Pantheon Report

Generated at 2017-10-12 10:02:10 (UTC).

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

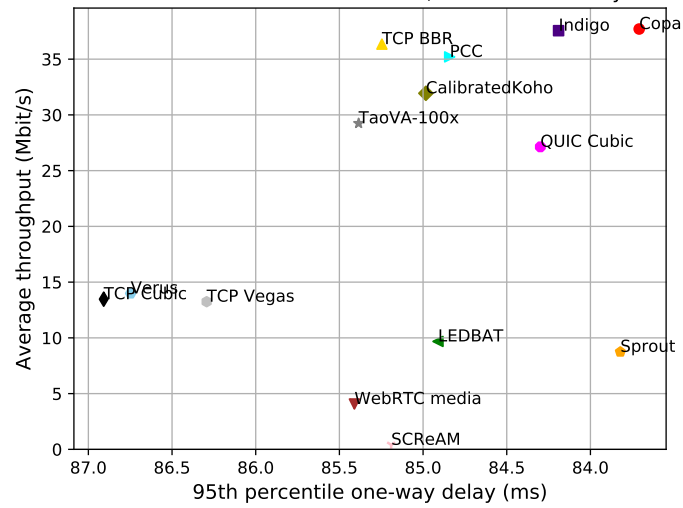Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

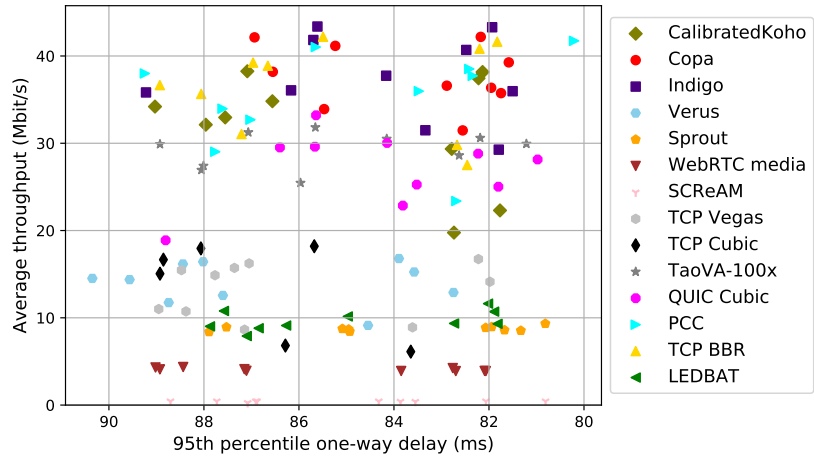NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
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 Colombia Ethernet to AWS Brazil 2 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

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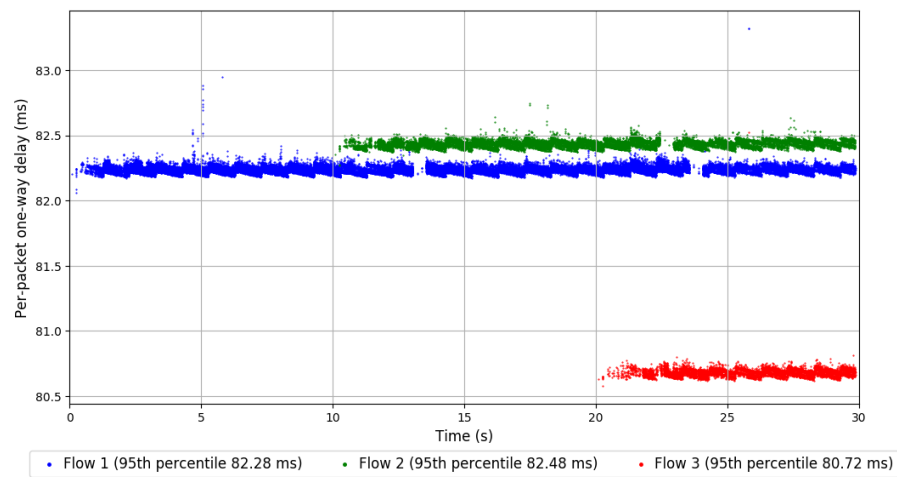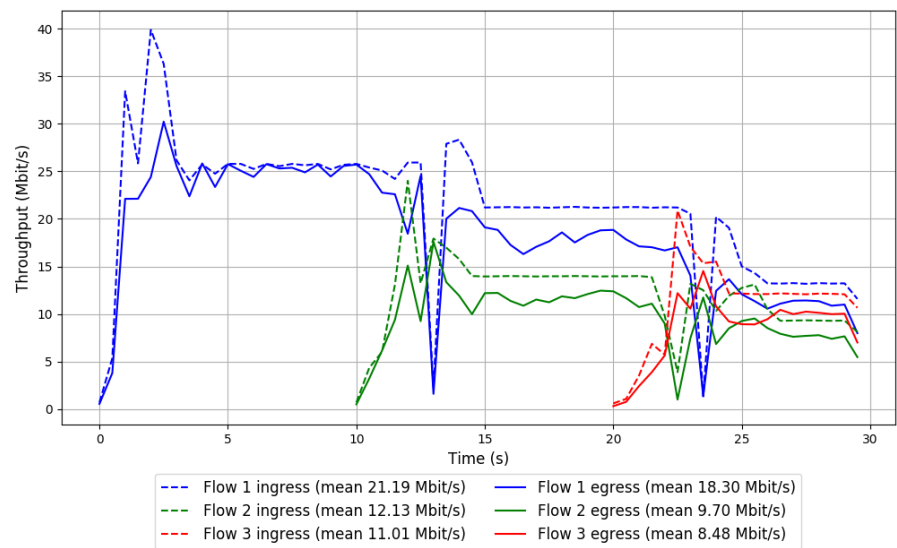### 3 flows with 10s interval between flows

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	28.26	9.68	5.08	84.33	85.14	84.89	12.90	16.37	20.39
TCP Cubic	6	11.45	7.21	7.70	1072.83	85.57	86.12	2.31	4.24	7.28
LEDBAT	10	5.47	4.89	3.00	84.12	84.17	83.98	0.91	1.56	3.30
PCC	10	32.88	2.37	2.30	84.68	84.15	84.00	5.61	9.39	11.21
QUIC Cubic	10	15.17	12.88	10.47	83.87	83.72	83.03	3.57	2.82	3.49
SCReAM	10	1.01	0.22	0.22	423.18	84.86	84.51	0.48	0.95	1.56
WebRTC media	10	2.24	1.37	0.48	84.71	84.68	84.44	0.88	0.78	2.56
Sprout	10	4.56	4.46	3.79	83.03	82.48	83.34	0.91	1.07	2.58
TaoVA-100x	10	17.00	14.49	10.57	85.22	84.37	84.81	29.51	22.39	23.63
TCP Vegas	10	6.76	6.30	7.06	85.69	85.15	85.23	2.56	3.86	6.34
Verus	10	6.29	5.92	12.37	85.90	86.07	86.73	74.38	72.32	85.39
Copa	10	37.70	0.00	0.01	83.71	83.99	84.07	82.76	75.50	81.97
CalibratedKoho	10	22.14	11.50	6.42	84.08	84.28	84.19	69.38	65.03	54.04
Indigo	10	23.25	15.41	12.72	84.14	83.01	83.63	73.00	84.30	88.20

```
Run 1: Statistics of TCP BBR

Start at: 2017-10-12 03:46:10
End at: 2017-10-12 03:46:40
Local clock offset: 1.286 ms
Remote clock offset: -3.221 ms


# Below is generated by plot.py at 2017-10-12 09:50:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.51 Mbit/s
95th percentile per-packet one-way delay: 82.458 ms
Loss rate: 16.89%
-- Flow 1:
Average throughput: 18.30 Mbit/s
95th percentile per-packet one-way delay: 82.282 ms
Loss rate: 14.15%
-- Flow 2:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 82.476 ms
Loss rate: 20.73%
-- Flow 3:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 80.724 ms
Loss rate: 24.27%
```
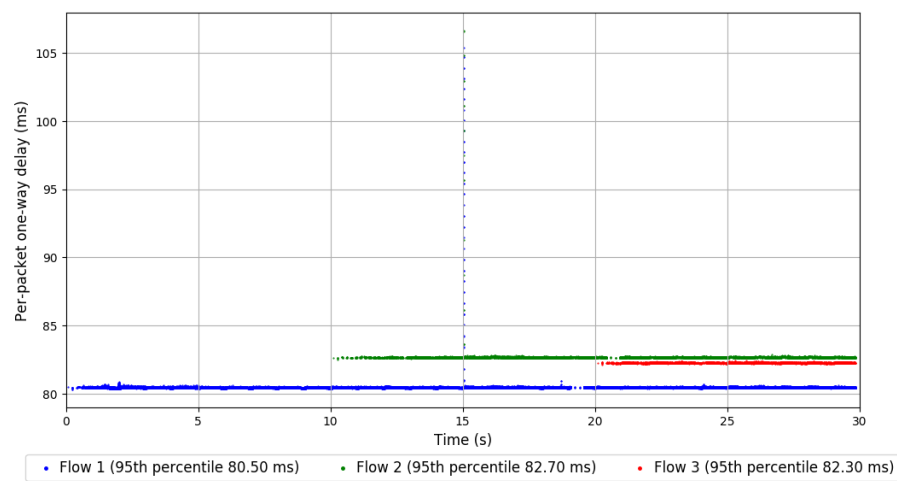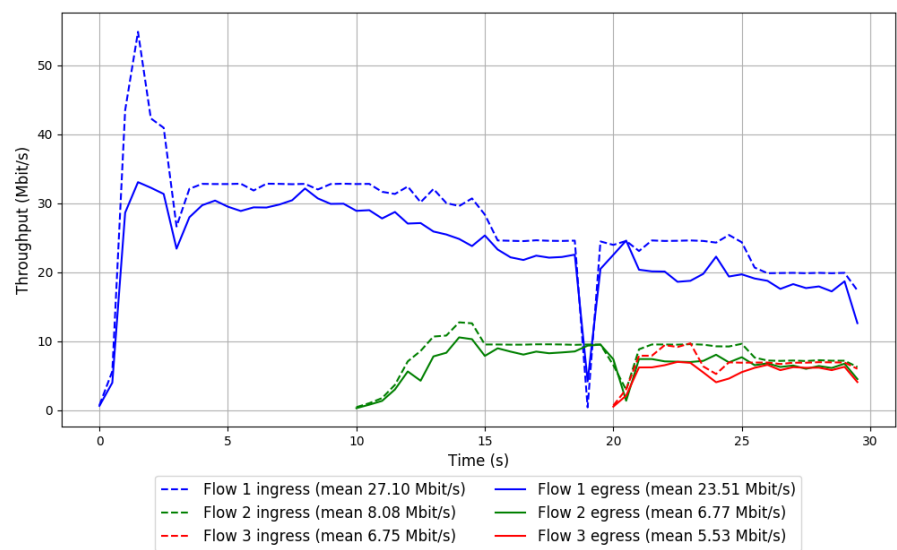
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 21.19 Mbit/s) — — — Flow 1 egress (mean 18.30 Mbit/s)
Flow 2 ingress (mean 12.13 Mbit/s) — — — Flow 2 egress (mean 9.70 Mbit/s)
Flow 3 ingress (mean 11.01 Mbit/s) — — — Flow 3 egress (mean 8.48 Mbit/s)

Flow 1 (95th percentile 82.28 ms)   Flow 2 (95th percentile 82.48 ms)   Flow 3 (95th percentile 80.72 ms)
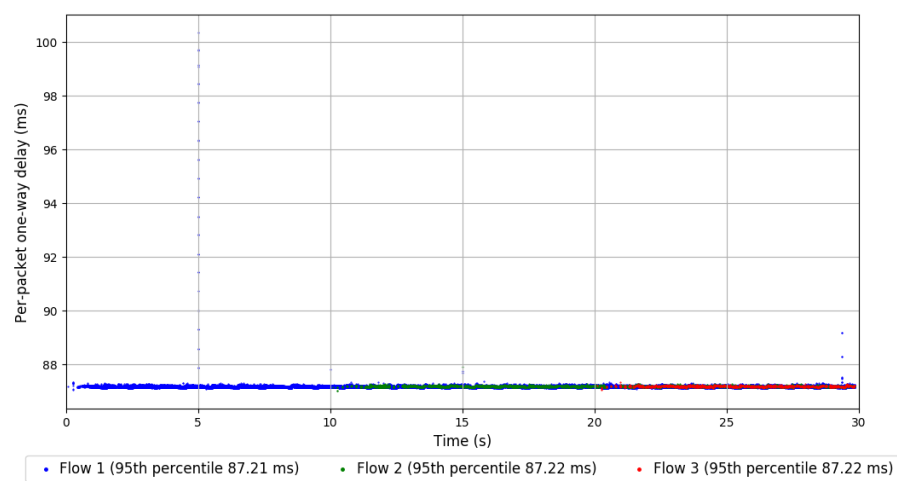
5

```
Run 2: Statistics of TCP BBR

Start at: 2017-10-12 04:05:37
End at: 2017-10-12 04:06:07
Local clock offset: 1.388 ms
Remote clock offset: -2.535 ms


# Below is generated by plot.py at 2017-10-12 09:50:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.82 Mbit/s
95th percentile per-packet one-way delay: 82.672 ms
Loss rate: 14.57%
-- Flow 1:
Average throughput: 23.51 Mbit/s
95th percentile per-packet one-way delay: 80.495 ms
Loss rate: 13.72%
-- Flow 2:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 82.705 ms
Loss rate: 16.87%
-- Flow 3:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 82.304 ms
Loss rate: 19.42%
```
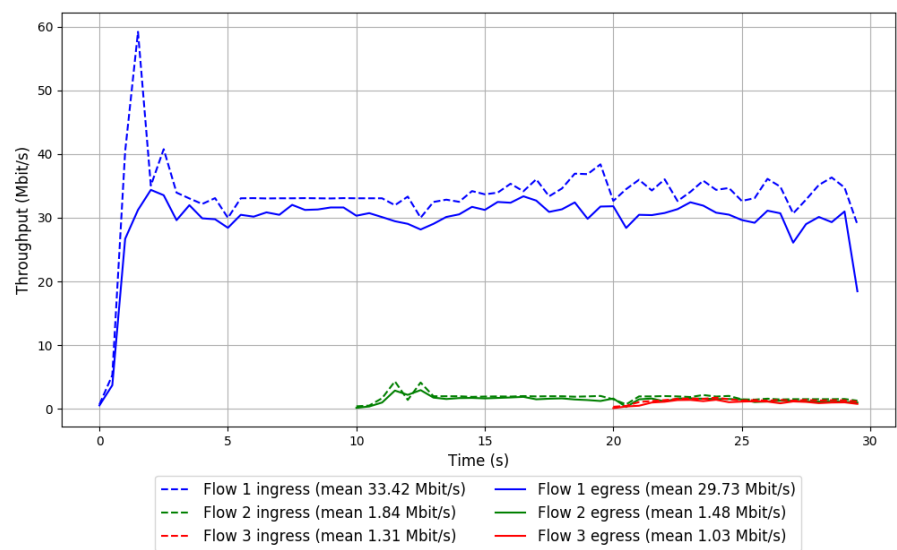
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 27.10 Mbit/s)   Flow 1 egress (mean 23.51 Mbit/s)
Flow 2 ingress (mean 8.08 Mbit/s)   Flow 2 egress (mean 6.77 Mbit/s)
Flow 3 ingress (mean 6.75 Mbit/s)   Flow 3 egress (mean 5.53 Mbit/s)

Flow 1 (95th percentile 80.50 ms)   Flow 2 (95th percentile 82.70 ms)   Flow 3 (95th percentile 82.30 ms)
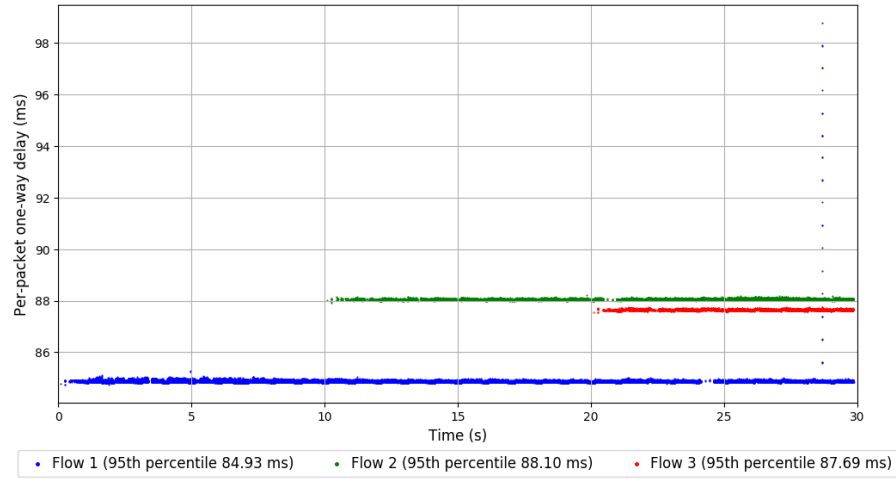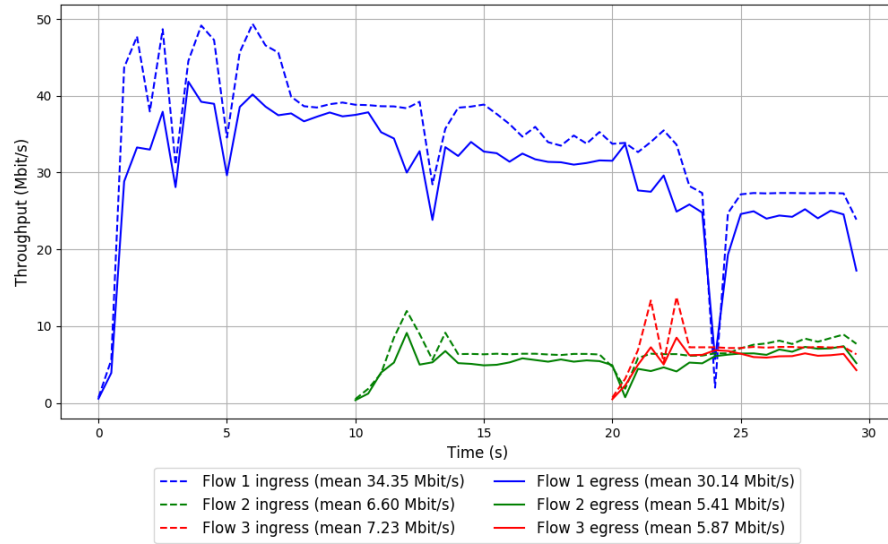
```
Run 3: Statistics of TCP BBR

Start at: 2017-10-12 04:25:11
End at: 2017-10-12 04:25:41
Local clock offset: 1.061 ms
Remote clock offset: -6.756 ms


# Below is generated by plot.py at 2017-10-12 09:50:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 87.209 ms
Loss rate: 11.96%
-- Flow 1:
Average throughput: 29.73 Mbit/s
95th percentile per-packet one-way delay: 87.209 ms
Loss rate: 11.52%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 87.217 ms
Loss rate: 20.07%
-- Flow 3:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 87.215 ms
Loss rate: 22.57%
```
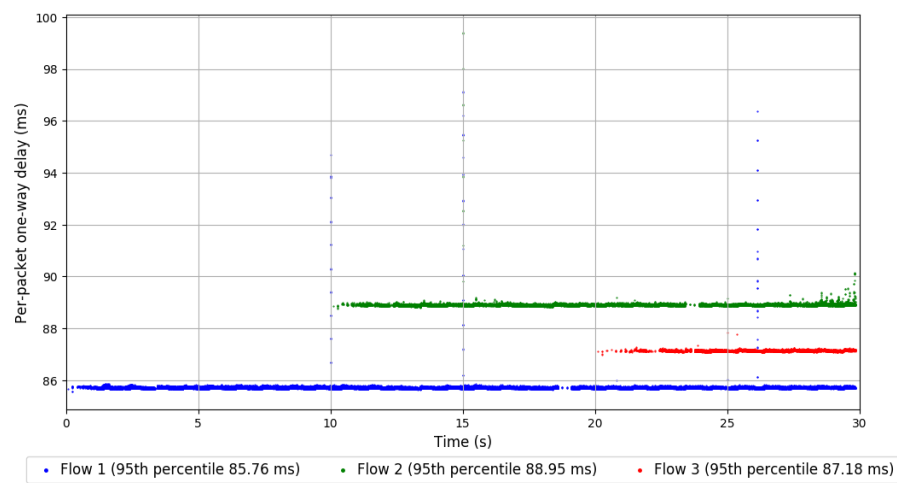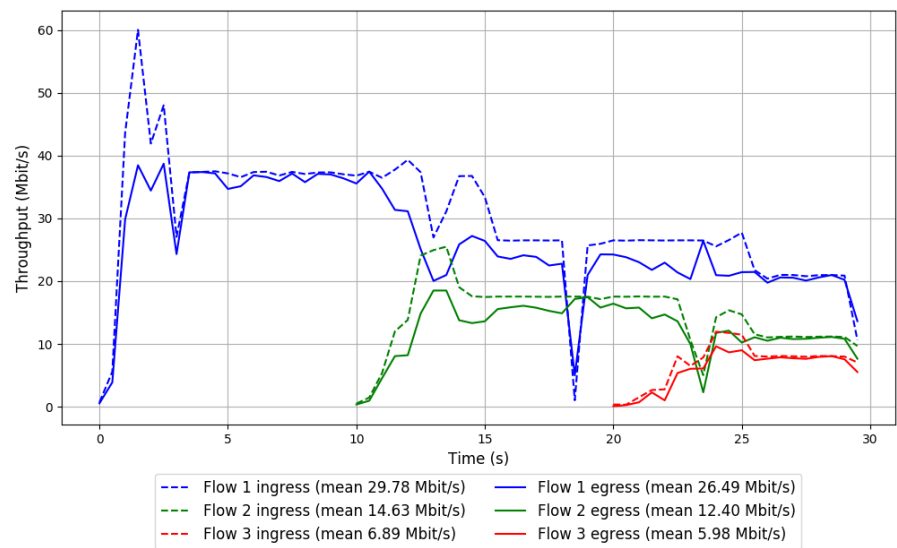
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 33.42 Mbit/s) --- Flow 1 egress (mean 29.73 Mbit/s)
Flow 2 ingress (mean 1.84 Mbit/s) --- Flow 2 egress (mean 1.48 Mbit/s)
Flow 3 ingress (mean 1.31 Mbit/s) --- Flow 3 egress (mean 1.03 Mbit/s)

Flow 1 (95th percentile 87.21 ms)   Flow 2 (95th percentile 87.22 ms)   Flow 3 (95th percentile 87.22 ms)

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Run 4: Statistics of TCP BBR

Start at: 2017-10-12 04:44:13
End at: 2017-10-12 04:44:43
Local clock offset: 1.191 ms
Remote clock offset: -5.802 ms


