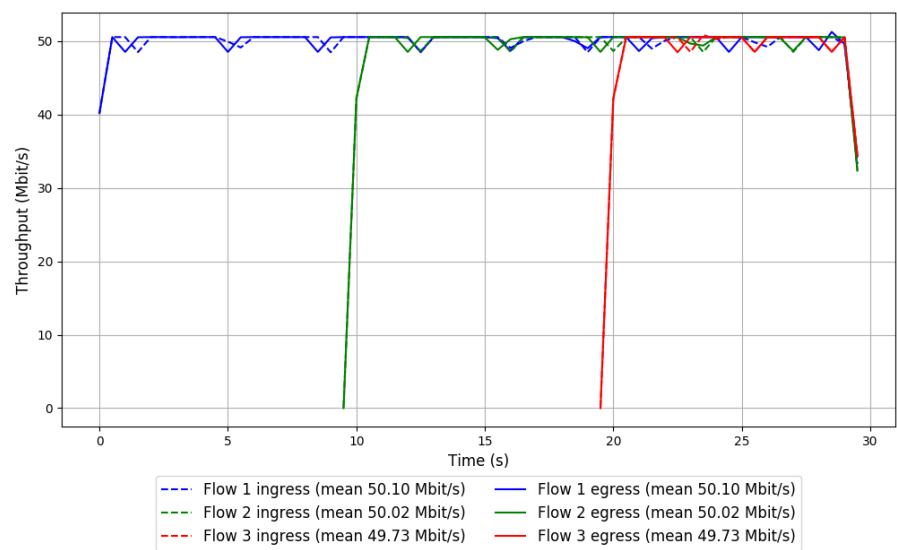
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2017-10-12 05:29:53
End at: 2017-10-12 05:30:23
Local clock offset: -0.056 ms
Remote clock offset: 0.963 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.76 Mbit/s
95th percentile per-packet one-way delay: 2.795 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.07 Mbit/s
95th percentile per-packet one-way delay: 2.615 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.00 Mbit/s
95th percentile per-packet one-way delay: 2.859 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.85 Mbit/s
95th percentile per-packet one-way delay: 2.995 ms
Loss rate: 0.00%
```
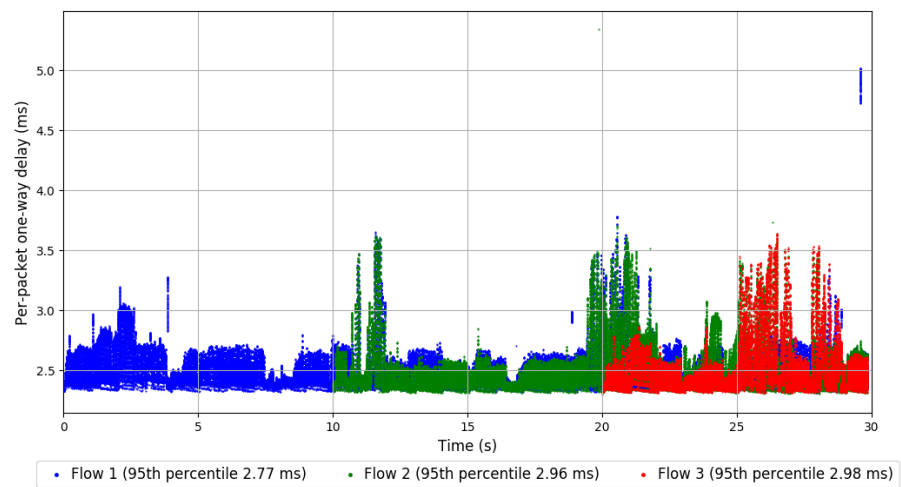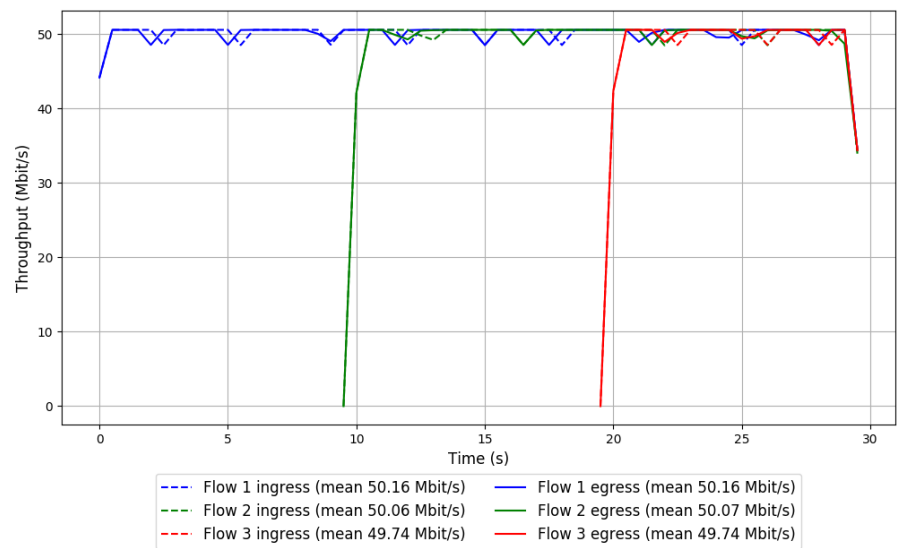
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2017-10-12 05:49:09
End at: 2017-10-12 05:49:39
Local clock offset: -0.071 ms
Remote clock offset: 0.909 ms


# Below is generated by plot.py at 2017-10-12 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.71 Mbit/s
95th percentile per-packet one-way delay: 2.500 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.06 Mbit/s
95th percentile per-packet one-way delay: 2.485 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.94 Mbit/s
95th percentile per-packet one-way delay: 2.484 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.87 Mbit/s
95th percentile per-packet one-way delay: 2.632 ms
Loss rate: 0.00%
```

Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2017-10-12 06:08:36
End at: 2017-10-12 06:09:06
Local clock offset: -0.053 ms
Remote clock offset: 0.544 ms


# Below is generated by plot.py at 2017-10-12 11:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.79 Mbit/s
95th percentile per-packet one-way delay: 2.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 2.578 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.02 Mbit/s
95th percentile per-packet one-way delay: 2.591 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.73 Mbit/s
95th percentile per-packet one-way delay: 2.974 ms
Loss rate: 0.00%
```
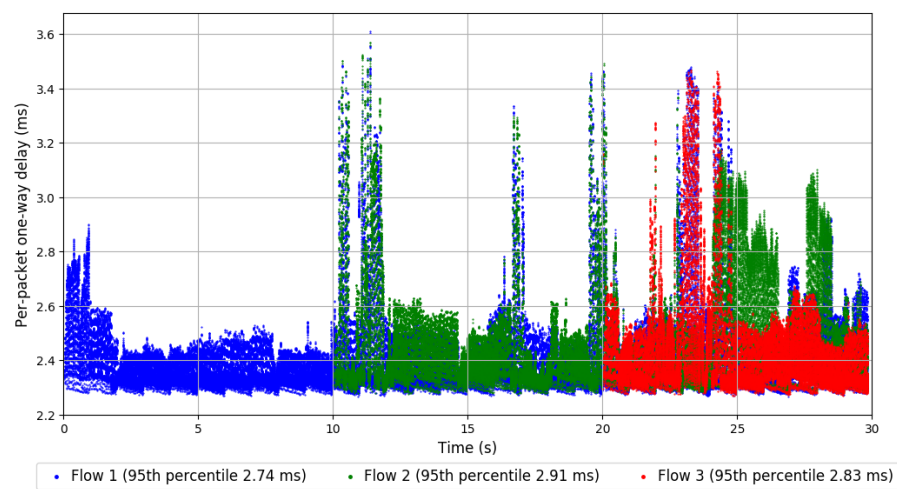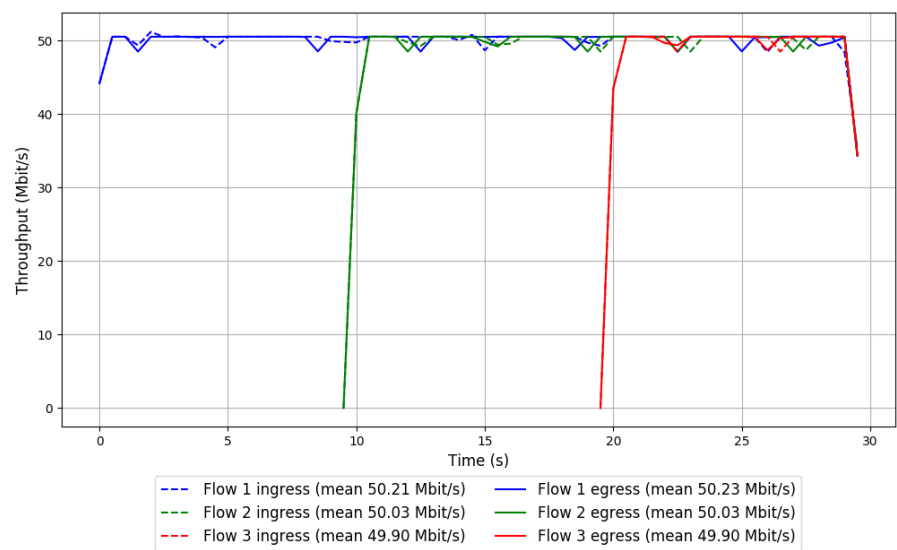
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2017-10-12 06:28:01
End at: 2017-10-12 06:28:31
Local clock offset: -0.231 ms
Remote clock offset: 0.191 ms


# Below is generated by plot.py at 2017-10-12 11:30:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.87 Mbit/s
95th percentile per-packet one-way delay: 2.890 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 2.769 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.07 Mbit/s
95th percentile per-packet one-way delay: 2.965 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 2.984 ms
Loss rate: 0.00%
```
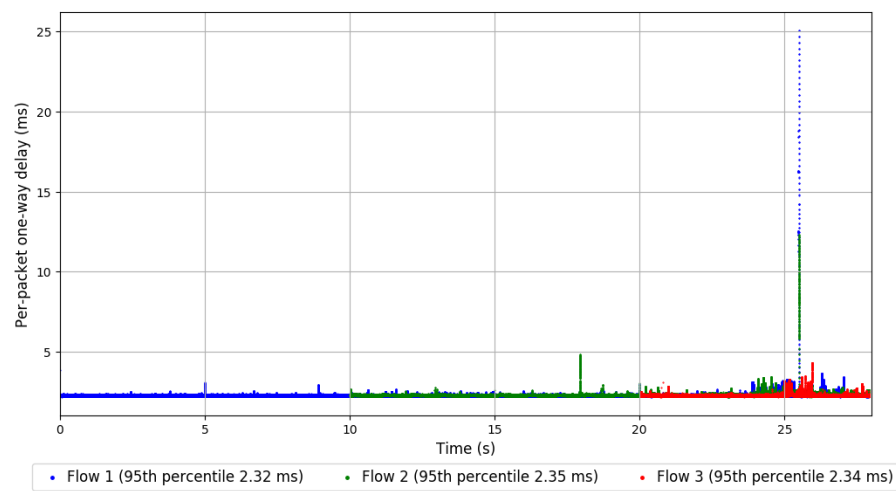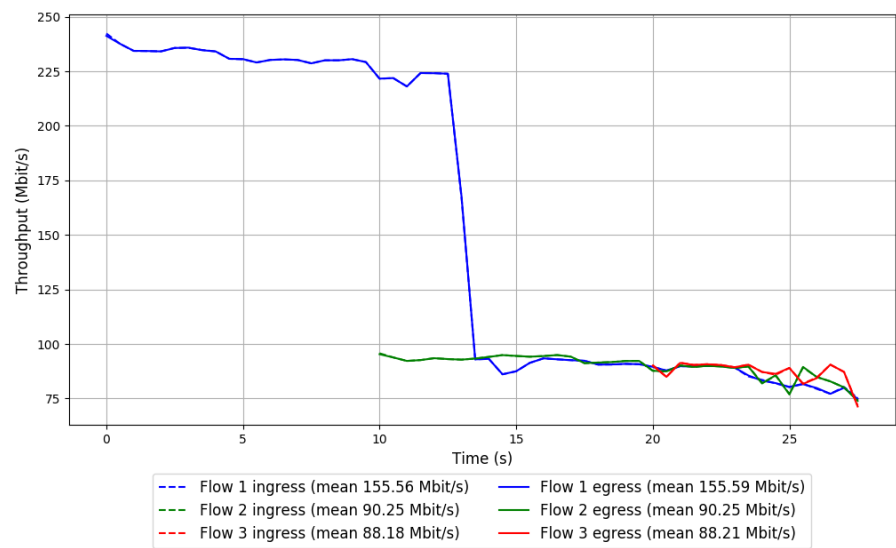
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2017-10-12 06:47:19
End at: 2017-10-12 06:47:49
Local clock offset: -0.415 ms
Remote clock offset: -0.2 ms


# Below is generated by plot.py at 2017-10-12 11:31:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.96 Mbit/s
95th percentile per-packet one-way delay: 2.834 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 2.739 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 2.907 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.90 Mbit/s
95th percentile per-packet one-way delay: 2.827 ms
Loss rate: 0.00%
```
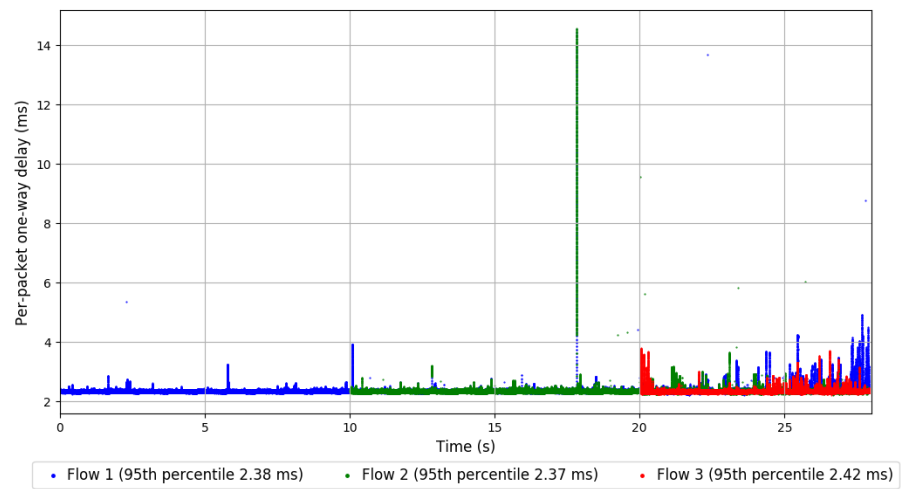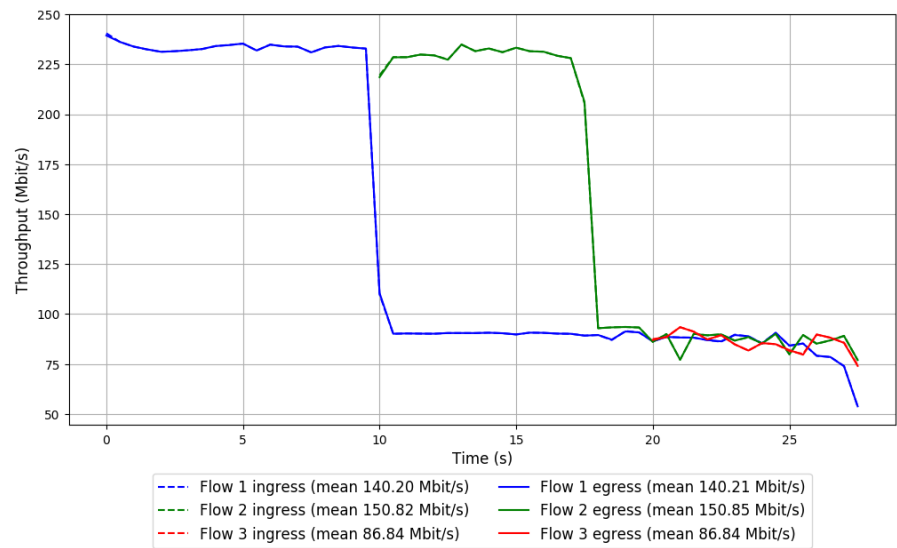
Run 10: Report of Sprout — Data Link

Flow 1 ingress (mean 50.21 Mbit/s) --- Flow 1 egress (mean 50.23 Mbit/s)
Flow 2 ingress (mean 50.03 Mbit/s) --- Flow 2 egress (mean 50.03 Mbit/s)
Flow 3 ingress (mean 49.90 Mbit/s) --- Flow 3 egress (mean 49.90 Mbit/s)

Flow 1 (95th percentile 2.74 ms)   Flow 2 (95th percentile 2.91 ms)   Flow 3 (95th percentile 2.83 ms)

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

Start at: 2017-10-12 03:40:38
End at: 2017-10-12 03:41:08
Local clock offset: -0.219 ms
Remote clock offset: 0.059 ms


# Below is generated by plot.py at 2017-10-12 11:35:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.49 Mbit/s
95th percentile per-packet one-way delay: 2.334 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 155.59 Mbit/s
95th percentile per-packet one-way delay: 2.319 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 90.25 Mbit/s
95th percentile per-packet one-way delay: 2.350 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 88.21 Mbit/s
95th percentile per-packet one-way delay: 2.341 ms
Loss rate: 0.06%
```
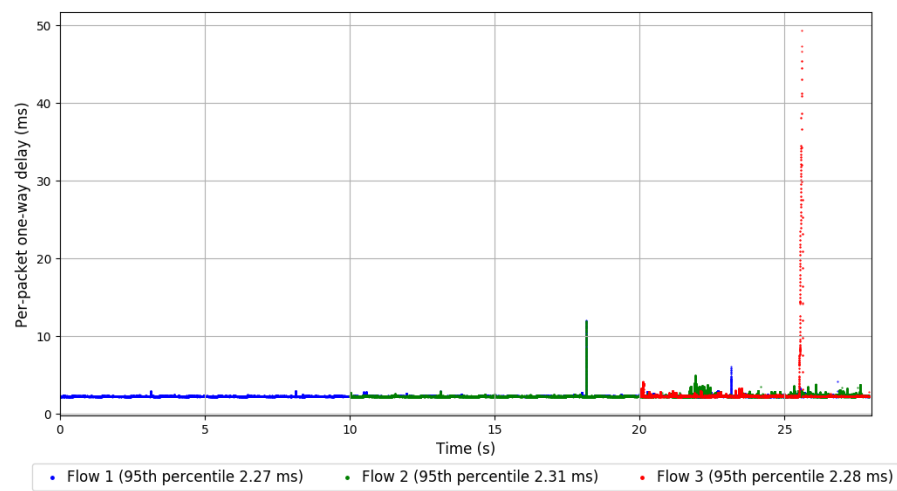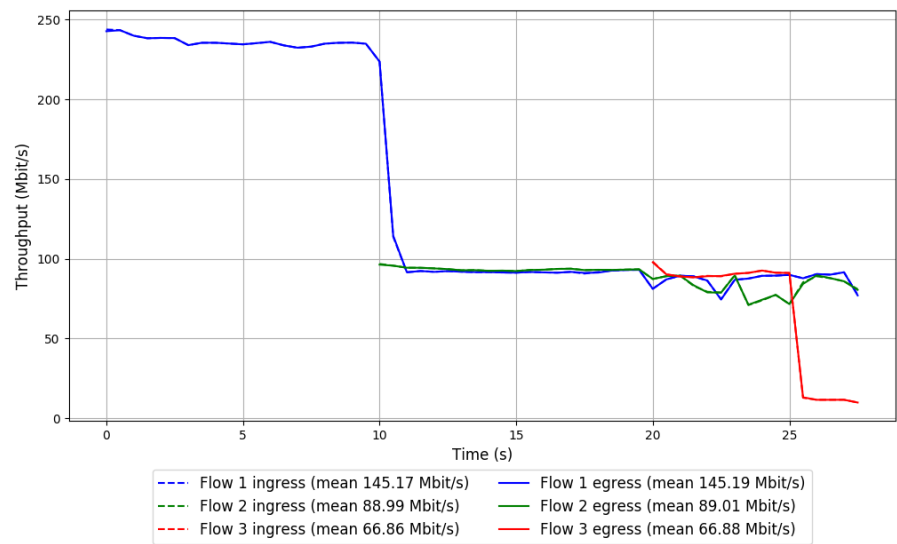
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2017-10-12 04:00:00
End at: 2017-10-12 04:00:30
Local clock offset: -0.148 ms
Remote clock offset: 0.347 ms


# Below is generated by plot.py at 2017-10-12 11:36:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.61 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 140.21 Mbit/s
95th percentile per-packet one-way delay: 2.378 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 150.85 Mbit/s
95th percentile per-packet one-way delay: 2.374 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 86.84 Mbit/s
95th percentile per-packet one-way delay: 2.422 ms
Loss rate: 0.06%
```
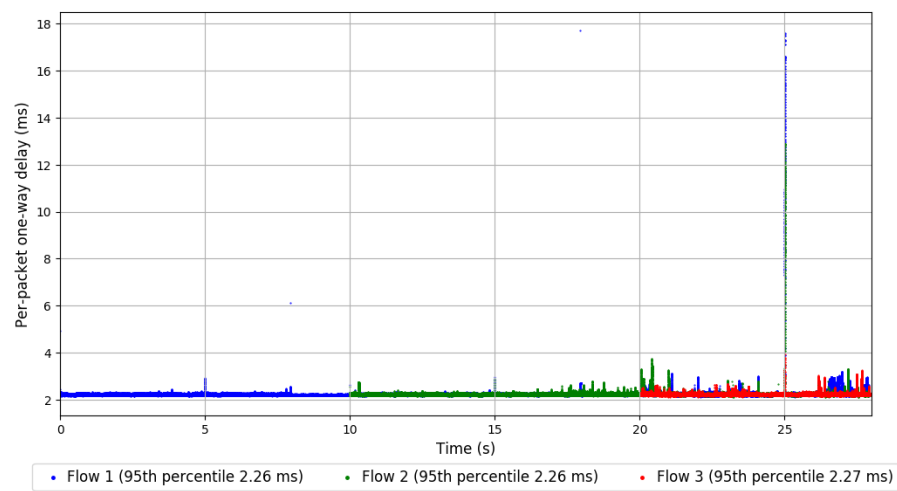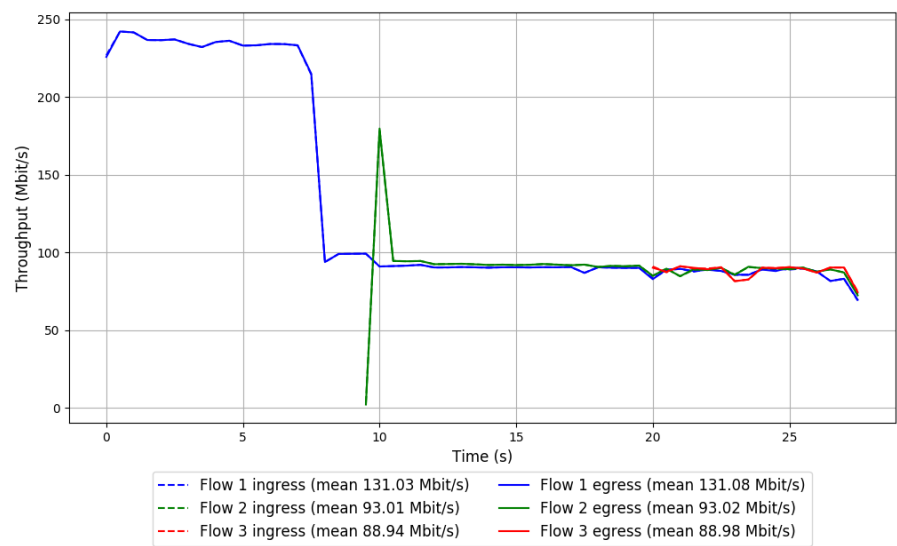
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2017-10-12 04:19:30
End at: 2017-10-12 04:20:00
Local clock offset: -0.173 ms
Remote clock offset: 0.675 ms


# Below is generated by plot.py at 2017-10-12 11:36:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 221.25 Mbit/s
95th percentile per-packet one-way delay: 2.275 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 145.19 Mbit/s
95th percentile per-packet one-way delay: 2.270 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 89.01 Mbit/s
95th percentile per-packet one-way delay: 2.307 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 66.88 Mbit/s
95th percentile per-packet one-way delay: 2.282 ms
Loss rate: 0.02%
```
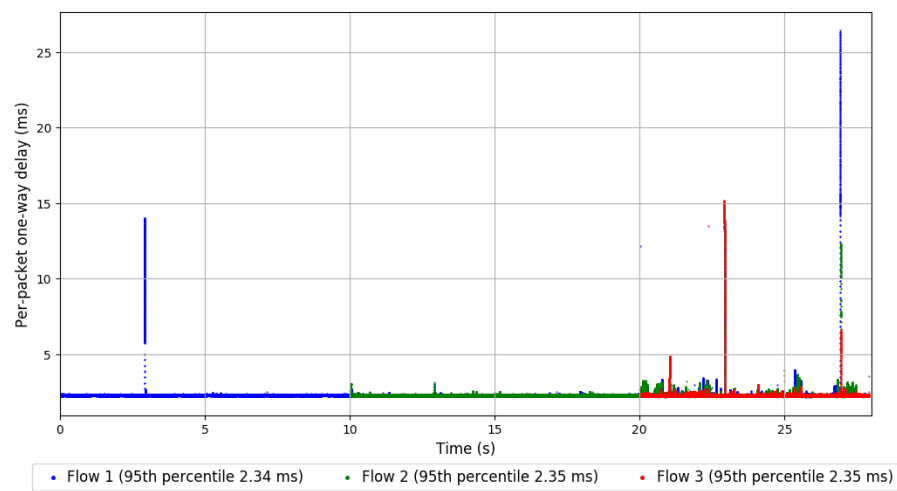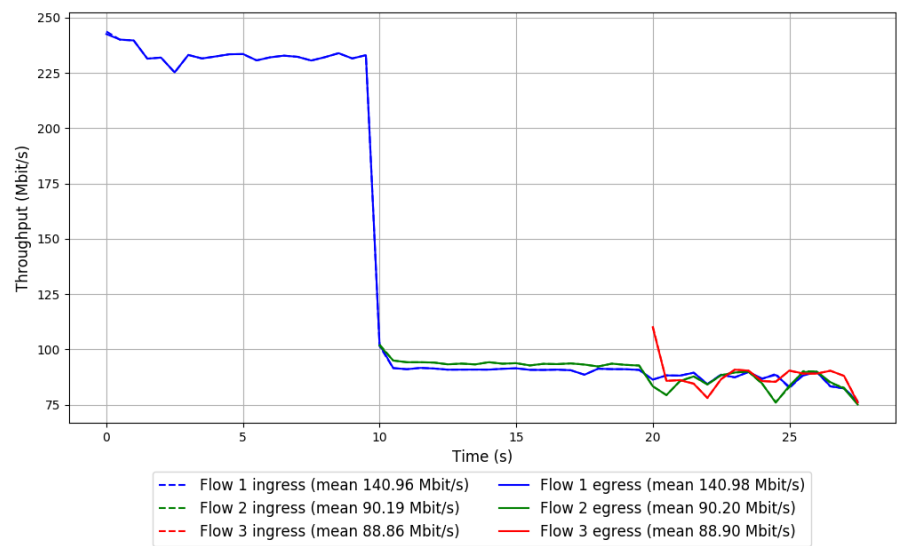
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2017-10-12 04:39:00
End at: 2017-10-12 04:39:30
Local clock offset: -0.113 ms
Remote clock offset: 0.897 ms