# Below is generated by plot.py at 2017-10-12 09:50:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.65 Mbit/s
95th percentile per-packet one-way delay: 88.057 ms
Loss rate: 13.84%
-- Flow 1:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 84.929 ms
Loss rate: 12.76%
-- Flow 2:
Average throughput: 5.41 Mbit/s
95th percentile per-packet one-way delay: 88.103 ms
Loss rate: 18.74%
-- Flow 3:
Average throughput: 5.87 Mbit/s
95th percentile per-packet one-way delay: 87.695 ms
Loss rate: 20.24%
```
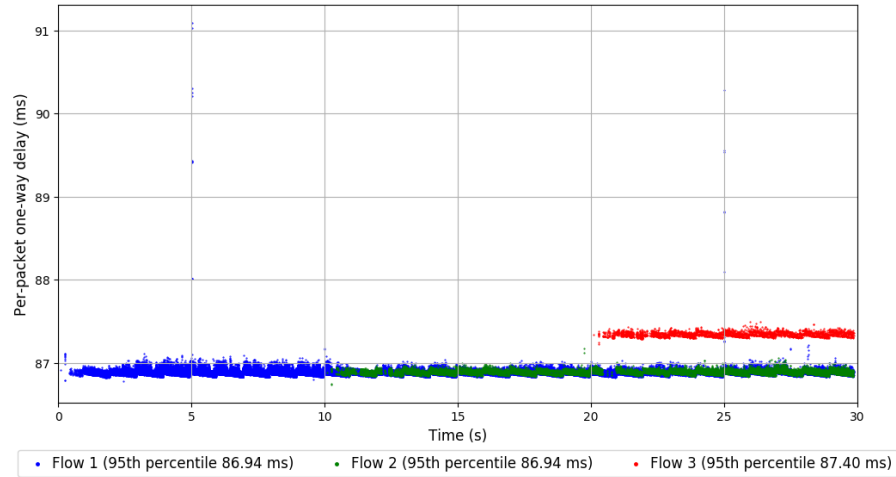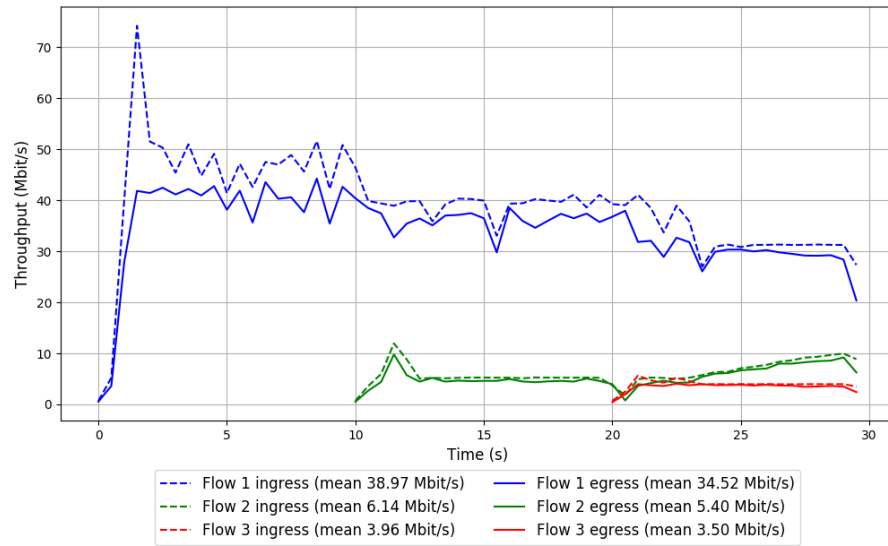
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 34.35 Mbit/s)   Flow 1 egress (mean 30.14 Mbit/s)
Flow 2 ingress (mean 6.60 Mbit/s)   Flow 2 egress (mean 5.41 Mbit/s)
Flow 3 ingress (mean 7.23 Mbit/s)   Flow 3 egress (mean 5.87 Mbit/s)

Flow 1 (95th percentile 84.93 ms)   Flow 2 (95th percentile 88.10 ms)   Flow 3 (95th percentile 87.69 ms)
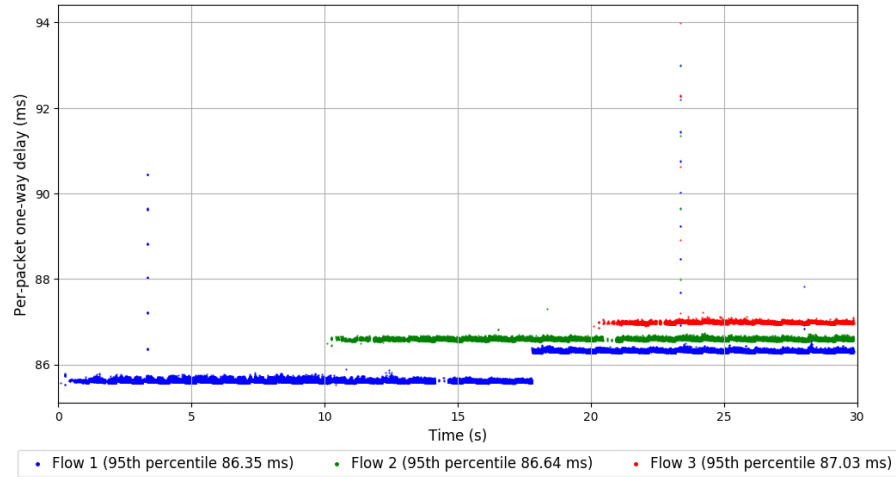
```
Run 5: Statistics of TCP BBR

Start at: 2017-10-12 05:02:58
End at: 2017-10-12 05:03:28
Local clock offset: 1.194 ms
Remote clock offset: -6.348 ms


# Below is generated by plot.py at 2017-10-12 09:50:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.66 Mbit/s
95th percentile per-packet one-way delay: 88.928 ms
Loss rate: 12.75%
-- Flow 1:
Average throughput: 26.49 Mbit/s
95th percentile per-packet one-way delay: 85.761 ms
Loss rate: 11.55%
-- Flow 2:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 88.953 ms
Loss rate: 15.99%
-- Flow 3:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 87.184 ms
Loss rate: 14.63%
```
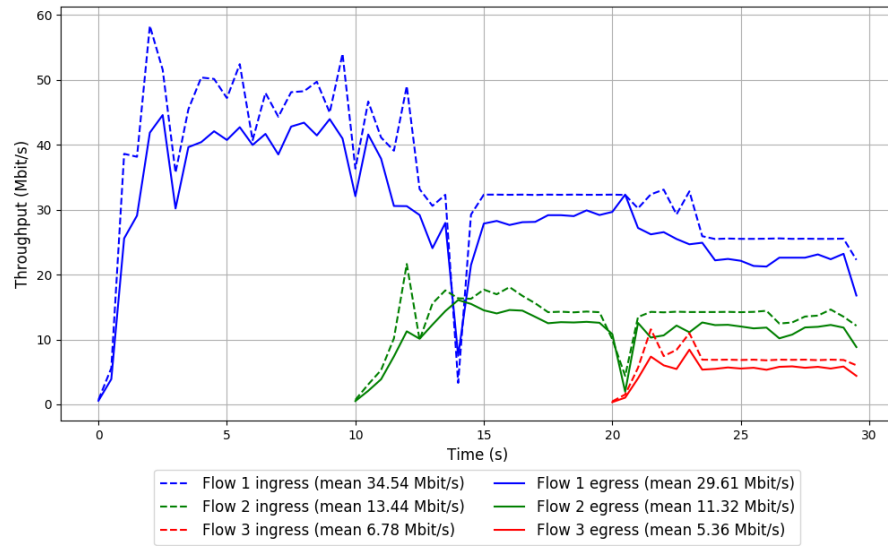
Run 5: Report of TCP BBR — Data Link

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Run 6: Statistics of TCP BBR

Start at: 2017-10-12 05:21:41
End at: 2017-10-12 05:22:11
Local clock offset: 1.124 ms
Remote clock offset: -6.397 ms

# Below is generated by plot.py at 2017-10-12 09:50:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.24 Mbit/s
95th percentile per-packet one-way delay: 86.965 ms
Loss rate: 12.04%
-- Flow 1:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 86.945 ms
Loss rate: 11.92%
-- Flow 2:
Average throughput: 5.40 Mbit/s
95th percentile per-packet one-way delay: 86.942 ms
Loss rate: 12.90%
-- Flow 3:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 87.396 ms
Loss rate: 13.14%
```
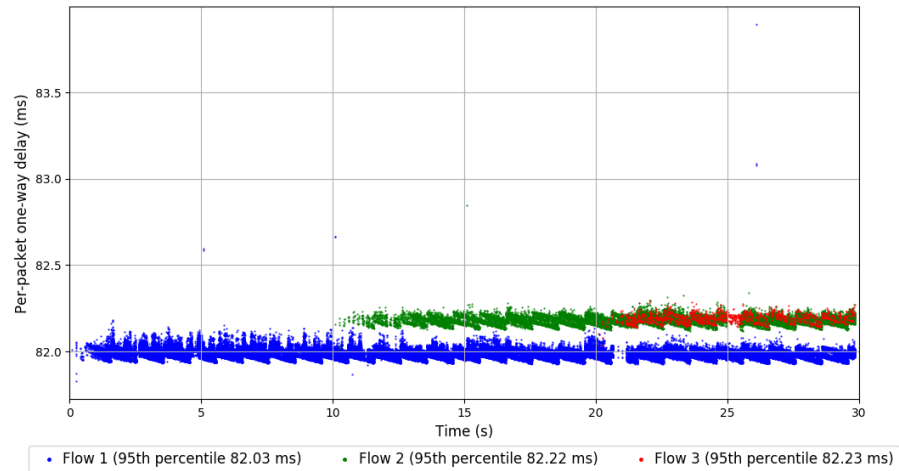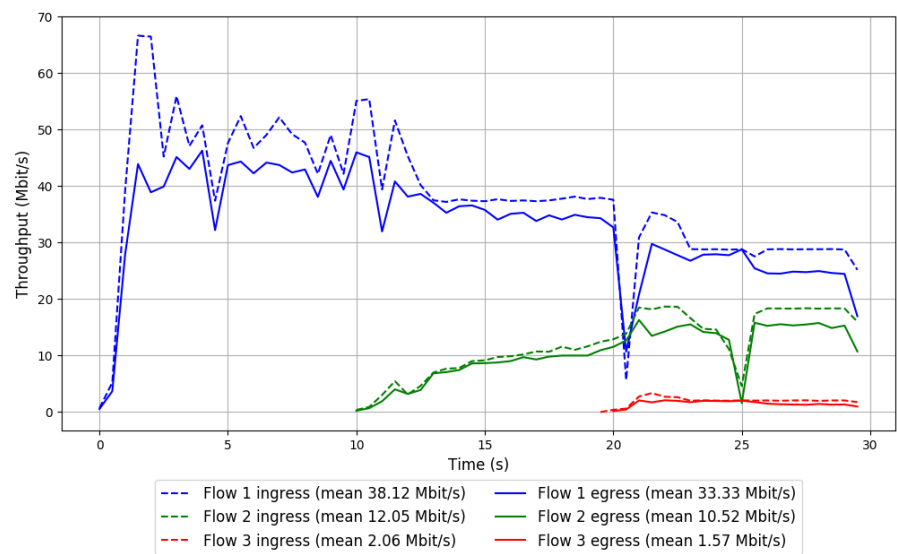
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 38.97 Mbit/s)   Flow 1 egress (mean 34.52 Mbit/s)
Flow 2 ingress (mean 6.14 Mbit/s)   Flow 2 egress (mean 5.40 Mbit/s)
Flow 3 ingress (mean 3.96 Mbit/s)   Flow 3 egress (mean 3.50 Mbit/s)

Flow 1 (95th percentile 86.94 ms)   Flow 2 (95th percentile 86.94 ms)   Flow 3 (95th percentile 87.40 ms)

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```
Run 7: Statistics of TCP BBR

Start at: 2017-10-12 05:40:50
End at: 2017-10-12 05:41:20
Local clock offset: 1.065 ms
Remote clock offset: -6.106 ms


# Below is generated by plot.py at 2017-10-12 09:50:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.88 Mbit/s
95th percentile per-packet one-way delay: 86.655 ms
Loss rate: 15.46%
-- Flow 1:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 86.350 ms
Loss rate: 14.74%
-- Flow 2:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 86.642 ms
Loss rate: 16.50%
-- Flow 3:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 87.035 ms
Loss rate: 22.27%
```
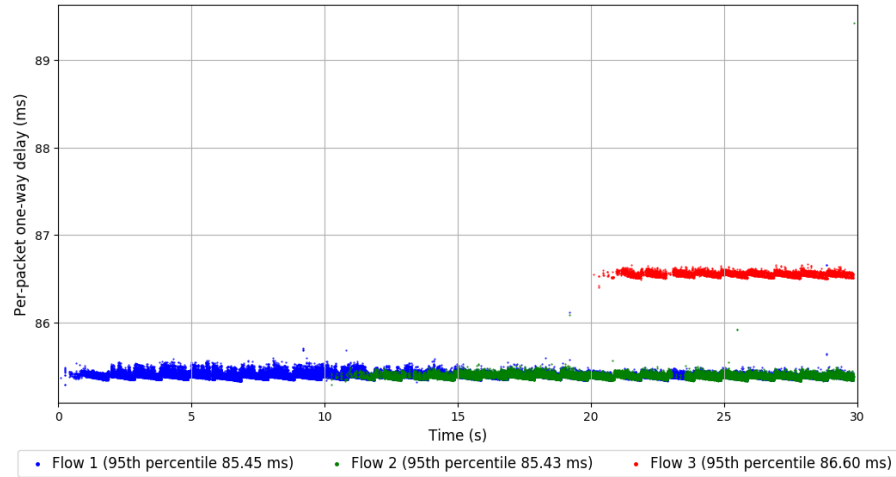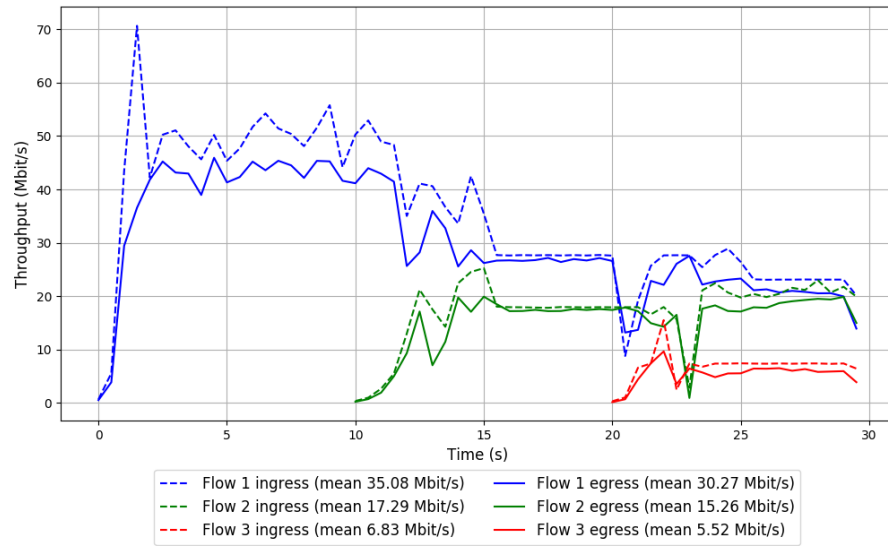
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2017-10-12 05:59:32
End at: 2017-10-12 06:00:02
Local clock offset: 0.922 ms
Remote clock offset: -1.684 ms


# Below is generated by plot.py at 2017-10-12 09:50:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.83 Mbit/s
95th percentile per-packet one-way delay: 82.198 ms
Loss rate: 13.29%
-- Flow 1:
Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 82.034 ms
Loss rate: 13.05%
-- Flow 2:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 82.222 ms
Loss rate: 13.43%
-- Flow 3:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 82.235 ms
Loss rate: 25.33%
```
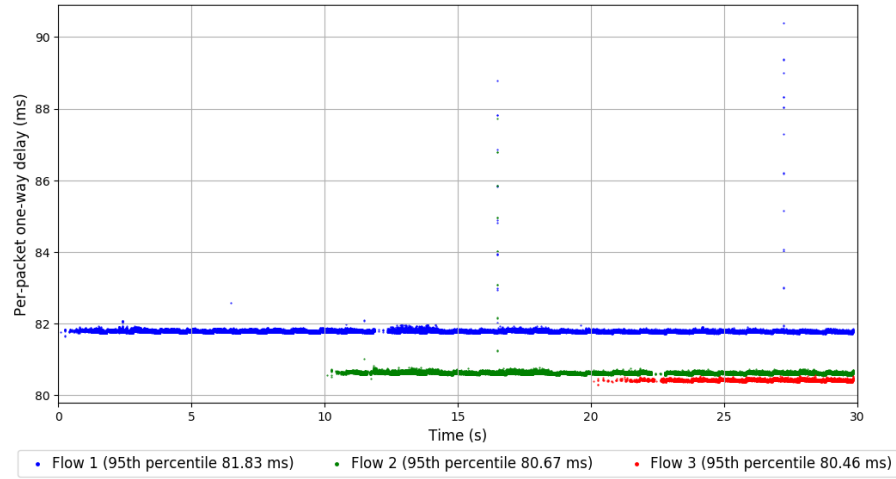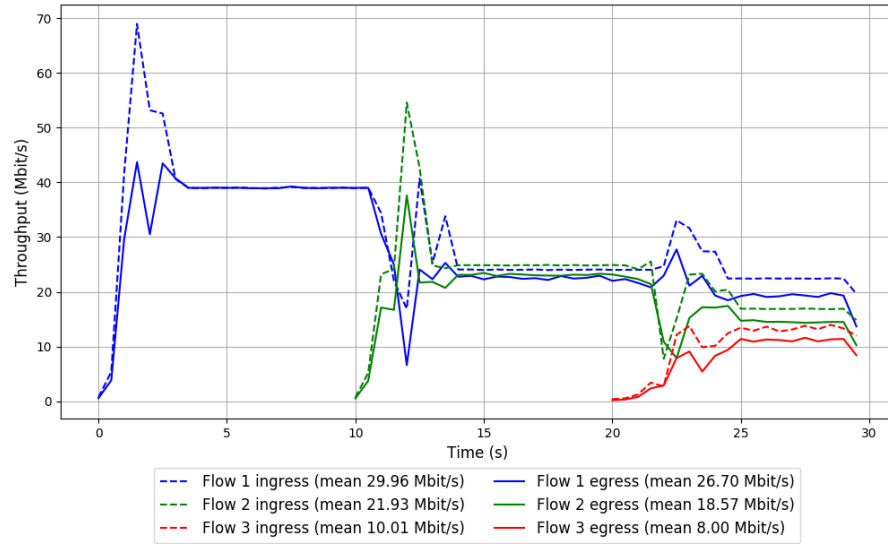
Run 8: Report of TCP BBR — Data Link

- Flow 1 ingress (mean 38.12 Mbit/s)
- Flow 2 ingress (mean 12.05 Mbit/s)
- Flow 3 ingress (mean 2.06 Mbit/s)
- Flow 1 egress (mean 33.33 Mbit/s)
- Flow 2 egress (mean 10.52 Mbit/s)
- Flow 3 egress (mean 1.57 Mbit/s)

- Flow 1 (95th percentile 82.03 ms)
- Flow 2 (95th percentile 82.22 ms)
- Flow 3 (95th percentile 82.23 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2017-10-12 06:18:21
End at: 2017-10-12 06:18:51
Local clock offset: 0.705 ms
Remote clock offset: -6.896 ms


# Below is generated by plot.py at 2017-10-12 09:51:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.20 Mbit/s
95th percentile per-packet one-way delay: 85.492 ms
Loss rate: 14.08%
-- Flow 1:
Average throughput: 30.27 Mbit/s
95th percentile per-packet one-way delay: 85.449 ms
Loss rate: 14.20%
-- Flow 2:
Average throughput: 15.26 Mbit/s
95th percentile per-packet one-way delay: 85.434 ms
Loss rate: 12.45%
-- Flow 3:
Average throughput: 5.52 Mbit/s
95th percentile per-packet one-way delay: 86.601 ms
Loss rate: 20.55%
```
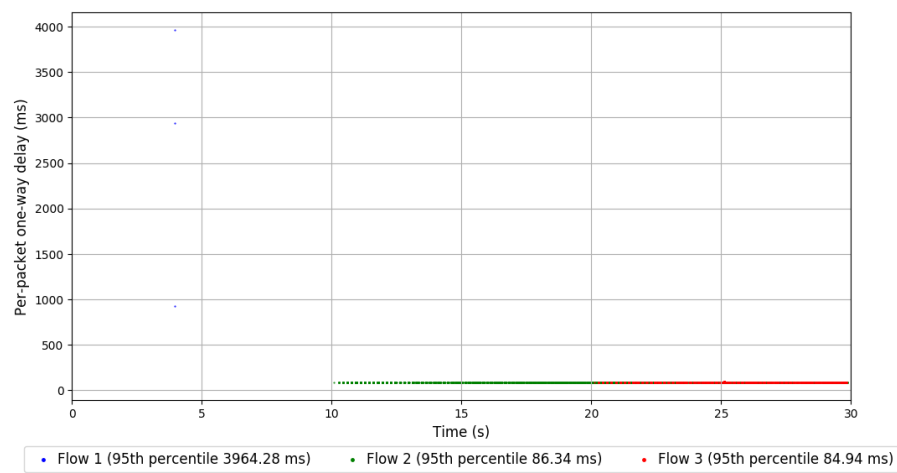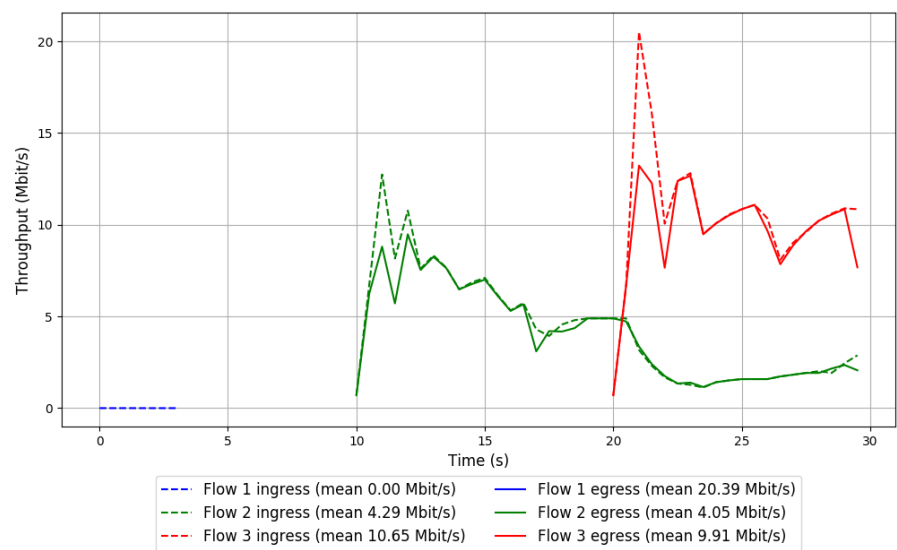
Run 9: Report of TCP BBR — Data Link

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```
Run 10: Statistics of TCP BBR

Start at: 2017-10-12 06:37:14
End at: 2017-10-12 06:37:44
Local clock offset: 0.701 ms
Remote clock offset: -2.707 ms


# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.64 Mbit/s
95th percentile per-packet one-way delay: 81.826 ms
Loss rate: 13.50%
-- Flow 1:
Average throughput: 26.70 Mbit/s
95th percentile per-packet one-way delay: 81.833 ms
Loss rate: 11.38%
-- Flow 2:
Average throughput: 18.57 Mbit/s
95th percentile per-packet one-way delay: 80.672 ms
Loss rate: 16.04%
-- Flow 3:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 80.463 ms
Loss rate: 21.50%
```
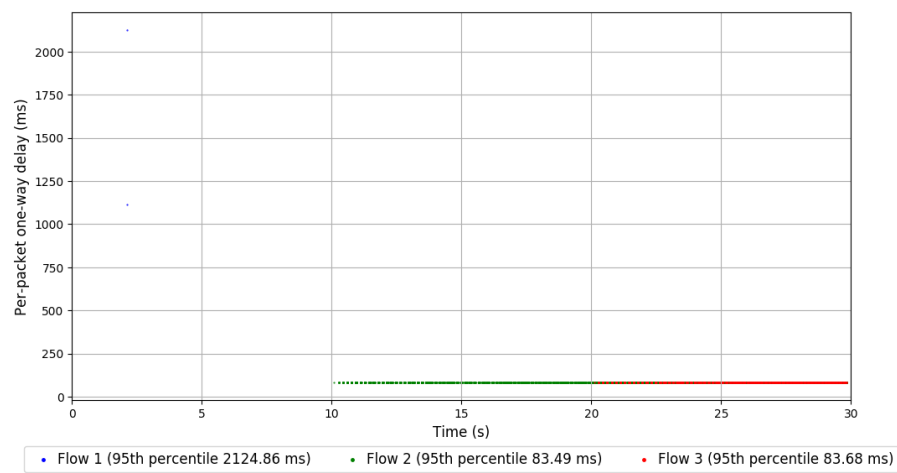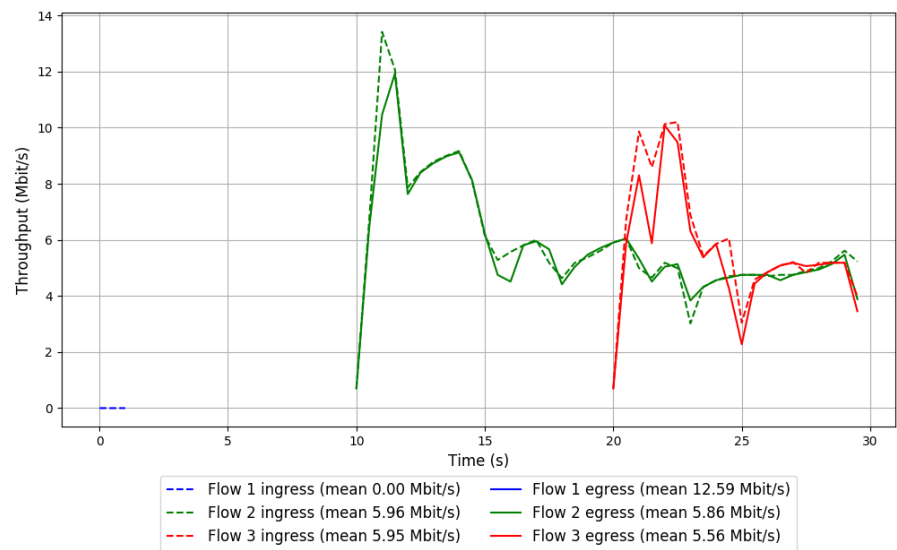
Run 10: Report of TCP BBR — Data Link
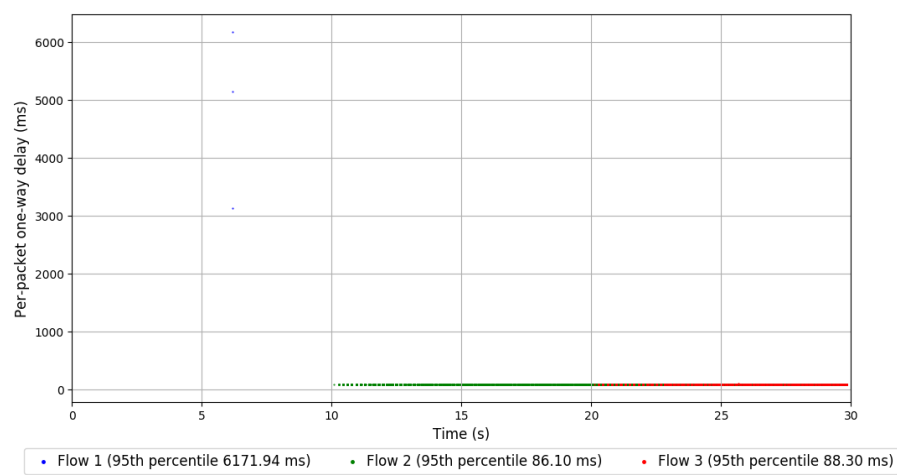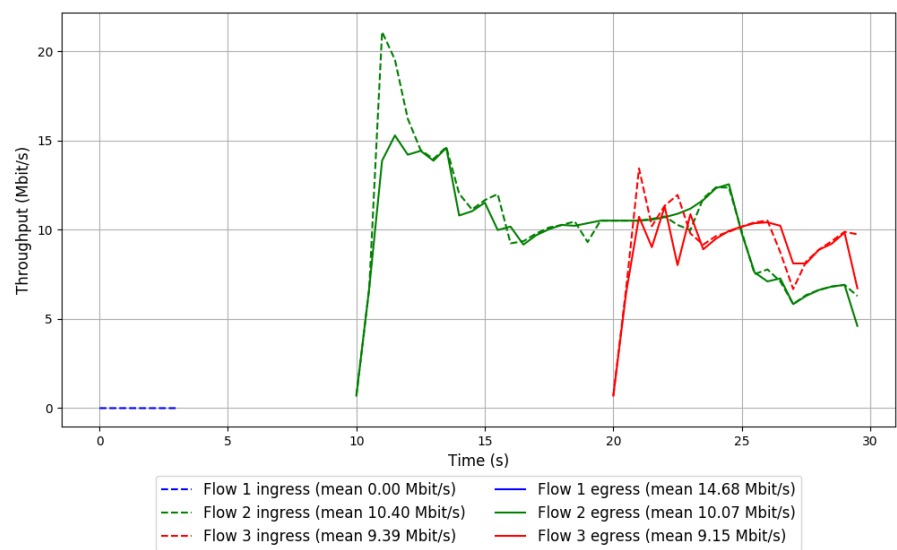
```
Run 1: Statistics of TCP Cubic

Start at: 2017-10-12 03:41:47
End at: 2017-10-12 03:42:17
Local clock offset: 1.256 ms
Remote clock offset: -7.101 ms

# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 86.285 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 20.39 Mbit/s
95th percentile per-packet one-way delay: 3964.280 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 86.340 ms
Loss rate: 6.35%
-- Flow 3:
Average throughput: 9.91 Mbit/s
95th percentile per-packet one-way delay: 84.943 ms
Loss rate: 8.52%
```

Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 20.39 Mbit/s)
Flow 2 ingress (mean 4.29 Mbit/s) --- Flow 2 egress (mean 4.05 Mbit/s)
Flow 3 ingress (mean 10.65 Mbit/s) --- Flow 3 egress (mean 9.91 Mbit/s)

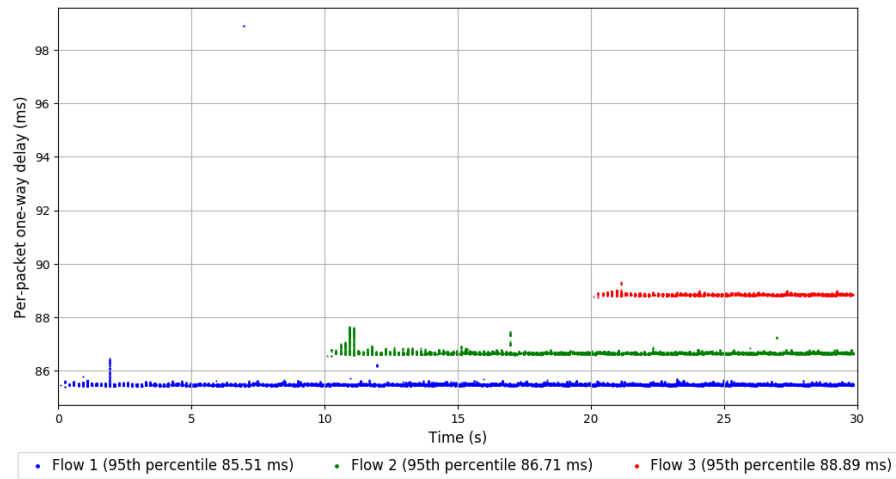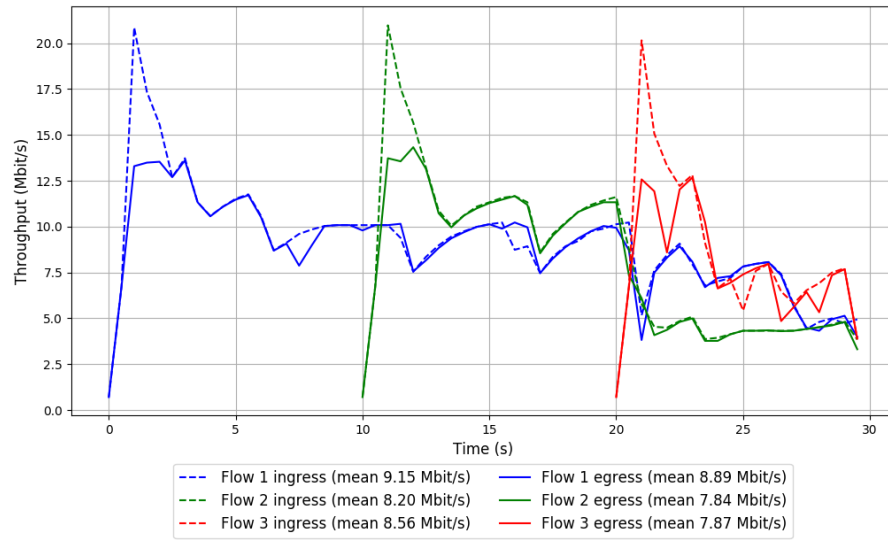Flow 1 (95th percentile 3964.28 ms) • Flow 2 (95th percentile 86.34 ms) • Flow 3 (95th percentile 84.94 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2017-10-12 04:01:14
End at: 2017-10-12 04:01:44
Local clock offset: 1.33 ms
Remote clock offset: -3.625 ms


# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 83.646 ms
Loss rate: 4.34%
-- Flow 1:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 2124.864 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 83.492 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 5.56 Mbit/s
95th percentile per-packet one-way delay: 83.680 ms
Loss rate: 8.15%
```
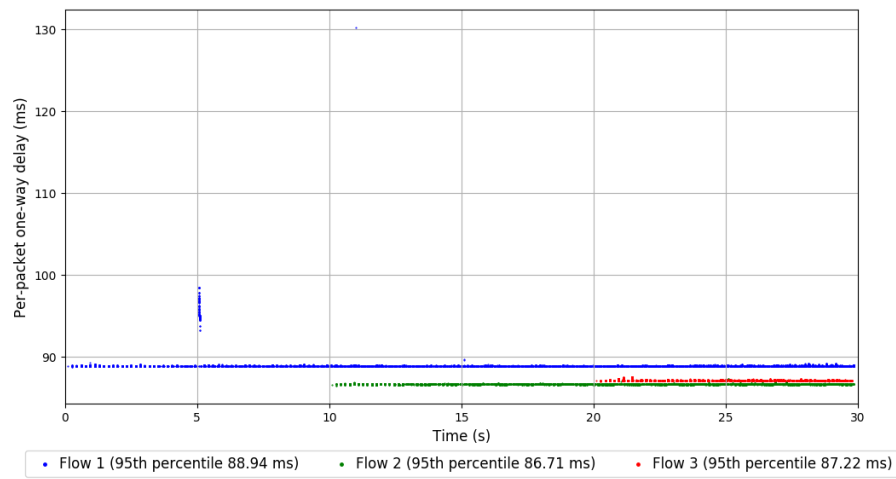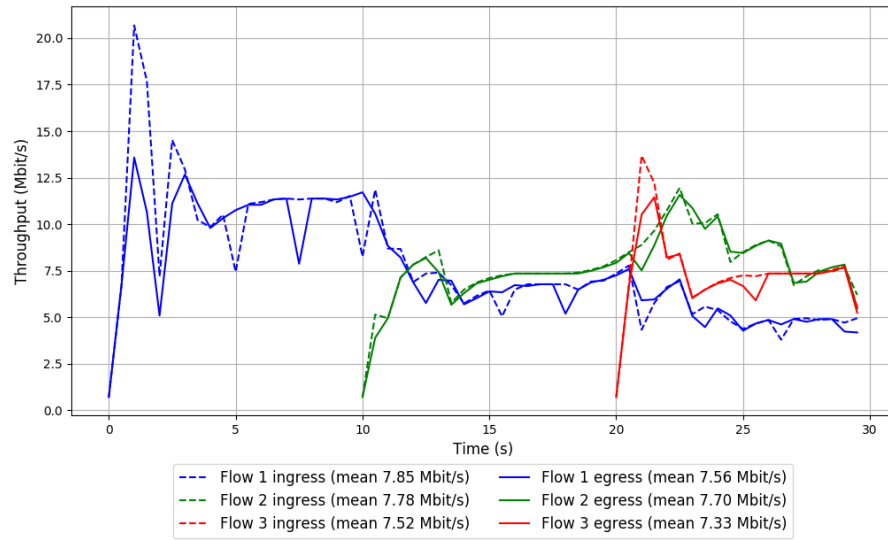
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2017-10-12 04:20:49
End at: 2017-10-12 04:21:19
Local clock offset: 1.2 ms
Remote clock offset: -6.249 ms
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 14.68 Mbit/s)
Flow 2 ingress (mean 10.40 Mbit/s) --- Flow 2 egress (mean 10.07 Mbit/s)
Flow 3 ingress (mean 9.39 Mbit/s) --- Flow 3 egress (mean 9.15 Mbit/s)

Flow 1 (95th percentile 6171.94 ms) • Flow 2 (95th percentile 86.10 ms) • Flow 3 (95th percentile 88.30 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2017-10-12 04:39:53
End at: 2017-10-12 04:40:23
Local clock offset: 1.162 ms
Remote clock offset: -6.703 ms


# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.66 Mbit/s
95th percentile per-packet one-way delay: 88.853 ms
Loss rate: 4.93%
-- Flow 1:
Average throughput: 8.89 Mbit/s
95th percentile per-packet one-way delay: 85.512 ms
Loss rate: 3.35%
-- Flow 2:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 86.708 ms
Loss rate: 5.11%
-- Flow 3:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 88.888 ms
Loss rate: 9.69%
```
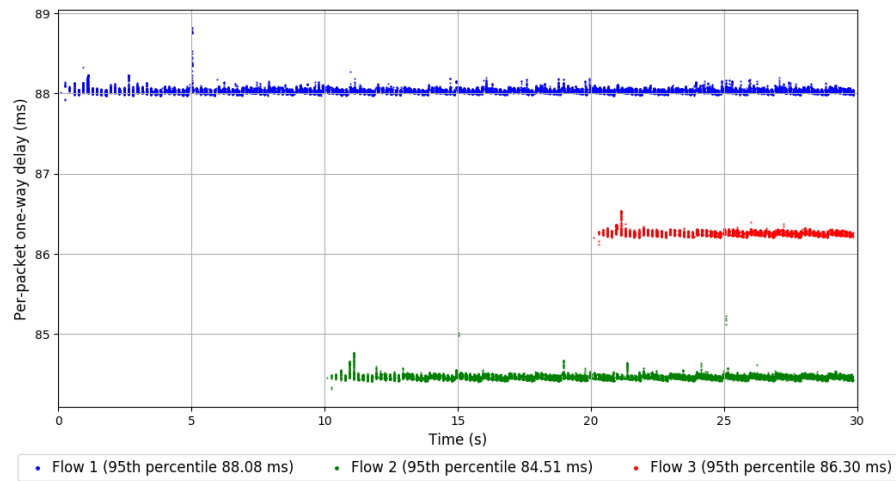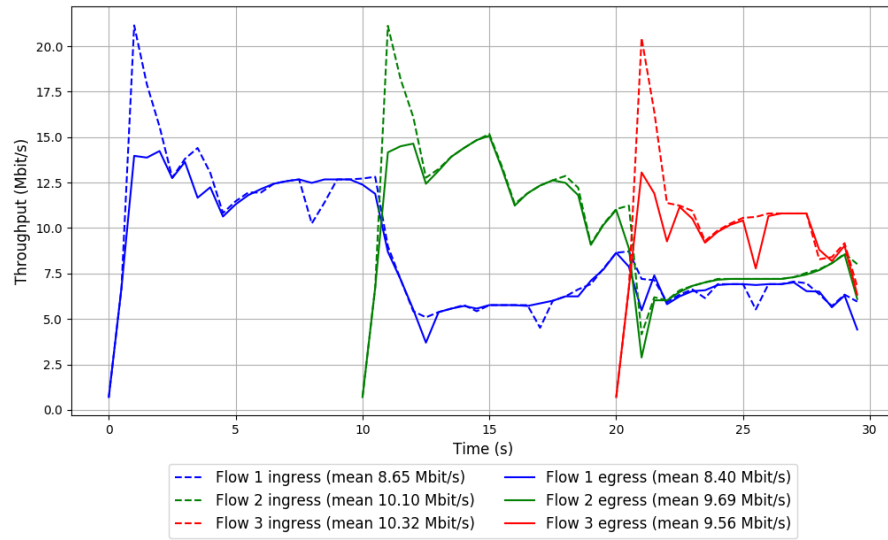
Run 4: Report of TCP Cubic — Data Link
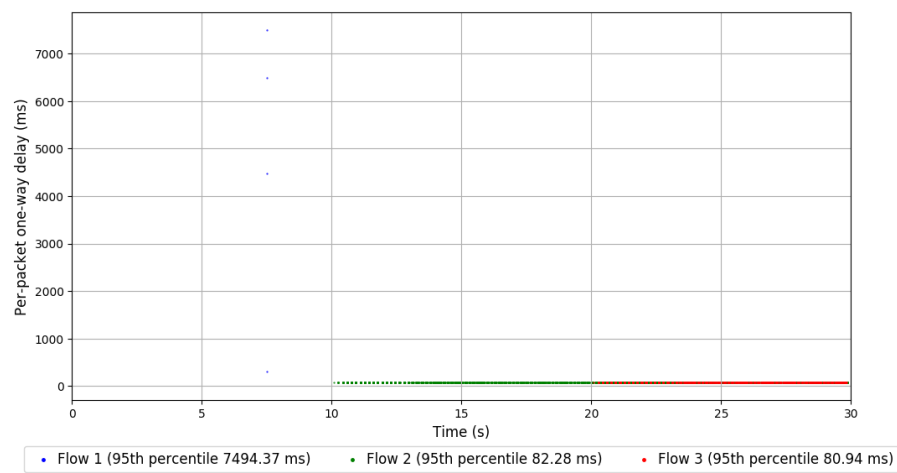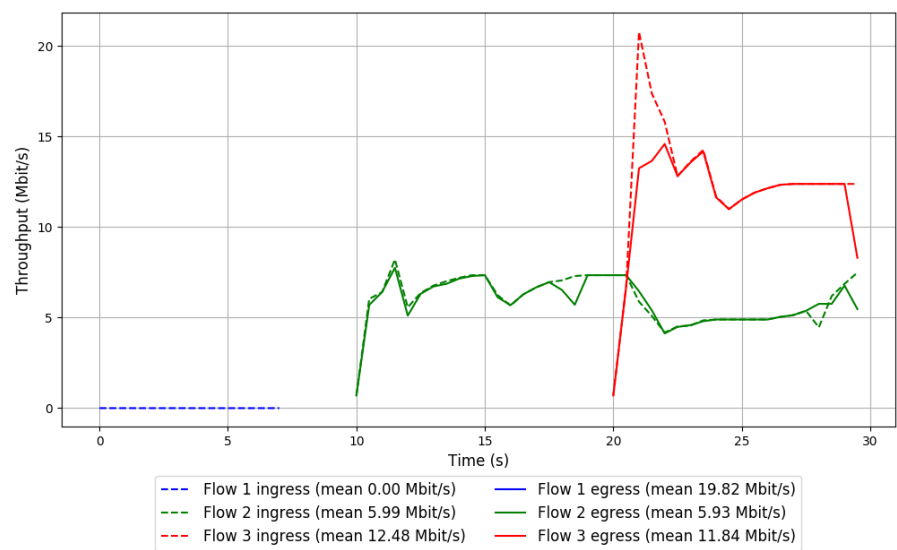
```
Run 5: Statistics of TCP Cubic

Start at: 2017-10-12 04:58:48
End at: 2017-10-12 04:59:18
Local clock offset: 1.207 ms
Remote clock offset: -6.358 ms


# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.05 Mbit/s
95th percentile per-packet one-way delay: 88.925 ms
Loss rate: 3.42%
-- Flow 1:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 88.938 ms
Loss rate: 4.20%
-- Flow 2:
Average throughput: 7.70 Mbit/s
95th percentile per-packet one-way delay: 86.708 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 7.33 Mbit/s
95th percentile per-packet one-way delay: 87.219 ms
Loss rate: 4.26%
```

Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 7.85 Mbit/s)   Flow 1 egress (mean 7.56 Mbit/s)
Flow 2 ingress (mean 7.78 Mbit/s)   Flow 2 egress (mean 7.70 Mbit/s)
Flow 3 ingress (mean 7.52 Mbit/s)   Flow 3 egress (mean 7.33 Mbit/s)

Flow 1 (95th percentile 88.94 ms)   Flow 2 (95th percentile 86.71 ms)   Flow 3 (95th percentile 87.22 ms)
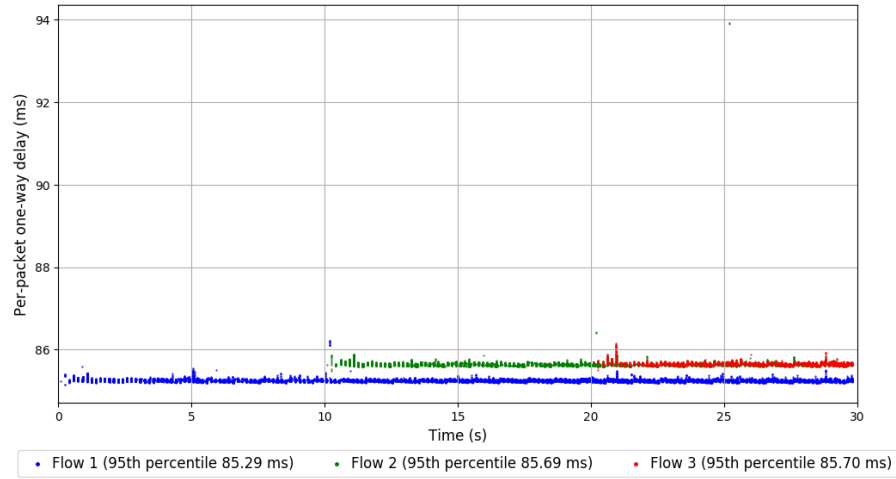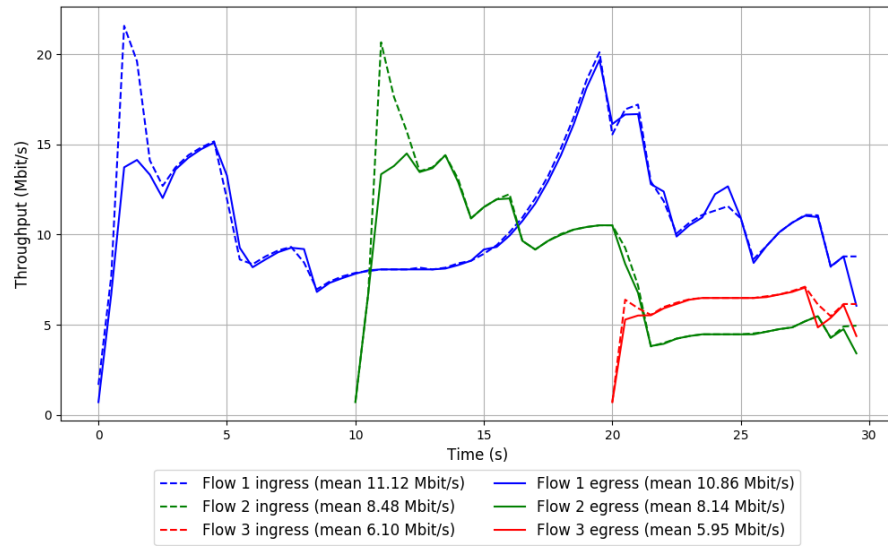
```
Run 6: Statistics of TCP Cubic

Start at: 2017-10-12 05:17:25
End at: 2017-10-12 05:17:55
Local clock offset: 1.204 ms
Remote clock offset: -5.272 ms


# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 88.064 ms
Loss rate: 4.95%
-- Flow 1:
Average throughput: 8.40 Mbit/s
95th percentile per-packet one-way delay: 88.077 ms
Loss rate: 3.42%
-- Flow 2:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 84.506 ms
Loss rate: 4.93%
-- Flow 3:
Average throughput: 9.56 Mbit/s
95th percentile per-packet one-way delay: 86.297 ms
Loss rate: 8.87%
```