# Below is generated by plot.py at 2017-10-12 11:36:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.00 Mbit/s
95th percentile per-packet one-way delay: 2.260 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 131.08 Mbit/s
95th percentile per-packet one-way delay: 2.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 93.02 Mbit/s
95th percentile per-packet one-way delay: 2.263 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 88.98 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.06%
```

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

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

Start at: 2017-10-12 04:58:34
End at: 2017-10-12 04:59:04
Local clock offset: -0.04 ms
Remote clock offset: 0.937 ms

# Below is generated by plot.py at 2017-10-12 11:36:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.04 Mbit/s
95th percentile per-packet one-way delay: 2.342 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 140.98 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 90.20 Mbit/s
95th percentile per-packet one-way delay: 2.348 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 88.90 Mbit/s
95th percentile per-packet one-way delay: 2.351 ms
Loss rate: 0.06%
```
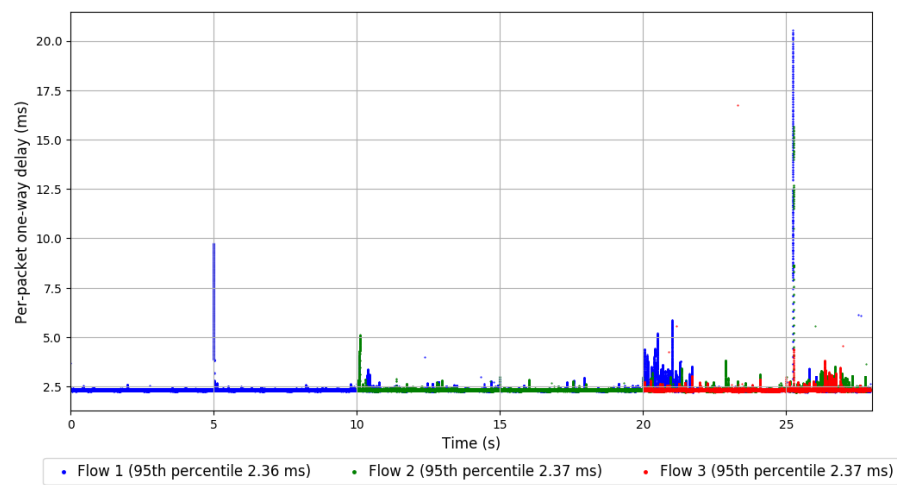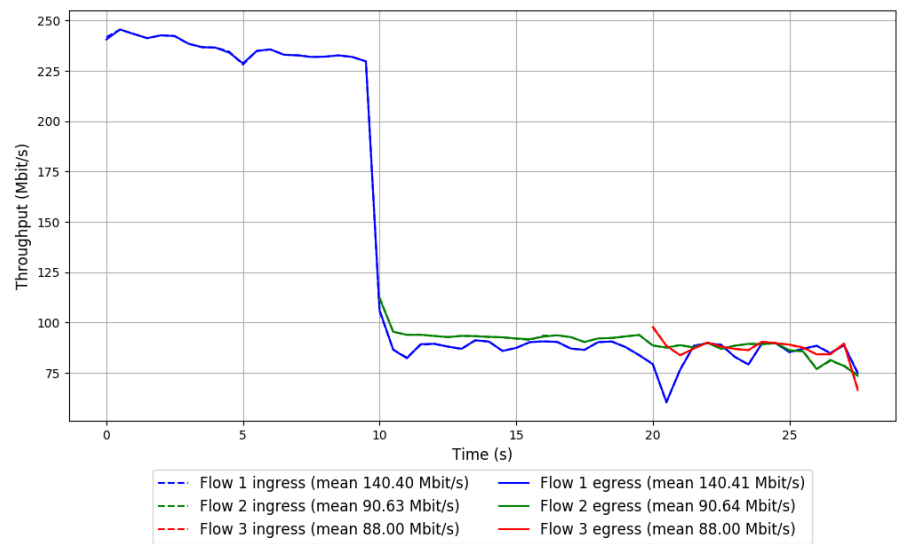
Run 5: Report of TaoVA-100x — Data Link

```
Run 6: Statistics of TaoVA-100x

Start at: 2017-10-12 05:18:06
End at: 2017-10-12 05:18:36
Local clock offset: -0.014 ms
Remote clock offset: 0.944 ms

# Below is generated by plot.py at 2017-10-12 11:36:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 223.47 Mbit/s
95th percentile per-packet one-way delay: 2.363 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 140.41 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 90.64 Mbit/s
95th percentile per-packet one-way delay: 2.370 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 88.00 Mbit/s
95th percentile per-packet one-way delay: 2.371 ms
Loss rate: 0.06%
```
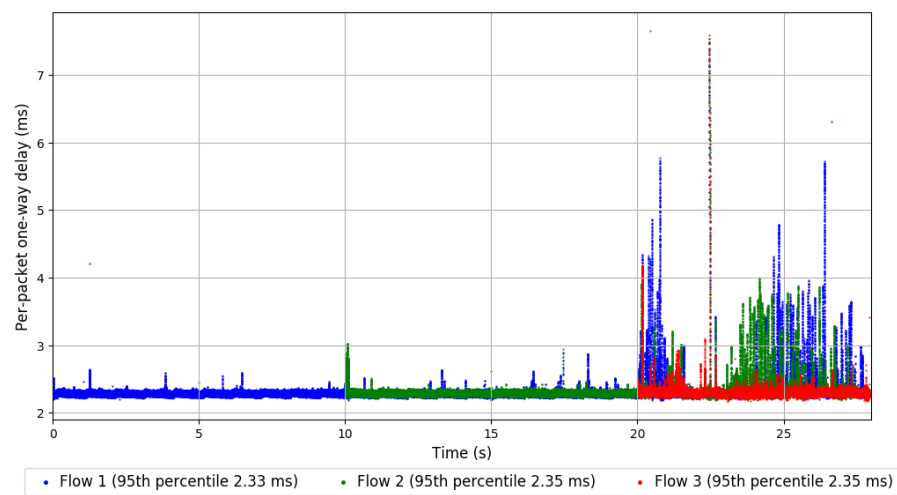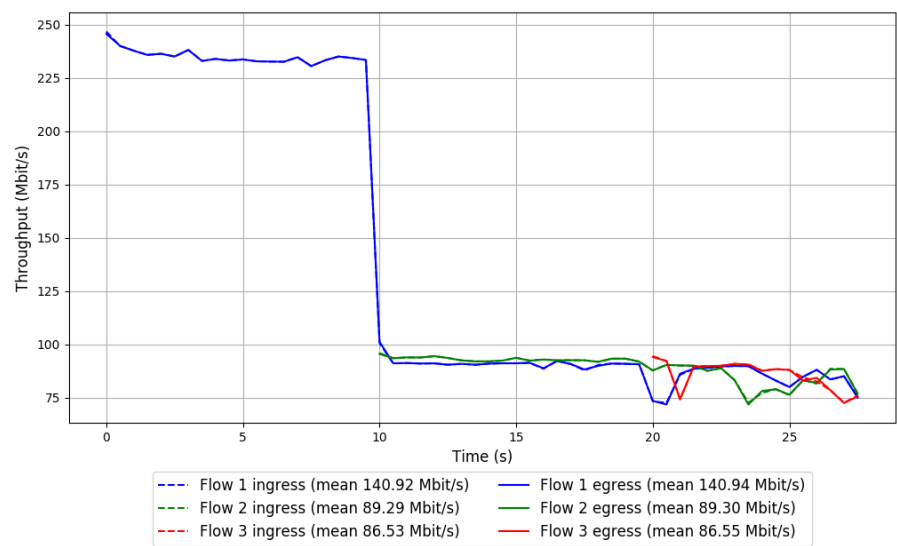
Run 6: Report of TaoVA-100x — Data Link

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```
Run 7: Statistics of TaoVA-100x

Start at: 2017-10-12 05:37:34
End at: 2017-10-12 05:38:04
Local clock offset: -0.107 ms
Remote clock offset: 0.921 ms


# Below is generated by plot.py at 2017-10-12 11:36:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 222.75 Mbit/s
95th percentile per-packet one-way delay: 2.335 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 140.94 Mbit/s
95th percentile per-packet one-way delay: 2.326 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 89.30 Mbit/s
95th percentile per-packet one-way delay: 2.348 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 86.55 Mbit/s
95th percentile per-packet one-way delay: 2.348 ms
Loss rate: 0.06%
```
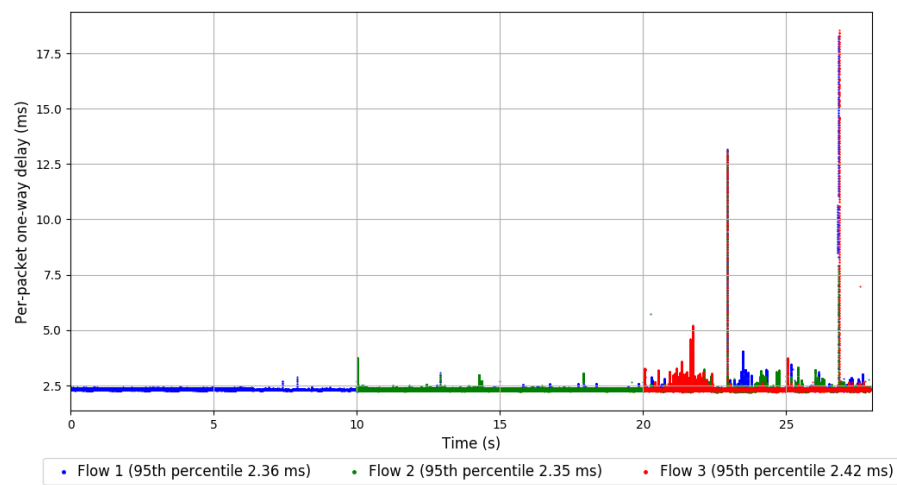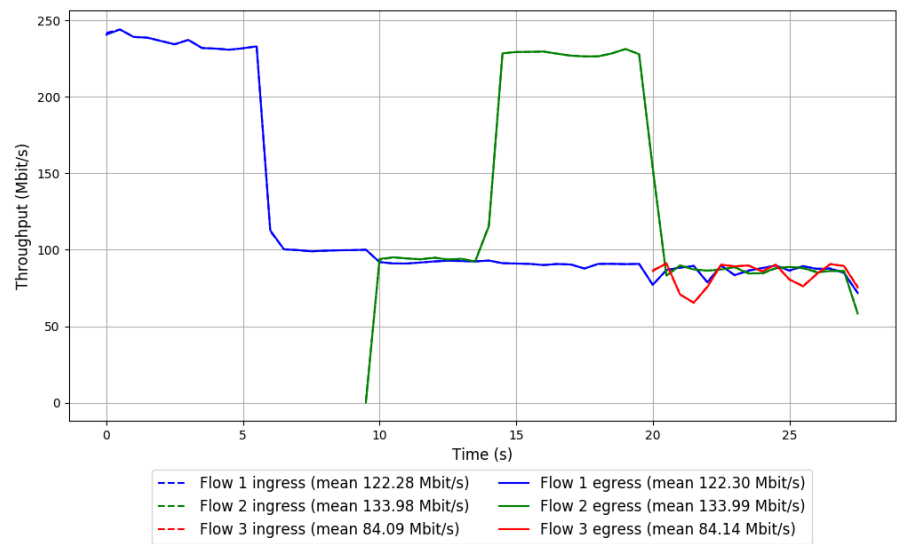
Run 7: Report of TaoVA-100x — Data Link

```
Run 8: Statistics of TaoVA-100x

Start at: 2017-10-12 05:56:50
End at: 2017-10-12 05:57:20
Local clock offset: -0.048 ms
Remote clock offset: 0.721 ms


# Below is generated by plot.py at 2017-10-12 11:37:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.19 Mbit/s
95th percentile per-packet one-way delay: 2.359 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 122.30 Mbit/s
95th percentile per-packet one-way delay: 2.362 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 133.99 Mbit/s
95th percentile per-packet one-way delay: 2.347 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 84.14 Mbit/s
95th percentile per-packet one-way delay: 2.417 ms
Loss rate: 0.06%
```
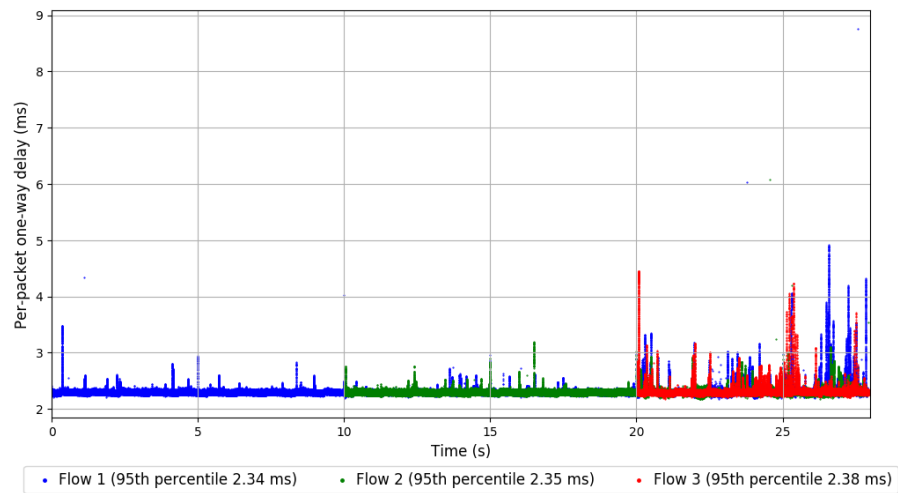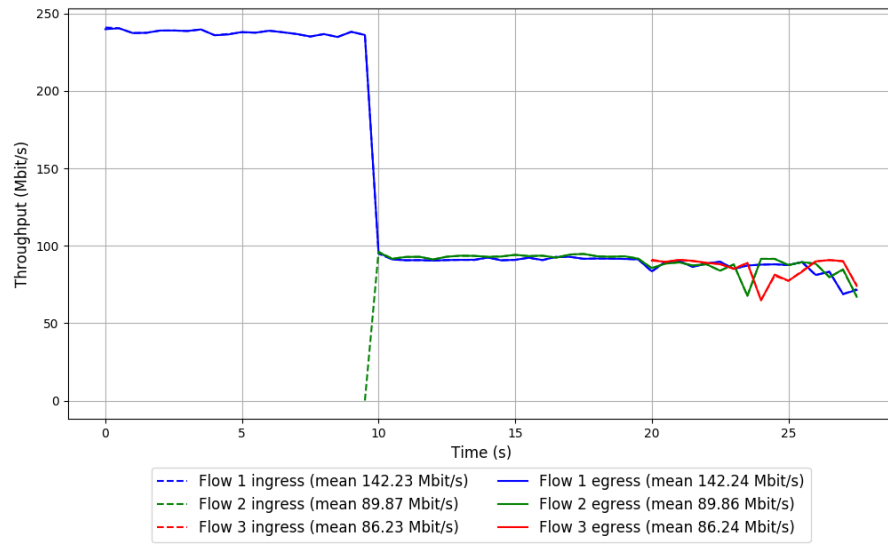
Run 8: Report of TaoVA-100x — Data Link

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```
Run 9: Statistics of TaoVA-100x

Start at: 2017-10-12 06:16:17
End at: 2017-10-12 06:16:47
Local clock offset: -0.135 ms
Remote clock offset: 0.439 ms


# Below is generated by plot.py at 2017-10-12 11:40:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.34 Mbit/s
95th percentile per-packet one-way delay: 2.342 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 142.24 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 89.86 Mbit/s
95th percentile per-packet one-way delay: 2.345 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 86.24 Mbit/s
95th percentile per-packet one-way delay: 2.383 ms
Loss rate: 0.06%
```

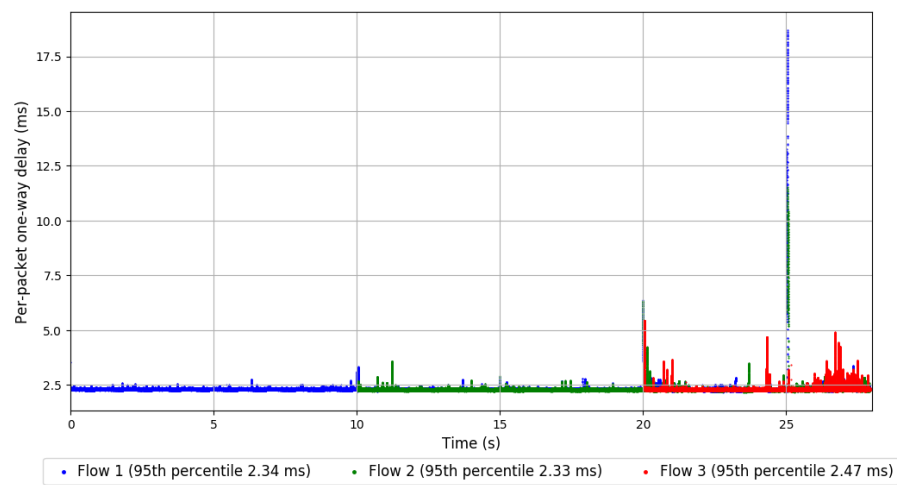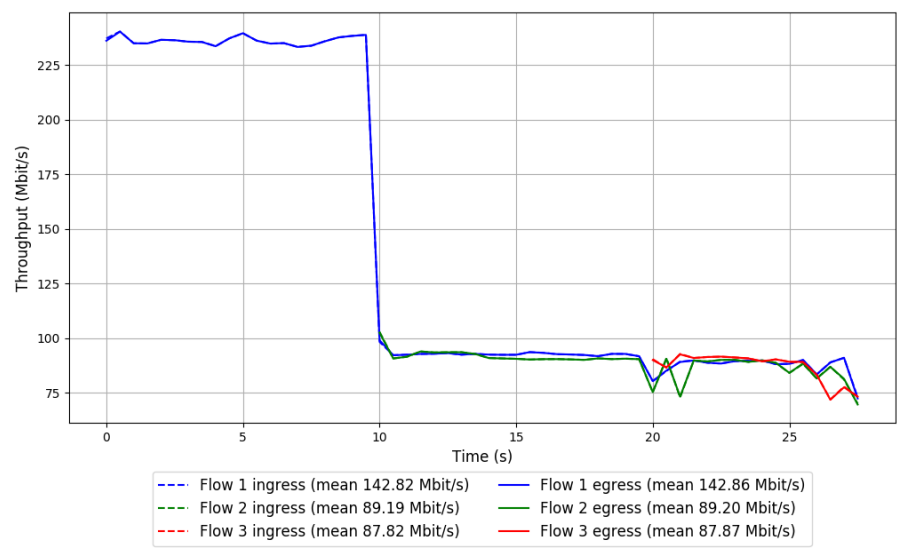Run 9: Report of TaoVA-100x — Data Link

```
Run 10: Statistics of TaoVA-100x

Start at: 2017-10-12 06:35:42
End at: 2017-10-12 06:36:12
Local clock offset: -0.297 ms
Remote clock offset: 0.043 ms

# Below is generated by plot.py at 2017-10-12 11:40:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.97 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 142.86 Mbit/s
95th percentile per-packet one-way delay: 2.337 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 89.20 Mbit/s
95th percentile per-packet one-way delay: 2.333 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 87.87 Mbit/s
95th percentile per-packet one-way delay: 2.469 ms
Loss rate: 0.06%
```
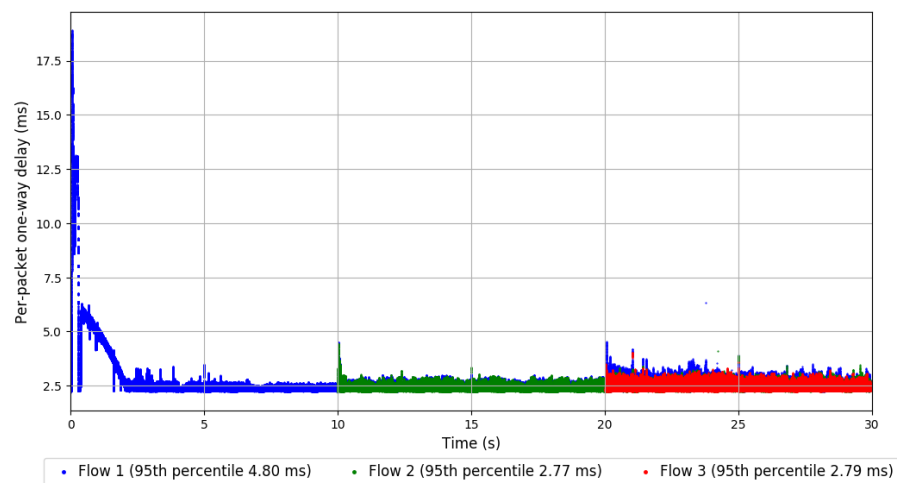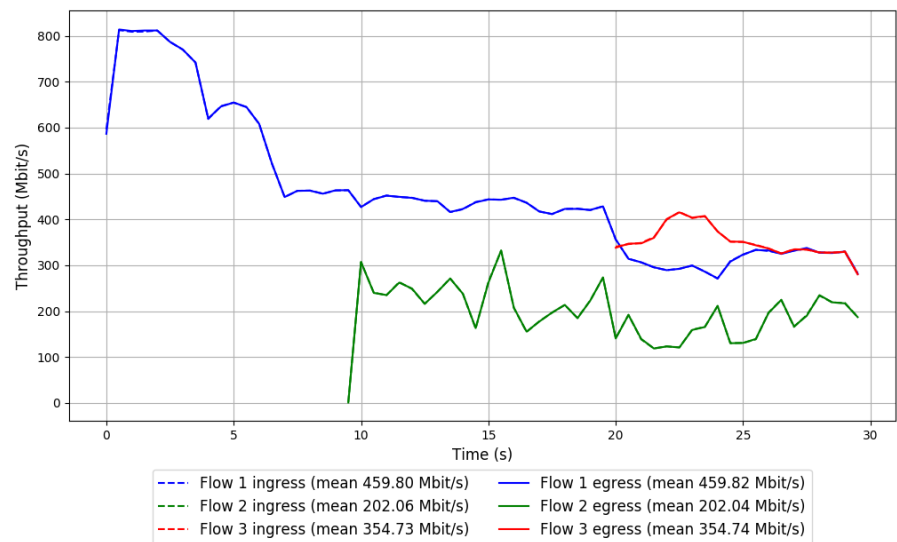
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 142.82 Mbit/s) --- Flow 1 egress (mean 142.86 Mbit/s)
Flow 2 ingress (mean 89.19 Mbit/s) --- Flow 2 egress (mean 89.20 Mbit/s)
Flow 3 ingress (mean 87.82 Mbit/s) --- Flow 3 egress (mean 87.87 Mbit/s)

Flow 1 (95th percentile 2.34 ms) • Flow 2 (95th percentile 2.33 ms) • Flow 3 (95th percentile 2.47 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2017-10-12 03:49:37
End at: 2017-10-12 03:50:07
Local clock offset: -0.193 ms
Remote clock offset: 0.201 ms


# Below is generated by plot.py at 2017-10-12 11:45:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 712.02 Mbit/s
95th percentile per-packet one-way delay: 3.846 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 459.82 Mbit/s
95th percentile per-packet one-way delay: 4.803 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 202.04 Mbit/s
95th percentile per-packet one-way delay: 2.767 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 354.74 Mbit/s
95th percentile per-packet one-way delay: 2.787 ms
Loss rate: 0.05%
```
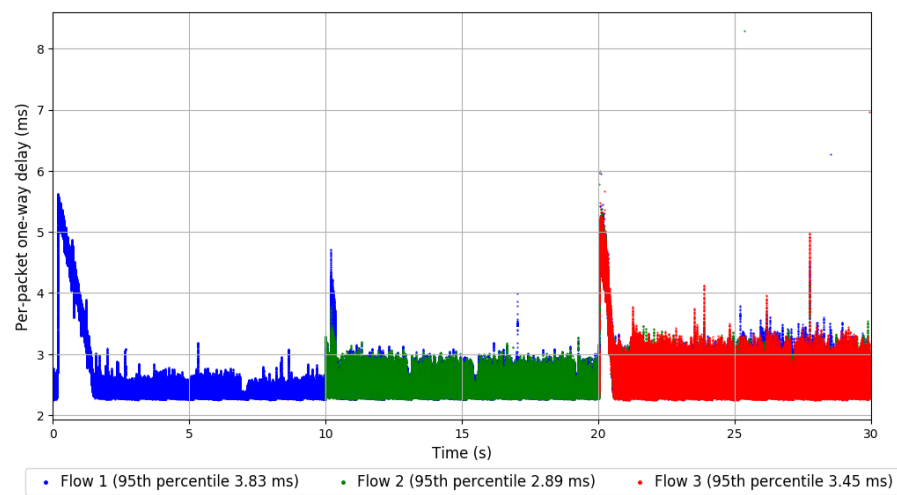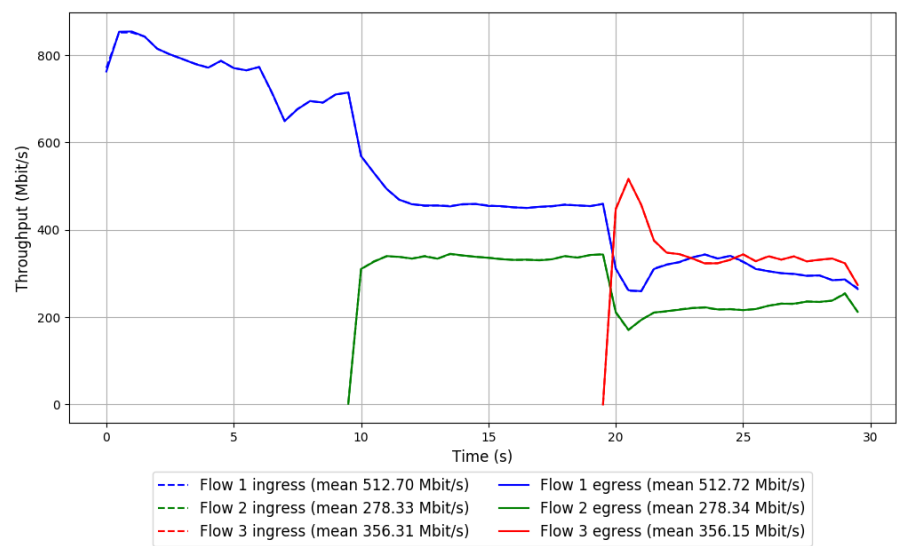
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2017-10-12 04:08:57
End at: 2017-10-12 04:09:27
Local clock offset: -0.135 ms
Remote clock offset: 0.497 ms


# Below is generated by plot.py at 2017-10-12 11:47:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 816.30 Mbit/s
95th percentile per-packet one-way delay: 3.444 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 512.72 Mbit/s
95th percentile per-packet one-way delay: 3.825 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 278.34 Mbit/s
95th percentile per-packet one-way delay: 2.890 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 356.15 Mbit/s
95th percentile per-packet one-way delay: 3.449 ms
Loss rate: 0.03%
```
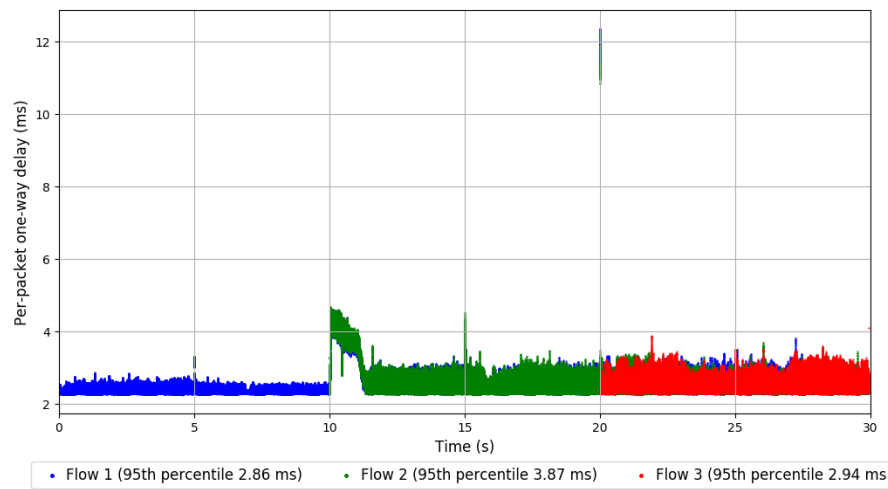
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2017-10-12 04:28:27
End at: 2017-10-12 04:28:57
Local clock offset: -0.166 ms
Remote clock offset: 0.732 ms