Run 6: Report of TCP Cubic — Data Link

- Flow 1 ingress (mean 8.65 Mbit/s) --- Flow 1 egress (mean 8.40 Mbit/s)
- Flow 2 ingress (mean 10.10 Mbit/s) --- Flow 2 egress (mean 9.69 Mbit/s)
- Flow 3 ingress (mean 10.32 Mbit/s) --- Flow 3 egress (mean 9.56 Mbit/s)

- Flow 1 (95th percentile 88.08 ms) · Flow 2 (95th percentile 84.51 ms) · Flow 3 (95th percentile 86.30 ms)
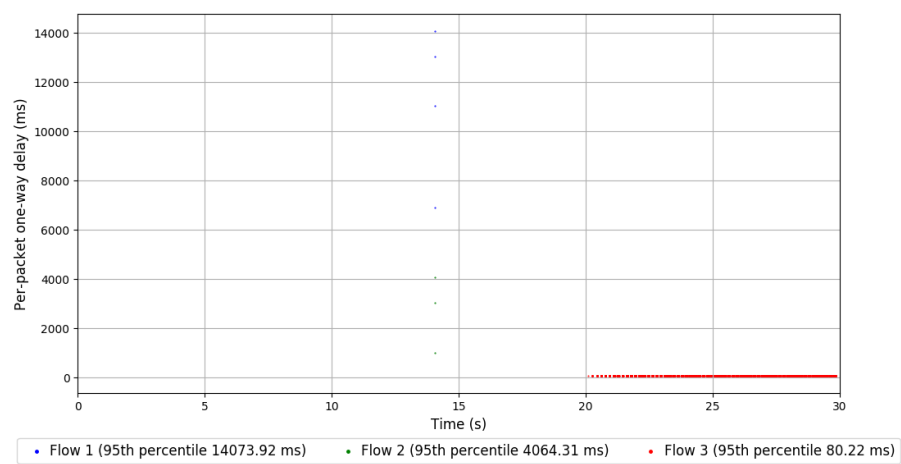
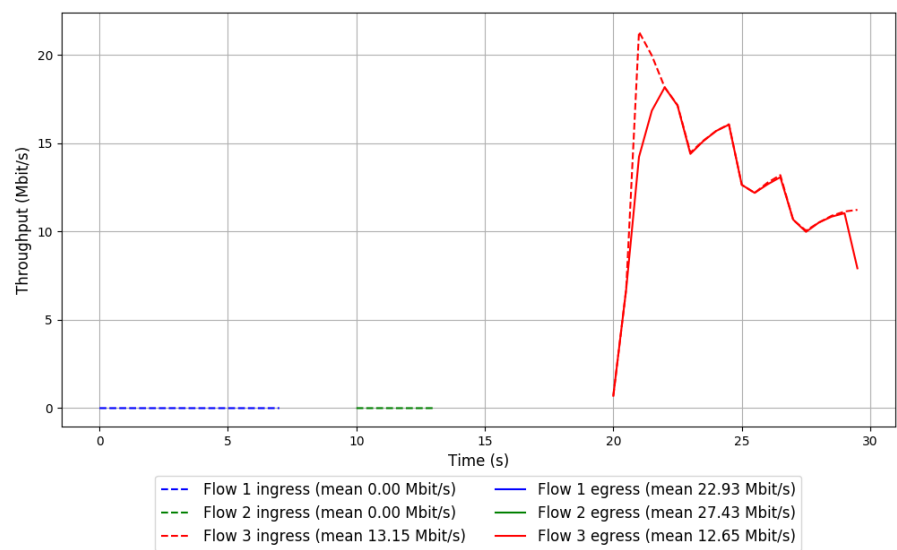```
Run 7: Statistics of TCP Cubic

Start at: 2017-10-12 05:36:45
End at: 2017-10-12 05:37:15
Local clock offset: 1.204 ms
Remote clock offset: -1.164 ms
```

Run 7: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 19.82 Mbit/s)
Flow 2 ingress (mean 5.99 Mbit/s) --- Flow 2 egress (mean 5.93 Mbit/s)
Flow 3 ingress (mean 12.48 Mbit/s) --- Flow 3 egress (mean 11.84 Mbit/s)



Flow 1 (95th percentile 7494.37 ms)   Flow 2 (95th percentile 82.28 ms)   Flow 3 (95th percentile 80.94 ms)
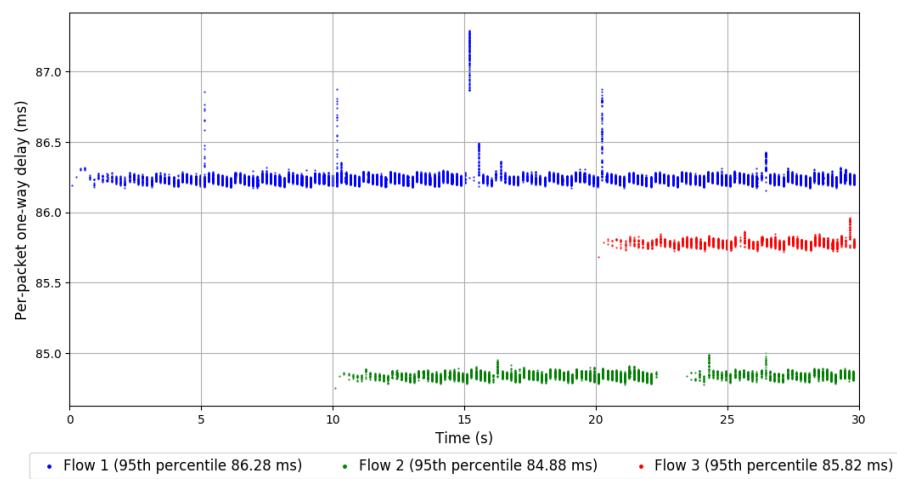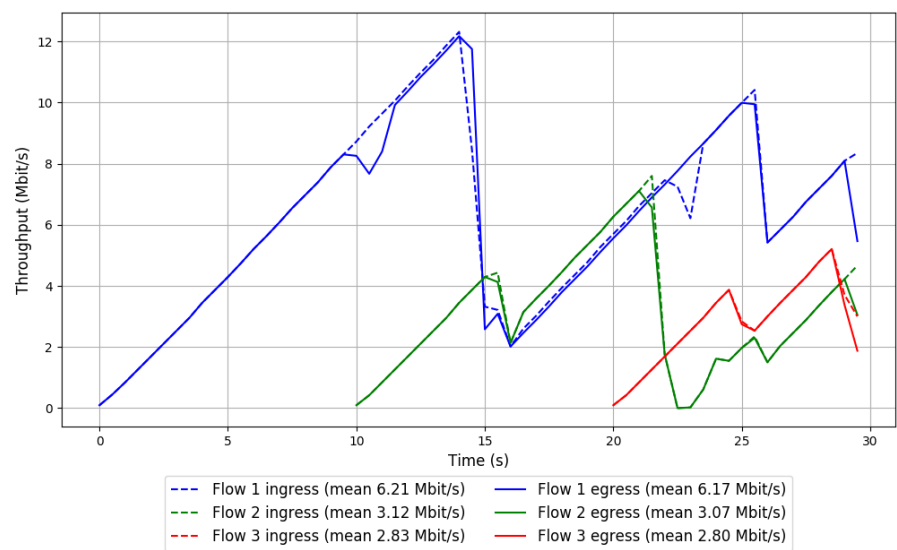
```
Run 8: Statistics of TCP Cubic

Start at: 2017-10-12 05:55:21
End at: 2017-10-12 05:55:51
Local clock offset: 1.005 ms
Remote clock offset: -6.693 ms
```

Run 8: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 0.00 Mbit/s)          Flow 1 egress (mean 14.60 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s)          Flow 2 egress (mean 14.49 Mbit/s)
Flow 3 ingress (mean 10.43 Mbit/s)         Flow 3 egress (mean 10.44 Mbit/s)



• Flow 1 (95th percentile 17878.21 ms)     • Flow 2 (95th percentile 7868.63 ms)     • Flow 3 (95th percentile 87.38 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2017-10-12 06:14:03
End at: 2017-10-12 06:14:33
Local clock offset: 0.794 ms
Remote clock offset: -6.913 ms

Below is generated by plot.py at 2017-10-12 09:51:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 18.20 Mbit/s
95th percentile per-packet one-way delay: 85.677 ms
Loss rate: 3.59%
-- Flow 1:
Average throughput: 10.86 Mbit/s
95th percentile per-packet one-way delay: 85.290 ms
Loss rate: 2.91%
-- Flow 2:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: 85.689 ms
Loss rate: 4.74%
-- Flow 3:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 85.704 ms
Loss rate: 4.18%
```
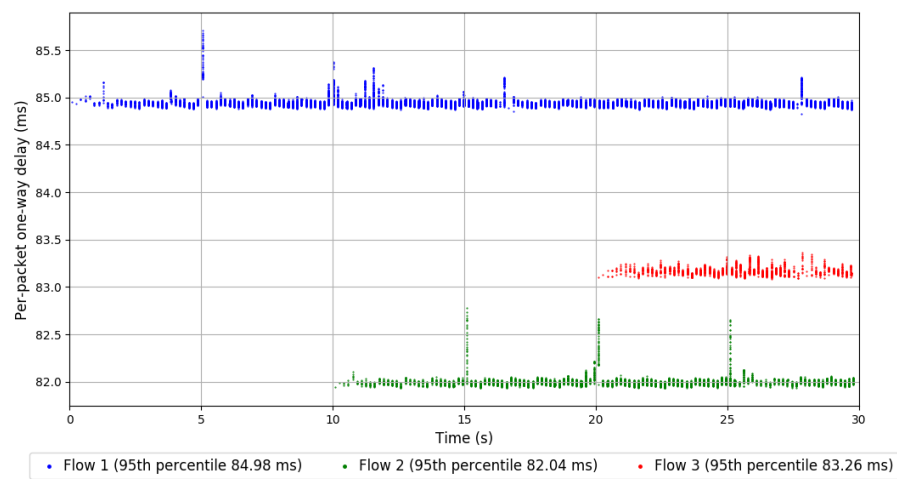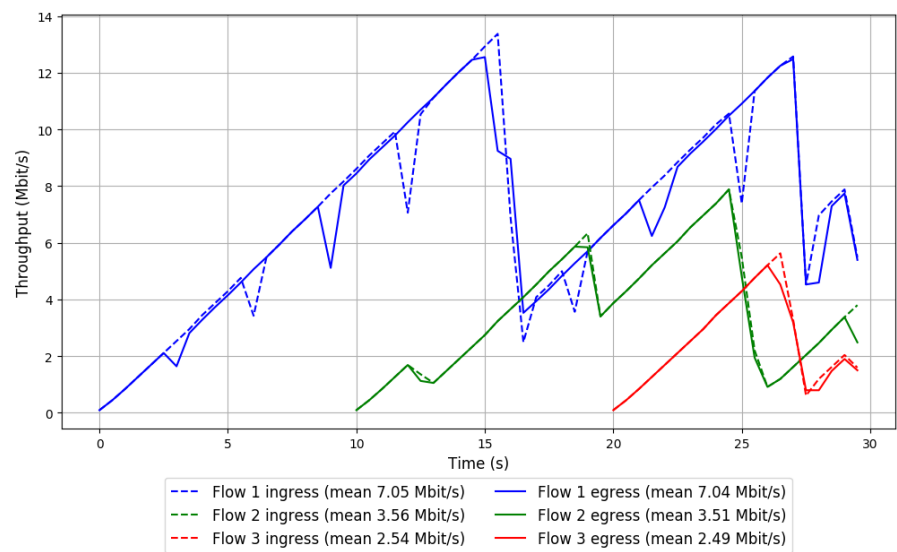
Run 9: Report of TCP Cubic — Data Link

Run 10: Statistics of TCP Cubic

Start at: 2017-10-12 06:33:06
End at: 2017-10-12 06:33:36
Local clock offset: 0.676 ms
Remote clock offset: -2.559 ms

Run 10: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 0.00 Mbit/s)     Flow 1 egress (mean 22.93 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s)     Flow 2 egress (mean 27.43 Mbit/s)
Flow 3 ingress (mean 13.15 Mbit/s)    Flow 3 egress (mean 12.65 Mbit/s)



• Flow 1 (95th percentile 14073.92 ms)     • Flow 2 (95th percentile 4064.31 ms)     • Flow 3 (95th percentile 80.22 ms)
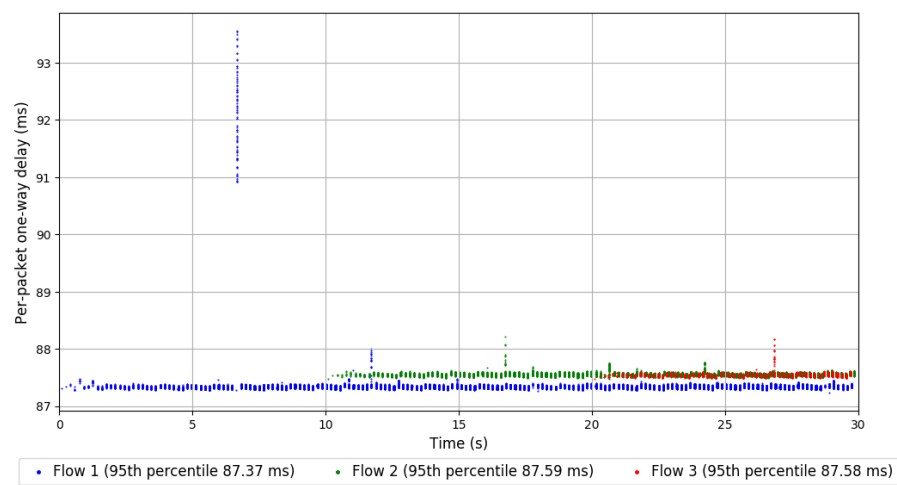
```
Run 1: Statistics of LEDBAT

Start at: 2017-10-12 03:47:28
End at: 2017-10-12 03:47:58
Local clock offset: 1.322 ms
Remote clock offset: -6.94 ms

Below is generated by plot.py at 2017-10-12 09:51:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 86.270 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 86.276 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 84.875 ms
Loss rate: 2.43%
-- Flow 3:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 85.821 ms
Loss rate: 2.77%
```
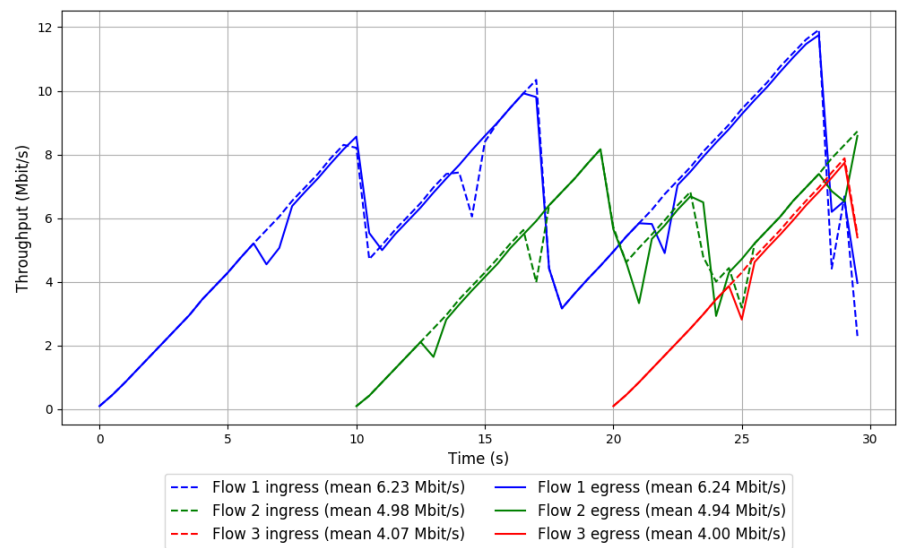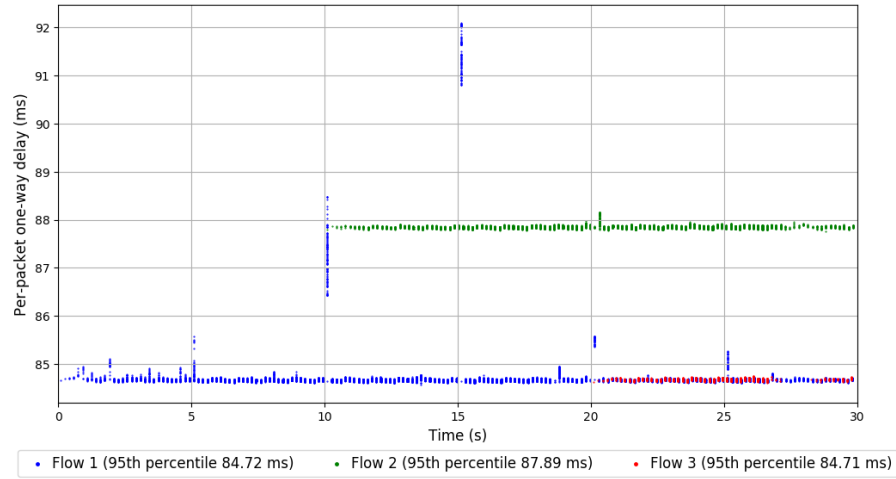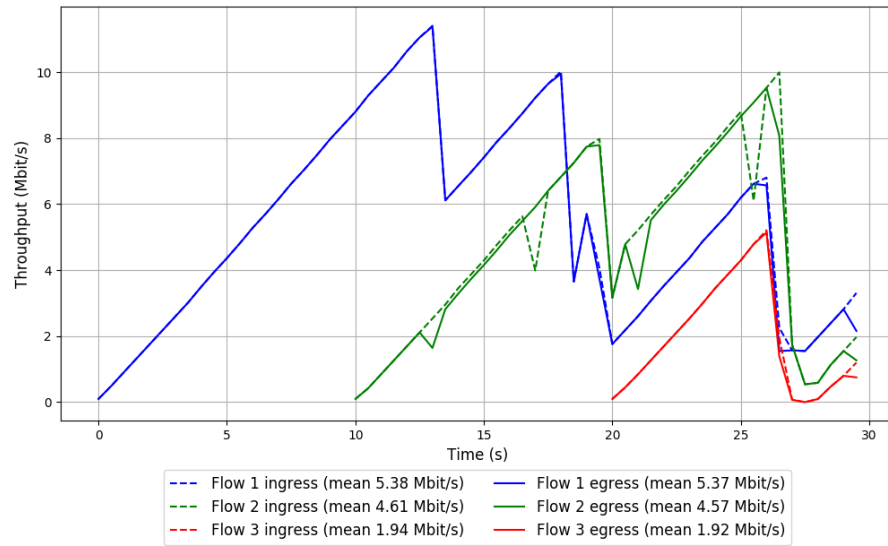
Run 1: Report of LEDBAT — Data Link



Flow 1 ingress (mean 6.21 Mbit/s) ---- Flow 1 egress (mean 6.17 Mbit/s) ———
Flow 2 ingress (mean 3.12 Mbit/s) ---- Flow 2 egress (mean 3.07 Mbit/s) ———
Flow 3 ingress (mean 2.83 Mbit/s) ---- Flow 3 egress (mean 2.80 Mbit/s) ———



Flow 1 (95th percentile 86.28 ms)   Flow 2 (95th percentile 84.88 ms)   Flow 3 (95th percentile 85.82 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2017-10-12 04:06:59
End at: 2017-10-12 04:07:29
Local clock offset: 1.375 ms
Remote clock offset: -3.672 ms

Below is generated by plot.py at 2017-10-12 09:51:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 84.973 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 84.980 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 82.037 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 83.257 ms
Loss rate: 3.60%
```
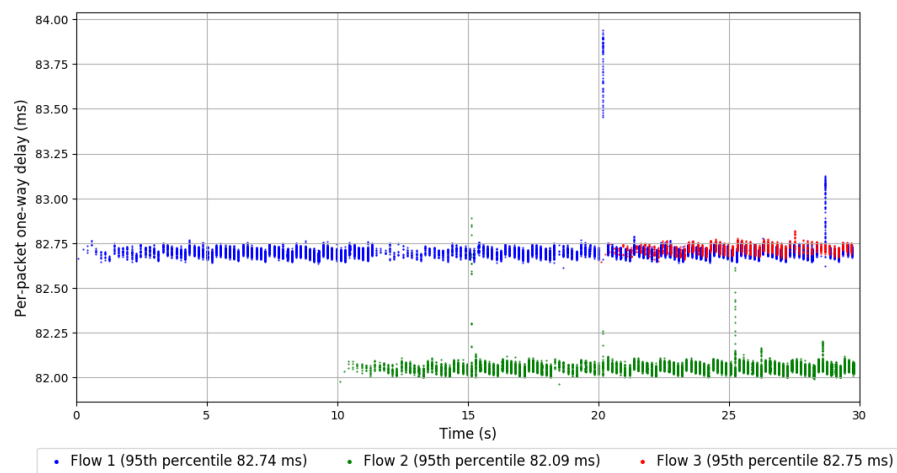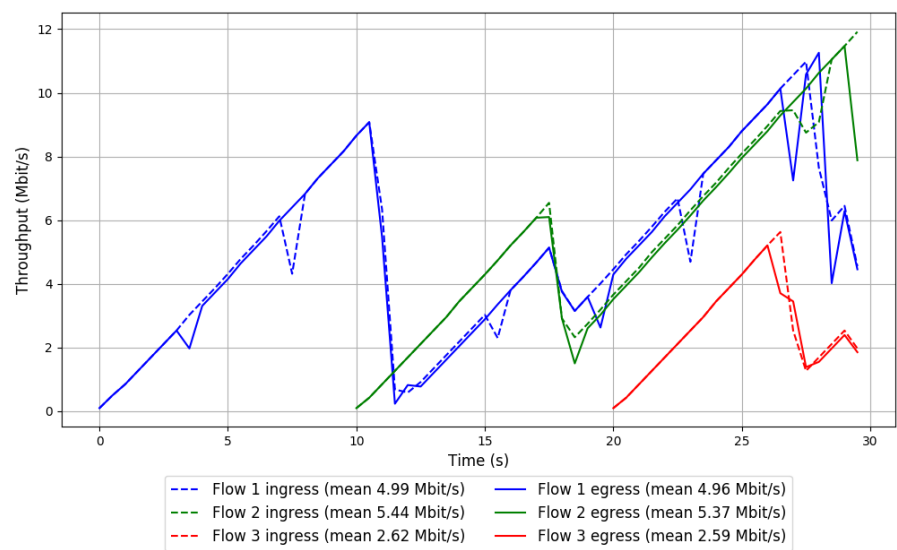
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2017-10-12 04:26:30
End at: 2017-10-12 04:27:00
Local clock offset: 1.14 ms
Remote clock offset: -7.055 ms

Below is generated by plot.py at 2017-10-12 09:51:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.79 Mbit/s
95th percentile per-packet one-way delay: 87.579 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 6.24 Mbit/s
95th percentile per-packet one-way delay: 87.374 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 87.591 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 87.580 ms
Loss rate: 3.48%
```
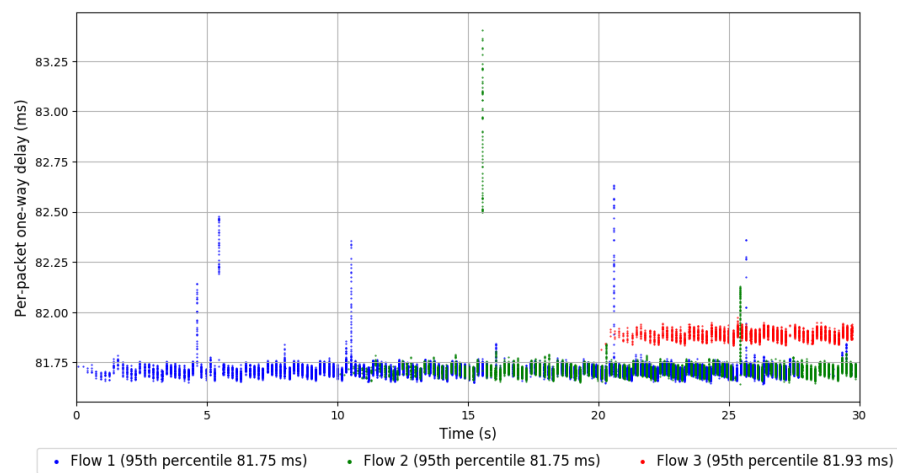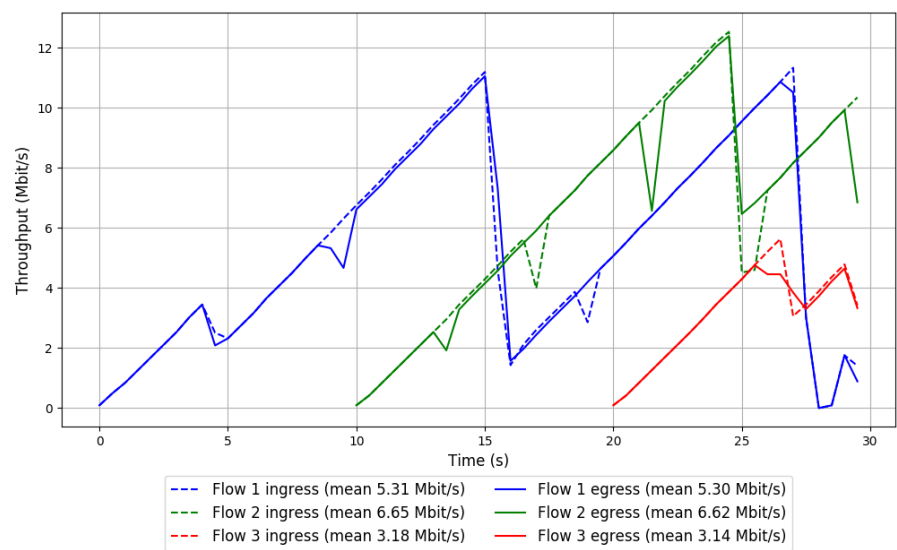
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2017-10-12 04:45:35
End at: 2017-10-12 04:46:05
Local clock offset: 1.063 ms
Remote clock offset: -5.702 ms

Below is generated by plot.py at 2017-10-12 09:51:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 87.873 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 84.719 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 87.885 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 84.713 ms
Loss rate: 2.83%
```
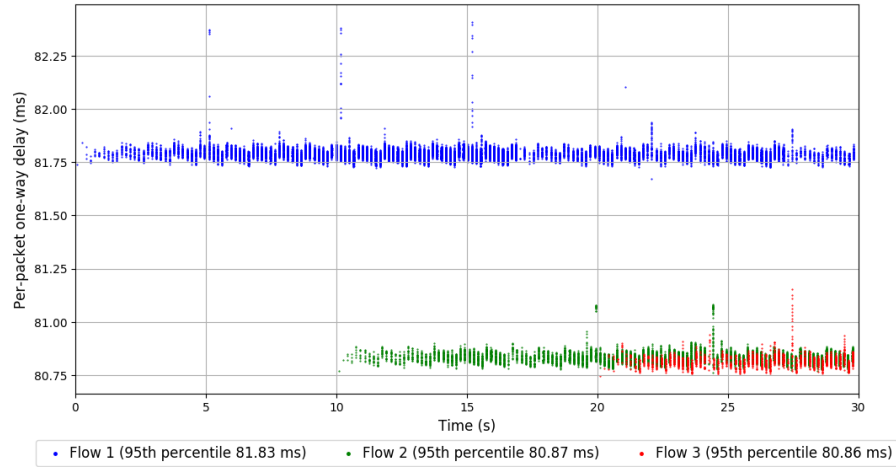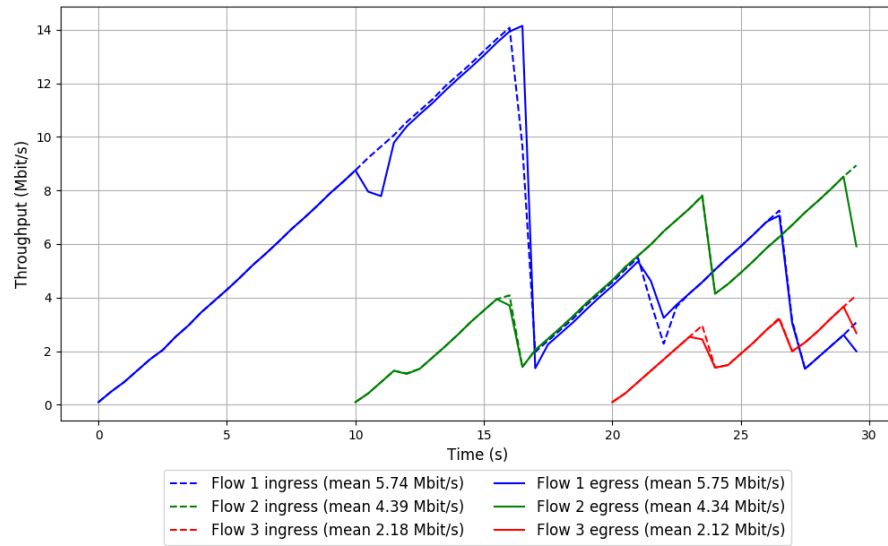
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2017-10-12 05:04:17
End at: 2017-10-12 05:04:47
Local clock offset: 1.191 ms
Remote clock offset: -1.524 ms

# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.36 Mbit/s
95th percentile per-packet one-way delay: 82.735 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 4.96 Mbit/s
95th percentile per-packet one-way delay: 82.736 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 82.090 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 82.754 ms
Loss rate: 2.79%
```

Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2017-10-12 05:23:01
End at: 2017-10-12 05:23:31
Local clock offset: 1.202 ms
Remote clock offset: -0.679 ms


# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.71 Mbit/s
95th percentile per-packet one-way delay: 81.892 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 81.750 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 81.750 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 81.926 ms
Loss rate: 2.94%
```
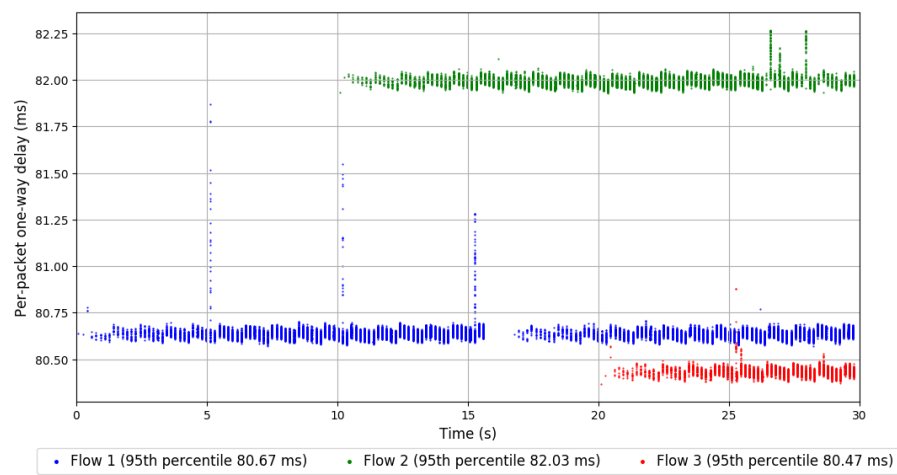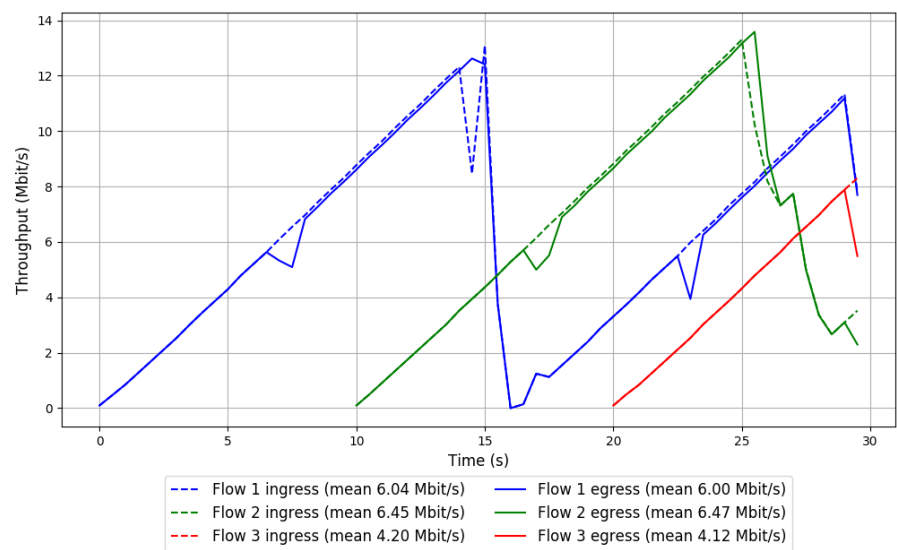
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.31 Mbit/s) --- Flow 1 egress (mean 5.30 Mbit/s)
Flow 2 ingress (mean 6.65 Mbit/s) --- Flow 2 egress (mean 6.62 Mbit/s)
Flow 3 ingress (mean 3.18 Mbit/s) --- Flow 3 egress (mean 3.14 Mbit/s)

Flow 1 (95th percentile 81.75 ms) ● Flow 2 (95th percentile 81.75 ms) ● Flow 3 (95th percentile 81.93 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2017-10-12 05:42:09
End at: 2017-10-12 05:42:39
Local clock offset: 1.091 ms
Remote clock offset: -1.321 ms


# Below is generated by plot.py at 2017-10-12 09:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 81.820 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 5.75 Mbit/s
95th percentile per-packet one-way delay: 81.825 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 80.869 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 80.859 ms
Loss rate: 4.58%
```
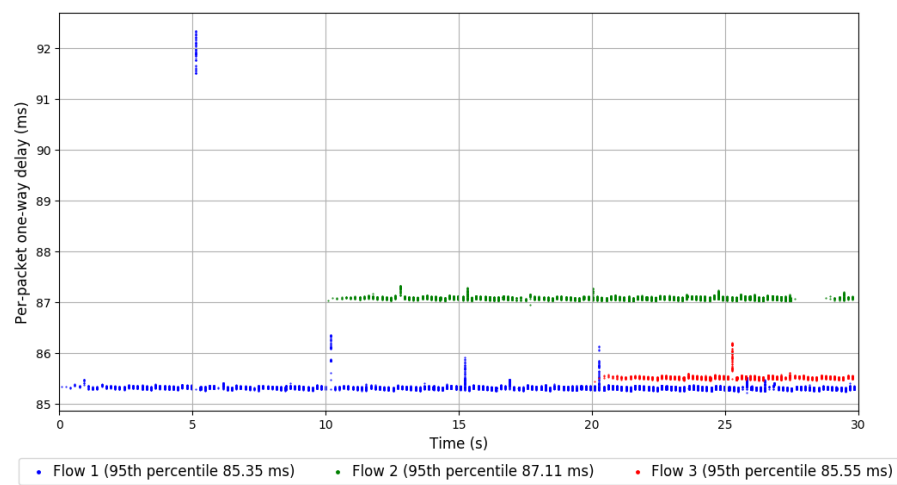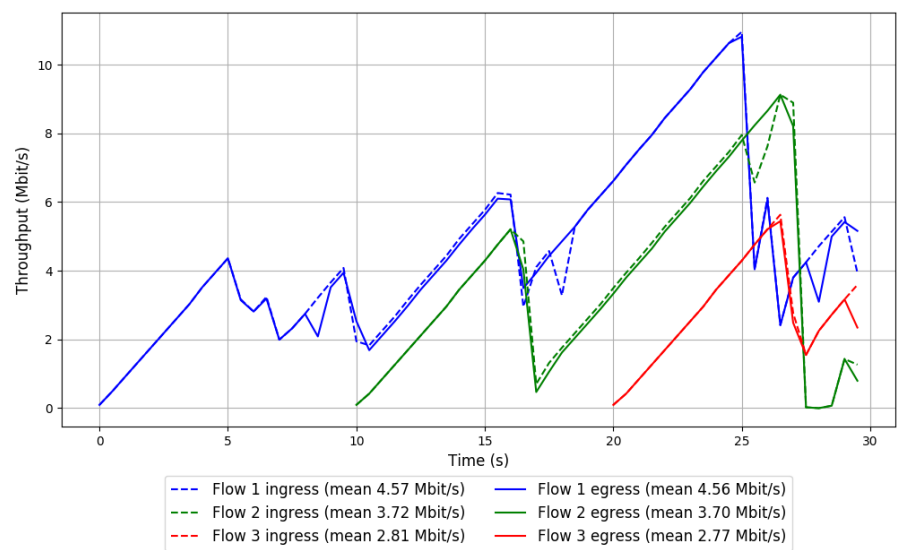
Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2017-10-12 06:00:52
End at: 2017-10-12 06:01:22
Local clock offset: 0.927 ms
Remote clock offset: -1.516 ms

# Below is generated by plot.py at 2017-10-12 09:51:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 82.020 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 80.674 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 6.47 Mbit/s
95th percentile per-packet one-way delay: 82.033 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 4.12 Mbit/s
95th percentile per-packet one-way delay: 80.470 ms
Loss rate: 3.41%
```
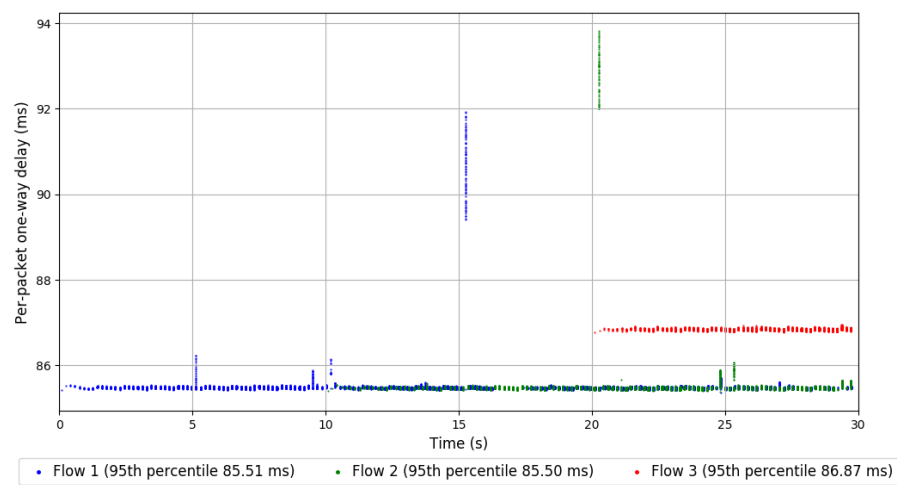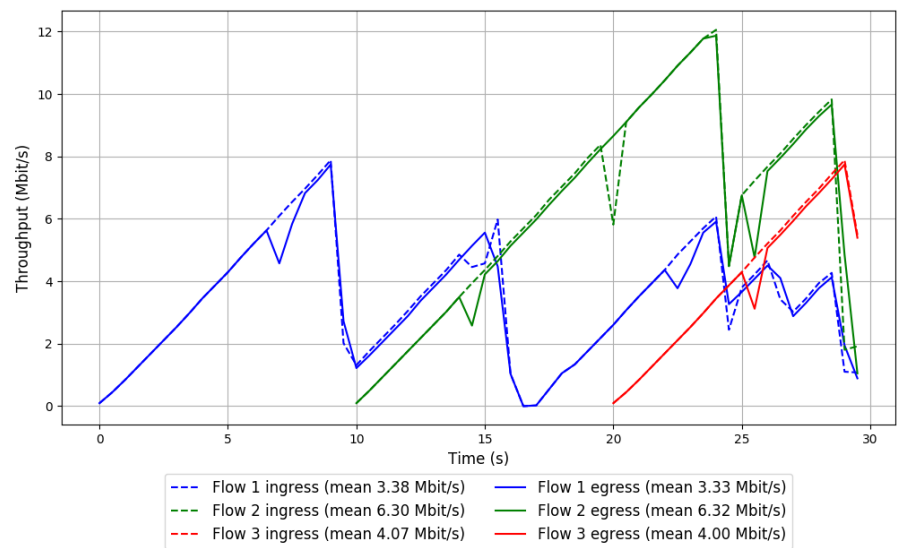
Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2017-10-12 06:19:41
End at: 2017-10-12 06:20:11
Local clock offset: 0.753 ms
Remote clock offset: -7.211 ms

# Below is generated by plot.py at 2017-10-12 09:51:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 87.099 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 85.350 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 87.114 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 85.551 ms
Loss rate: 3.10%
```
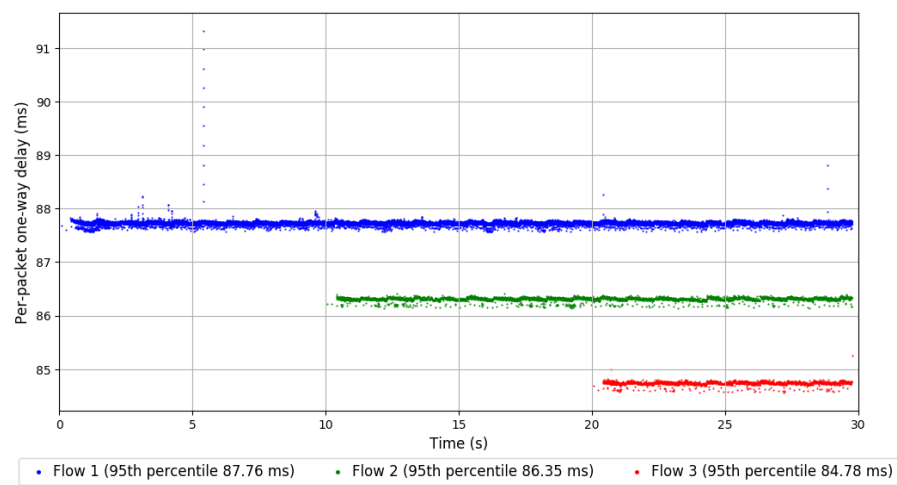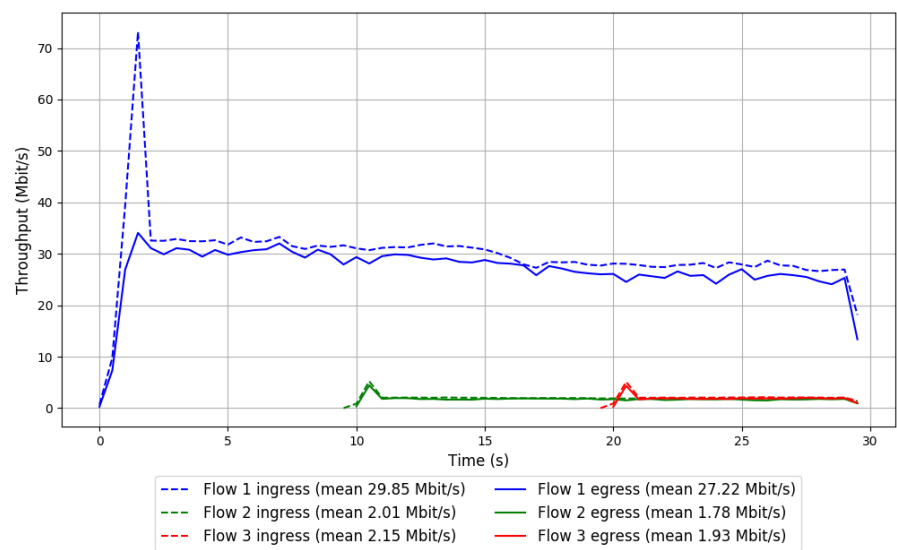
Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2017-10-12 06:38:34
End at: 2017-10-12 06:39:04
Local clock offset: 0.719 ms
Remote clock offset: -7.592 ms


# Below is generated by plot.py at 2017-10-12 09:51:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 86.849 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 3.33 Mbit/s
95th percentile per-packet one-way delay: 85.511 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 85.499 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 86.874 ms
Loss rate: 3.48%
```
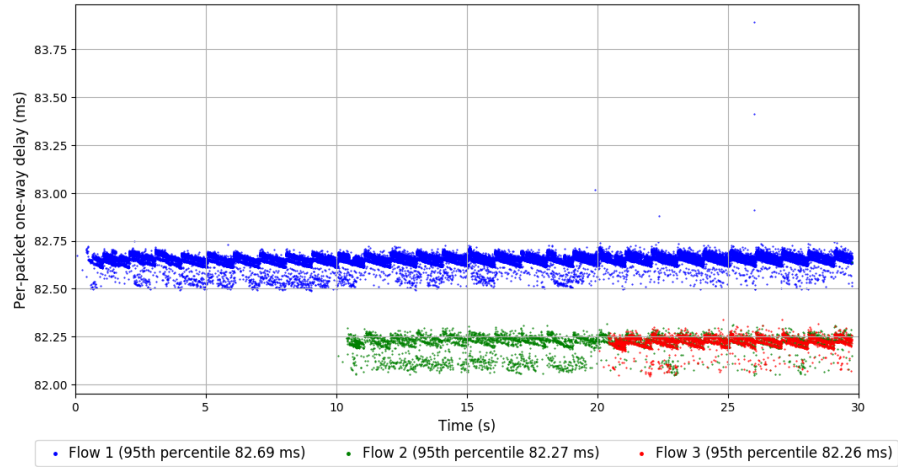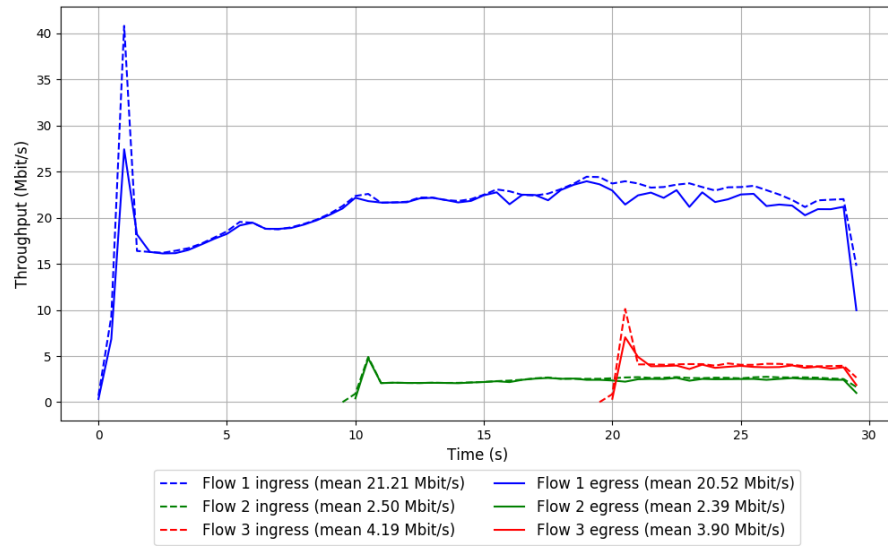
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2017-10-12 03:36:18
End at: 2017-10-12 03:36:48
Local clock offset: 1.223 ms
Remote clock offset: -7.321 ms

# Below is generated by plot.py at 2017-10-12 09:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.03 Mbit/s
95th percentile per-packet one-way delay: 87.762 ms
Loss rate: 9.50%
-- Flow 1:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 87.763 ms
Loss rate: 9.34%
-- Flow 2:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 86.353 ms
Loss rate: 11.82%
-- Flow 3:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 84.780 ms
Loss rate: 11.99%
```
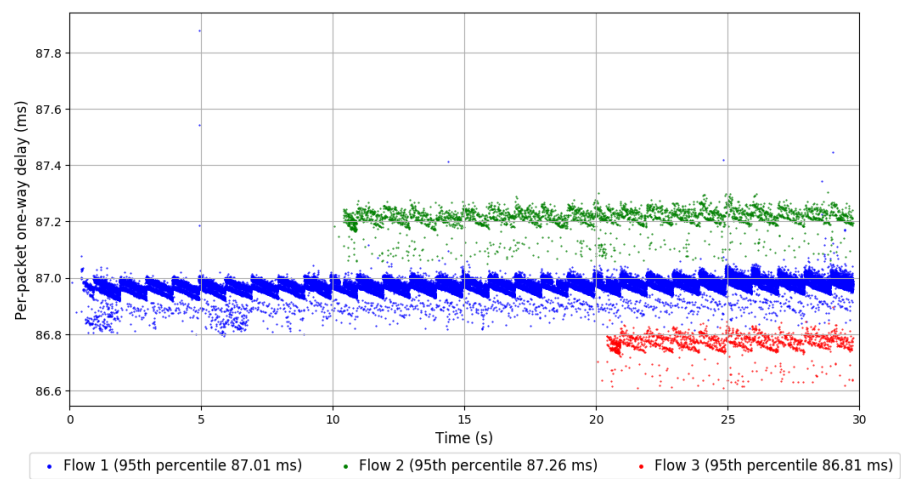
Run 1: Report of PCC — Data Link