# Below is generated by plot.py at 2017-10-12 11:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 805.76 Mbit/s
95th percentile per-packet one-way delay: 3.086 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 428.44 Mbit/s
95th percentile per-packet one-way delay: 2.859 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 416.53 Mbit/s
95th percentile per-packet one-way delay: 3.868 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 301.22 Mbit/s
95th percentile per-packet one-way delay: 2.943 ms
Loss rate: 0.05%
```
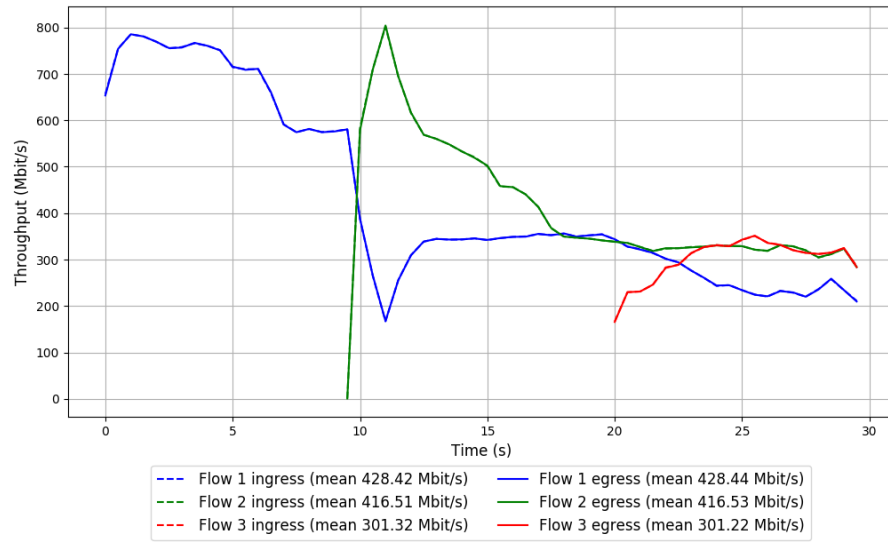
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2017-10-12 04:47:59
End at: 2017-10-12 04:48:29
Local clock offset: -0.119 ms
Remote clock offset: 0.856 ms


# Below is generated by plot.py at 2017-10-12 11:49:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 856.49 Mbit/s
95th percentile per-packet one-way delay: 3.507 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 499.84 Mbit/s
95th percentile per-packet one-way delay: 2.861 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 337.99 Mbit/s
95th percentile per-packet one-way delay: 3.710 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 397.45 Mbit/s
95th percentile per-packet one-way delay: 4.246 ms
Loss rate: 0.04%
```
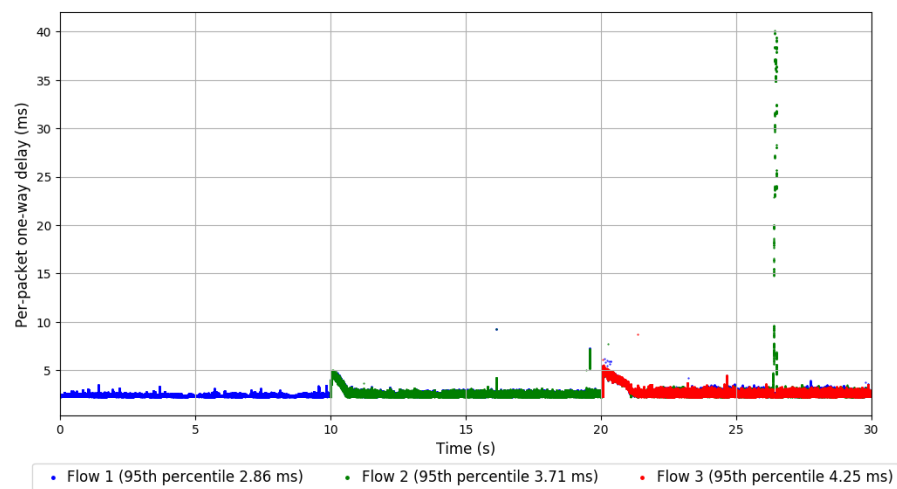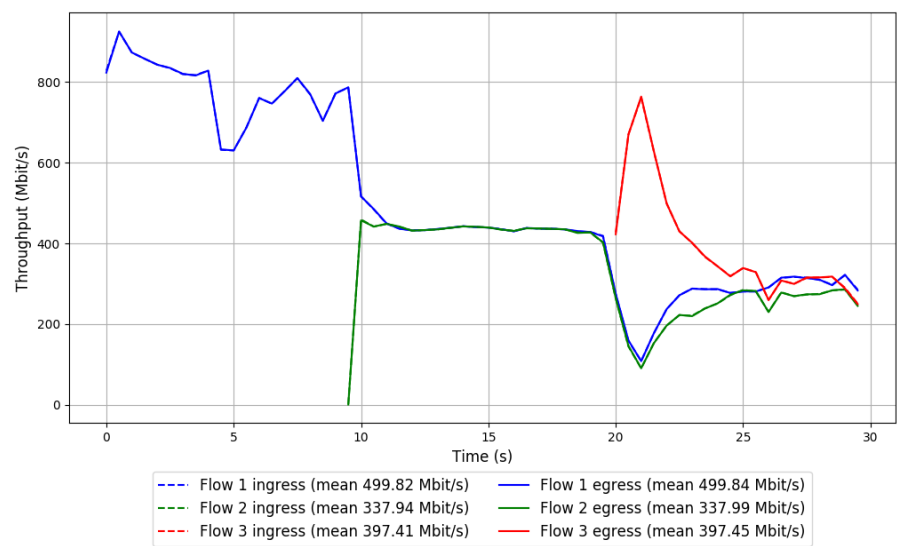
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2017-10-12 05:07:33
End at: 2017-10-12 05:08:03
Local clock offset: -0.114 ms
Remote clock offset: 0.962 ms


# Below is generated by plot.py at 2017-10-12 11:49:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 851.57 Mbit/s
95th percentile per-packet one-way delay: 2.803 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 527.66 Mbit/s
95th percentile per-packet one-way delay: 2.776 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 328.20 Mbit/s
95th percentile per-packet one-way delay: 2.887 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 317.27 Mbit/s
95th percentile per-packet one-way delay: 2.765 ms
Loss rate: 0.05%
```
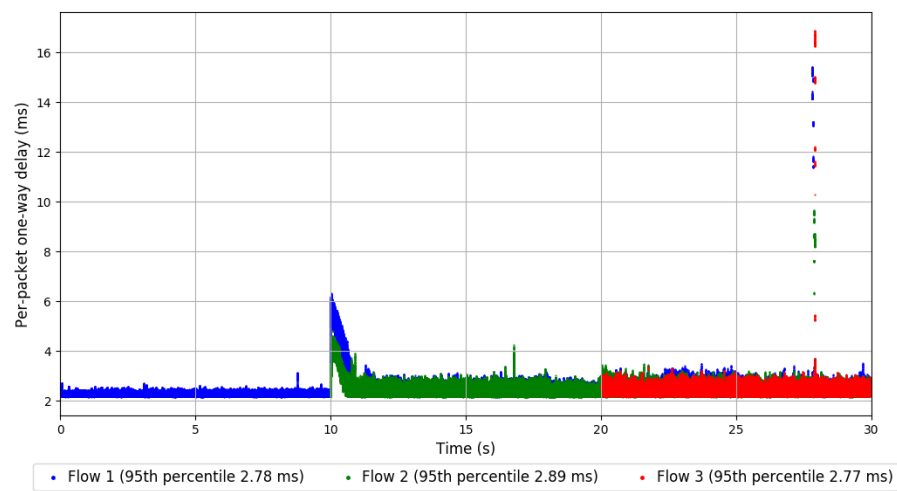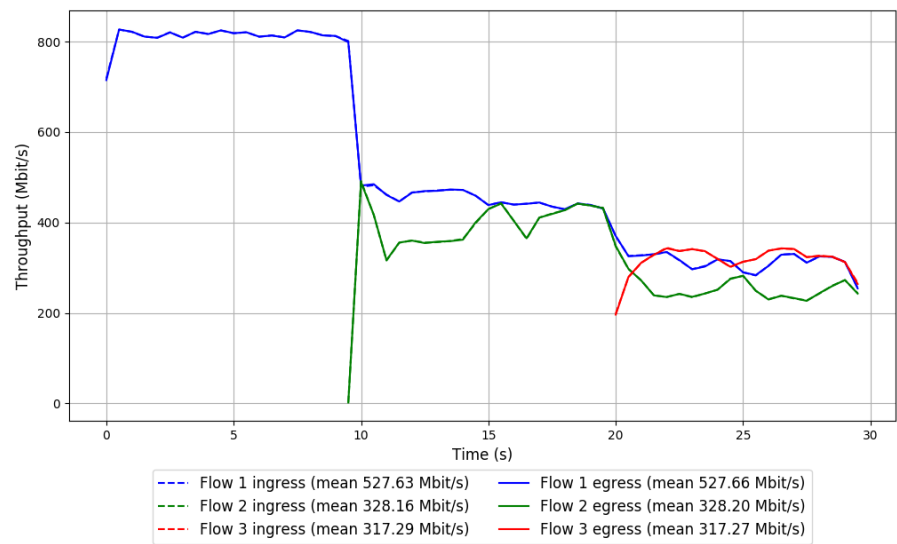
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2017-10-12 05:27:05
End at: 2017-10-12 05:27:35
Local clock offset: -0.113 ms
Remote clock offset: 0.946 ms


# Below is generated by plot.py at 2017-10-12 11:49:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 759.77 Mbit/s
95th percentile per-packet one-way delay: 2.832 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 522.59 Mbit/s
95th percentile per-packet one-way delay: 2.786 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 175.29 Mbit/s
95th percentile per-packet one-way delay: 2.836 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 363.42 Mbit/s
95th percentile per-packet one-way delay: 2.945 ms
Loss rate: 0.05%
```
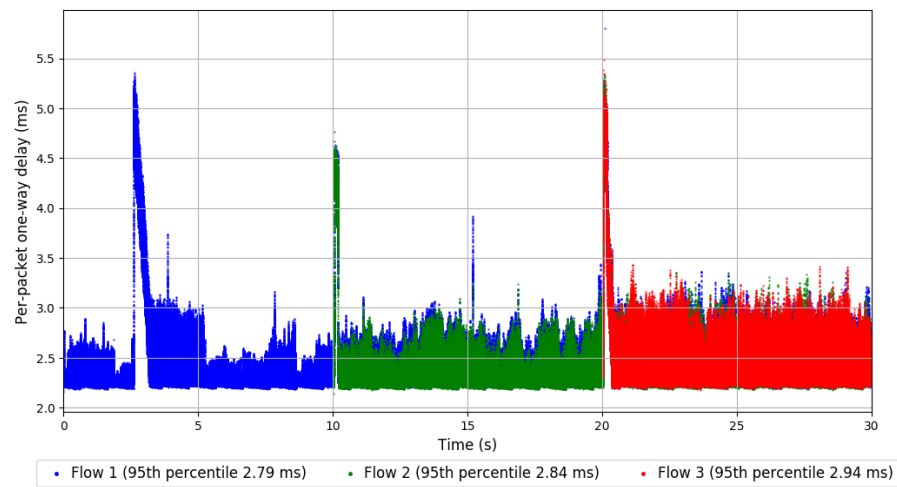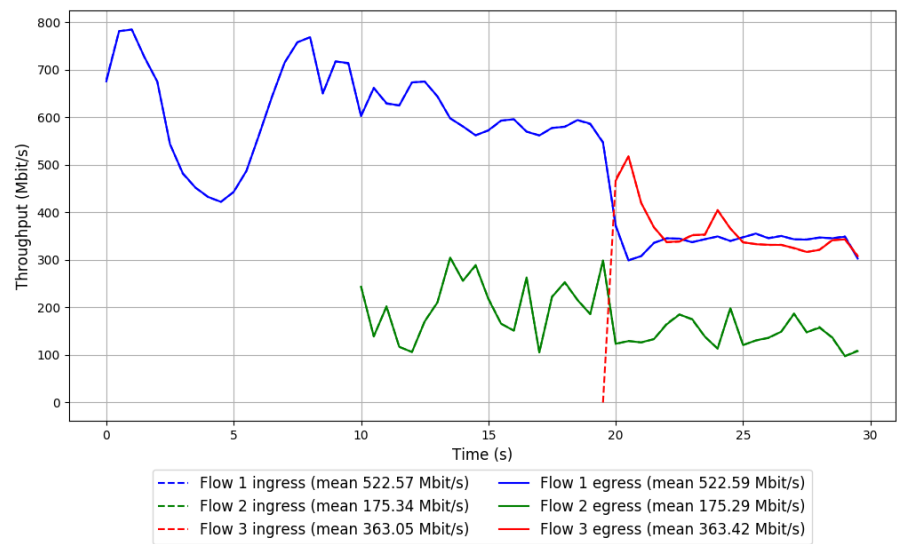
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2017-10-12 05:46:29
End at: 2017-10-12 05:46:59
Local clock offset: -0.104 ms
Remote clock offset: 0.944 ms


# Below is generated by plot.py at 2017-10-12 11:49:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 526.46 Mbit/s
95th percentile per-packet one-way delay: 2.742 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 10.89 Mbit/s
95th percentile per-packet one-way delay: 1158.460 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 572.96 Mbit/s
95th percentile per-packet one-way delay: 2.683 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 376.02 Mbit/s
95th percentile per-packet one-way delay: 3.180 ms
Loss rate: 0.03%
```
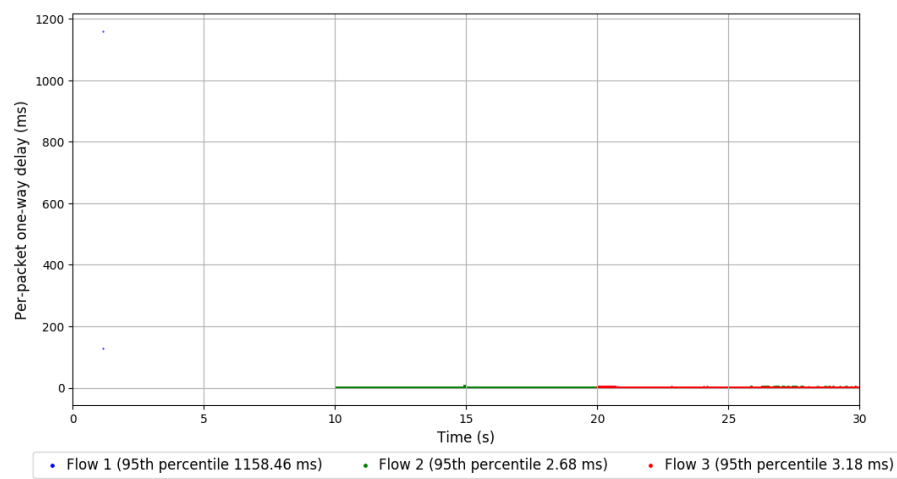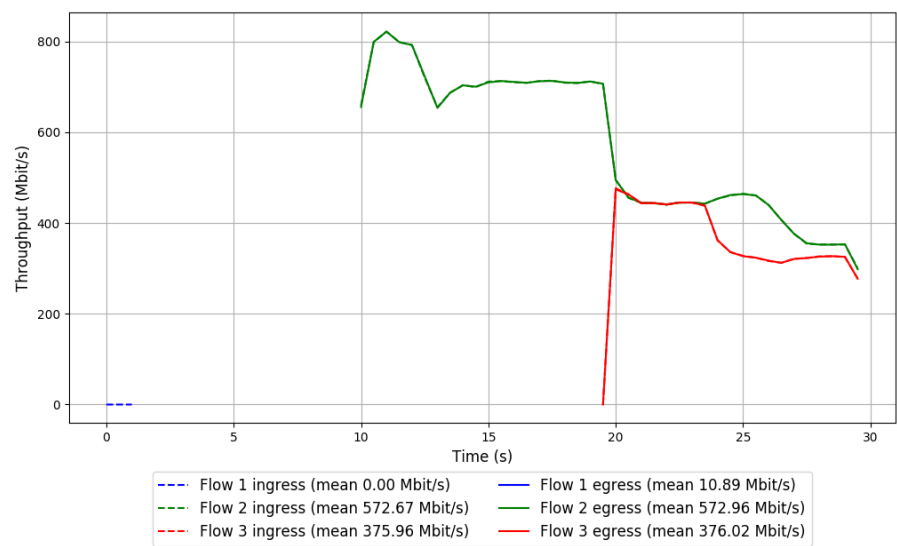
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2017-10-12 06:05:49
End at: 2017-10-12 06:06:19
Local clock offset: -0.022 ms
Remote clock offset: 0.597 ms


# Below is generated by plot.py at 2017-10-12 11:51:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 685.99 Mbit/s
95th percentile per-packet one-way delay: 2.851 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 280.17 Mbit/s
95th percentile per-packet one-way delay: 2.788 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 444.16 Mbit/s
95th percentile per-packet one-way delay: 2.881 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 332.28 Mbit/s
95th percentile per-packet one-way delay: 2.892 ms
Loss rate: 0.04%
```
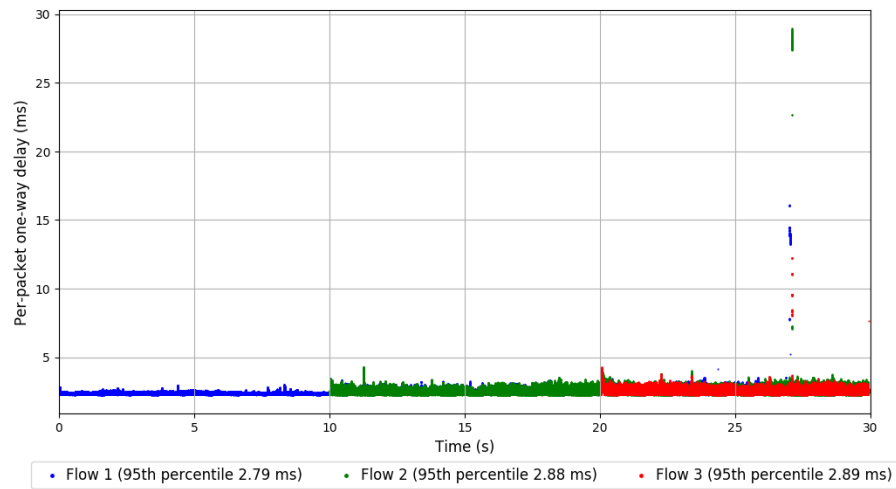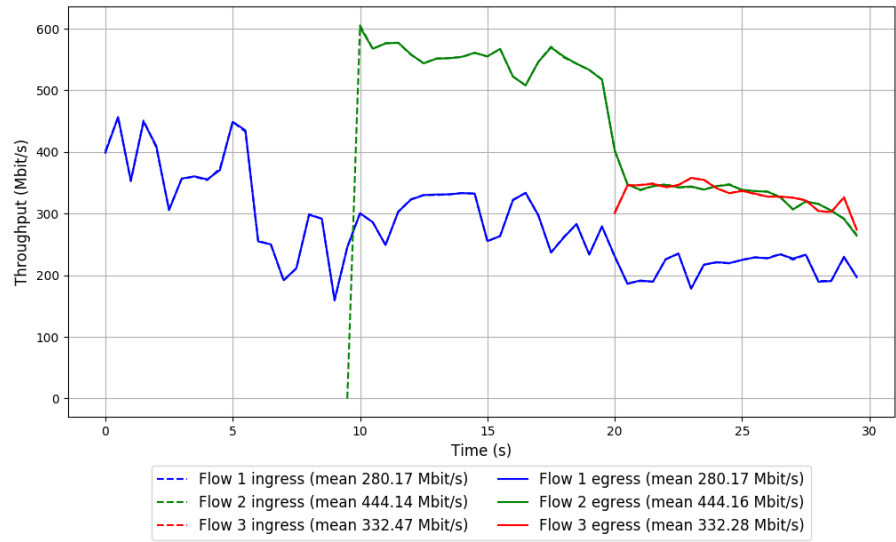
Run 8: Report of TCP Vegas — Data Link

- - - - Flow 1 ingress (mean 280.17 Mbit/s) ——— Flow 1 egress (mean 280.17 Mbit/s)
- - - - Flow 2 ingress (mean 444.14 Mbit/s) ——— Flow 2 egress (mean 444.16 Mbit/s)
- - - - Flow 3 ingress (mean 332.47 Mbit/s) ——— Flow 3 egress (mean 332.28 Mbit/s)

- Flow 1 (95th percentile 2.79 ms) - Flow 2 (95th percentile 2.88 ms) - Flow 3 (95th percentile 2.89 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2017-10-12 06:25:16
End at: 2017-10-12 06:25:46
Local clock offset: -0.199 ms
Remote clock offset: 0.354 ms


# Below is generated by plot.py at 2017-10-12 11:56:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 660.06 Mbit/s
95th percentile per-packet one-way delay: 2.933 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 284.42 Mbit/s
95th percentile per-packet one-way delay: 2.790 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 369.02 Mbit/s
95th percentile per-packet one-way delay: 3.038 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 392.19 Mbit/s
95th percentile per-packet one-way delay: 3.255 ms
Loss rate: 0.04%
```
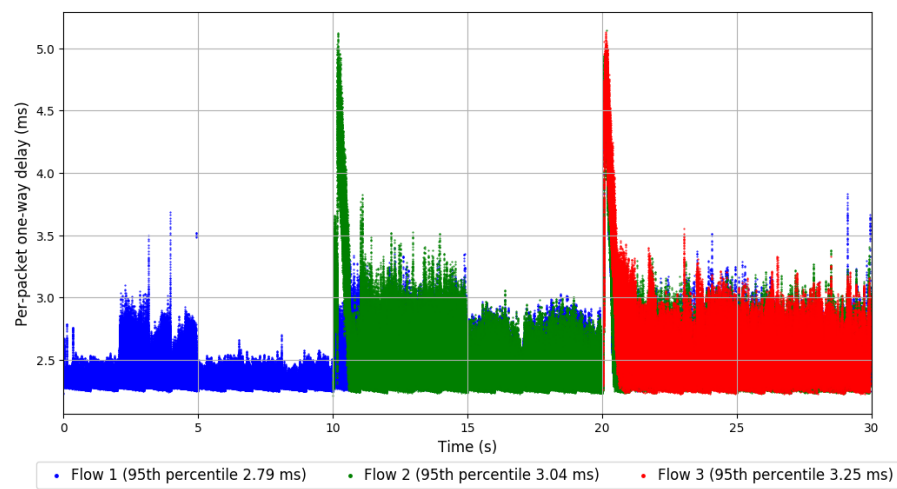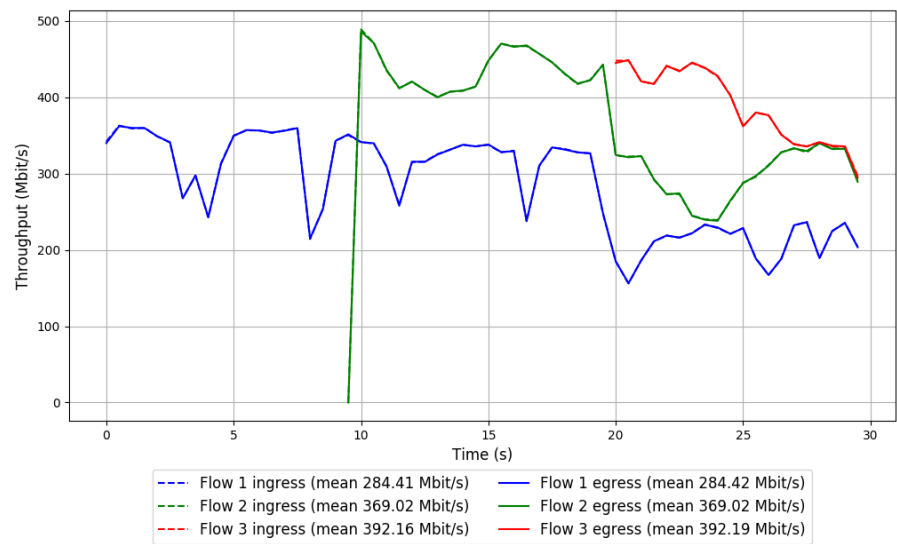
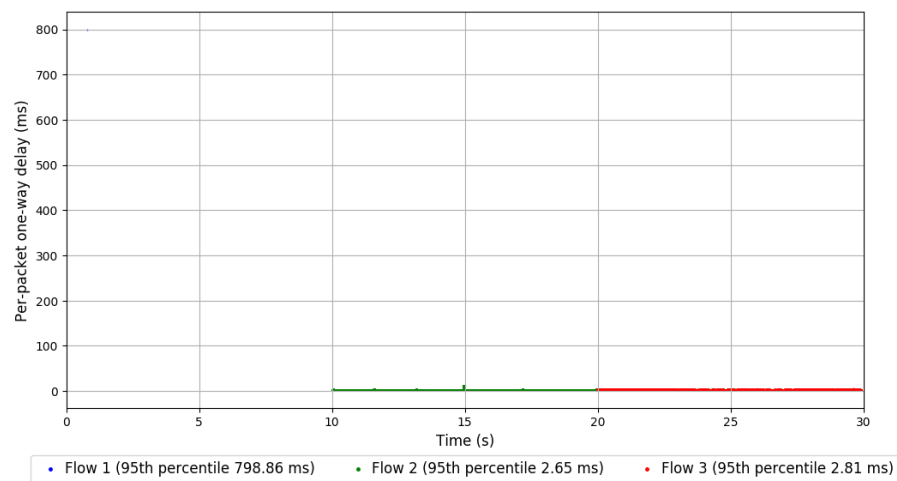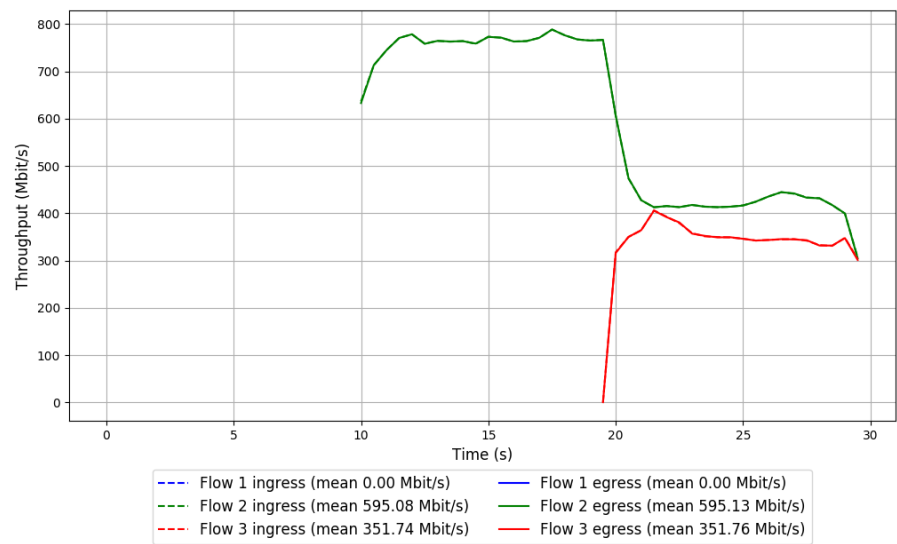Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2017-10-12 06:44:39
End at: 2017-10-12 06:45:09
Local clock offset: -0.354 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2017-10-12 11:56:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 526.94 Mbit/s
95th percentile per-packet one-way delay: 2.723 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 798.858 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 595.13 Mbit/s
95th percentile per-packet one-way delay: 2.655 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 351.76 Mbit/s
95th percentile per-packet one-way delay: 2.807 ms
Loss rate: 0.05%
```

Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2017-10-12 03:41:58
End at: 2017-10-12 03:42:28
Local clock offset: -0.229 ms
Remote clock offset: 0.004 ms


# Below is generated by plot.py at 2017-10-12 11:56:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 412.80 Mbit/s
95th percentile per-packet one-way delay: 4.935 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 230.96 Mbit/s
95th percentile per-packet one-way delay: 6.040 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 199.23 Mbit/s
95th percentile per-packet one-way delay: 3.692 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.76 Mbit/s
95th percentile per-packet one-way delay: 3.988 ms
Loss rate: 0.03%
```
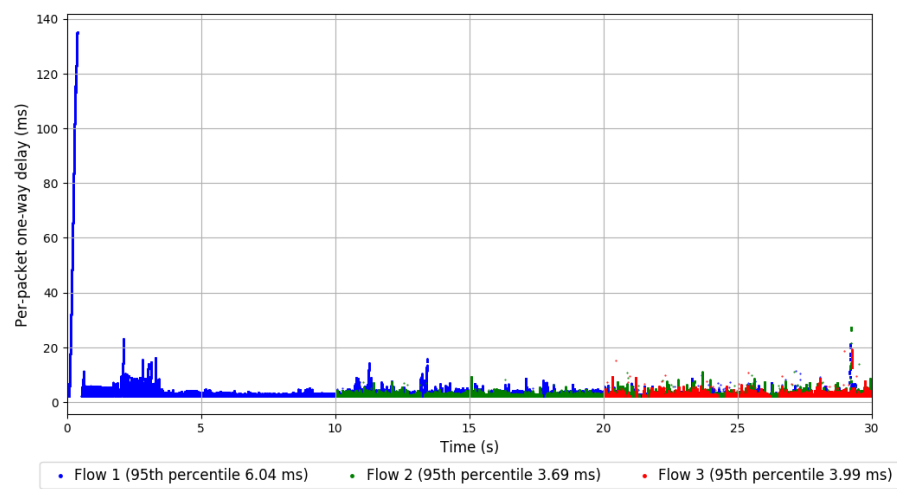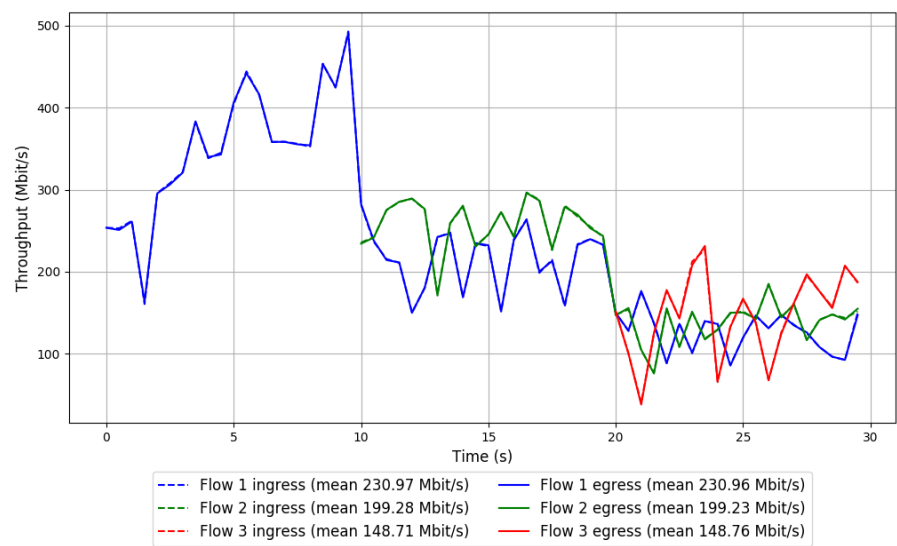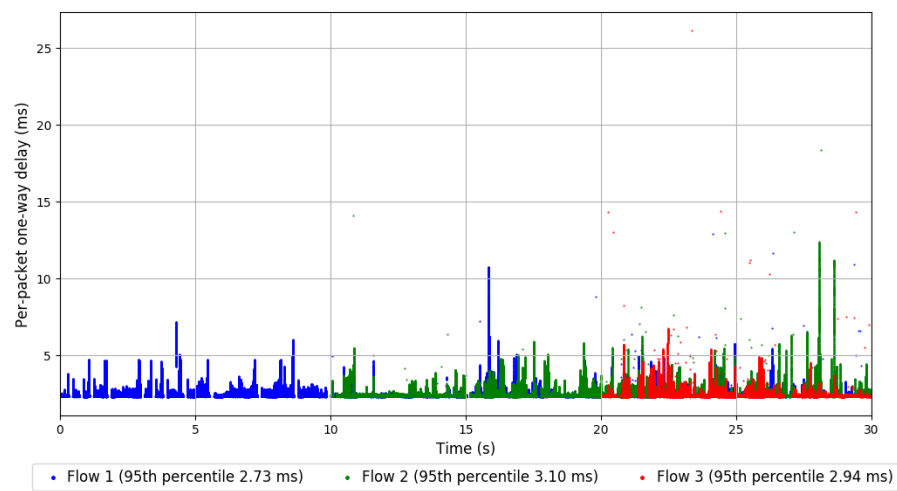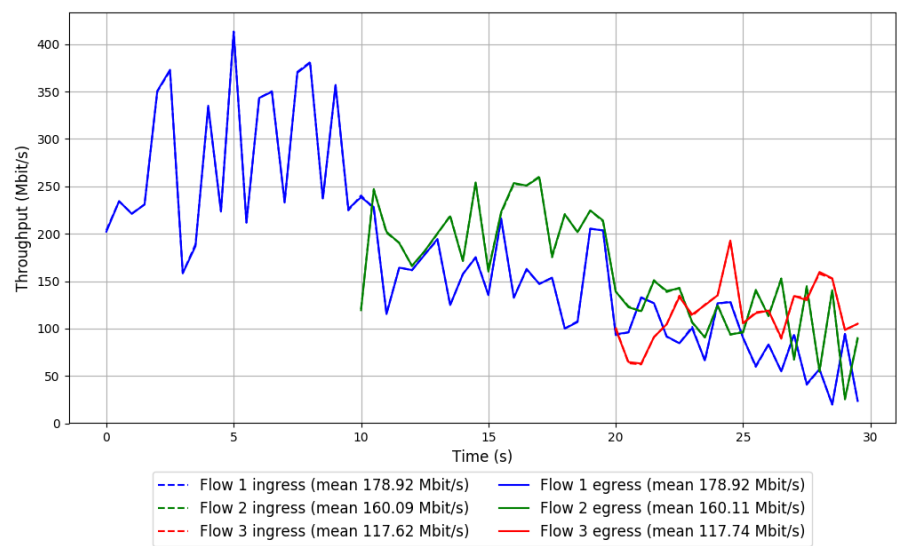
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2017-10-12 04:01:23
End at: 2017-10-12 04:01:53
Local clock offset: -0.212 ms
Remote clock offset: 0.308 ms


# Below is generated by plot.py at 2017-10-12 11:56:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 322.59 Mbit/s
95th percentile per-packet one-way delay: 2.886 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 178.92 Mbit/s
95th percentile per-packet one-way delay: 2.733 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 160.11 Mbit/s
95th percentile per-packet one-way delay: 3.102 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 117.74 Mbit/s
95th percentile per-packet one-way delay: 2.943 ms
Loss rate: 0.01%
```