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```
Run 2: Statistics of PCC

Start at: 2017-10-12 03:55:42
End at: 2017-10-12 03:56:12
Local clock offset: 1.35 ms
Remote clock offset: -2.805 ms


# Below is generated by plot.py at 2017-10-12 09:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 82.687 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 20.52 Mbit/s
95th percentile per-packet one-way delay: 82.688 ms
Loss rate: 3.79%
-- Flow 2:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 82.267 ms
Loss rate: 5.18%
-- Flow 3:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 82.260 ms
Loss rate: 8.58%
```
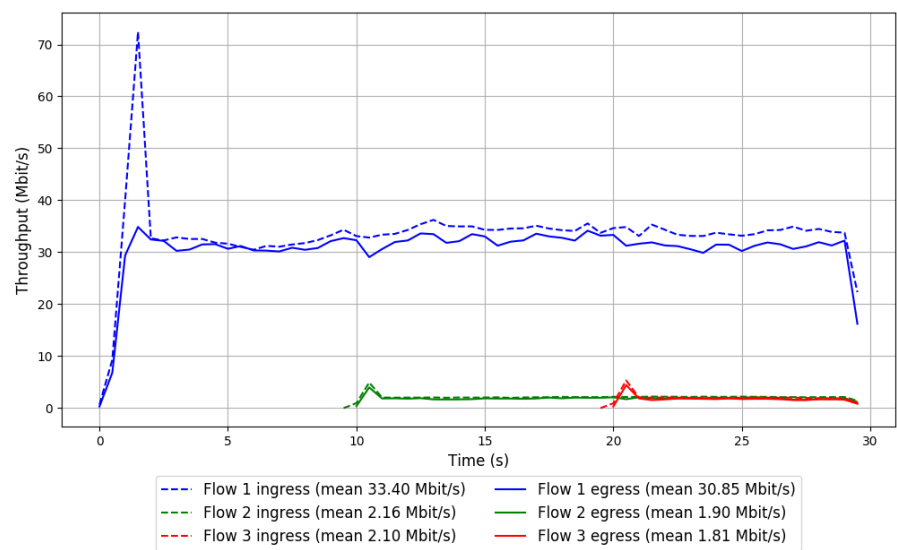
Run 2: Report of PCC — Data Link

```
Run 3: Statistics of PCC

Start at: 2017-10-12 04:15:22
End at: 2017-10-12 04:15:52
Local clock offset: 1.264 ms
Remote clock offset: -7.167 ms


# Below is generated by plot.py at 2017-10-12 09:51:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 87.021 ms
Loss rate: 8.48%
-- Flow 1:
Average throughput: 30.85 Mbit/s
95th percentile per-packet one-way delay: 87.006 ms
Loss rate: 8.14%
-- Flow 2:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 87.259 ms
Loss rate: 12.94%
-- Flow 3:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 86.814 ms
Loss rate: 15.27%
```

Run 3: Report of PCC — Data Link
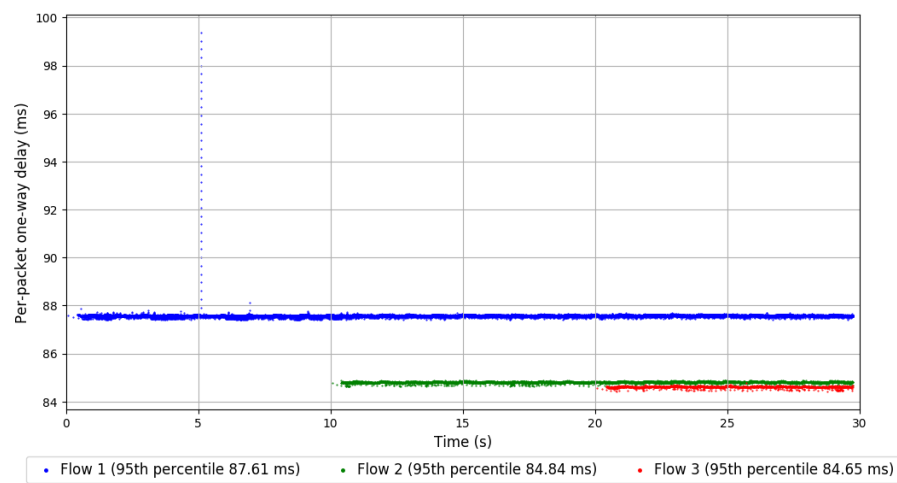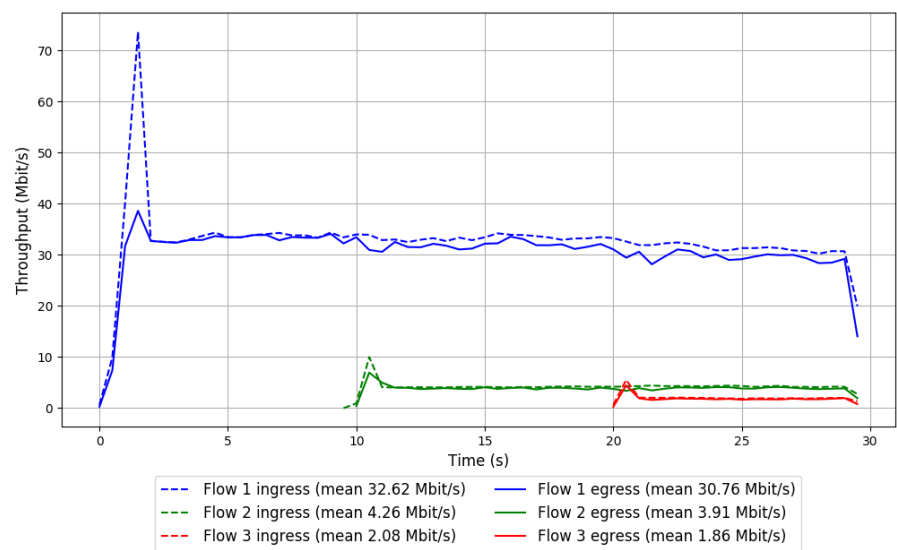

69

```
Run 4: Statistics of PCC

Start at: 2017-10-12 04:34:32
End at: 2017-10-12 04:35:02
Local clock offset: 1.172 ms
Remote clock offset: -5.972 ms

# Below is generated by plot.py at 2017-10-12 09:51:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.96 Mbit/s
95th percentile per-packet one-way delay: 87.609 ms
Loss rate: 6.56%
-- Flow 1:
Average throughput: 30.76 Mbit/s
95th percentile per-packet one-way delay: 87.610 ms
Loss rate: 6.23%
-- Flow 2:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 84.844 ms
Loss rate: 9.01%
-- Flow 3:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 84.651 ms
Loss rate: 12.34%
```
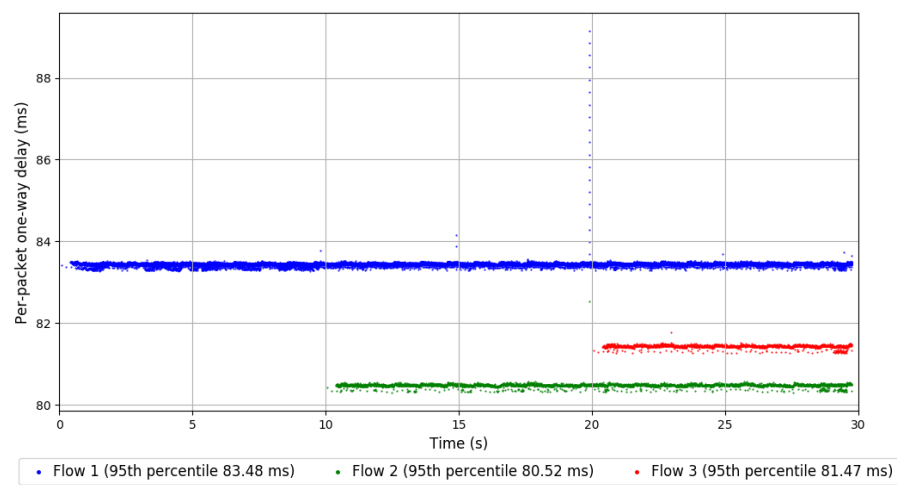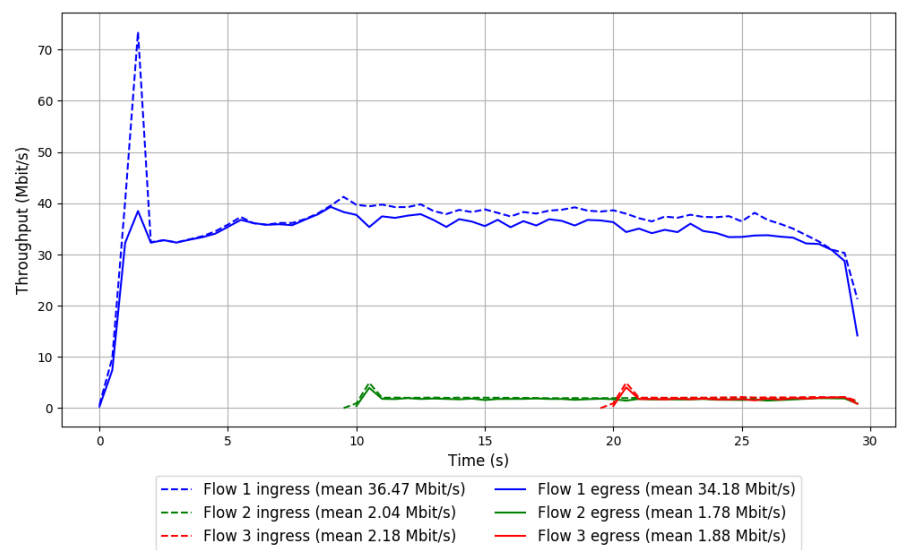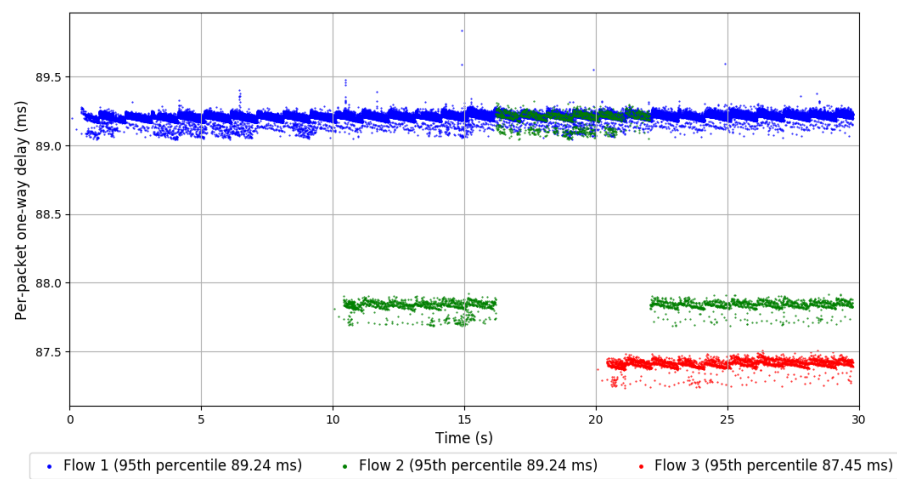
Run 4: Report of PCC — Data Link

Flow 1 ingress (mean 32.62 Mbit/s) --- Flow 1 egress (mean 30.76 Mbit/s)
Flow 2 ingress (mean 4.26 Mbit/s) --- Flow 2 egress (mean 3.91 Mbit/s)
Flow 3 ingress (mean 2.08 Mbit/s) --- Flow 3 egress (mean 1.86 Mbit/s)

Flow 1 (95th percentile 87.61 ms) · Flow 2 (95th percentile 84.84 ms) · Flow 3 (95th percentile 84.65 ms)

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```
Run 5: Statistics of PCC

Start at: 2017-10-12 04:53:32
End at: 2017-10-12 04:54:02
Local clock offset: 1.136 ms
Remote clock offset: -1.354 ms

# Below is generated by plot.py at 2017-10-12 09:51:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.97 Mbit/s
95th percentile per-packet one-way delay: 83.477 ms
Loss rate: 7.21%
-- Flow 1:
Average throughput: 34.18 Mbit/s
95th percentile per-packet one-way delay: 83.478 ms
Loss rate: 6.82%
-- Flow 2:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 80.522 ms
Loss rate: 13.42%
-- Flow 3:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 81.474 ms
Loss rate: 15.14%
```
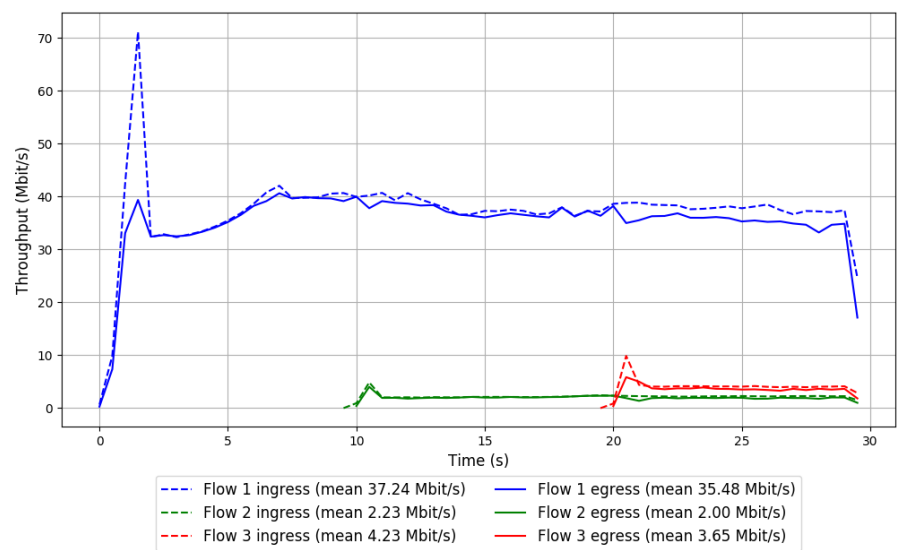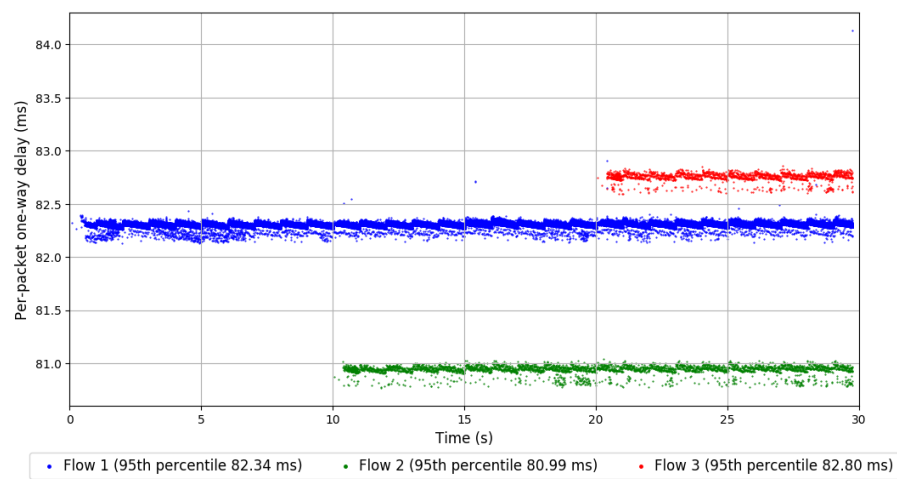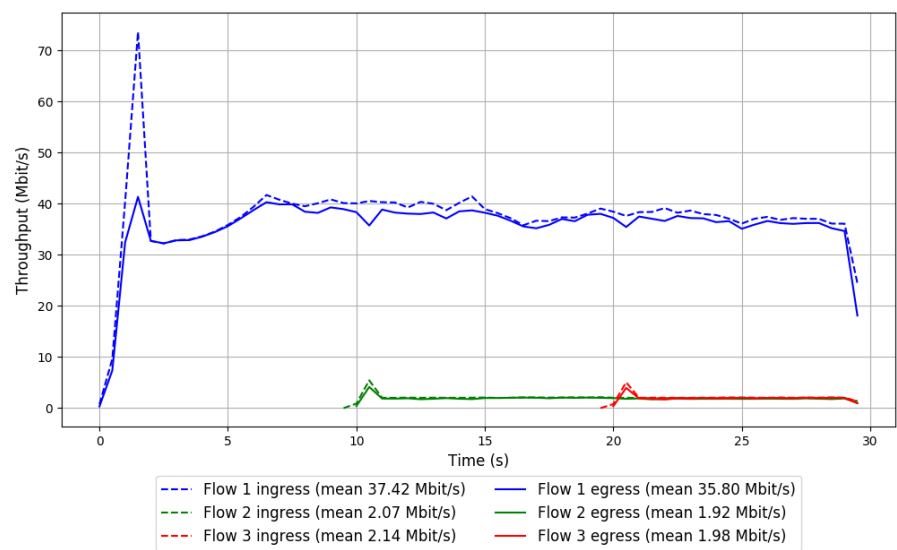
Run 5: Report of PCC — Data Link

Flow 1 ingress (mean 36.47 Mbit/s) ---- Flow 1 egress (mean 34.18 Mbit/s)
Flow 2 ingress (mean 2.04 Mbit/s) ---- Flow 2 egress (mean 1.78 Mbit/s)
Flow 3 ingress (mean 2.18 Mbit/s) ---- Flow 3 egress (mean 1.88 Mbit/s)

Flow 1 (95th percentile 83.48 ms)   Flow 2 (95th percentile 80.52 ms)   Flow 3 (95th percentile 81.47 ms)

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```
Run 6: Statistics of PCC

Start at: 2017-10-12 05:12:09
End at: 2017-10-12 05:12:39
Local clock offset: 1.171 ms
Remote clock offset: -6.616 ms


# Below is generated by plot.py at 2017-10-12 09:51:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.00 Mbit/s
95th percentile per-packet one-way delay: 89.244 ms
Loss rate: 5.83%
-- Flow 1:
Average throughput: 35.48 Mbit/s
95th percentile per-packet one-way delay: 89.244 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 89.239 ms
Loss rate: 11.17%
-- Flow 3:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 87.454 ms
Loss rate: 15.09%
```
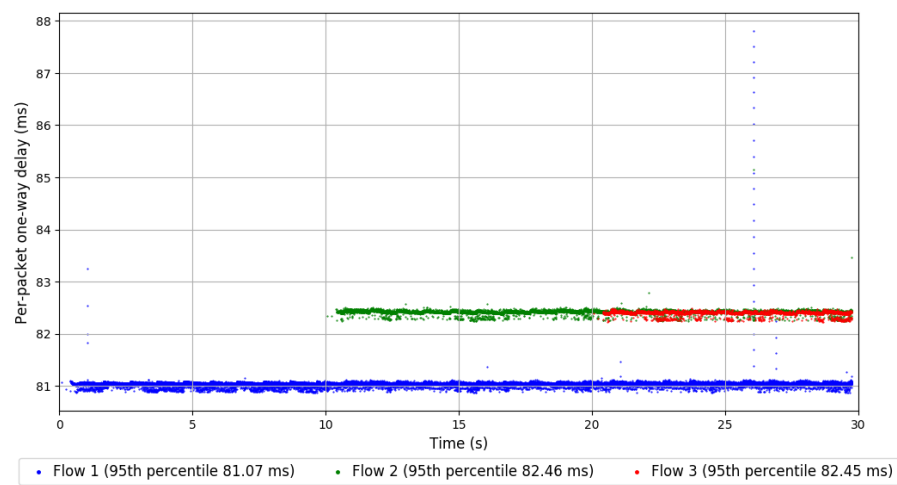
Run 6: Report of PCC — Data Link

```
Run 7: Statistics of PCC

Start at: 2017-10-12 05:31:13
End at: 2017-10-12 05:31:43
Local clock offset: 1.186 ms
Remote clock offset: -1.488 ms


# Below is generated by plot.py at 2017-10-12 09:51:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 82.342 ms
Loss rate: 5.03%
-- Flow 1:
Average throughput: 35.80 Mbit/s
95th percentile per-packet one-way delay: 82.340 ms
Loss rate: 4.85%
-- Flow 2:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 80.992 ms
Loss rate: 7.91%
-- Flow 3:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 82.803 ms
Loss rate: 9.27%
```
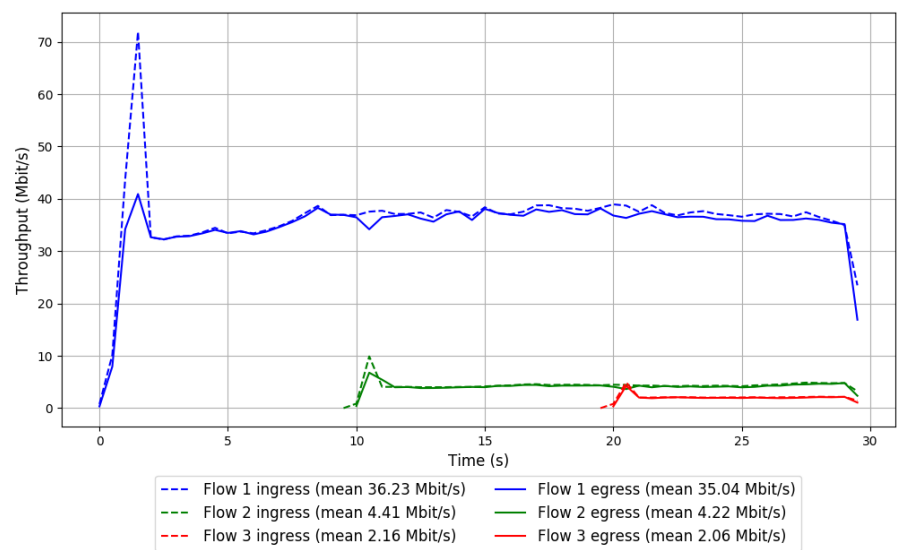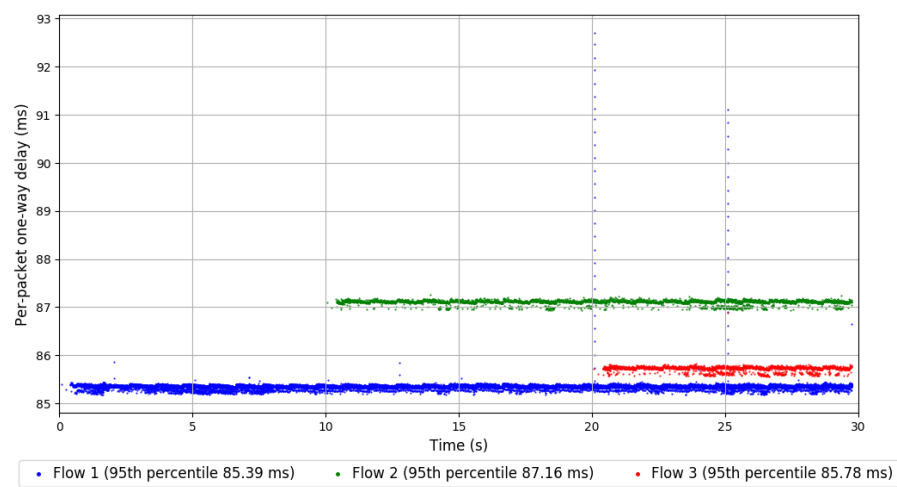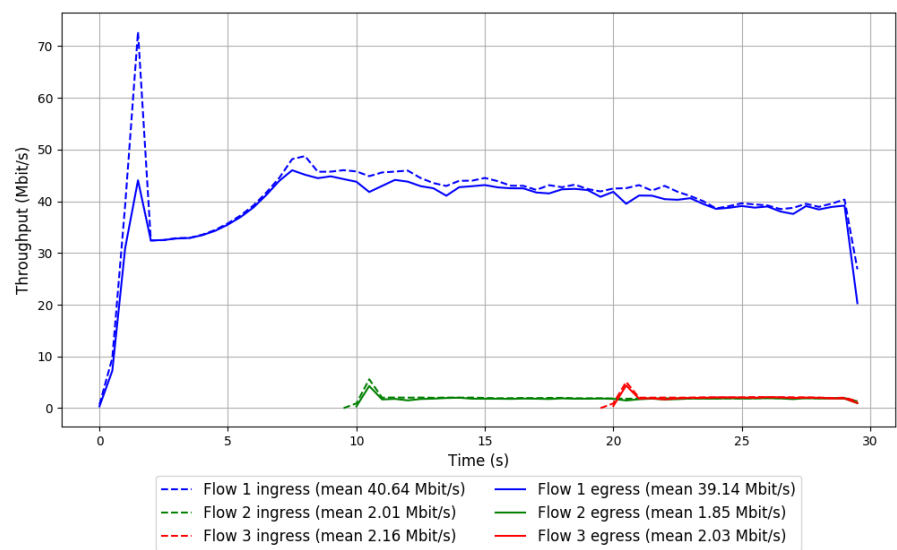
Run 7: Report of PCC — Data Link

Flow 1 ingress (mean 37.42 Mbit/s) ------   Flow 1 egress (mean 35.80 Mbit/s) ——
Flow 2 ingress (mean 2.07 Mbit/s) ------   Flow 2 egress (mean 1.92 Mbit/s) ——
Flow 3 ingress (mean 2.14 Mbit/s) ------   Flow 3 egress (mean 1.98 Mbit/s) ——

Flow 1 (95th percentile 82.34 ms)   Flow 2 (95th percentile 80.99 ms)   Flow 3 (95th percentile 82.80 ms)

```
Run 8: Statistics of PCC

Start at: 2017-10-12 05:50:02
End at: 2017-10-12 05:50:32
Local clock offset: 1.033 ms
Remote clock offset: -1.737 ms

# Below is generated by plot.py at 2017-10-12 09:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.51 Mbit/s
95th percentile per-packet one-way delay: 82.414 ms
Loss rate: 3.97%
-- Flow 1:
Average throughput: 35.04 Mbit/s
95th percentile per-packet one-way delay: 81.070 ms
Loss rate: 3.82%
-- Flow 2:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 82.461 ms
Loss rate: 5.13%
-- Flow 3:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 82.446 ms
Loss rate: 6.55%
```
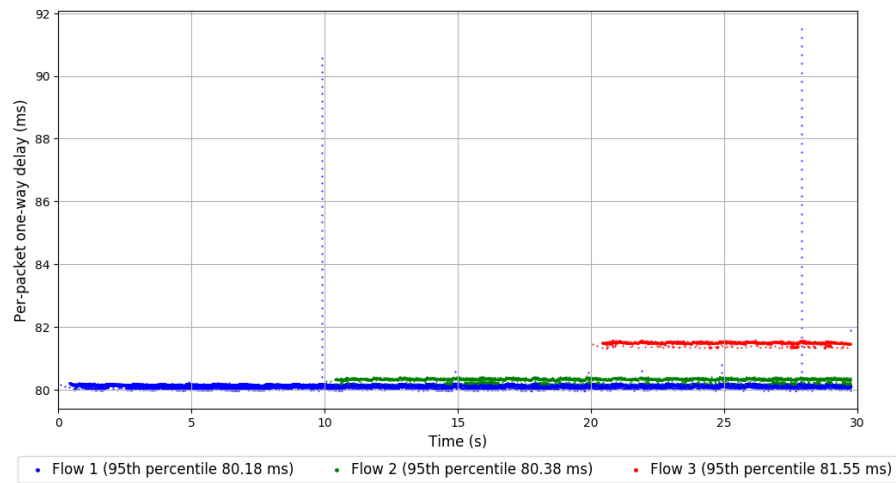
Run 8: Report of PCC — Data Link

- - - Flow 1 ingress (mean 36.23 Mbit/s)   —— Flow 1 egress (mean 35.04 Mbit/s)
- - - Flow 2 ingress (mean 4.41 Mbit/s)   —— Flow 2 egress (mean 4.22 Mbit/s)
- - - Flow 3 ingress (mean 2.16 Mbit/s)   —— Flow 3 egress (mean 2.06 Mbit/s)

- Flow 1 (95th percentile 81.07 ms)   • Flow 2 (95th percentile 82.46 ms)   • Flow 3 (95th percentile 82.45 ms)

```
Run 9: Statistics of PCC

Start at: 2017-10-12 06:08:46
End at: 2017-10-12 06:09:16
Local clock offset: 0.834 ms
Remote clock offset: -6.829 ms


# Below is generated by plot.py at 2017-10-12 09:52:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.03 Mbit/s
95th percentile per-packet one-way delay: 85.645 ms
Loss rate: 4.43%
-- Flow 1:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 85.388 ms
Loss rate: 4.23%
-- Flow 2:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 87.162 ms
Loss rate: 8.83%
-- Flow 3:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 85.781 ms
Loss rate: 7.51%
```
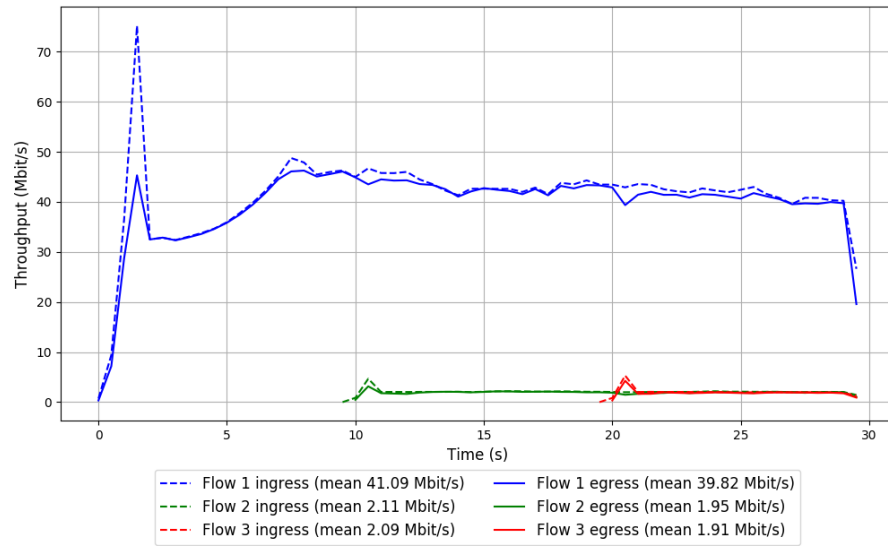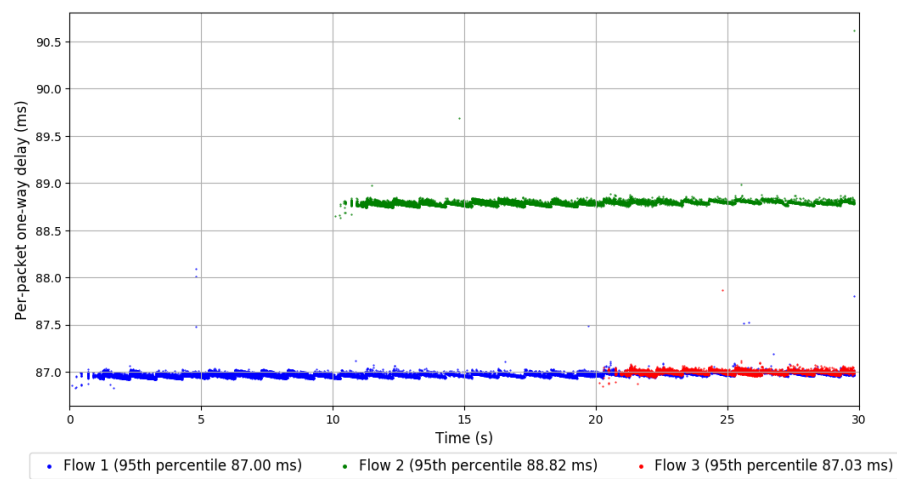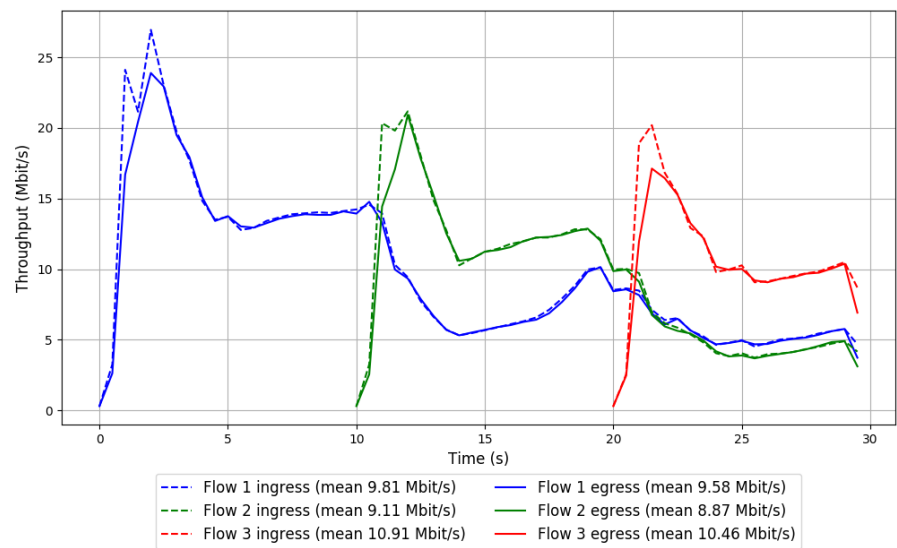
Run 9: Report of PCC — Data Link

```
Run 10: Statistics of PCC

Start at: 2017-10-12 06:27:45
End at: 2017-10-12 06:28:15
Local clock offset: 0.707 ms
Remote clock offset: -2.39 ms


# Below is generated by plot.py at 2017-10-12 09:52:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.74 Mbit/s
95th percentile per-packet one-way delay: 80.209 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 39.82 Mbit/s
95th percentile per-packet one-way delay: 80.178 ms
Loss rate: 3.61%
-- Flow 2:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 80.383 ms
Loss rate: 8.45%
-- Flow 3:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 81.545 ms
Loss rate: 10.35%
```
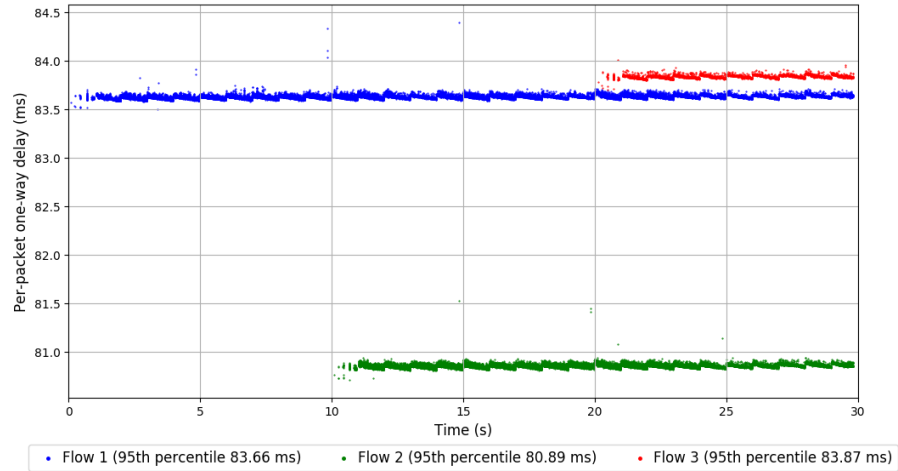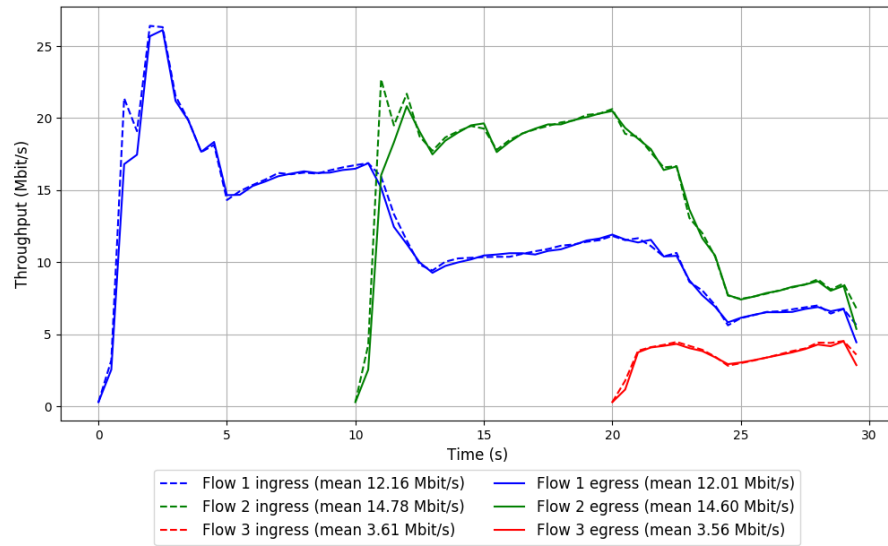
Run 10: Report of PCC — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2017-10-12 03:54:23
End at: 2017-10-12 03:54:53
Local clock offset: 1.342 ms
Remote clock offset: -7.625 ms


# Below is generated by plot.py at 2017-10-12 09:52:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.88 Mbit/s
95th percentile per-packet one-way delay: 88.806 ms
Loss rate: 3.53%
-- Flow 1:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 87.002 ms
Loss rate: 2.83%
-- Flow 2:
Average throughput: 8.87 Mbit/s
95th percentile per-packet one-way delay: 88.821 ms
Loss rate: 3.35%
-- Flow 3:
Average throughput: 10.46 Mbit/s
95th percentile per-packet one-way delay: 87.025 ms
Loss rate: 5.73%
```
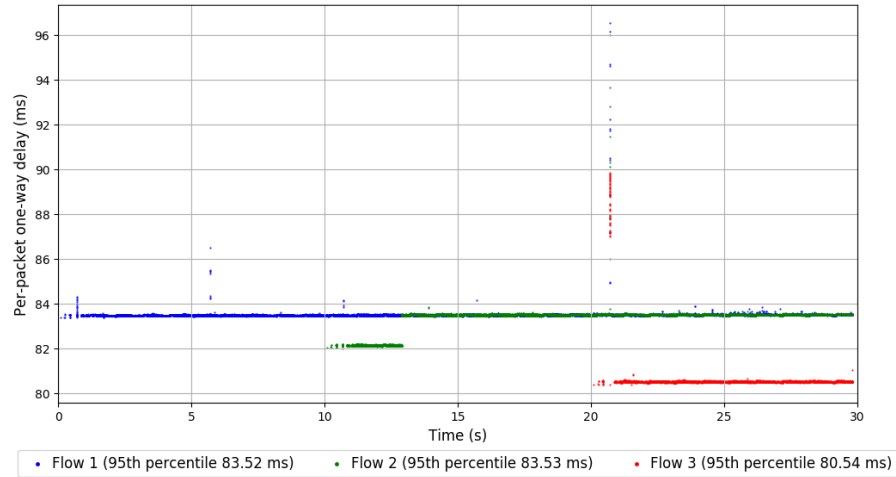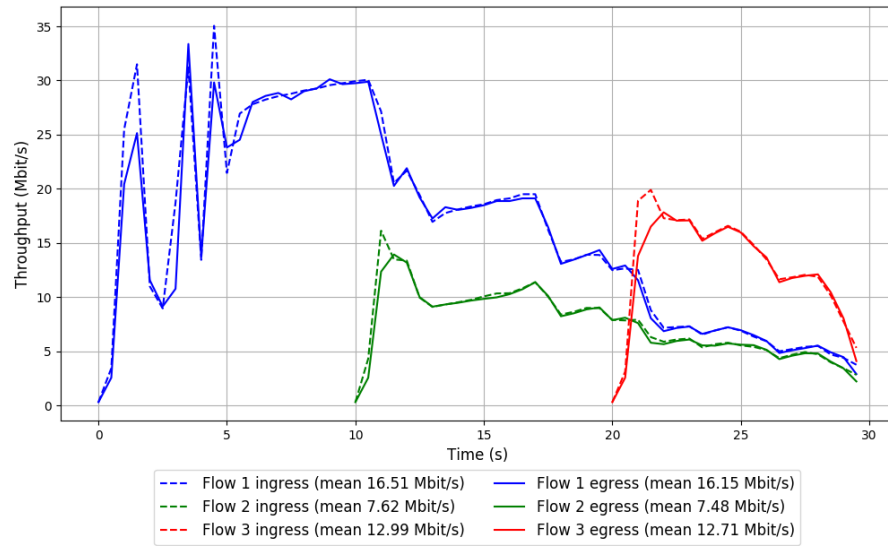
Run 1: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 9.81 Mbit/s) — Flow 1 egress (mean 9.58 Mbit/s)
Flow 2 ingress (mean 9.11 Mbit/s) — Flow 2 egress (mean 8.87 Mbit/s)
Flow 3 ingress (mean 10.91 Mbit/s) — Flow 3 egress (mean 10.46 Mbit/s)

Flow 1 (95th percentile 87.00 ms) · Flow 2 (95th percentile 88.82 ms) · Flow 3 (95th percentile 87.03 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-10-12 04:14:04
End at: 2017-10-12 04:14:34
Local clock offset: 1.311 ms
Remote clock offset: -2.425 ms


# Below is generated by plot.py at 2017-10-12 09:52:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.86 Mbit/s
95th percentile per-packet one-way delay: 83.813 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 12.01 Mbit/s
95th percentile per-packet one-way delay: 83.664 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 14.60 Mbit/s
95th percentile per-packet one-way delay: 80.890 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 83.872 ms
Loss rate: 3.30%
```
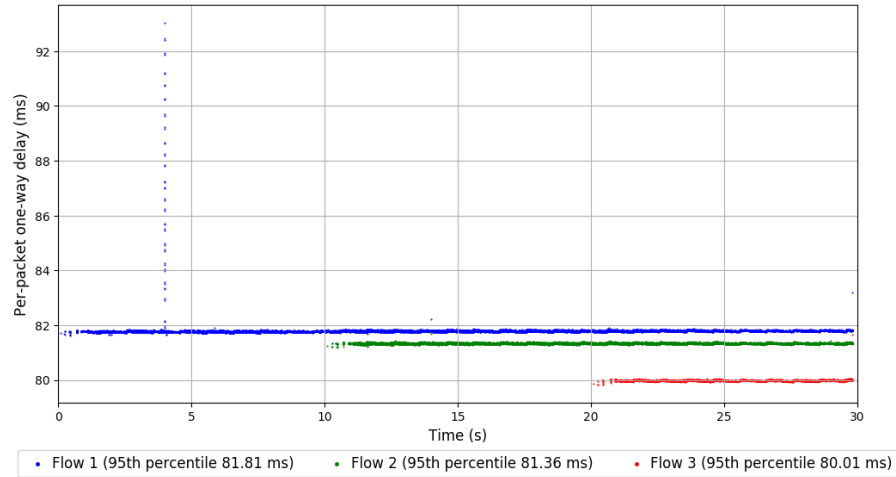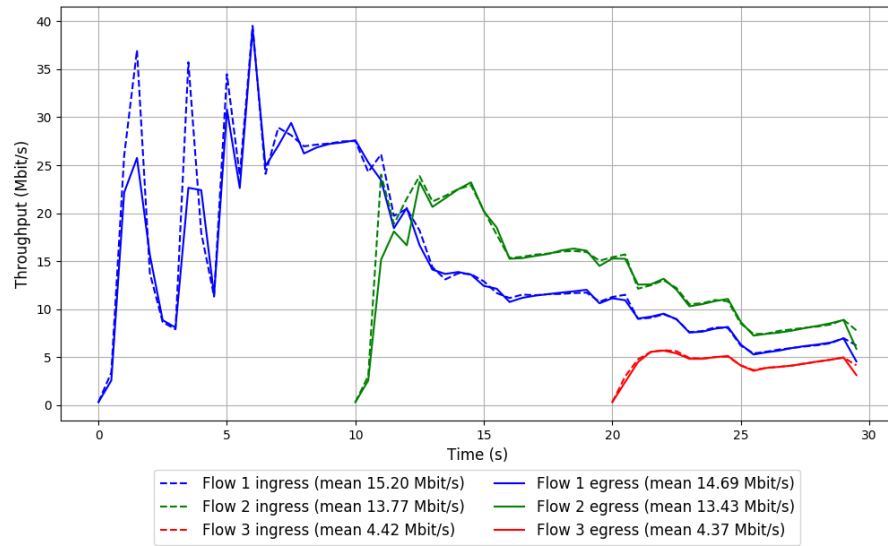
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2017-10-12 04:33:15
End at: 2017-10-12 04:33:45
Local clock offset: 1.08 ms
Remote clock offset: -2.013 ms


# Below is generated by plot.py at 2017-10-12 09:52:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.26 Mbit/s
95th percentile per-packet one-way delay: 83.520 ms
Loss rate: 2.89%
-- Flow 1:
Average throughput: 16.15 Mbit/s
95th percentile per-packet one-way delay: 83.518 ms
Loss rate: 2.72%
-- Flow 2:
Average throughput: 7.48 Mbit/s
95th percentile per-packet one-way delay: 83.531 ms
Loss rate: 2.64%
-- Flow 3:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 80.541 ms
Loss rate: 3.83%
```
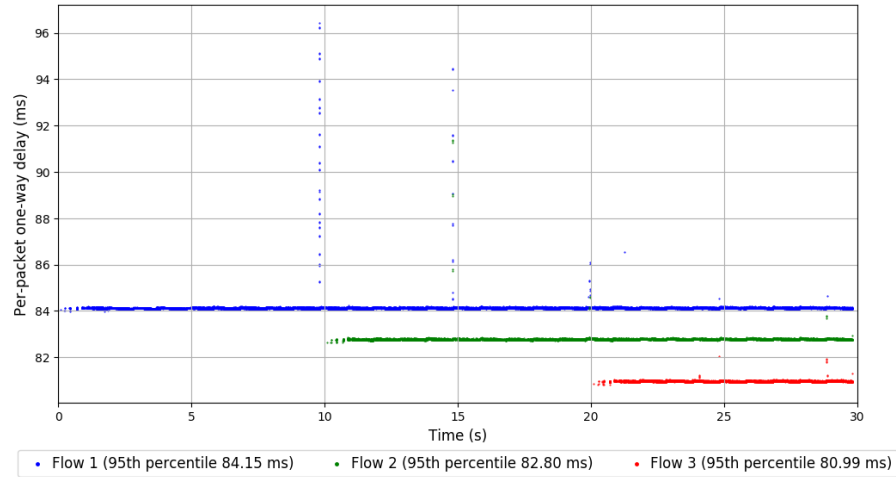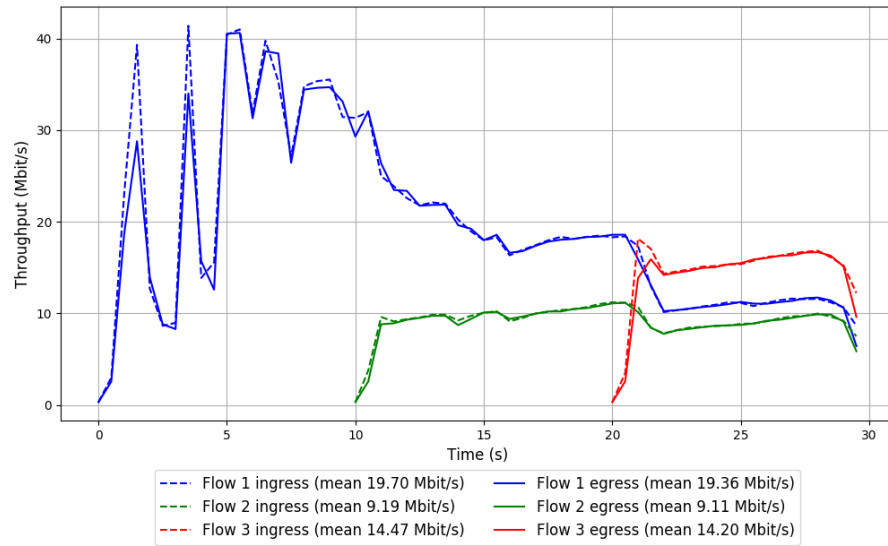
Run 3: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 16.51 Mbit/s) —— Flow 1 egress (mean 16.15 Mbit/s)
- - - Flow 2 ingress (mean 7.62 Mbit/s) —— Flow 2 egress (mean 7.48 Mbit/s)
- - - Flow 3 ingress (mean 12.99 Mbit/s) —— Flow 3 egress (mean 12.71 Mbit/s)