Run 2: Report of Verus — Data Link

- - - Flow 1 ingress (mean 178.92 Mbit/s) —— Flow 1 egress (mean 178.92 Mbit/s)
- - - Flow 2 ingress (mean 160.09 Mbit/s) —— Flow 2 egress (mean 160.11 Mbit/s)
- - - Flow 3 ingress (mean 117.62 Mbit/s) —— Flow 3 egress (mean 117.74 Mbit/s)

• Flow 1 (95th percentile 2.73 ms)   • Flow 2 (95th percentile 3.10 ms)   • Flow 3 (95th percentile 2.94 ms)

```
Run 3: Statistics of Verus

Start at: 2017-10-12 04:20:50
End at: 2017-10-12 04:21:20
Local clock offset: -0.172 ms
Remote clock offset: 0.688 ms

# Below is generated by plot.py at 2017-10-12 11:56:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.81 Mbit/s
95th percentile per-packet one-way delay: 3.526 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 222.34 Mbit/s
95th percentile per-packet one-way delay: 3.584 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 168.48 Mbit/s
95th percentile per-packet one-way delay: 3.347 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.48 Mbit/s
95th percentile per-packet one-way delay: 3.650 ms
Loss rate: 0.08%
```
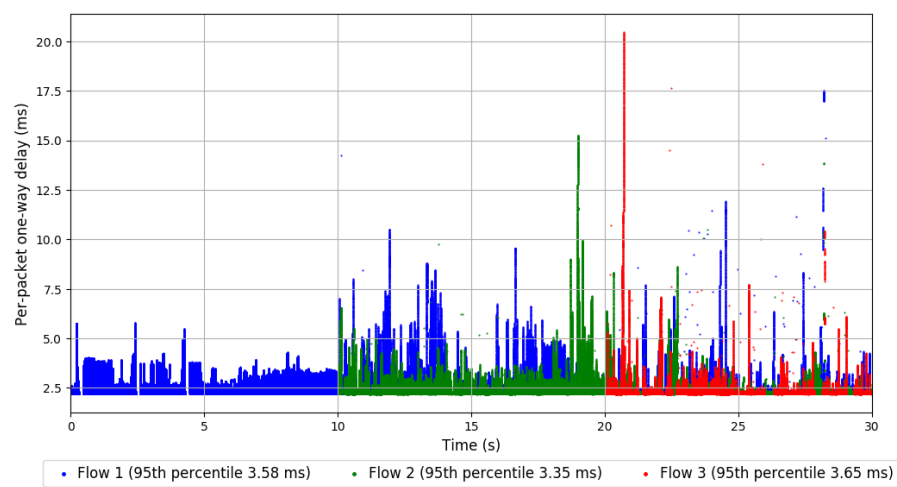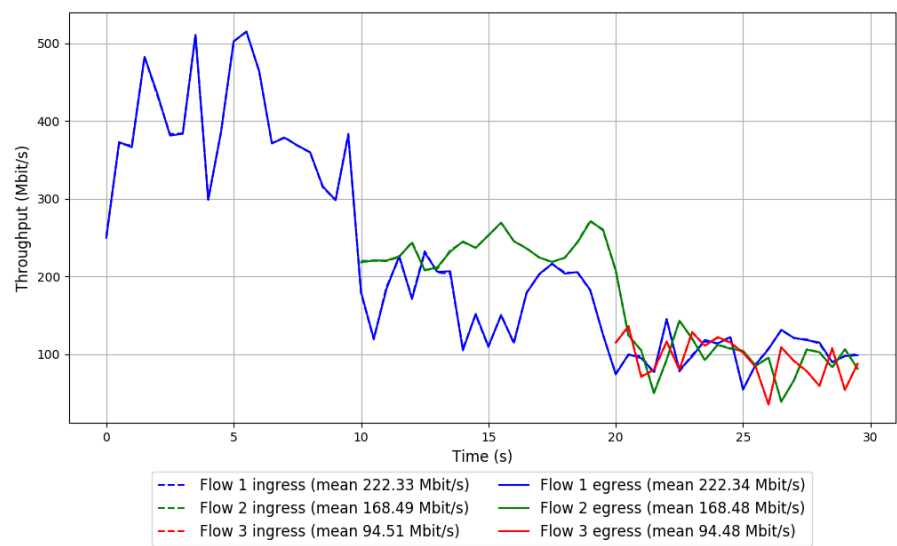
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 222.33 Mbit/s) --- Flow 1 egress (mean 222.34 Mbit/s)
Flow 2 ingress (mean 168.49 Mbit/s) --- Flow 2 egress (mean 168.48 Mbit/s)
Flow 3 ingress (mean 94.51 Mbit/s) --- Flow 3 egress (mean 94.48 Mbit/s)

Flow 1 (95th percentile 3.58 ms) Flow 2 (95th percentile 3.35 ms) Flow 3 (95th percentile 3.65 ms)

209

```
Run 4: Statistics of Verus

Start at: 2017-10-12 04:40:20
End at: 2017-10-12 04:40:50
Local clock offset: -0.14 ms
Remote clock offset: 0.884 ms


# Below is generated by plot.py at 2017-10-12 11:56:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 357.95 Mbit/s
95th percentile per-packet one-way delay: 3.196 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 215.02 Mbit/s
95th percentile per-packet one-way delay: 3.444 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 164.25 Mbit/s
95th percentile per-packet one-way delay: 2.663 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 101.19 Mbit/s
95th percentile per-packet one-way delay: 3.112 ms
Loss rate: 0.02%
```
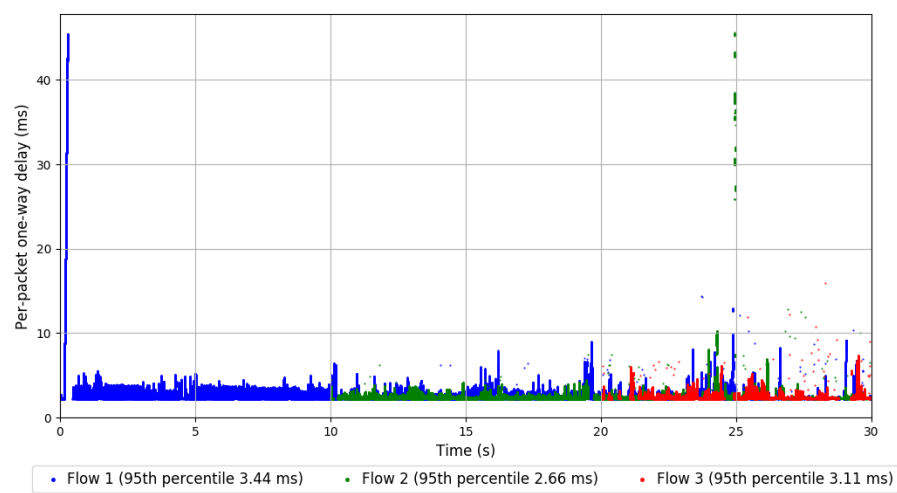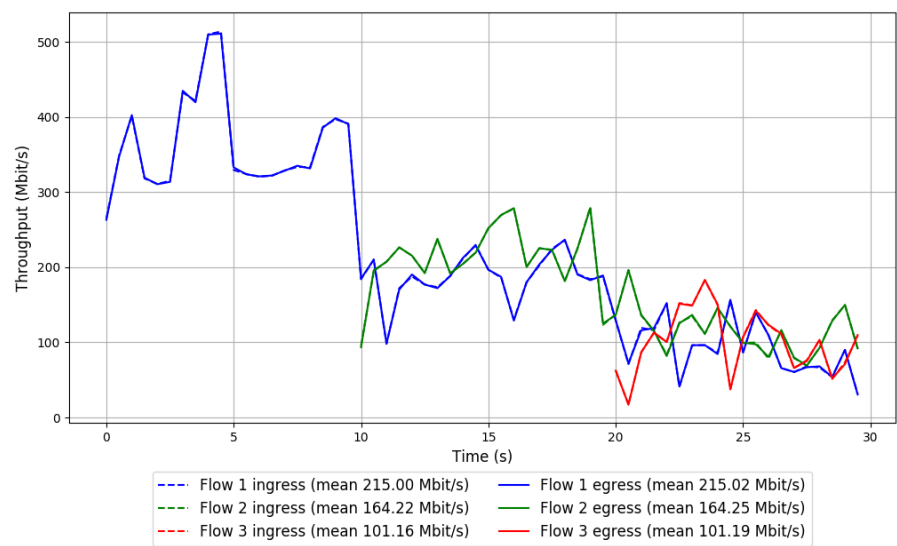
Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 215.00 Mbit/s) ---   Flow 1 egress (mean 215.02 Mbit/s) ———
Flow 2 ingress (mean 164.22 Mbit/s) ---   Flow 2 egress (mean 164.25 Mbit/s) ———
Flow 3 ingress (mean 101.16 Mbit/s) ---   Flow 3 egress (mean 101.19 Mbit/s) ———

Flow 1 (95th percentile 3.44 ms)   •   Flow 2 (95th percentile 2.66 ms)   •   Flow 3 (95th percentile 3.11 ms)
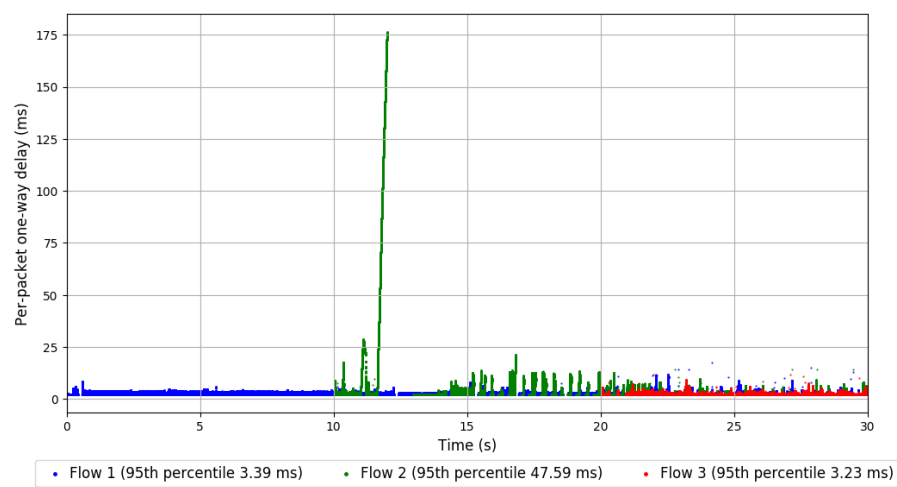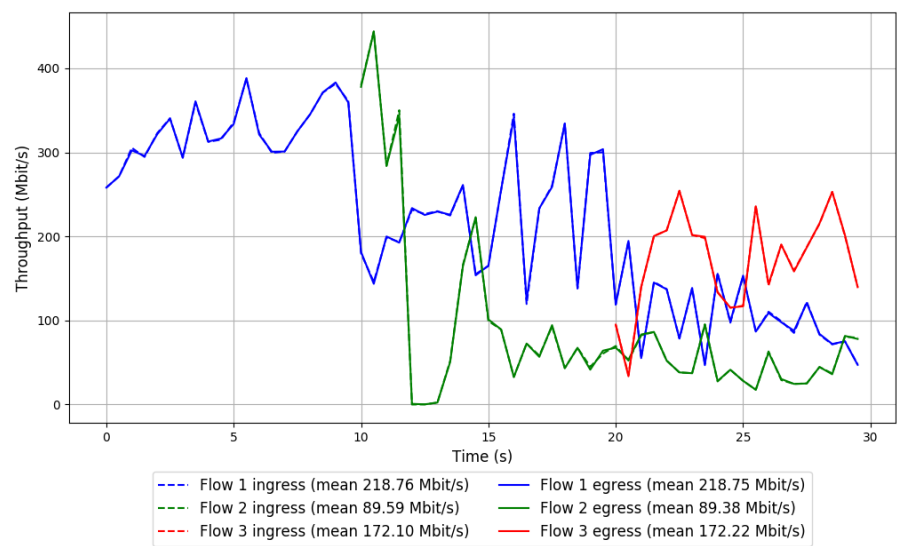
```
Run 5: Statistics of Verus

Start at: 2017-10-12 04:59:54
End at: 2017-10-12 05:00:24
Local clock offset: -0.045 ms
Remote clock offset: 0.934 ms


# Below is generated by plot.py at 2017-10-12 11:56:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 335.34 Mbit/s
95th percentile per-packet one-way delay: 5.353 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 218.75 Mbit/s
95th percentile per-packet one-way delay: 3.388 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 89.38 Mbit/s
95th percentile per-packet one-way delay: 47.586 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 172.22 Mbit/s
95th percentile per-packet one-way delay: 3.234 ms
Loss rate: 0.01%
```

Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 218.76 Mbit/s) -- Flow 1 egress (mean 218.75 Mbit/s)
Flow 2 ingress (mean 89.59 Mbit/s) -- Flow 2 egress (mean 89.38 Mbit/s)
Flow 3 ingress (mean 172.10 Mbit/s) -- Flow 3 egress (mean 172.22 Mbit/s)

Flow 1 (95th percentile 3.39 ms)   Flow 2 (95th percentile 47.59 ms)   Flow 3 (95th percentile 3.23 ms)

213

```
Run 6: Statistics of Verus

Start at: 2017-10-12 05:19:26
End at: 2017-10-12 05:19:56
Local clock offset: -0.108 ms
Remote clock offset: 0.941 ms


# Below is generated by plot.py at 2017-10-12 11:57:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.64 Mbit/s
95th percentile per-packet one-way delay: 3.504 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 204.29 Mbit/s
95th percentile per-packet one-way delay: 3.679 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 189.27 Mbit/s
95th percentile per-packet one-way delay: 3.092 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 127.93 Mbit/s
95th percentile per-packet one-way delay: 3.578 ms
Loss rate: 0.00%
```
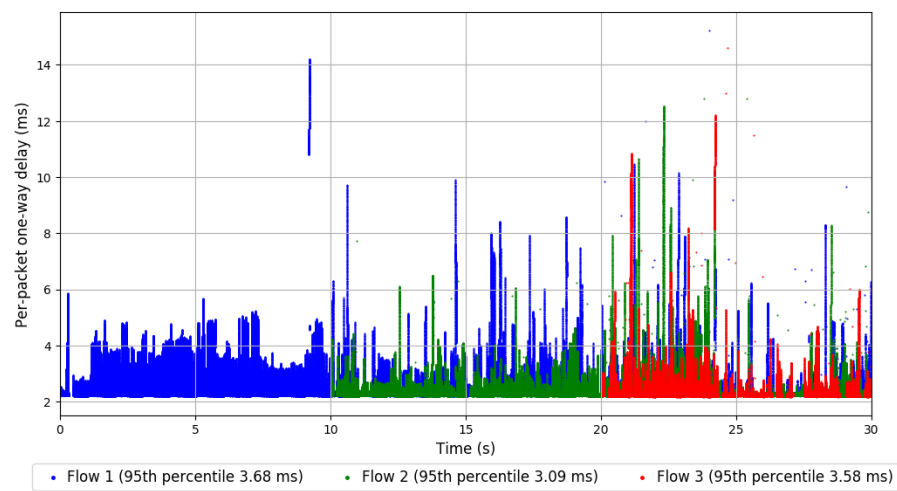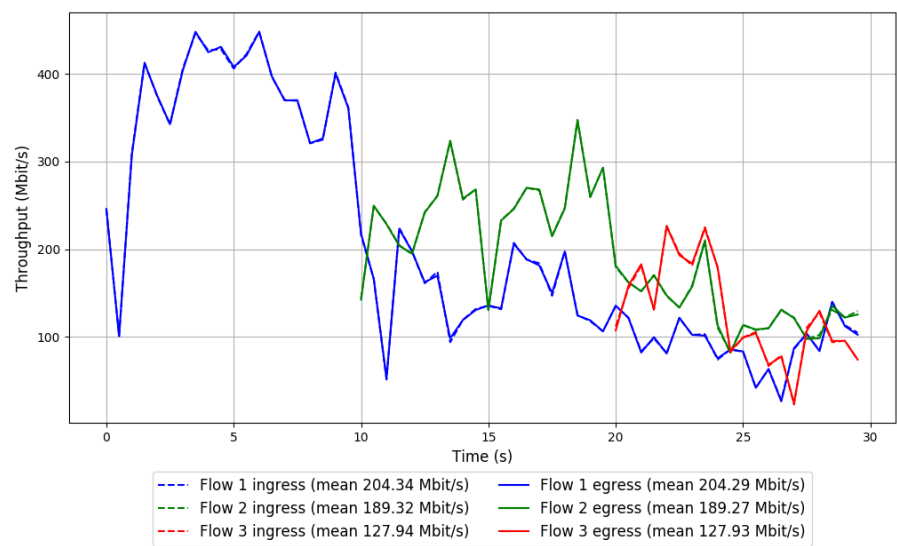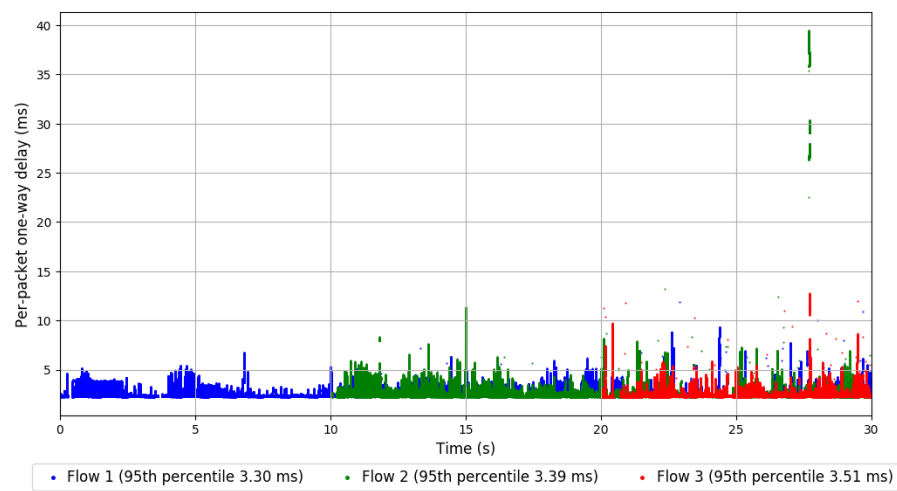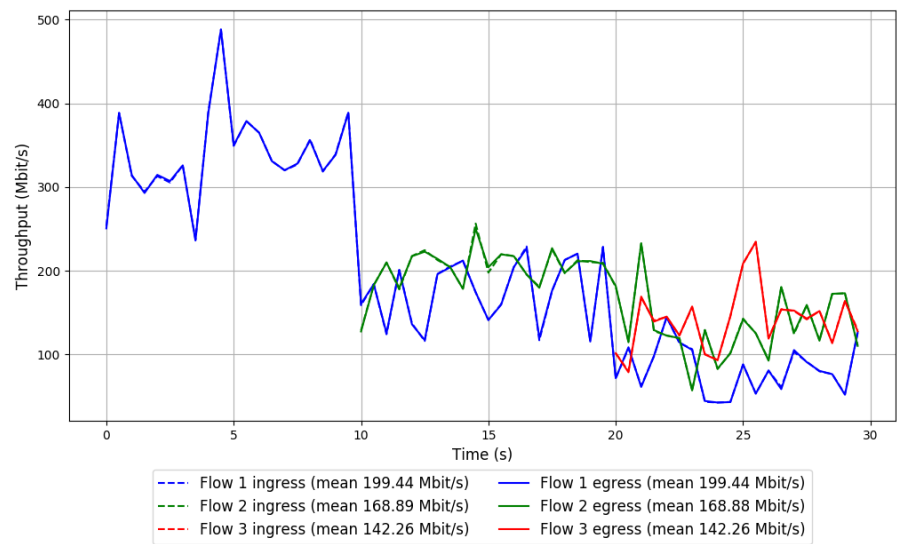
Run 6: Report of Verus — Data Link

- - - Flow 1 ingress (mean 204.34 Mbit/s) — Flow 1 egress (mean 204.29 Mbit/s)
- - - Flow 2 ingress (mean 189.32 Mbit/s) — Flow 2 egress (mean 189.27 Mbit/s)
- - - Flow 3 ingress (mean 127.94 Mbit/s) — Flow 3 egress (mean 127.93 Mbit/s)

- Flow 1 (95th percentile 3.68 ms)   - Flow 2 (95th percentile 3.09 ms)   - Flow 3 (95th percentile 3.58 ms)

215

```
Run 7: Statistics of Verus

Start at: 2017-10-12 05:38:54
End at: 2017-10-12 05:39:24
Local clock offset: -0.053 ms
Remote clock offset: 0.994 ms


# Below is generated by plot.py at 2017-10-12 11:59:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 358.95 Mbit/s
95th percentile per-packet one-way delay: 3.351 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 199.44 Mbit/s
95th percentile per-packet one-way delay: 3.296 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 168.88 Mbit/s
95th percentile per-packet one-way delay: 3.391 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 142.26 Mbit/s
95th percentile per-packet one-way delay: 3.507 ms
Loss rate: 0.09%
```
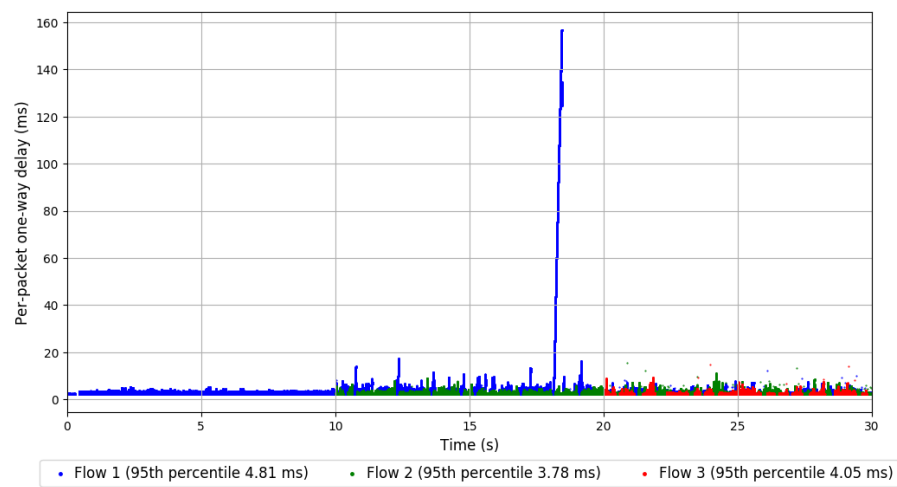
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2017-10-12 05:58:10
End at: 2017-10-12 05:58:40
Local clock offset: -0.06 ms
Remote clock offset: 0.642 ms

# Below is generated by plot.py at 2017-10-12 12:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.10 Mbit/s
95th percentile per-packet one-way delay: 4.420 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 242.25 Mbit/s
95th percentile per-packet one-way delay: 4.807 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 170.27 Mbit/s
95th percentile per-packet one-way delay: 3.777 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 102.63 Mbit/s
95th percentile per-packet one-way delay: 4.055 ms
Loss rate: 0.00%
```
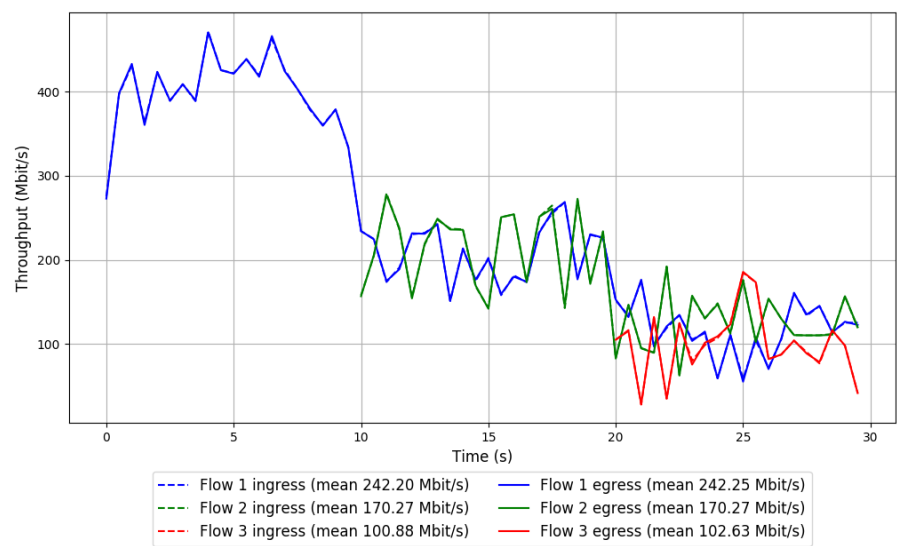
Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2017-10-12 06:17:37
End at: 2017-10-12 06:18:07
Local clock offset: -0.148 ms
Remote clock offset: 0.419 ms


# Below is generated by plot.py at 2017-10-12 12:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.64 Mbit/s
95th percentile per-packet one-way delay: 4.827 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 220.00 Mbit/s
95th percentile per-packet one-way delay: 5.084 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 168.65 Mbit/s
95th percentile per-packet one-way delay: 4.713 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 158.23 Mbit/s
95th percentile per-packet one-way delay: 4.264 ms
Loss rate: 0.05%
```
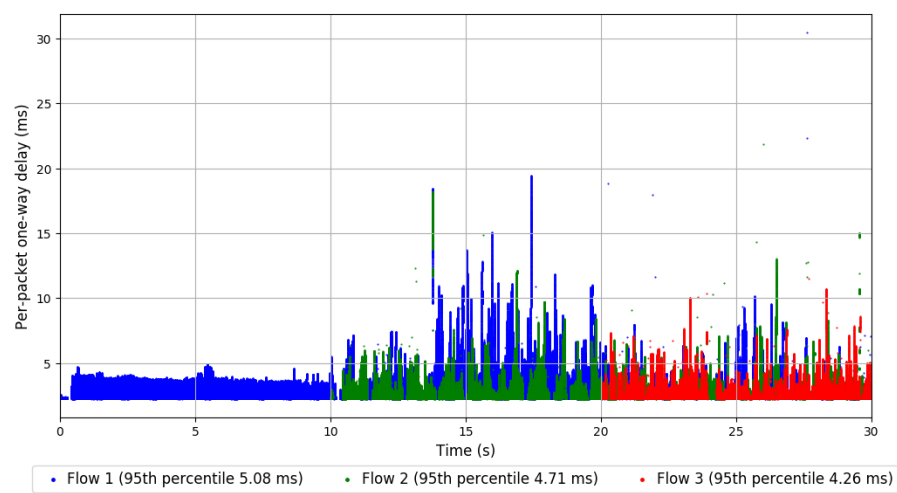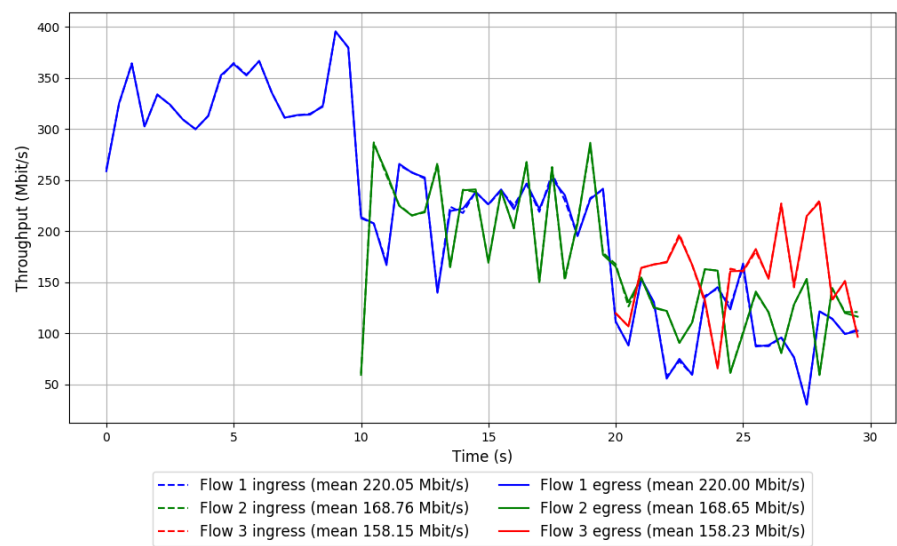
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2017-10-12 06:37:02
End at: 2017-10-12 06:37:32
Local clock offset: -0.293 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2017-10-12 12:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.43 Mbit/s
95th percentile per-packet one-way delay: 3.635 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 239.15 Mbit/s
95th percentile per-packet one-way delay: 3.028 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 160.97 Mbit/s
95th percentile per-packet one-way delay: 4.826 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 114.87 Mbit/s
95th percentile per-packet one-way delay: 4.249 ms
Loss rate: 0.06%
```
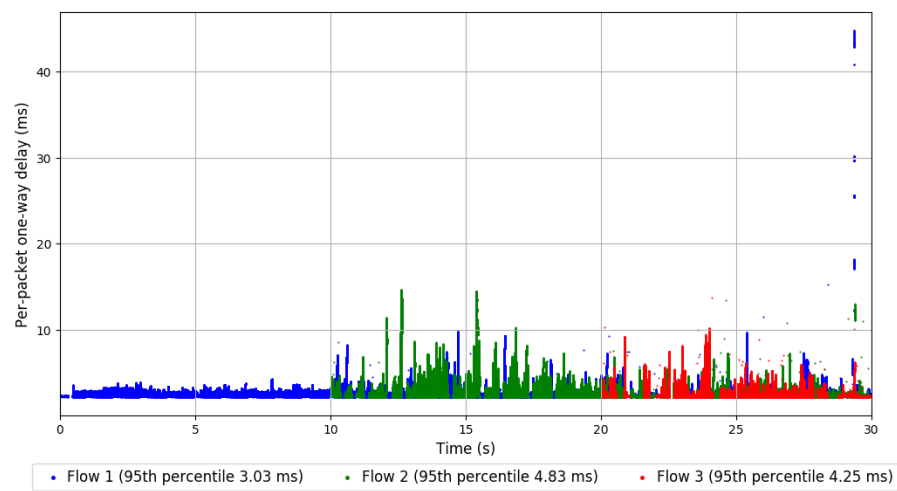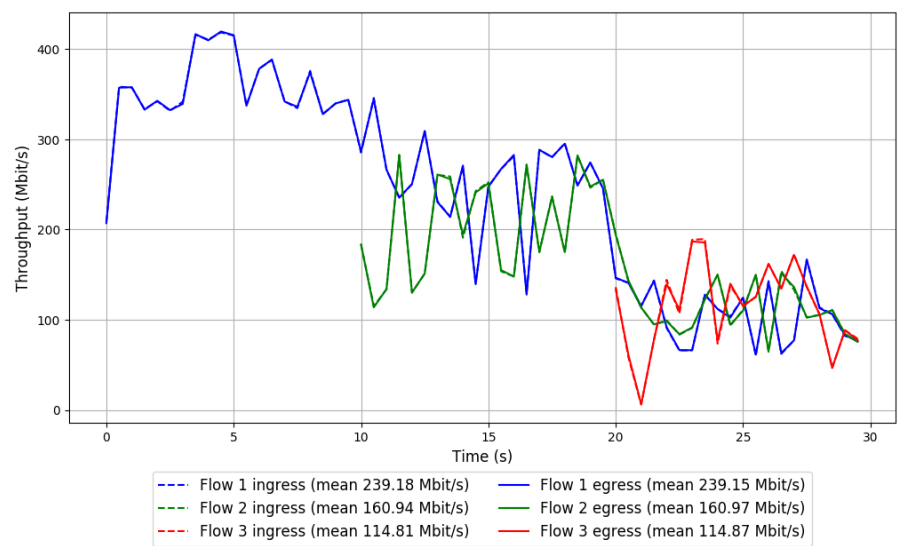
Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Copa

Start at: 2017-10-12 03:51:09
End at: 2017-10-12 03:51:39
Local clock offset: -0.272 ms
Remote clock offset: 0.136 ms


# Below is generated by plot.py at 2017-10-12 12:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.80 Mbit/s
95th percentile per-packet one-way delay: 2.335 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 87.07 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 85.22 Mbit/s
95th percentile per-packet one-way delay: 2.330 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 2.386 ms
Loss rate: 0.00%
```
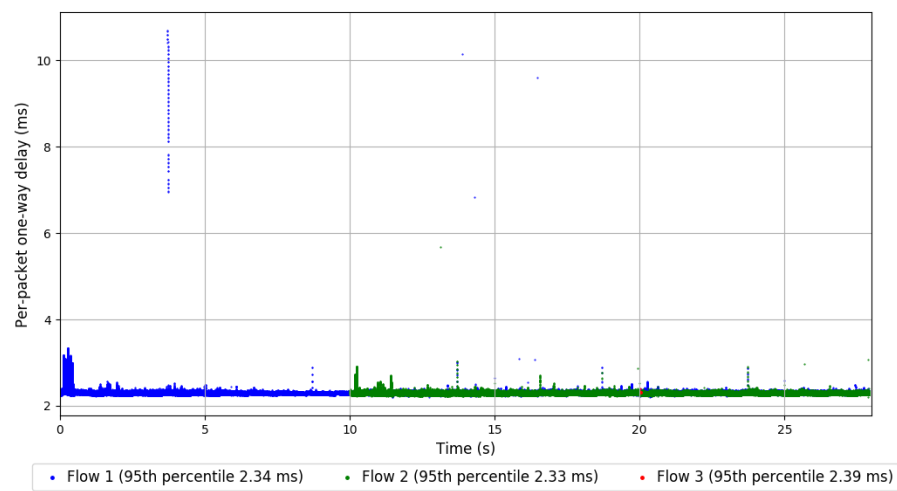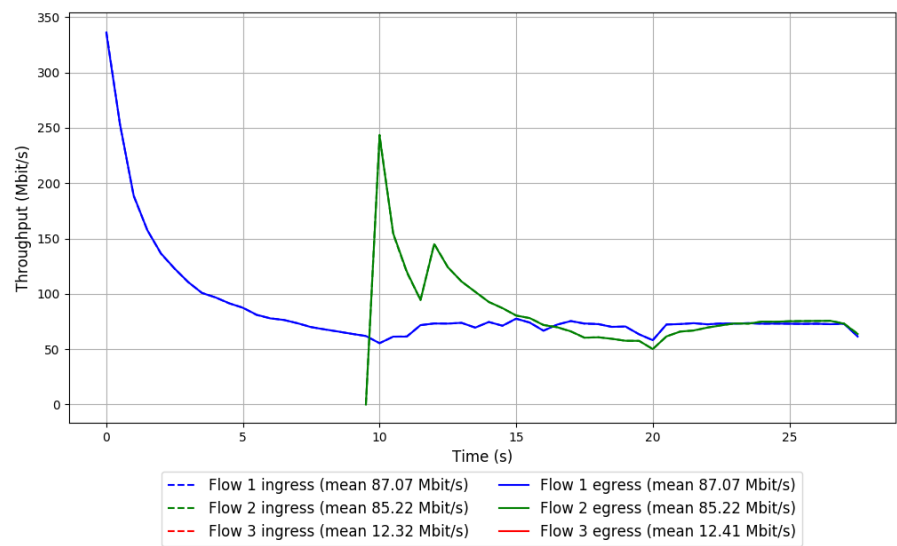
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 87.07 Mbit/s) --- Flow 1 egress (mean 87.07 Mbit/s)
Flow 2 ingress (mean 85.22 Mbit/s) --- Flow 2 egress (mean 85.22 Mbit/s)
Flow 3 ingress (mean 12.32 Mbit/s) --- Flow 3 egress (mean 12.41 Mbit/s)

Flow 1 (95th percentile 2.34 ms)   Flow 2 (95th percentile 2.33 ms)   Flow 3 (95th percentile 2.39 ms)

```
Run 2: Statistics of Copa

Start at: 2017-10-12 04:10:34
End at: 2017-10-12 04:11:04
Local clock offset: -0.22 ms
Remote clock offset: 0.478 ms


# Below is generated by plot.py at 2017-10-12 12:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.95 Mbit/s
95th percentile per-packet one-way delay: 2.313 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 82.20 Mbit/s
95th percentile per-packet one-way delay: 2.313 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 80.71 Mbit/s
95th percentile per-packet one-way delay: 2.308 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.76 Mbit/s
95th percentile per-packet one-way delay: 2.317 ms
Loss rate: 0.02%
```
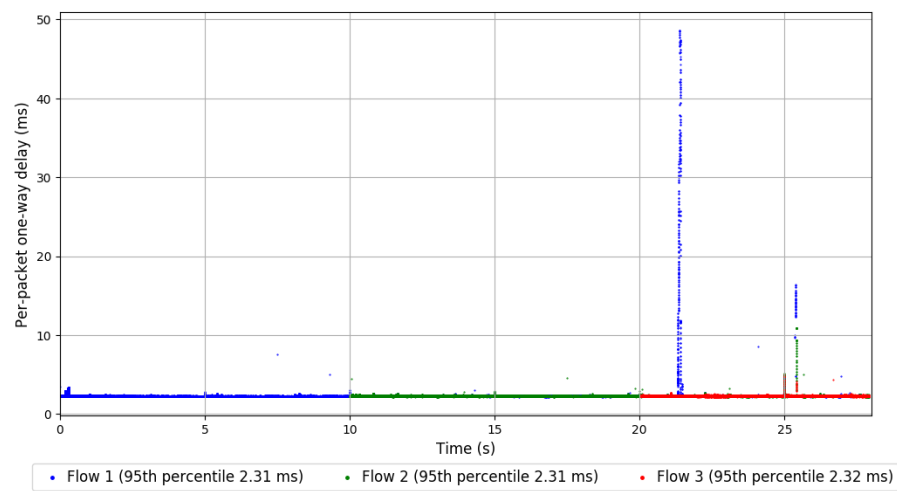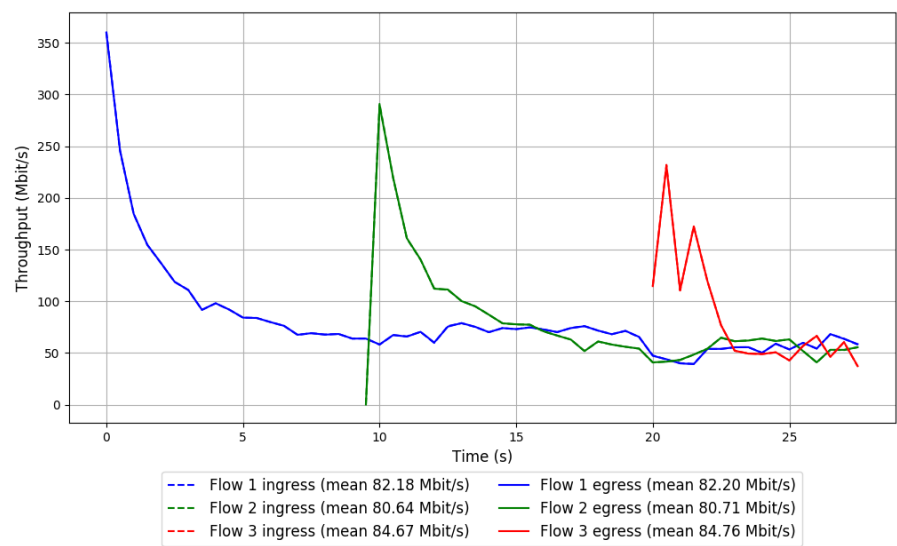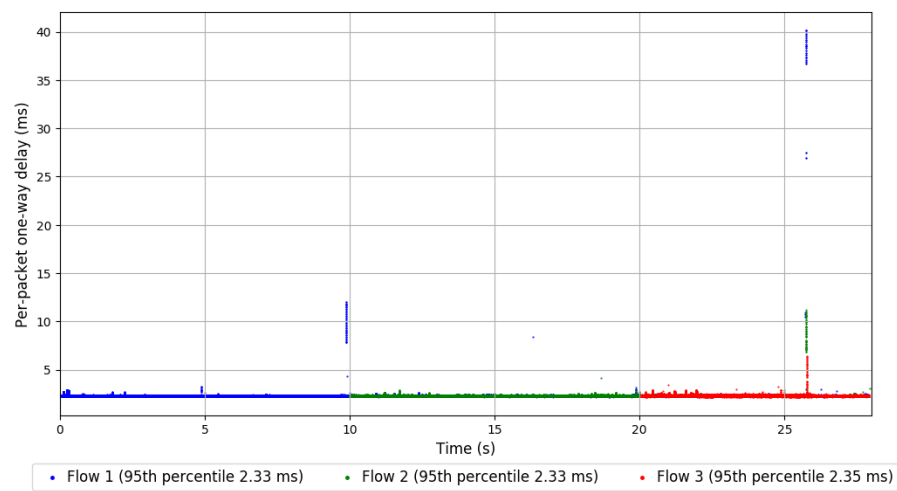
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 82.18 Mbit/s) — Flow 1 egress (mean 82.20 Mbit/s)
Flow 2 ingress (mean 80.64 Mbit/s) — Flow 2 egress (mean 80.71 Mbit/s)
Flow 3 ingress (mean 84.67 Mbit/s) — Flow 3 egress (mean 84.76 Mbit/s)

Flow 1 (95th percentile 2.31 ms) • Flow 2 (95th percentile 2.31 ms) • Flow 3 (95th percentile 2.32 ms)

```
Run 3: Statistics of Copa

Start at: 2017-10-12 04:30:04
End at: 2017-10-12 04:30:34
Local clock offset: -0.1 ms
Remote clock offset: 0.824 ms


# Below is generated by plot.py at 2017-10-12 12:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 159.70 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 81.59 Mbit/s
95th percentile per-packet one-way delay: 2.326 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 81.26 Mbit/s
95th percentile per-packet one-way delay: 2.331 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 91.77 Mbit/s
95th percentile per-packet one-way delay: 2.353 ms
Loss rate: 0.03%
```
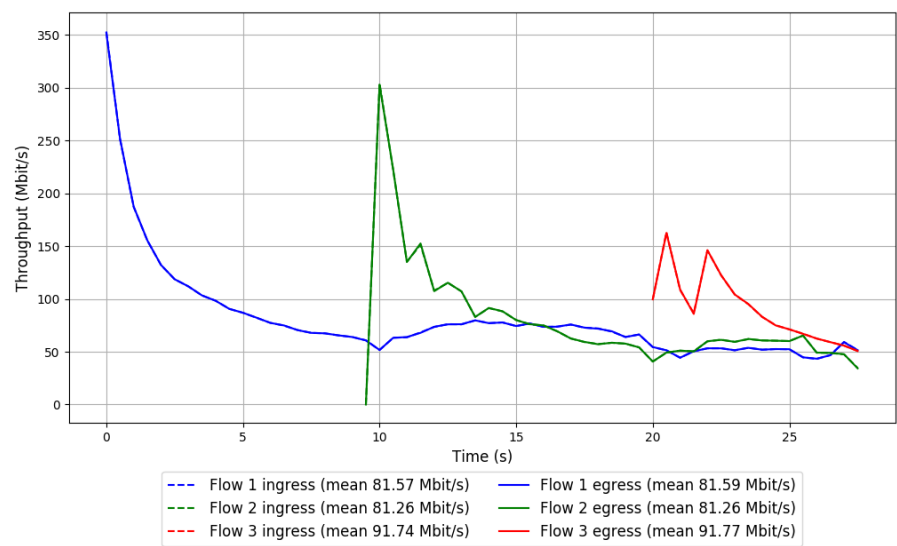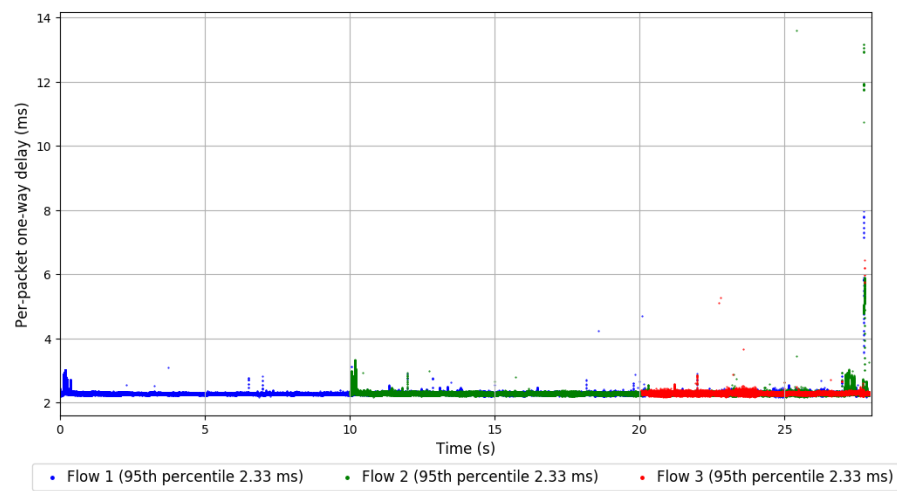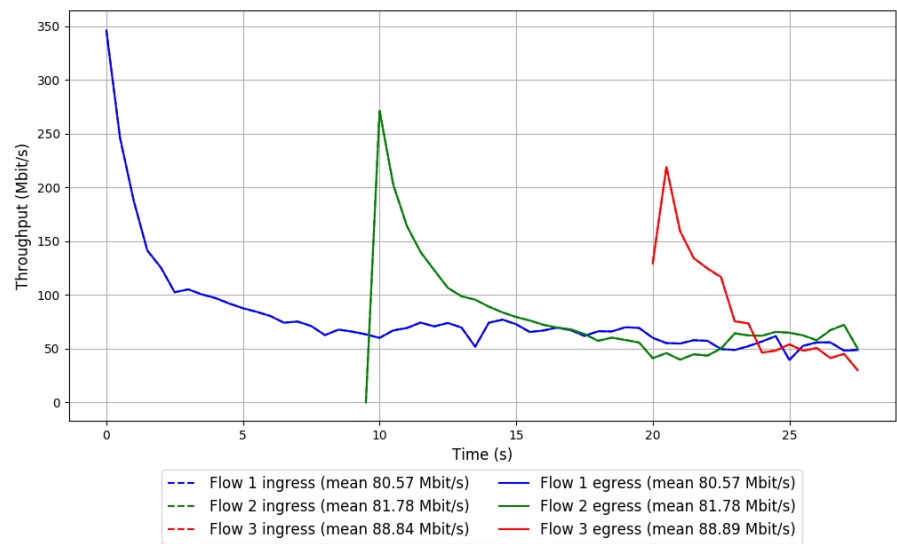
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 81.57 Mbit/s)   Flow 1 egress (mean 81.59 Mbit/s)
Flow 2 ingress (mean 81.26 Mbit/s)   Flow 2 egress (mean 81.26 Mbit/s)
Flow 3 ingress (mean 91.74 Mbit/s)   Flow 3 egress (mean 91.77 Mbit/s)

Flow 1 (95th percentile 2.33 ms)   Flow 2 (95th percentile 2.33 ms)   Flow 3 (95th percentile 2.35 ms)

```
Run 4: Statistics of Copa

Start at: 2017-10-12 04:49:38
End at: 2017-10-12 04:50:08
Local clock offset: -0.064 ms
Remote clock offset: 0.923 ms


# Below is generated by plot.py at 2017-10-12 12:01:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.10 Mbit/s
95th percentile per-packet one-way delay: 2.330 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 80.57 Mbit/s
95th percentile per-packet one-way delay: 2.327 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 81.78 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 88.89 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.01%
```
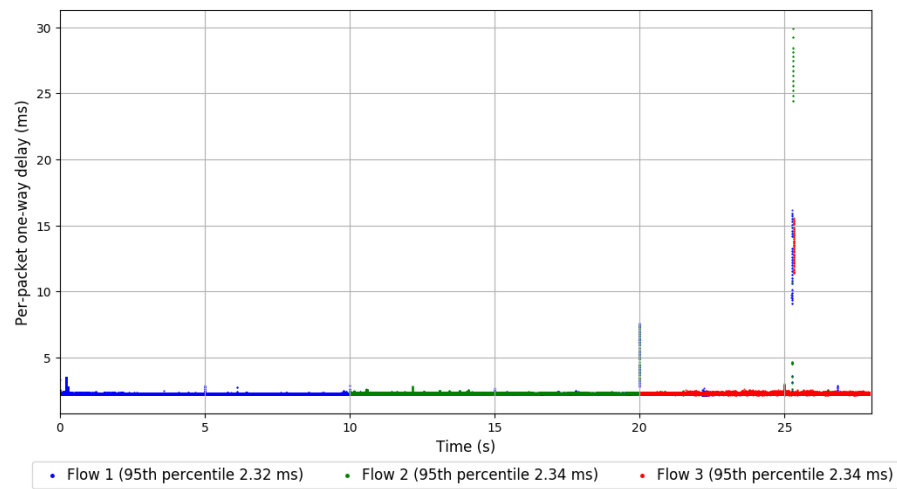
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2017-10-12 05:09:12
End at: 2017-10-12 05:09:42
Local clock offset: -0.023 ms
Remote clock offset: 0.98 ms


# Below is generated by plot.py at 2017-10-12 12:02:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 159.50 Mbit/s
95th percentile per-packet one-way delay: 2.330 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 83.12 Mbit/s
95th percentile per-packet one-way delay: 2.317 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 80.73 Mbit/s
95th percentile per-packet one-way delay: 2.336 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 86.91 Mbit/s
95th percentile per-packet one-way delay: 2.341 ms
Loss rate: 0.04%
```
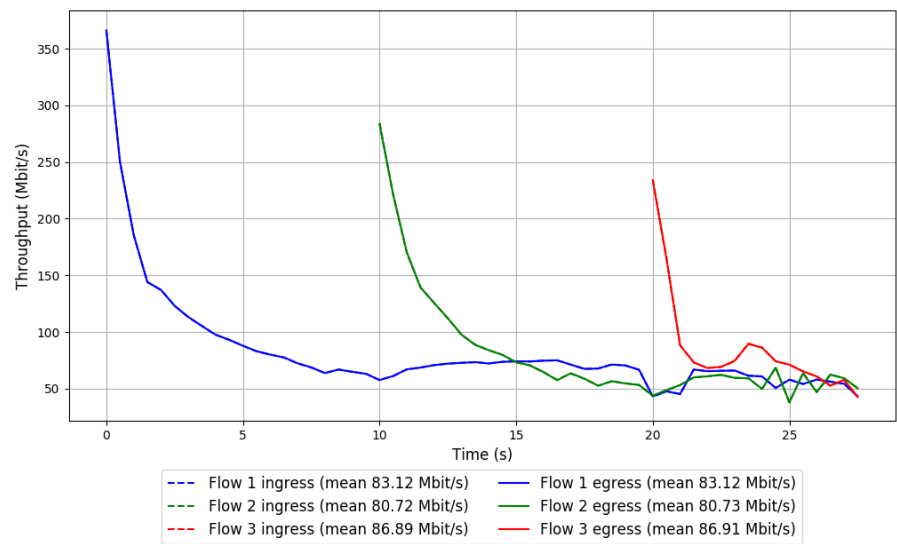
Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2017-10-12 05:28:40
End at: 2017-10-12 05:29:10
Local clock offset: -0.029 ms
Remote clock offset: 0.961 ms


# Below is generated by plot.py at 2017-10-12 12:02:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.91 Mbit/s
95th percentile per-packet one-way delay: 2.343 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 2.337 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 10.16 Mbit/s
95th percentile per-packet one-way delay: 2.361 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 113.55 Mbit/s
95th percentile per-packet one-way delay: 2.351 ms
Loss rate: 0.03%
```
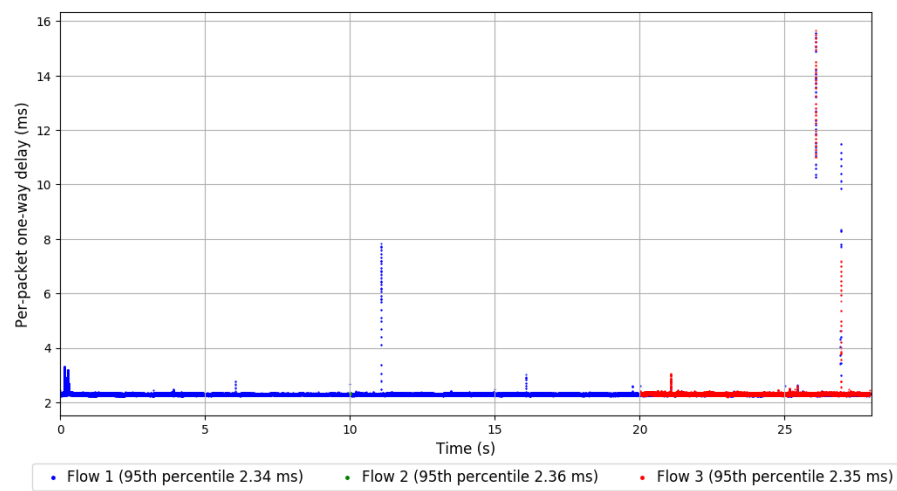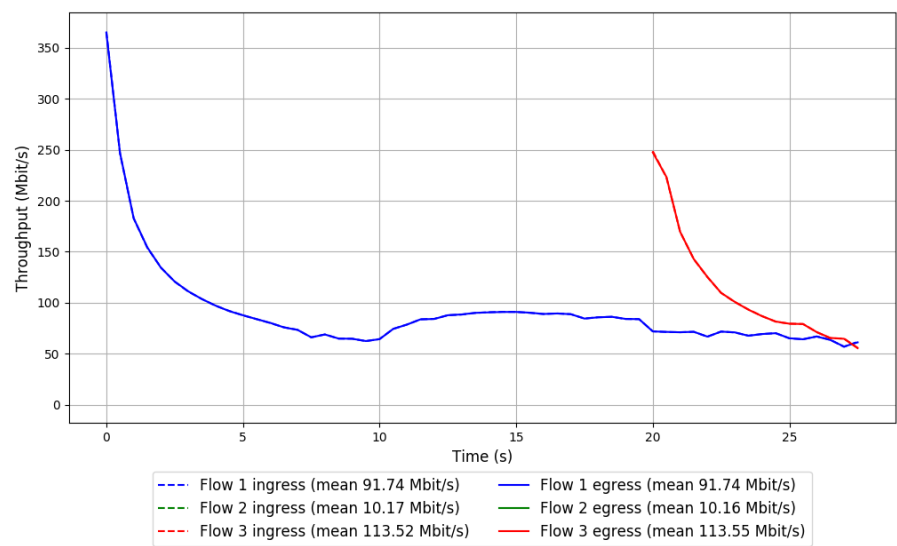
Run 6: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 91.74 Mbit/s)   —— Flow 1 egress (mean 91.74 Mbit/s)
- - - - Flow 2 ingress (mean 10.17 Mbit/s)   —— Flow 2 egress (mean 10.16 Mbit/s)
- - - - Flow 3 ingress (mean 113.52 Mbit/s)   —— Flow 3 egress (mean 113.55 Mbit/s)

- Flow 1 (95th percentile 2.34 ms)   • Flow 2 (95th percentile 2.36 ms)   • Flow 3 (95th percentile 2.35 ms)

```
Run 7: Statistics of Copa

Start at: 2017-10-12 05:47:54
End at: 2017-10-12 05:48:24
Local clock offset: -0.03 ms
Remote clock offset: 0.911 ms


# Below is generated by plot.py at 2017-10-12 12:04:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.00 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 81.06 Mbit/s
95th percentile per-packet one-way delay: 2.364 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 81.04 Mbit/s
95th percentile per-packet one-way delay: 2.486 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 95.06 Mbit/s
95th percentile per-packet one-way delay: 2.381 ms
Loss rate: 0.03%
```
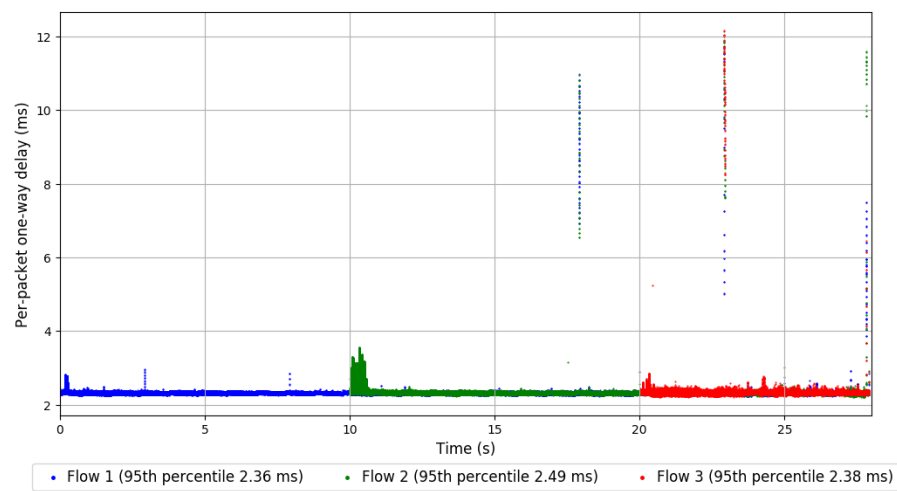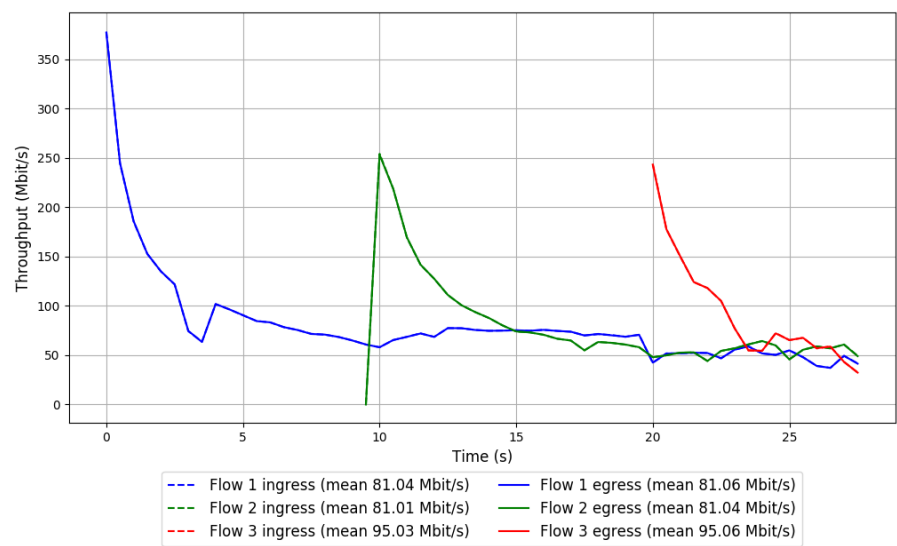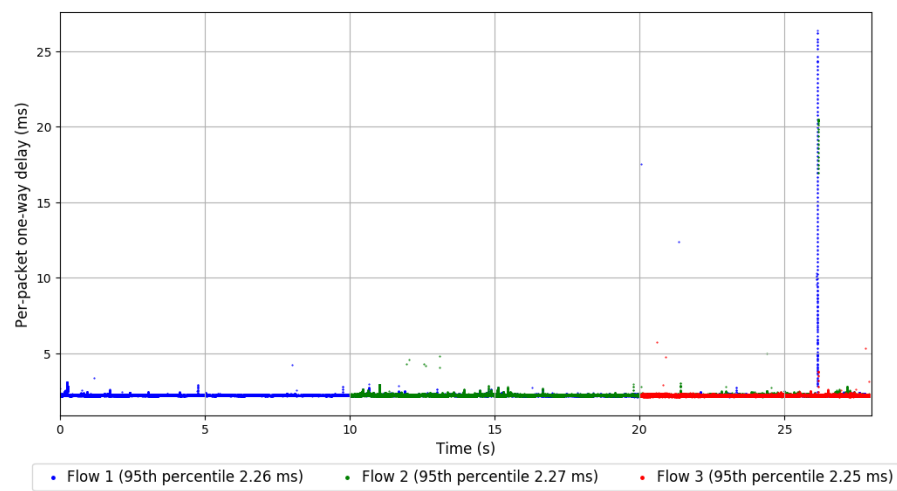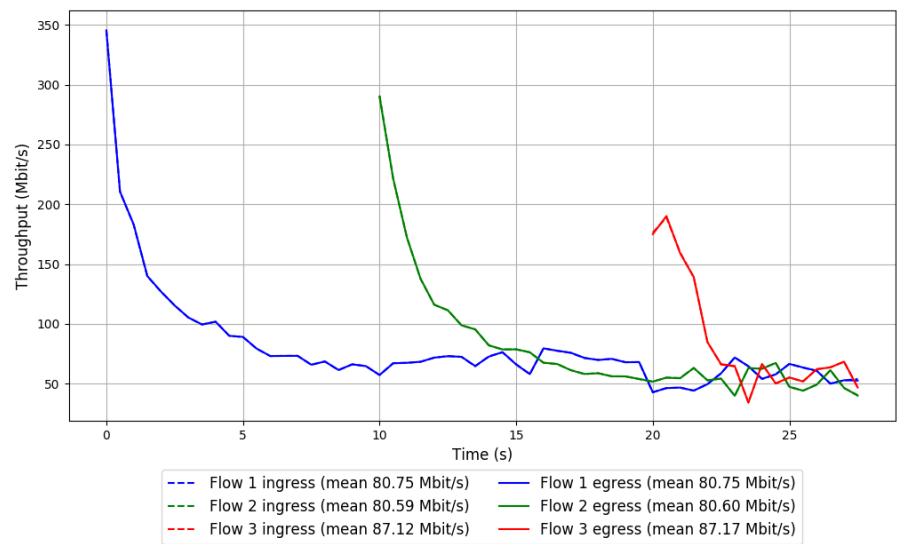
Run 7: Report of Copa — Data Link

- - - Flow 1 ingress (mean 81.04 Mbit/s) ——— Flow 1 egress (mean 81.06 Mbit/s)
- - - Flow 2 ingress (mean 81.01 Mbit/s) ——— Flow 2 egress (mean 81.04 Mbit/s)
- - - Flow 3 ingress (mean 95.03 Mbit/s) ——— Flow 3 egress (mean 95.06 Mbit/s)

- Flow 1 (95th percentile 2.36 ms)   • Flow 2 (95th percentile 2.49 ms)   • Flow 3 (95th percentile 2.38 ms)

```
Run 8: Statistics of Copa

Start at: 2017-10-12 06:07:21
End at: 2017-10-12 06:07:51
Local clock offset: -0.109 ms
Remote clock offset: 0.577 ms


# Below is generated by plot.py at 2017-10-12 12:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.12 Mbit/s
95th percentile per-packet one-way delay: 2.262 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 80.75 Mbit/s
95th percentile per-packet one-way delay: 2.261 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 80.60 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 2.251 ms
Loss rate: 0.03%
```
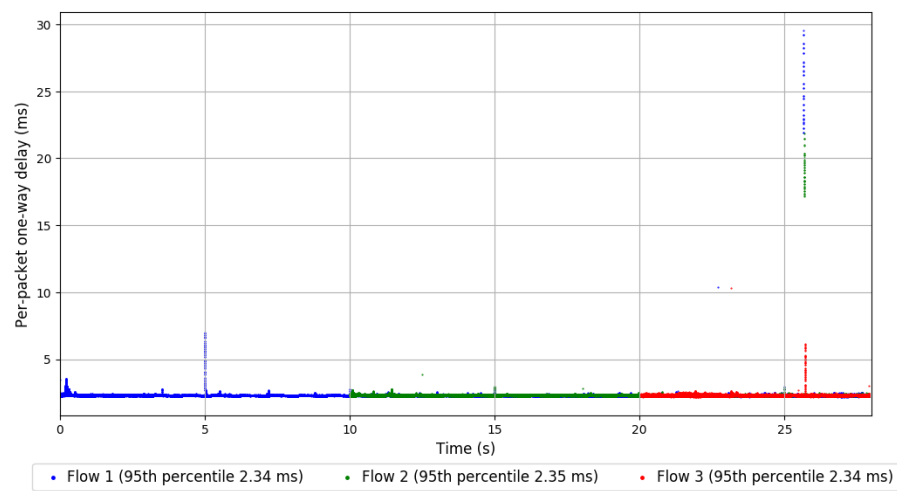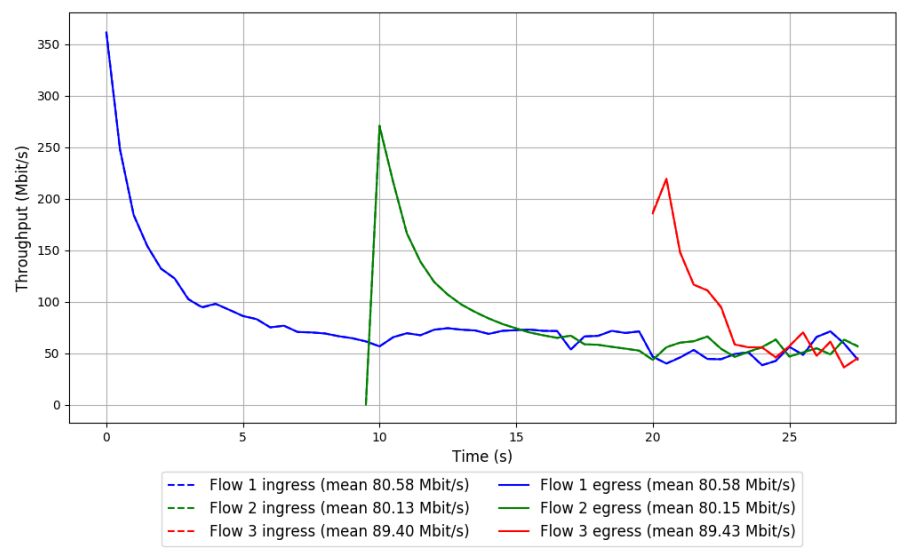
Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2017-10-12 06:26:46
End at: 2017-10-12 06:27:16
Local clock offset: -0.22 ms
Remote clock offset: 0.282 ms


# Below is generated by plot.py at 2017-10-12 12:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.32 Mbit/s
95th percentile per-packet one-way delay: 2.343 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 80.58 Mbit/s
95th percentile per-packet one-way delay: 2.342 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 80.15 Mbit/s
95th percentile per-packet one-way delay: 2.345 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 89.43 Mbit/s
95th percentile per-packet one-way delay: 2.342 ms
Loss rate: 0.01%
```
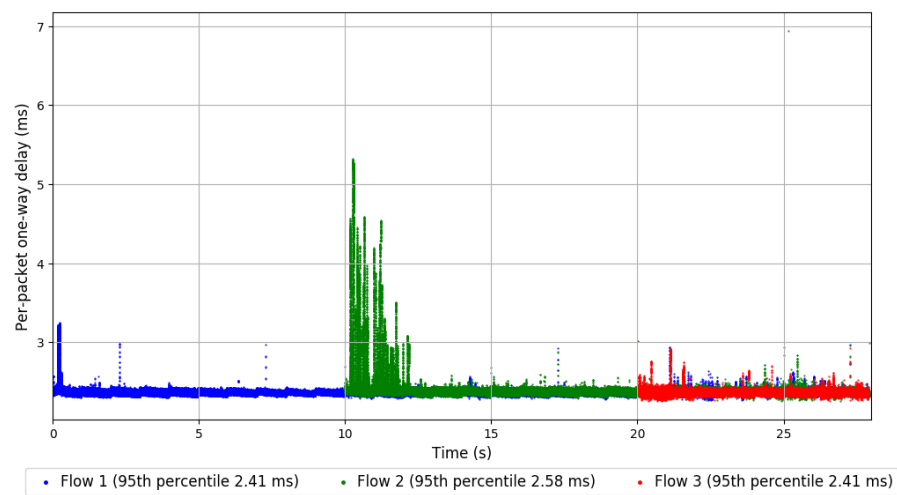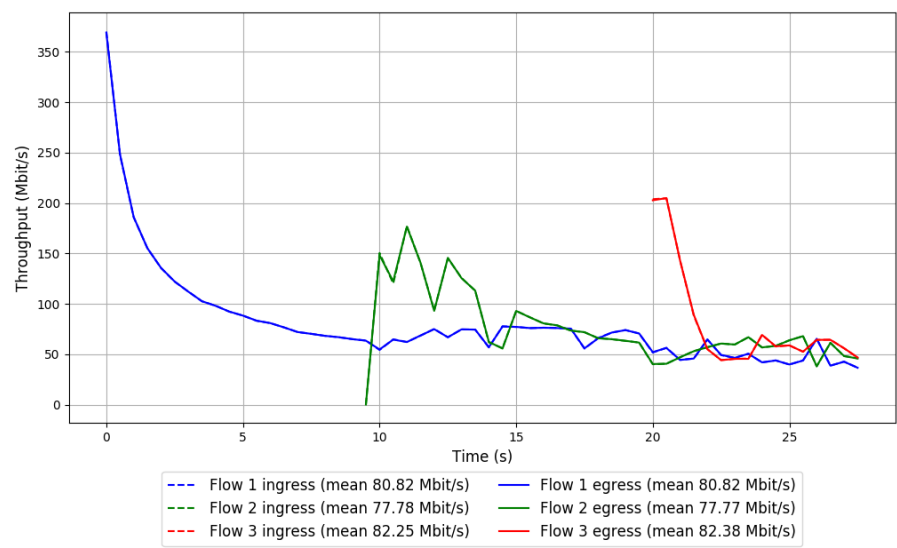
Run 9: Report of Copa — Data Link

- - - Flow 1 ingress (mean 80.58 Mbit/s)   —— Flow 1 egress (mean 80.58 Mbit/s)
- - - Flow 2 ingress (mean 80.13 Mbit/s)   —— Flow 2 egress (mean 80.15 Mbit/s)
- - - Flow 3 ingress (mean 89.40 Mbit/s)   —— Flow 3 egress (mean 89.43 Mbit/s)

- Flow 1 (95th percentile 2.34 ms)   • Flow 2 (95th percentile 2.35 ms)   • Flow 3 (95th percentile 2.34 ms)

241

```
Run 10: Statistics of Copa

Start at: 2017-10-12 06:46:04
End at: 2017-10-12 06:46:34
Local clock offset: -0.345 ms
Remote clock offset: -0.179 ms


# Below is generated by plot.py at 2017-10-12 12:04:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.04 Mbit/s
95th percentile per-packet one-way delay: 2.419 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 80.82 Mbit/s
95th percentile per-packet one-way delay: 2.410 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 77.77 Mbit/s
95th percentile per-packet one-way delay: 2.575 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 82.38 Mbit/s
95th percentile per-packet one-way delay: 2.407 ms
Loss rate: 0.02%
```
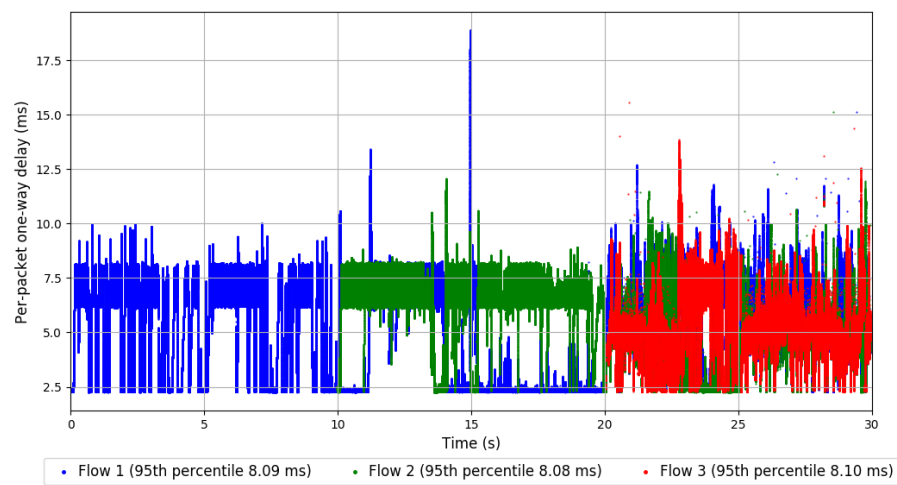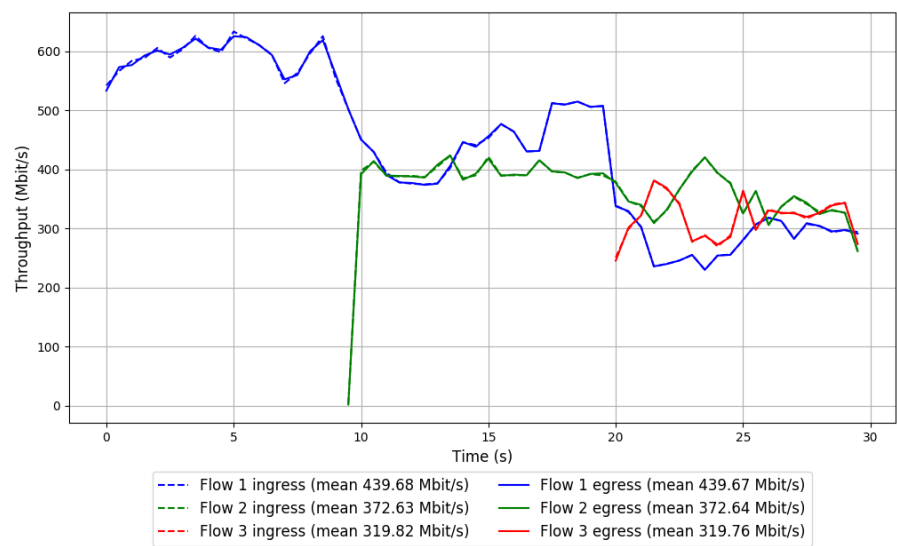
Run 10: Report of Copa — Data Link

- - - Flow 1 ingress (mean 80.82 Mbit/s)   ——— Flow 1 egress (mean 80.82 Mbit/s)
- - - Flow 2 ingress (mean 77.78 Mbit/s)   ——— Flow 2 egress (mean 77.77 Mbit/s)
- - - Flow 3 ingress (mean 82.25 Mbit/s)   ——— Flow 3 egress (mean 82.38 Mbit/s)

- Flow 1 (95th percentile 2.41 ms)   • Flow 2 (95th percentile 2.58 ms)   • Flow 3 (95th percentile 2.41 ms)

243

```
Run 1: Statistics of CalibratedKoho

Start at: 2017-10-12 03:43:25
End at: 2017-10-12 03:43:55
Local clock offset: -0.197 ms
Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2017-10-12 12:11:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 793.81 Mbit/s
95th percentile per-packet one-way delay: 8.084 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 439.67 Mbit/s
95th percentile per-packet one-way delay: 8.085 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 372.64 Mbit/s
95th percentile per-packet one-way delay: 8.080 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 319.76 Mbit/s
95th percentile per-packet one-way delay: 8.101 ms
Loss rate: 0.07%
```
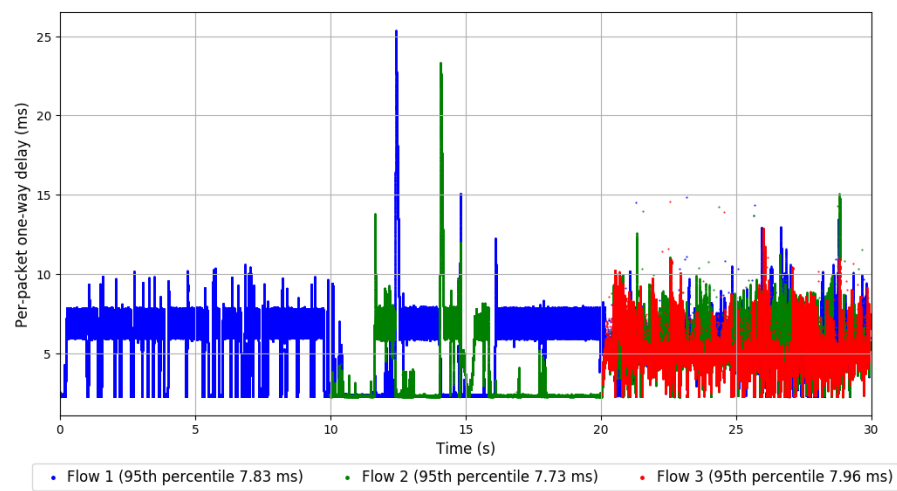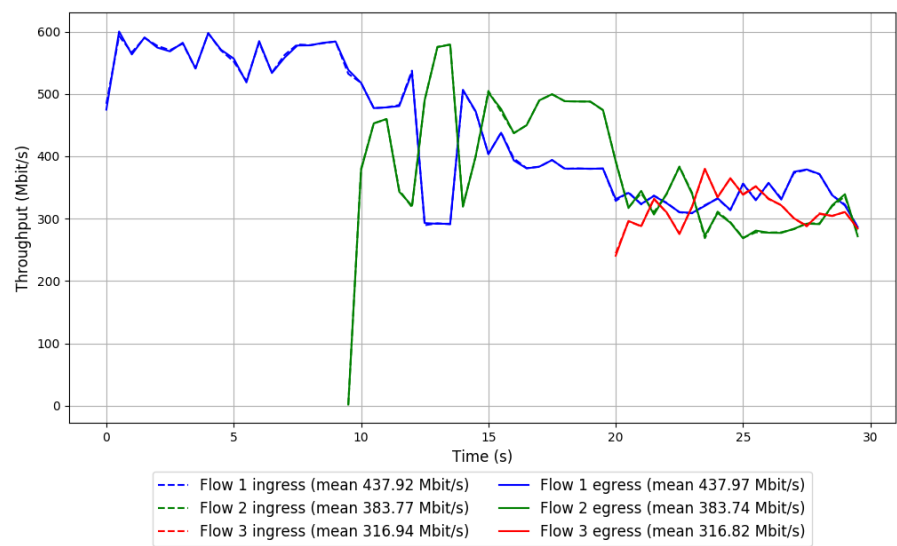
Run 1: Report of CalibratedKoho — Data Link

```
Run 2: Statistics of CalibratedKoho

Start at: 2017-10-12 04:02:45
End at: 2017-10-12 04:03:15
Local clock offset: -0.221 ms
Remote clock offset: 0.32 ms

# Below is generated by plot.py at 2017-10-12 12:12:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 798.61 Mbit/s
95th percentile per-packet one-way delay: 7.821 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 437.97 Mbit/s
95th percentile per-packet one-way delay: 7.828 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 383.74 Mbit/s
95th percentile per-packet one-way delay: 7.731 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 316.82 Mbit/s
95th percentile per-packet one-way delay: 7.961 ms
Loss rate: 0.07%
```
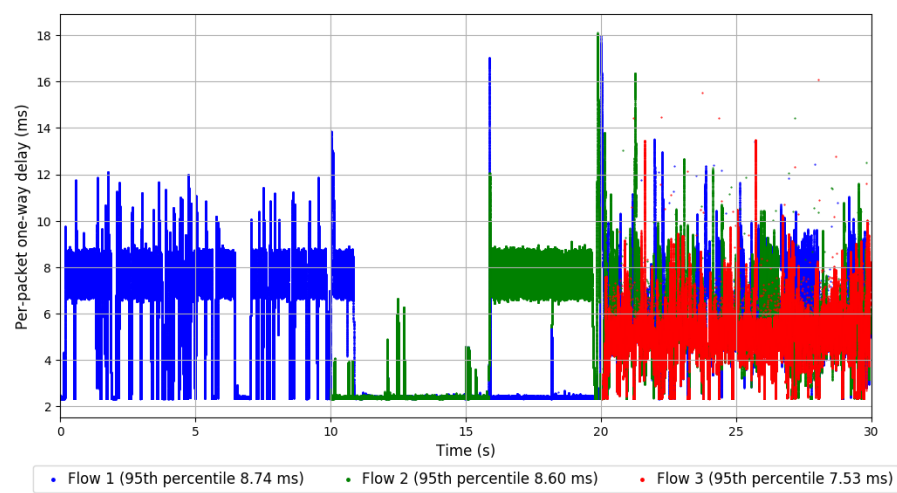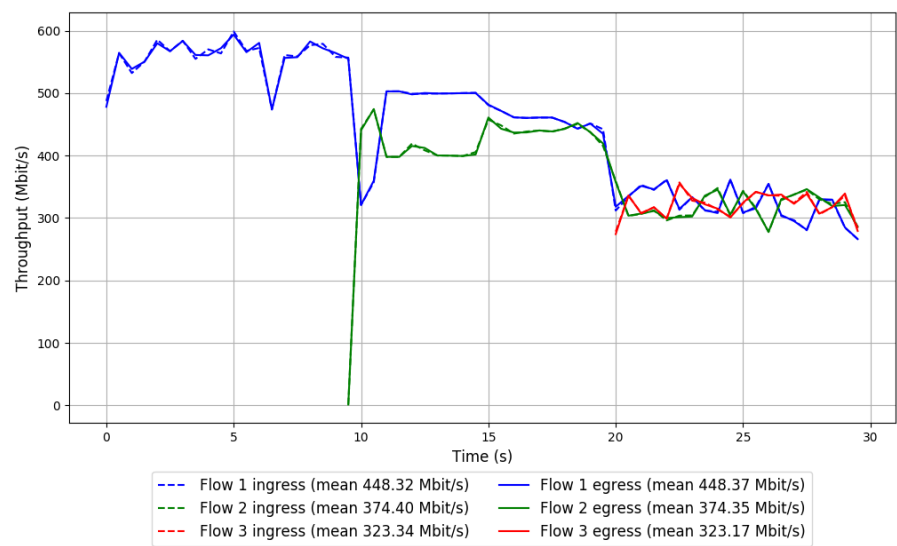
Run 2: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 437.92 Mbit/s)   Flow 1 egress (mean 437.97 Mbit/s)
Flow 2 ingress (mean 383.77 Mbit/s)   Flow 2 egress (mean 383.74 Mbit/s)
Flow 3 ingress (mean 316.94 Mbit/s)   Flow 3 egress (mean 316.82 Mbit/s)

Flow 1 (95th percentile 7.83 ms)   Flow 2 (95th percentile 7.73 ms)   Flow 3 (95th percentile 7.96 ms)

247

```
Run 3: Statistics of CalibratedKoho

Start at: 2017-10-12 04:22:15
End at: 2017-10-12 04:22:45
Local clock offset: -0.106 ms
Remote clock offset: 0.633 ms


# Below is generated by plot.py at 2017-10-12 12:14:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 804.75 Mbit/s
95th percentile per-packet one-way delay: 8.663 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 448.37 Mbit/s
95th percentile per-packet one-way delay: 8.745 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 374.35 Mbit/s
95th percentile per-packet one-way delay: 8.600 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 323.17 Mbit/s
95th percentile per-packet one-way delay: 7.527 ms
Loss rate: 0.11%
```
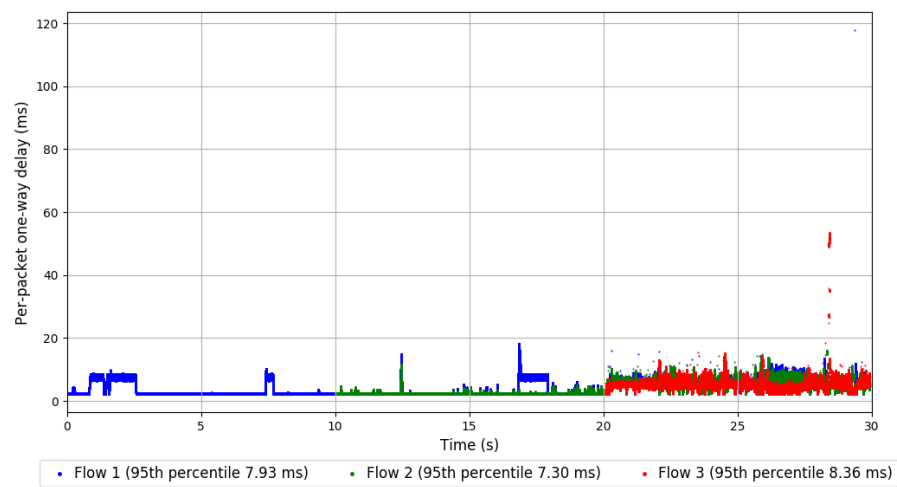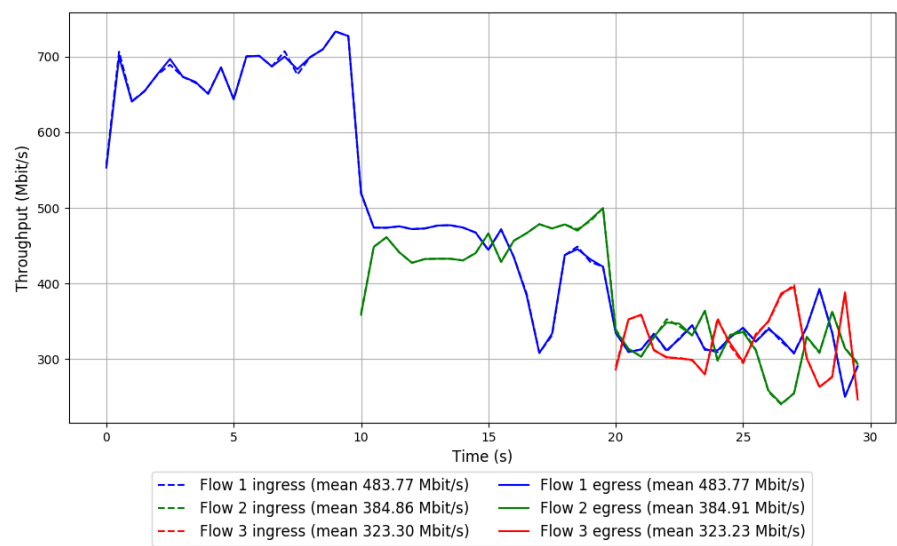
Run 3: Report of CalibratedKoho — Data Link

```
Run 4: Statistics of CalibratedKoho

Start at: 2017-10-12 04:41:44
End at: 2017-10-12 04:42:14
Local clock offset: -0.07 ms
Remote clock offset: 0.88 ms

# Below is generated by plot.py at 2017-10-12 12:15:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 846.74 Mbit/s
95th percentile per-packet one-way delay: 7.884 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 483.77 Mbit/s
95th percentile per-packet one-way delay: 7.927 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 384.91 Mbit/s
95th percentile per-packet one-way delay: 7.304 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 323.23 Mbit/s
95th percentile per-packet one-way delay: 8.363 ms
Loss rate: 0.09%
```
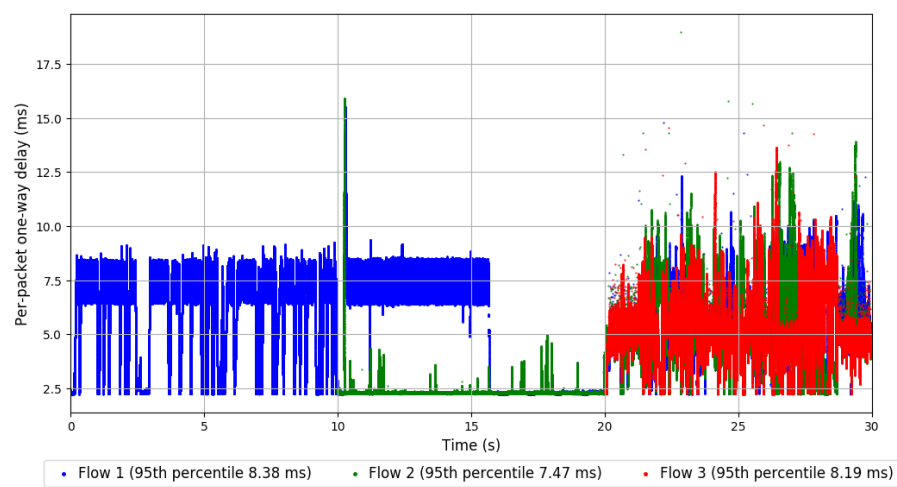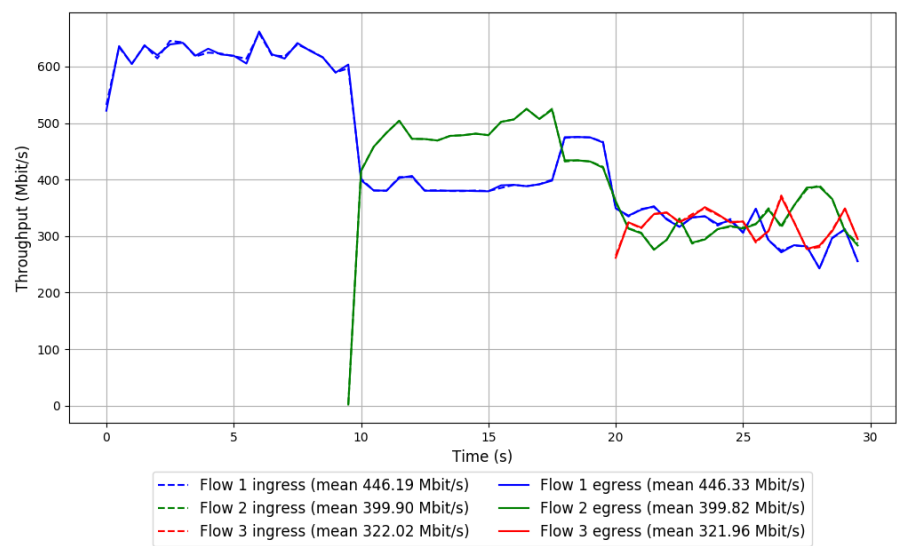
Run 4: Report of CalibratedKoho — Data Link

```
Run 5: Statistics of CalibratedKoho

Start at: 2017-10-12 05:01:17
End at: 2017-10-12 05:01:47
Local clock offset: -0.065 ms
Remote clock offset: 0.932 ms


# Below is generated by plot.py at 2017-10-12 12:16:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 819.39 Mbit/s
95th percentile per-packet one-way delay: 8.331 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 446.33 Mbit/s
95th percentile per-packet one-way delay: 8.376 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 399.82 Mbit/s
95th percentile per-packet one-way delay: 7.466 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 321.96 Mbit/s
95th percentile per-packet one-way delay: 8.185 ms
Loss rate: 0.06%
```
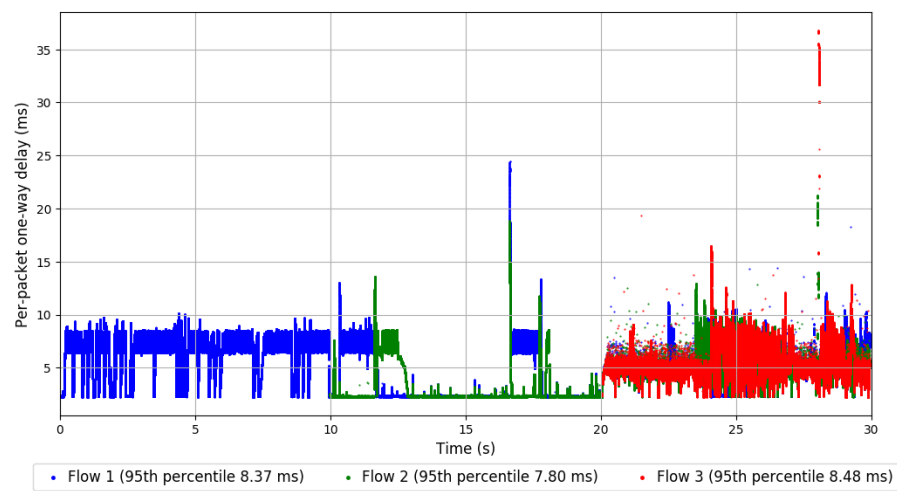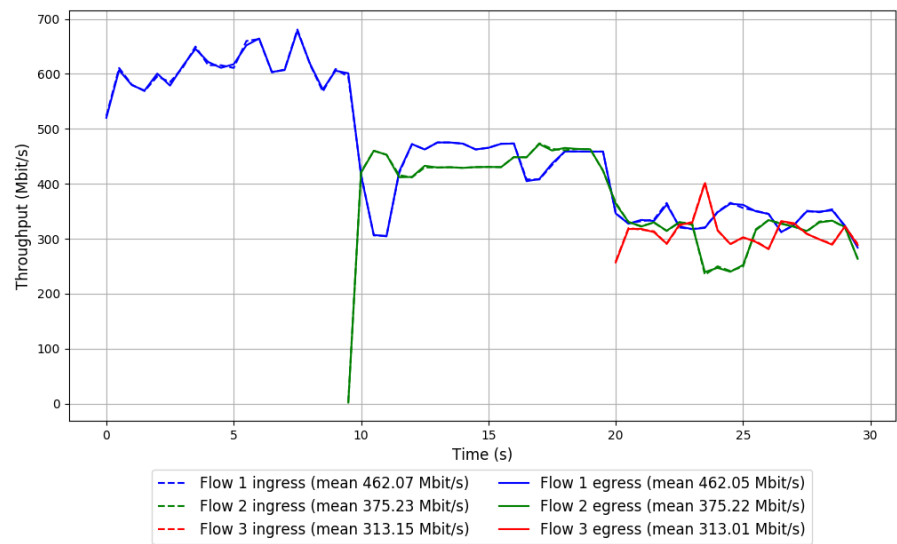
Run 5: Report of CalibratedKoho — Data Link

253

```
Run 6: Statistics of CalibratedKoho

Start at: 2017-10-12 05:20:51
End at: 2017-10-12 05:21:21
Local clock offset: -0.037 ms
Remote clock offset: 0.946 ms


# Below is generated by plot.py at 2017-10-12 12:17:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 815.74 Mbit/s
95th percentile per-packet one-way delay: 8.336 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 462.05 Mbit/s
95th percentile per-packet one-way delay: 8.370 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 375.22 Mbit/s
95th percentile per-packet one-way delay: 7.802 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 313.01 Mbit/s
95th percentile per-packet one-way delay: 8.477 ms
Loss rate: 0.09%
```
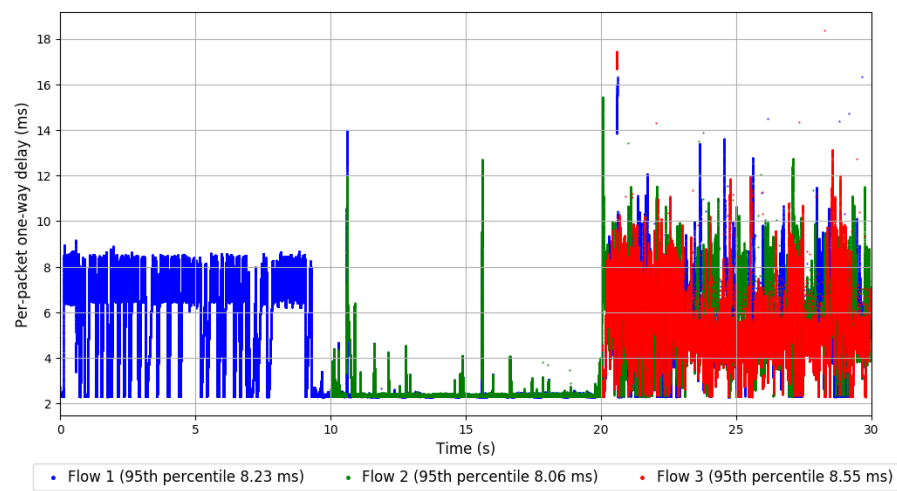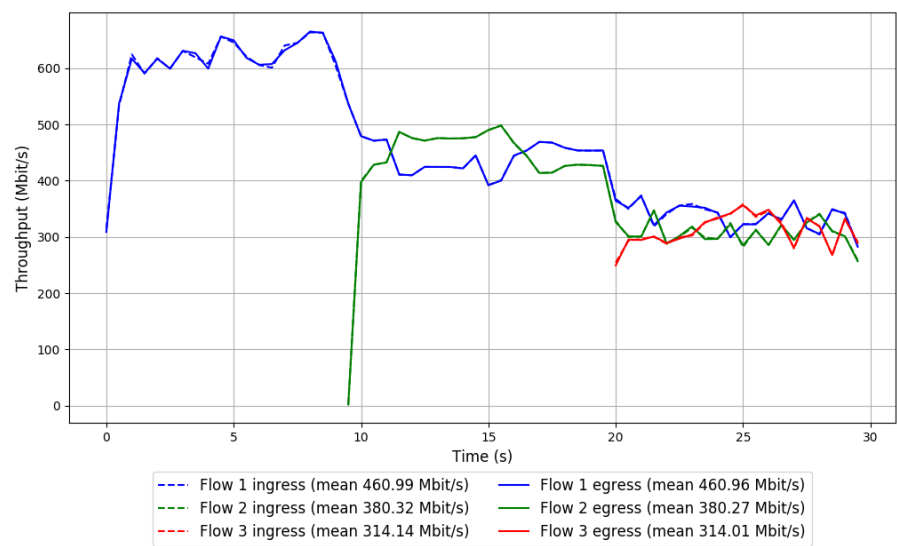
Run 6: Report of CalibratedKoho — Data Link

```
Run 7: Statistics of CalibratedKoho

Start at: 2017-10-12 05:40:18
End at: 2017-10-12 05:40:48
Local clock offset: -0.017 ms
Remote clock offset: 0.962 ms


# Below is generated by plot.py at 2017-10-12 12:17:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 818.30 Mbit/s
95th percentile per-packet one-way delay: 8.235 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 460.96 Mbit/s
95th percentile per-packet one-way delay: 8.232 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 380.27 Mbit/s
95th percentile per-packet one-way delay: 8.056 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 314.01 Mbit/s
95th percentile per-packet one-way delay: 8.555 ms
Loss rate: 0.08%
```
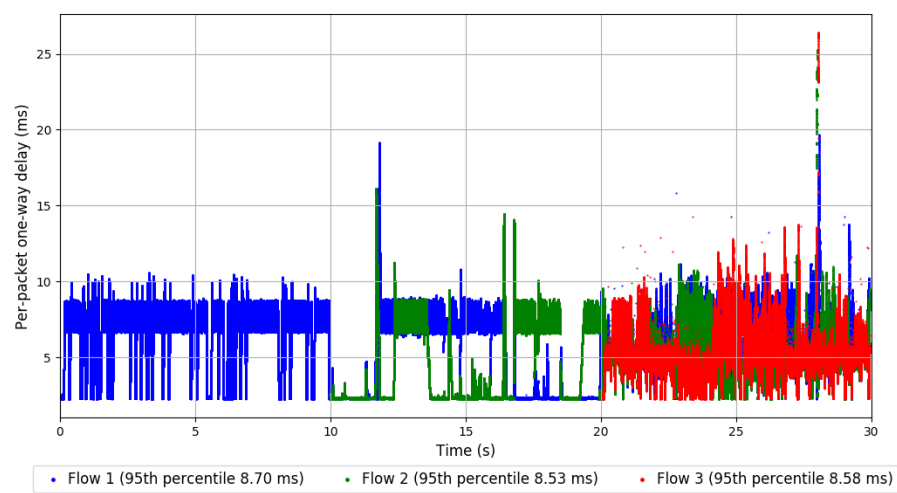
Run 7: Report of CalibratedKoho — Data Link

```
Run 8: Statistics of CalibratedKoho

Start at: 2017-10-12 05:59:36
End at: 2017-10-12 06:00:06
Local clock offset: -0.061 ms
Remote clock offset: 0.682 ms


# Below is generated by plot.py at 2017-10-12 12:17:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 799.63 Mbit/s
95th percentile per-packet one-way delay: 8.667 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 437.60 Mbit/s
95th percentile per-packet one-way delay: 8.699 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 379.95 Mbit/s
95th percentile per-packet one-way delay: 8.525 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 328.84 Mbit/s
95th percentile per-packet one-way delay: 8.582 ms
Loss rate: 0.03%
```
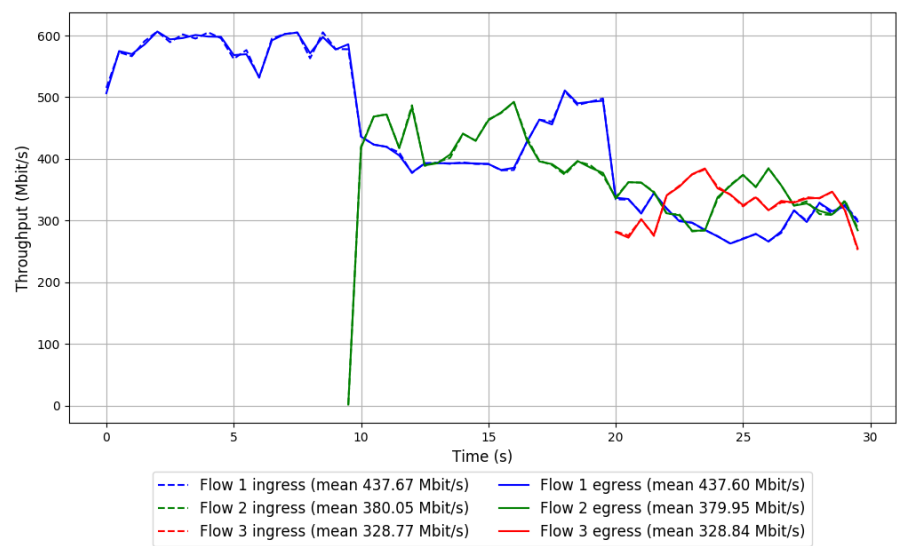
Run 8: Report of CalibratedKoho — Data Link

```
Run 9: Statistics of CalibratedKoho

Start at: 2017-10-12 06:19:02
End at: 2017-10-12 06:19:32
Local clock offset: -0.226 ms
Remote clock offset: 0.352 ms

# Below is generated by plot.py at 2017-10-12 12:23:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 780.27 Mbit/s
95th percentile per-packet one-way delay: 7.741 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 400.39 Mbit/s
95th percentile per-packet one-way delay: 7.851 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.35 Mbit/s
95th percentile per-packet one-way delay: 7.117 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 338.43 Mbit/s
95th percentile per-packet one-way delay: 7.135 ms
Loss rate: 0.04%
```
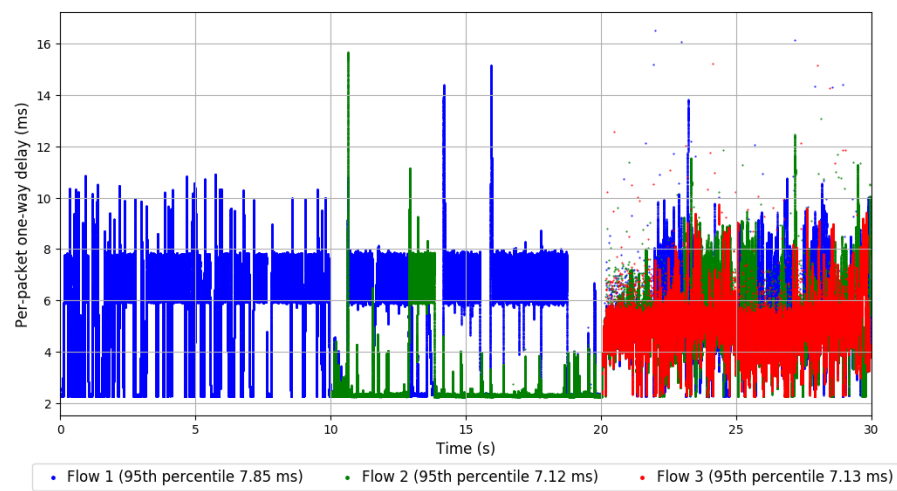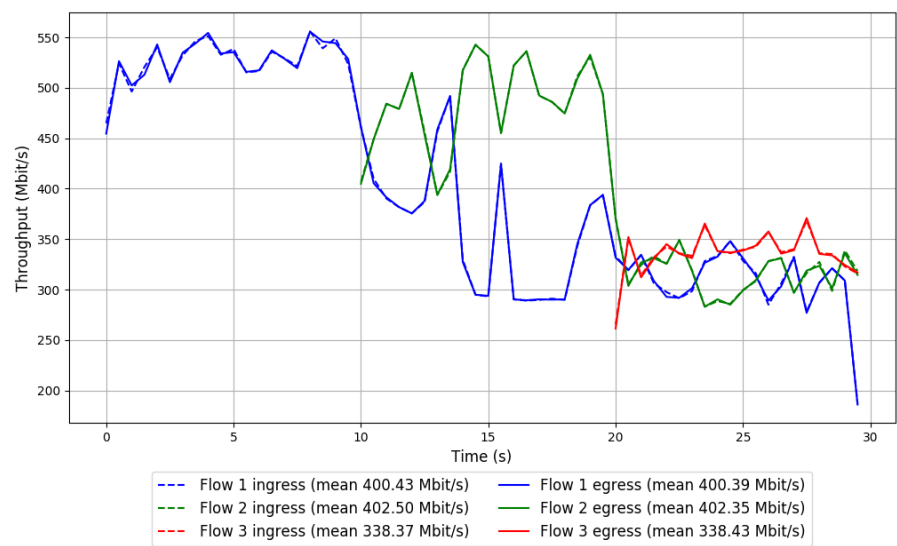
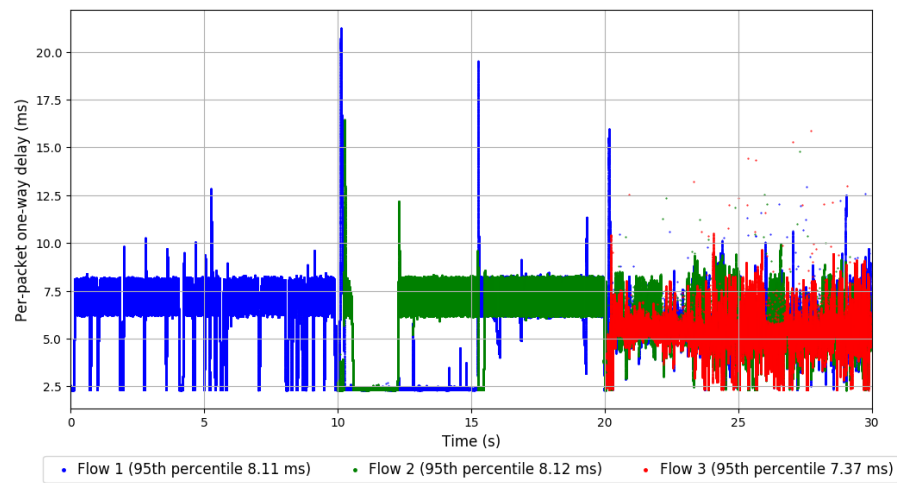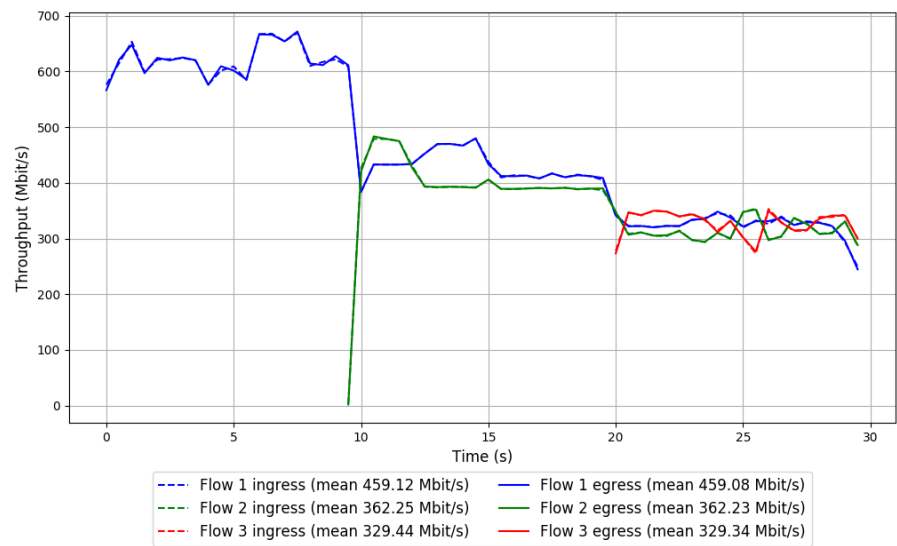# Run 9: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 400.43 Mbit/s) --- Flow 1 egress (mean 400.39 Mbit/s)
Flow 2 ingress (mean 402.50 Mbit/s) --- Flow 2 egress (mean 402.35 Mbit/s)
Flow 3 ingress (mean 338.37 Mbit/s) --- Flow 3 egress (mean 338.43 Mbit/s)

Flow 1 (95th percentile 7.85 ms)   Flow 2 (95th percentile 7.12 ms)   Flow 3 (95th percentile 7.13 ms)

```
Run 10: Statistics of CalibratedKoho

Start at: 2017-10-12 06:38:27
End at: 2017-10-12 06:38:57
Local clock offset: -0.286 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 809.54 Mbit/s
95th percentile per-packet one-way delay: 8.098 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 459.08 Mbit/s
95th percentile per-packet one-way delay: 8.105 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 362.23 Mbit/s
95th percentile per-packet one-way delay: 8.125 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 329.34 Mbit/s
95th percentile per-packet one-way delay: 7.368 ms
Loss rate: 0.08%
```

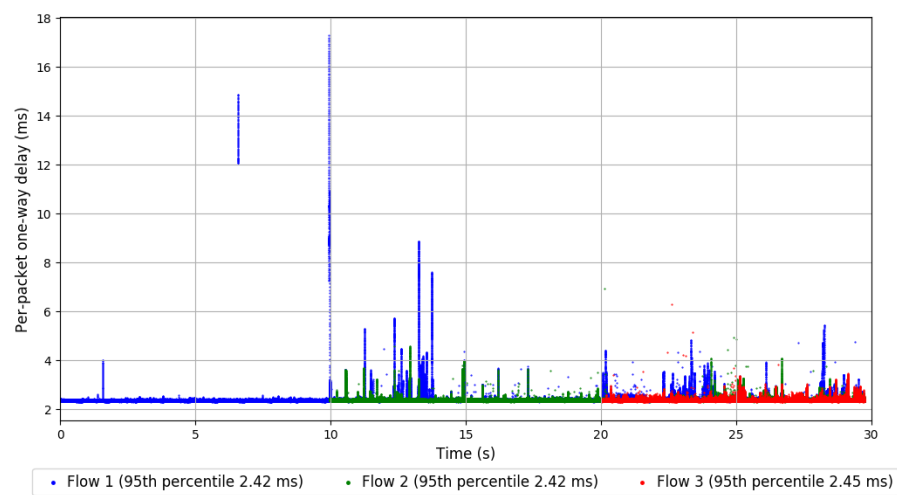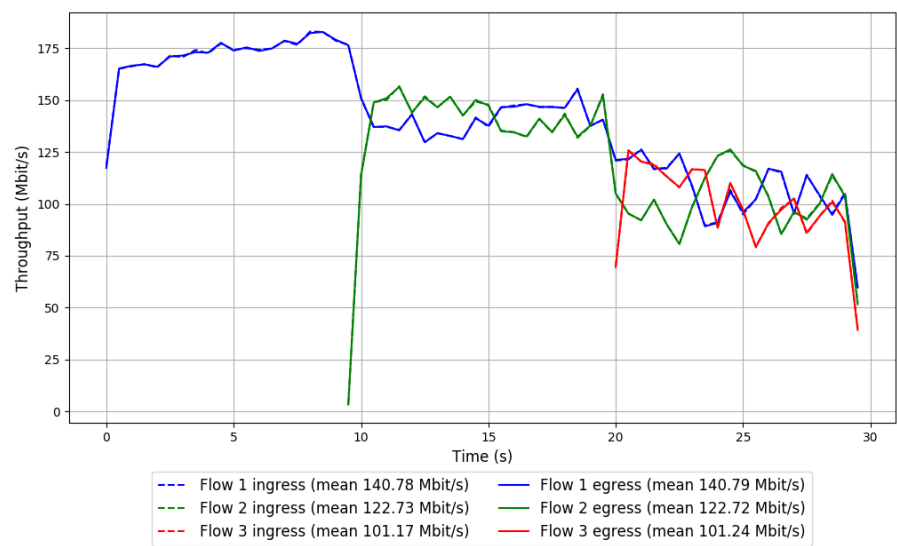Run 10: Report of CalibratedKoho — Data Link

```
Run 1: Statistics of Indigo

Start at: 2017-10-12 03:48:19
End at: 2017-10-12 03:48:49
Local clock offset: -0.181 ms
Remote clock offset: 0.127 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.50 Mbit/s
95th percentile per-packet one-way delay: 2.423 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 140.79 Mbit/s
95th percentile per-packet one-way delay: 2.425 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 122.72 Mbit/s
95th percentile per-packet one-way delay: 2.415 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 101.24 Mbit/s
95th percentile per-packet one-way delay: 2.450 ms
Loss rate: 0.05%
```

Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2017-10-12 04:07:39
End at: 2017-10-12 04:08:09
Local clock offset: -0.143 ms
Remote clock offset: 0.474 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.74 Mbit/s
95th percentile per-packet one-way delay: 2.403 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 143.88 Mbit/s
95th percentile per-packet one-way delay: 2.385 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 122.55 Mbit/s
95th percentile per-packet one-way delay: 2.445 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 84.60 Mbit/s
95th percentile per-packet one-way delay: 2.405 ms
Loss rate: 0.07%
```
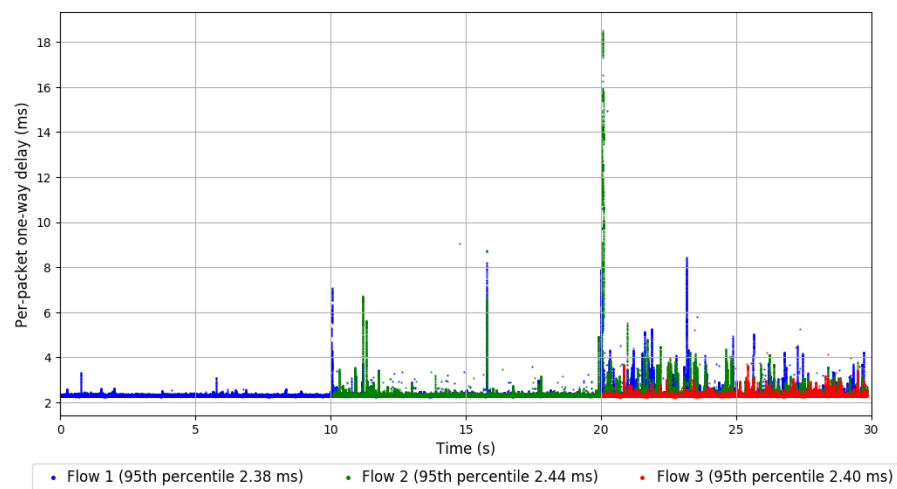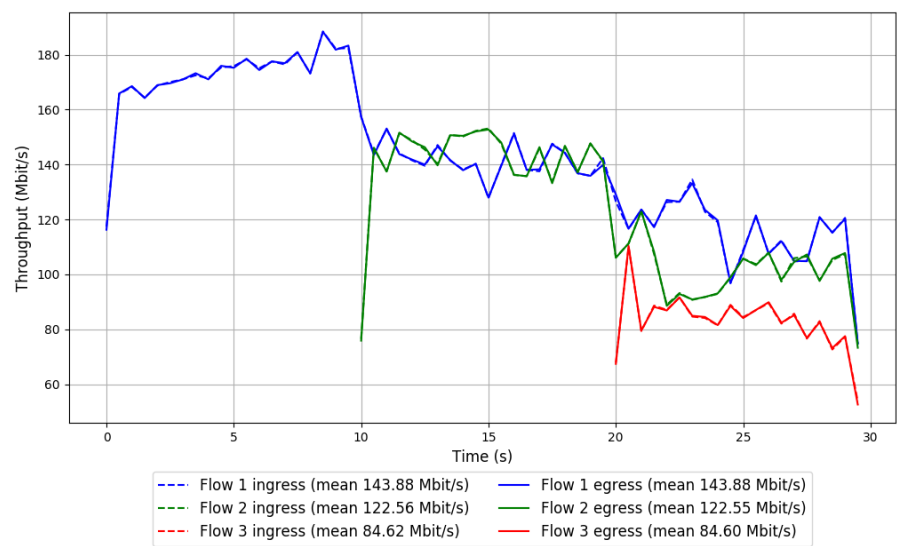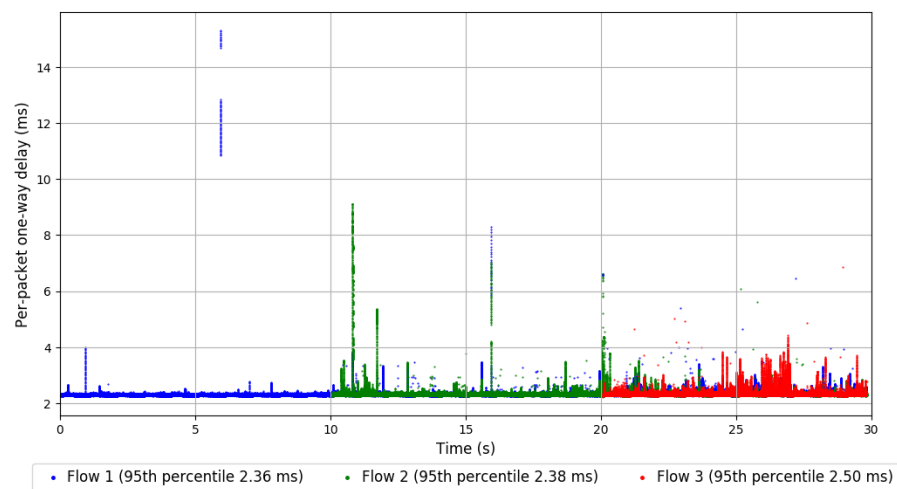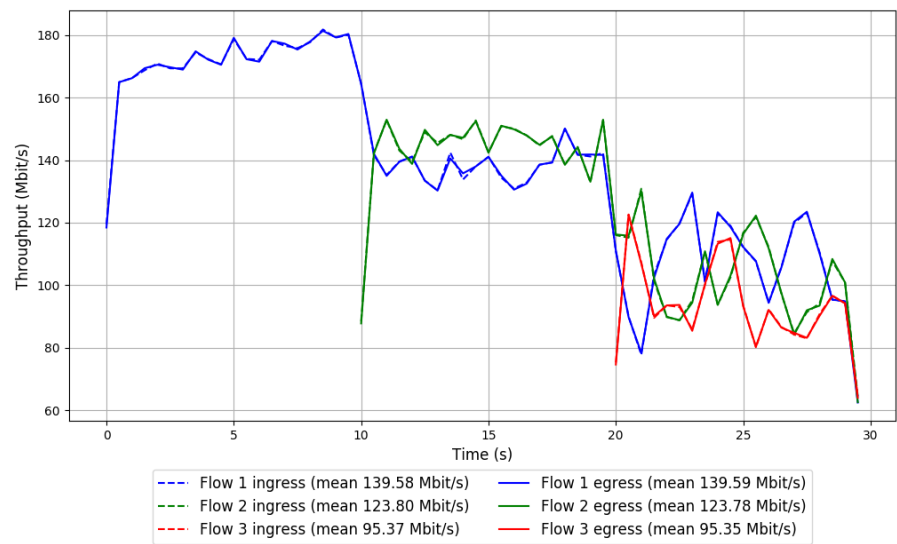
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2017-10-12 04:27:10
End at: 2017-10-12 04:27:40
Local clock offset: -0.089 ms
Remote clock offset: 0.791 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.80 Mbit/s
95th percentile per-packet one-way delay: 2.379 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 139.59 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 123.78 Mbit/s
95th percentile per-packet one-way delay: 2.385 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 95.35 Mbit/s
95th percentile per-packet one-way delay: 2.499 ms
Loss rate: 0.07%
```

Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2017-10-12 04:46:42
End at: 2017-10-12 04:47:12
Local clock offset: -0.074 ms
Remote clock offset: 0.921 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.66 Mbit/s
95th percentile per-packet one-way delay: 2.365 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 137.52 Mbit/s
95th percentile per-packet one-way delay: 2.346 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 126.99 Mbit/s
95th percentile per-packet one-way delay: 2.385 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 2.395 ms
Loss rate: 0.01%
```
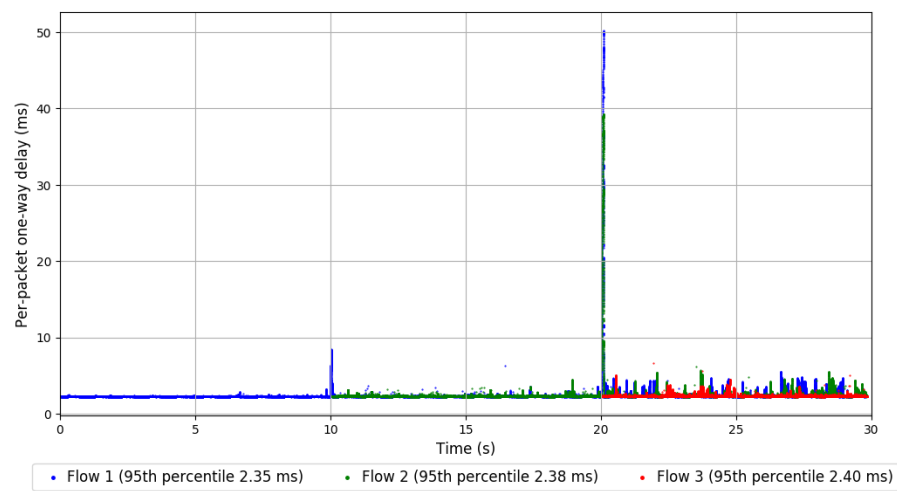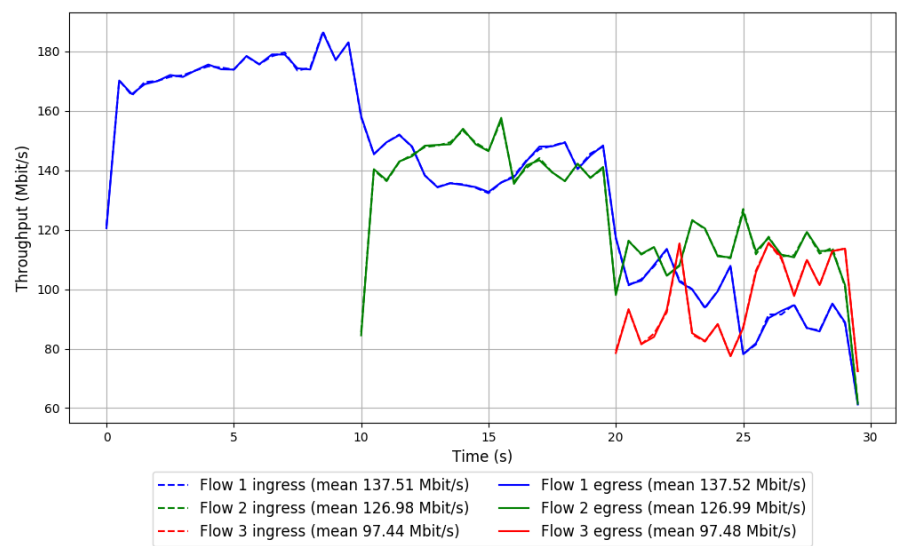
Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 137.51 Mbit/s) — — — Flow 1 egress (mean 137.52 Mbit/s)
Flow 2 ingress (mean 126.98 Mbit/s) — — — Flow 2 egress (mean 126.99 Mbit/s)
Flow 3 ingress (mean 97.44 Mbit/s) — — — Flow 3 egress (mean 97.48 Mbit/s)

• Flow 1 (95th percentile 2.35 ms)   • Flow 2 (95th percentile 2.38 ms)   • Flow 3 (95th percentile 2.40 ms)

Run 5: Statistics of Indigo

Start at: 2017-10-12 05:06:15
End at: 2017-10-12 05:06:45
Local clock offset: -0.034 ms
Remote clock offset: 0.904 ms

Below is generated by plot.py at 2017-10-12 12:23:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 253.10 Mbit/s
95th percentile per-packet one-way delay: 2.425 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 141.90 Mbit/s
95th percentile per-packet one-way delay: 2.409 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 118.87 Mbit/s
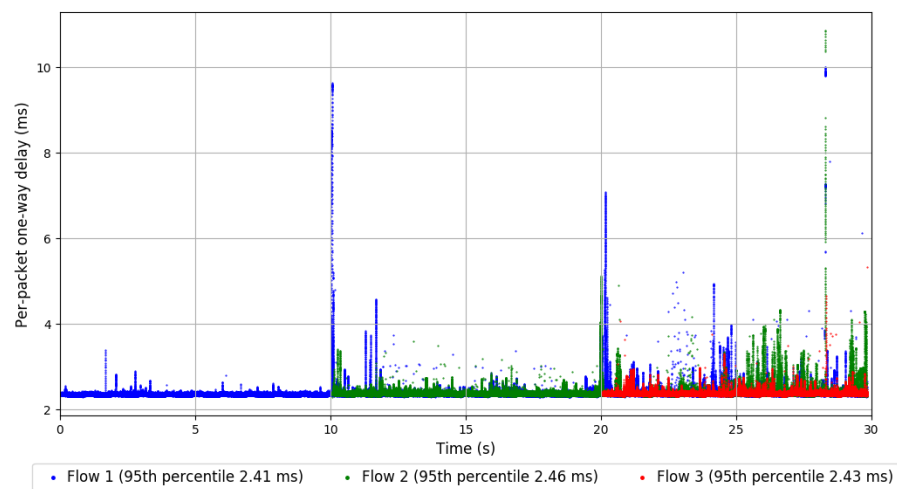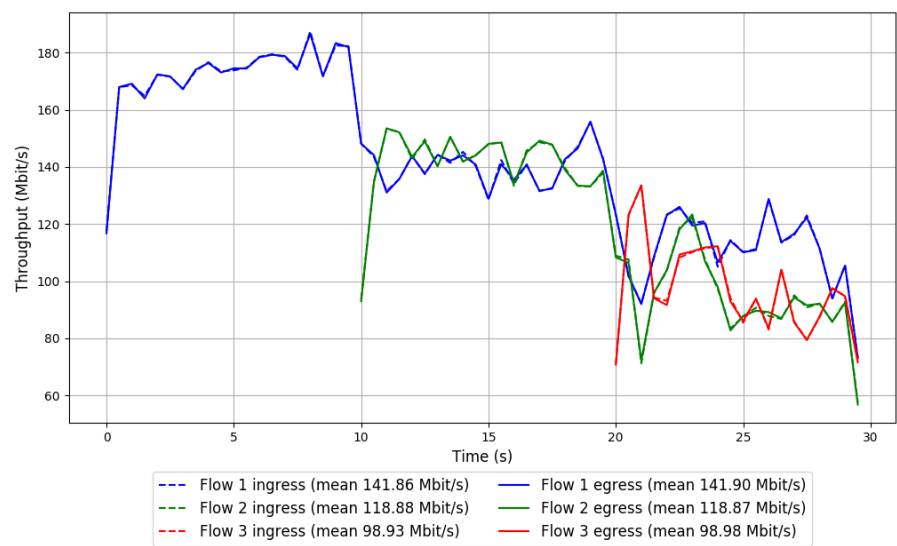95th percentile per-packet one-way delay: 2.457 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 98.98 Mbit/s
95th percentile per-packet one-way delay: 2.426 ms
Loss rate: 0.07%

Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2017-10-12 05:25:47
End at: 2017-10-12 05:26:17
Local clock offset: -0.029 ms
Remote clock offset: 0.958 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.26 Mbit/s
95th percentile per-packet one-way delay: 2.368 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 141.45 Mbit/s
95th percentile per-packet one-way delay: 2.365 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 123.60 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 88.62 Mbit/s
95th percentile per-packet one-way delay: 2.442 ms
Loss rate: 0.03%
```
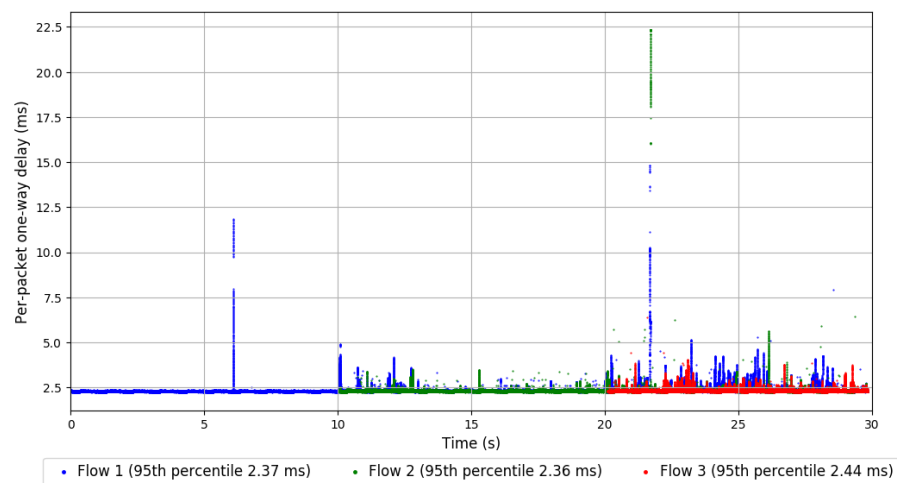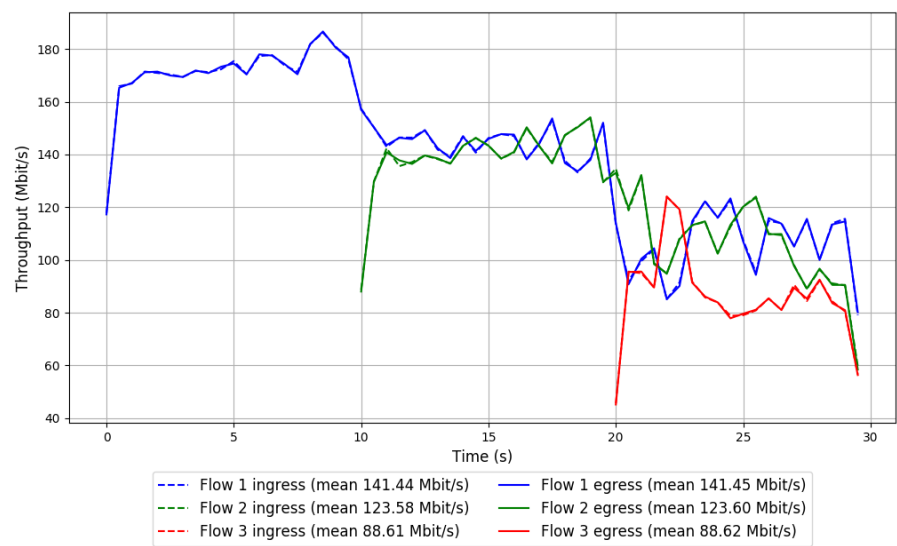
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2017-10-12 05:45:12
End at: 2017-10-12 05:45:42
Local clock offset: -0.082 ms
Remote clock offset: 0.909 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.09 Mbit/s
95th percentile per-packet one-way delay: 2.378 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 144.05 Mbit/s
95th percentile per-packet one-way delay: 2.354 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 130.10 Mbit/s
95th percentile per-packet one-way delay: 2.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.03 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.07%
```
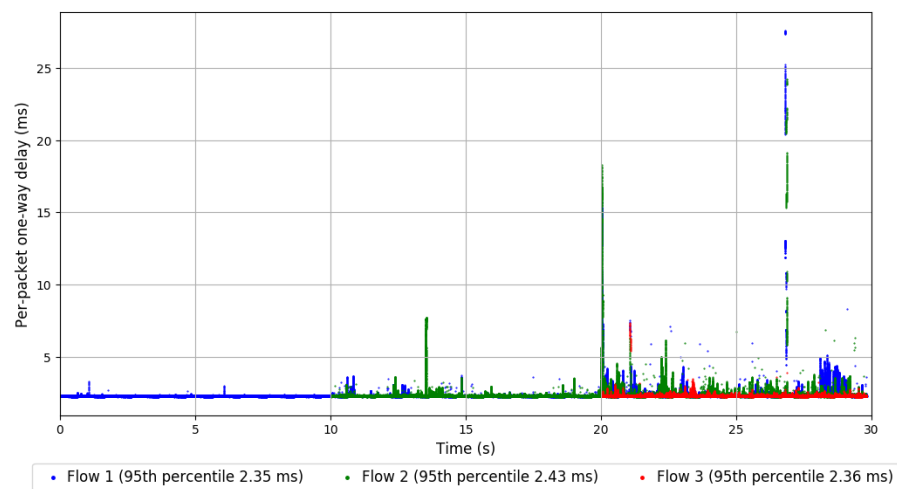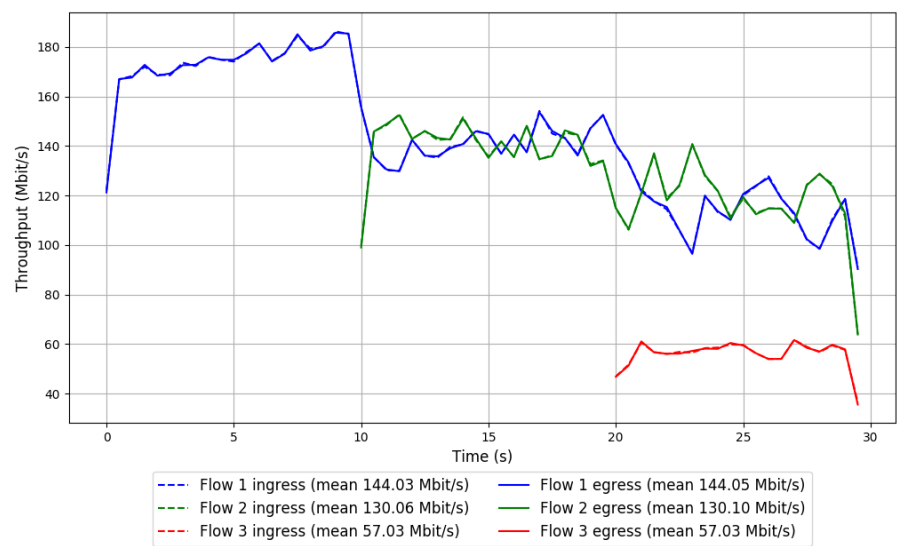
Run 7: Report of Indigo — Data Link

Flow 1 ingress (mean 144.03 Mbit/s) ---- Flow 1 egress (mean 144.05 Mbit/s)
Flow 2 ingress (mean 130.06 Mbit/s) ---- Flow 2 egress (mean 130.10 Mbit/s)
Flow 3 ingress (mean 57.03 Mbit/s) ---- Flow 3 egress (mean 57.03 Mbit/s)

Flow 1 (95th percentile 2.35 ms)   Flow 2 (95th percentile 2.43 ms)   Flow 3 (95th percentile 2.36 ms)

```
Run 8: Statistics of Indigo

Start at: 2017-10-12 06:04:31
End at: 2017-10-12 06:05:01
Local clock offset: -0.125 ms
Remote clock offset: 0.617 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.59 Mbit/s
95th percentile per-packet one-way delay: 2.277 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 138.16 Mbit/s
95th percentile per-packet one-way delay: 2.249 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 124.42 Mbit/s
95th percentile per-packet one-way delay: 2.347 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 91.53 Mbit/s
95th percentile per-packet one-way delay: 2.322 ms
Loss rate: 0.07%
```
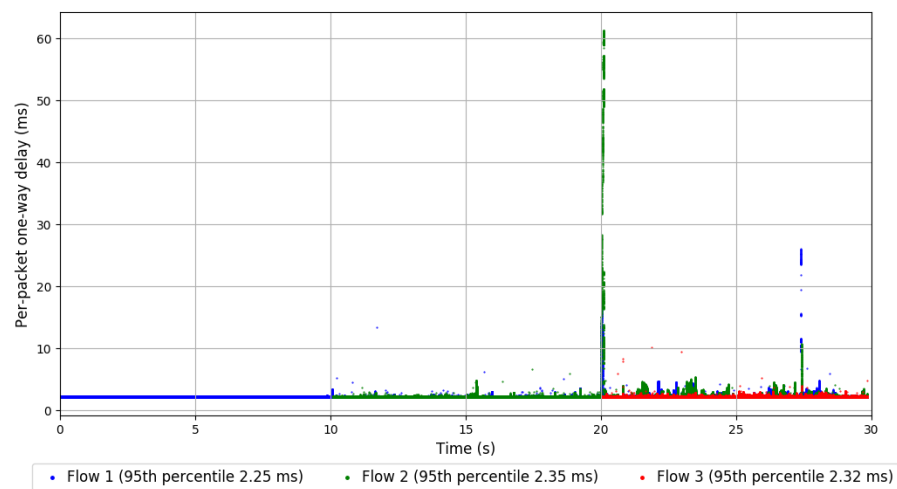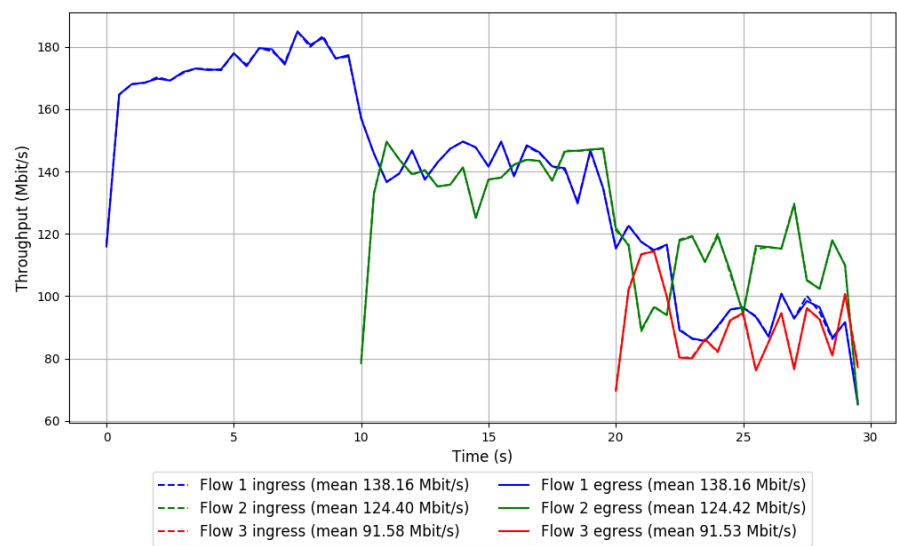
Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2017-10-12 06:23:58
End at: 2017-10-12 06:24:28
Local clock offset: -0.195 ms
Remote clock offset: 0.378 ms

# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.09 Mbit/s
95th percentile per-packet one-way delay: 2.385 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 141.42 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 126.20 Mbit/s
95th percentile per-packet one-way delay: 2.382 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 92.04 Mbit/s
95th percentile per-packet one-way delay: 2.451 ms
Loss rate: 0.06%
```
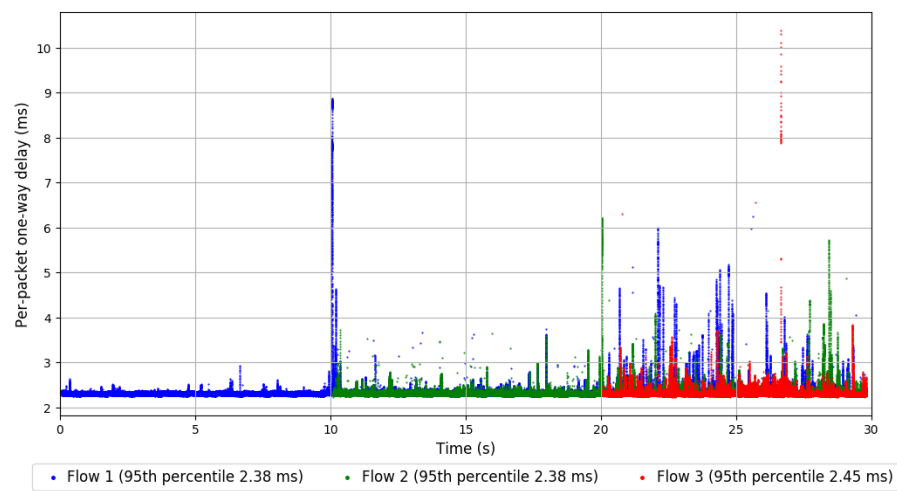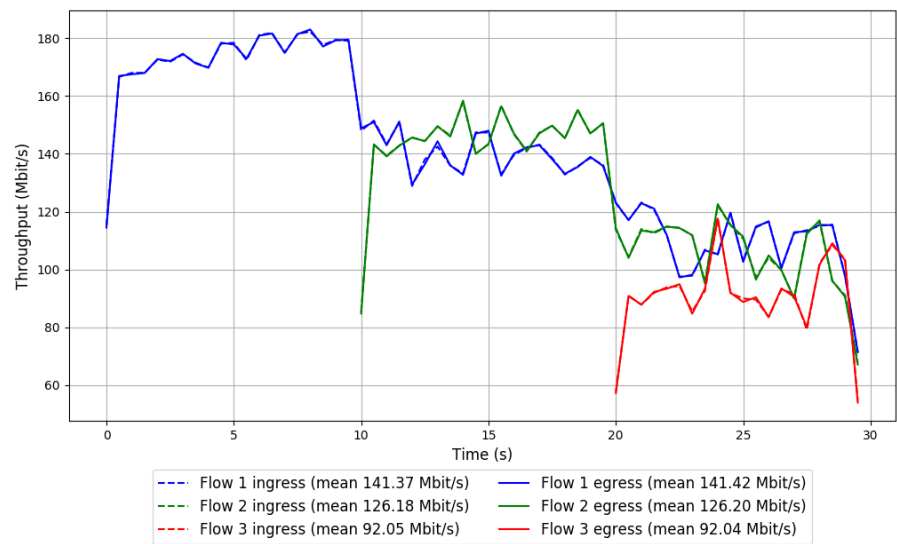
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2017-10-12 06:43:22
End at: 2017-10-12 06:43:52
Local clock offset: -0.345 ms
Remote clock offset: -0.149 ms


# Below is generated by plot.py at 2017-10-12 12:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.70 Mbit/s
95th percentile per-packet one-way delay: 2.434 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 141.95 Mbit/s
95th percentile per-packet one-way delay: 2.424 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 121.89 Mbit/s
95th percentile per-packet one-way delay: 2.449 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 94.67 Mbit/s
95th percentile per-packet one-way delay: 2.448 ms
Loss rate: 0.05%
```

Run 10: Report of Indigo — Data Link