• Flow 1 (95th percentile 83.52 ms)   • Flow 2 (95th percentile 83.53 ms)   • Flow 3 (95th percentile 80.54 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2017-10-12 04:52:15
End at: 2017-10-12 04:52:45
Local clock offset: 1.149 ms
Remote clock offset: -0.851 ms


# Below is generated by plot.py at 2017-10-12 09:52:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.02 Mbit/s
95th percentile per-packet one-way delay: 81.802 ms
Loss rate: 3.60%
-- Flow 1:
Average throughput: 14.69 Mbit/s
95th percentile per-packet one-way delay: 81.809 ms
Loss rate: 3.85%
-- Flow 2:
Average throughput: 13.43 Mbit/s
95th percentile per-packet one-way delay: 81.360 ms
Loss rate: 3.34%
-- Flow 3:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 80.007 ms
Loss rate: 2.67%
```

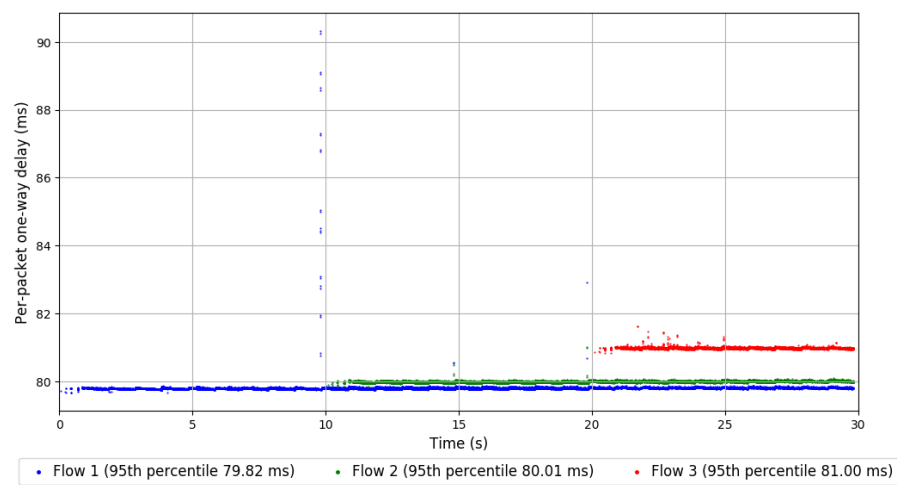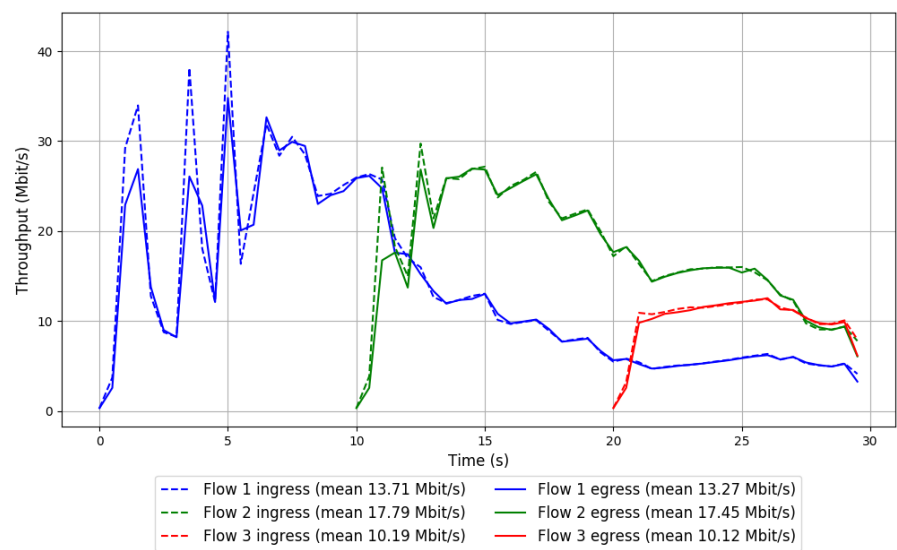Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2017-10-12 05:10:51
End at: 2017-10-12 05:11:21
Local clock offset: 1.258 ms
Remote clock offset: -1.476 ms


# Below is generated by plot.py at 2017-10-12 09:52:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.04 Mbit/s
95th percentile per-packet one-way delay: 84.144 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 19.36 Mbit/s
95th percentile per-packet one-way delay: 84.150 ms
Loss rate: 2.31%
-- Flow 2:
Average throughput: 9.11 Mbit/s
95th percentile per-packet one-way delay: 82.804 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 80.994 ms
Loss rate: 3.46%
```
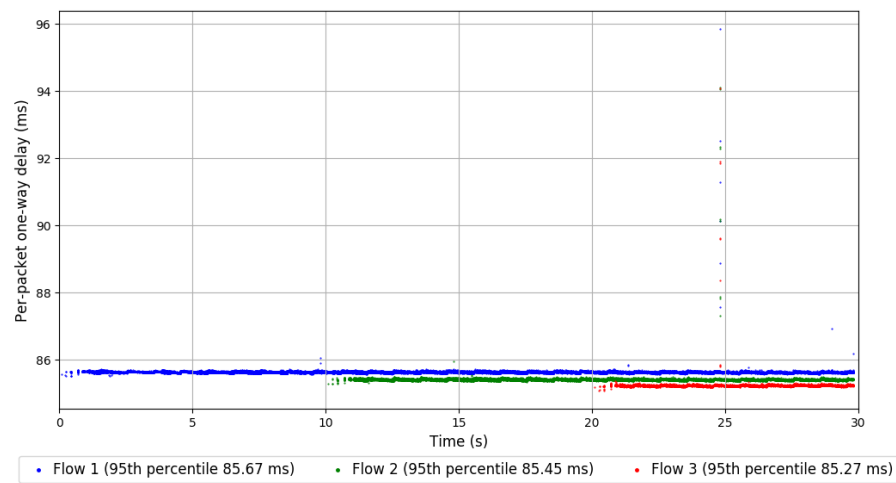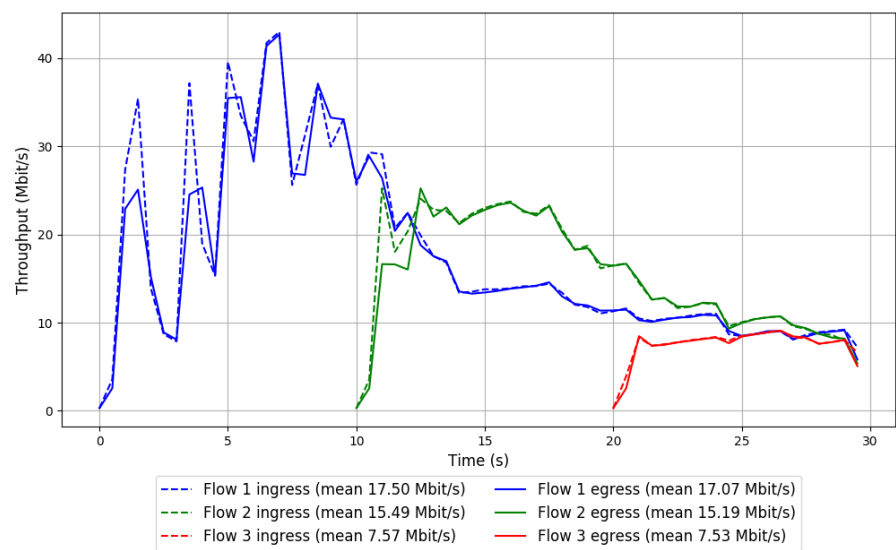
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 19.70 Mbit/s) — Flow 1 egress (mean 19.36 Mbit/s)
Flow 2 ingress (mean 9.19 Mbit/s) — Flow 2 egress (mean 9.11 Mbit/s)
Flow 3 ingress (mean 14.47 Mbit/s) — Flow 3 egress (mean 14.20 Mbit/s)

Flow 1 (95th percentile 84.15 ms) • Flow 2 (95th percentile 82.80 ms) • Flow 3 (95th percentile 80.99 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2017-10-12 05:29:54
End at: 2017-10-12 05:30:24
Local clock offset: 1.23 ms
Remote clock offset: -0.316 ms


# Below is generated by plot.py at 2017-10-12 09:52:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.14 Mbit/s
95th percentile per-packet one-way delay: 80.976 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 13.27 Mbit/s
95th percentile per-packet one-way delay: 79.818 ms
Loss rate: 3.78%
-- Flow 2:
Average throughput: 17.45 Mbit/s
95th percentile per-packet one-way delay: 80.012 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 10.12 Mbit/s
95th percentile per-packet one-way delay: 81.004 ms
Loss rate: 2.41%
```
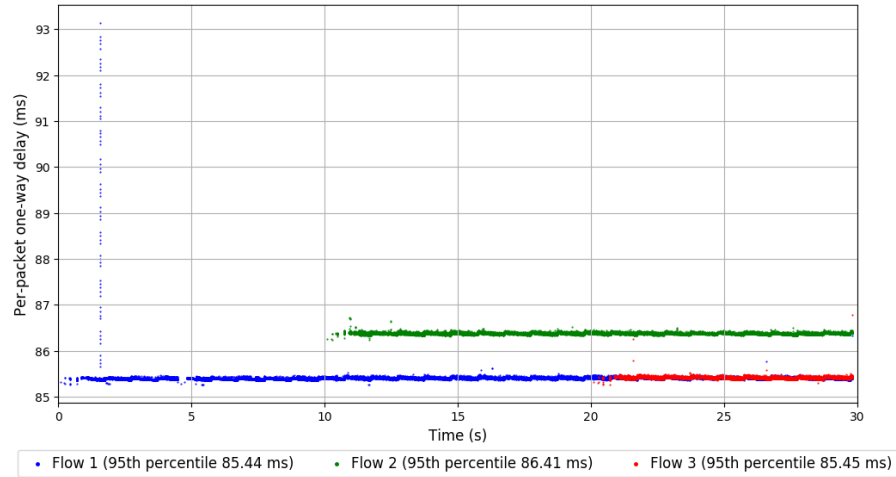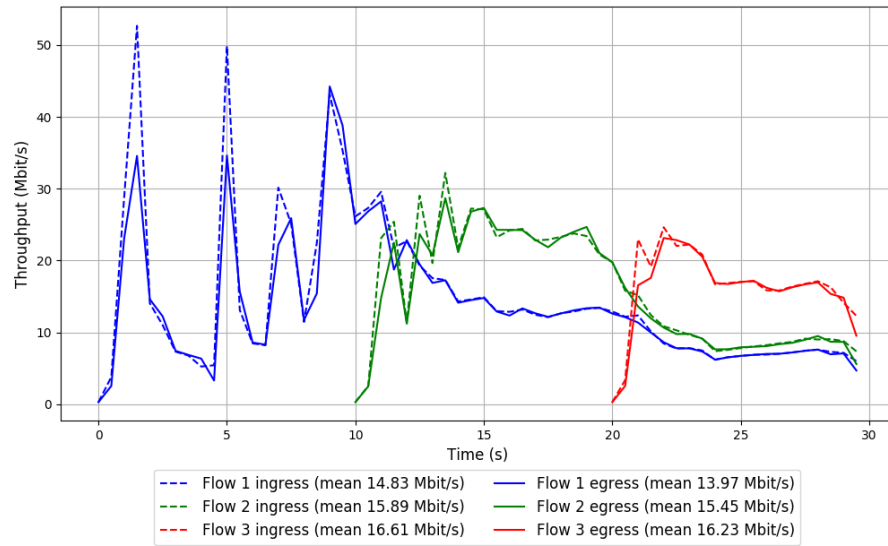
Run 6: Report of QUIC Cubic — Data Link

```
Run 7: Statistics of QUIC Cubic

Start at: 2017-10-12 05:48:43
End at: 2017-10-12 05:49:13
Local clock offset: 1.046 ms
Remote clock offset: -6.295 ms

# Below is generated by plot.py at 2017-10-12 09:52:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 85.664 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 17.07 Mbit/s
95th percentile per-packet one-way delay: 85.671 ms
Loss rate: 3.02%
-- Flow 2:
Average throughput: 15.19 Mbit/s
95th percentile per-packet one-way delay: 85.449 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 85.271 ms
Loss rate: 2.12%
```
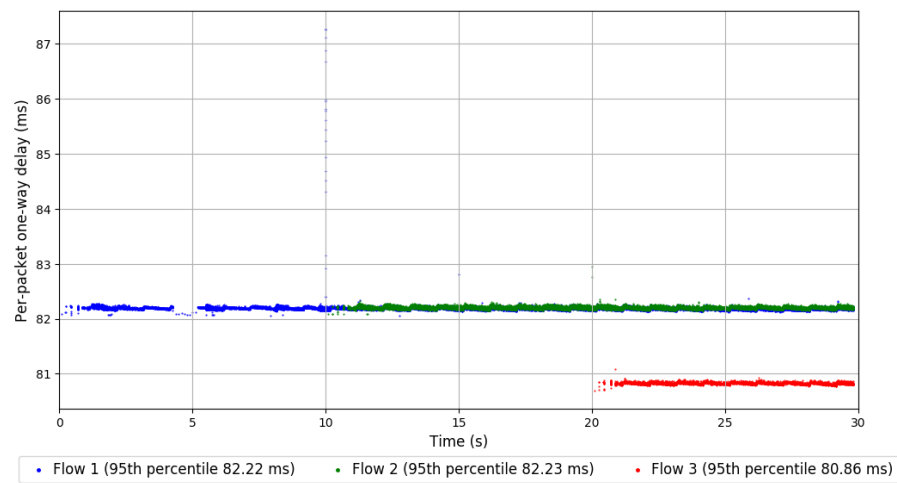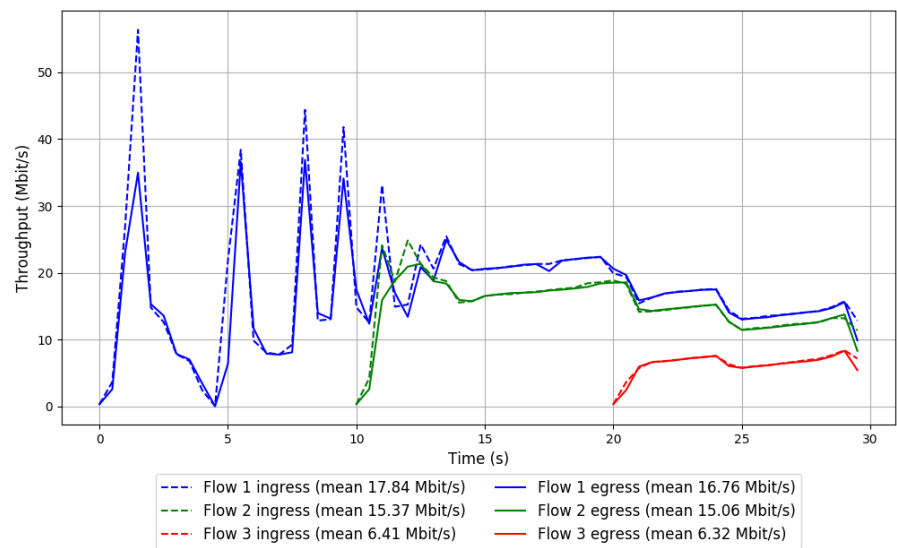
Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2017-10-12 06:07:27
End at: 2017-10-12 06:07:57
Local clock offset: 0.866 ms
Remote clock offset: -6.468 ms


# Below is generated by plot.py at 2017-10-12 09:52:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 86.400 ms
Loss rate: 4.93%
-- Flow 1:
Average throughput: 13.97 Mbit/s
95th percentile per-packet one-way delay: 85.436 ms
Loss rate: 6.28%
-- Flow 2:
Average throughput: 15.45 Mbit/s
95th percentile per-packet one-way delay: 86.412 ms
Loss rate: 3.58%
-- Flow 3:
Average throughput: 16.23 Mbit/s
95th percentile per-packet one-way delay: 85.451 ms
Loss rate: 3.88%
```
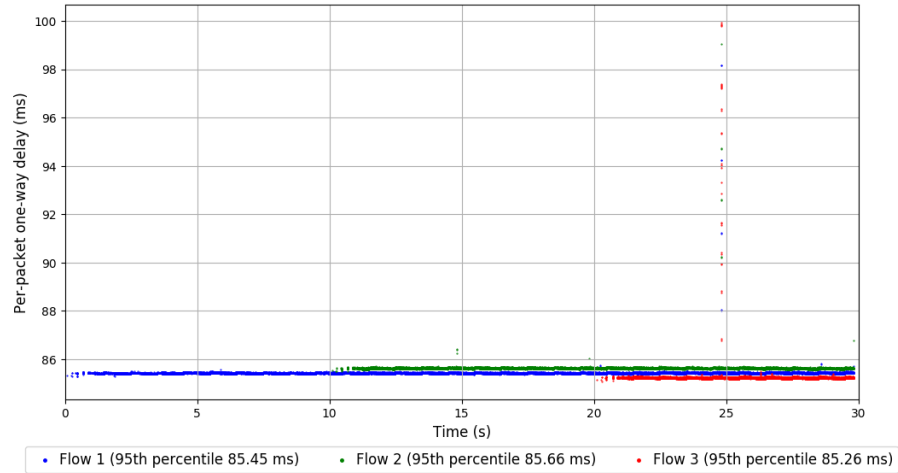
Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2017-10-12 06:26:28
End at: 2017-10-12 06:26:58
Local clock offset: 0.705 ms
Remote clock offset: -2.634 ms


# Below is generated by plot.py at 2017-10-12 09:53:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.81 Mbit/s
95th percentile per-packet one-way delay: 82.228 ms
Loss rate: 5.06%
-- Flow 1:
Average throughput: 16.76 Mbit/s
95th percentile per-packet one-way delay: 82.224 ms
Loss rate: 6.57%
-- Flow 2:
Average throughput: 15.06 Mbit/s
95th percentile per-packet one-way delay: 82.234 ms
Loss rate: 2.84%
-- Flow 3:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 80.860 ms
Loss rate: 3.01%
```

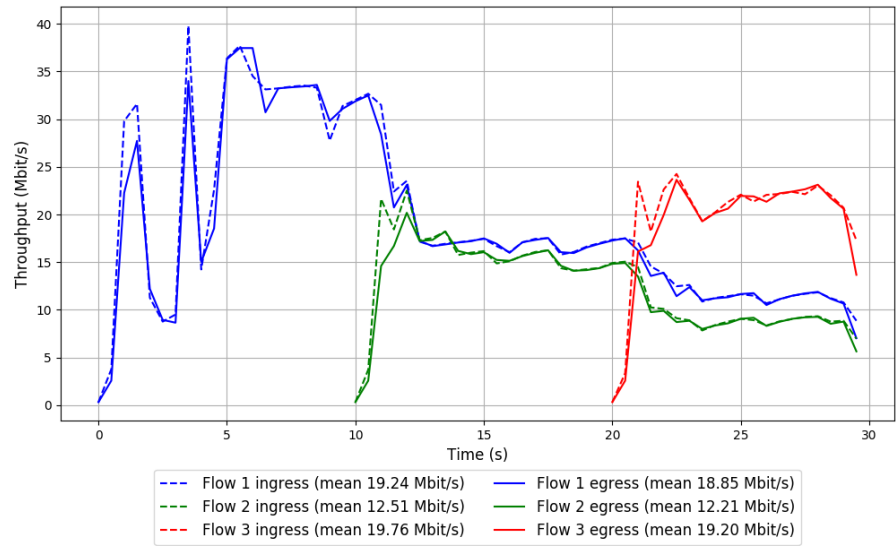# Run 9: Report of QUIC Cubic — Data Link

```
Run 10: Statistics of QUIC Cubic

Start at: 2017-10-12 06:45:14
End at: 2017-10-12 06:45:44
Local clock offset: 0.683 ms
Remote clock offset: -8.023 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 85.640 ms
Loss rate: 3.10%
-- Flow 1:
Average throughput: 18.85 Mbit/s
95th percentile per-packet one-way delay: 85.454 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 12.21 Mbit/s
95th percentile per-packet one-way delay: 85.658 ms
Loss rate: 3.22%
-- Flow 3:
Average throughput: 19.20 Mbit/s
95th percentile per-packet one-way delay: 85.264 ms
Loss rate: 4.47%
```
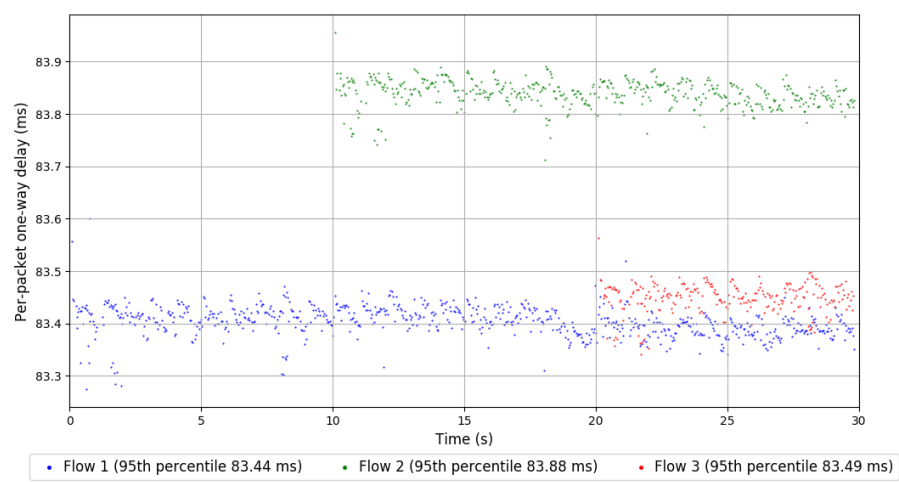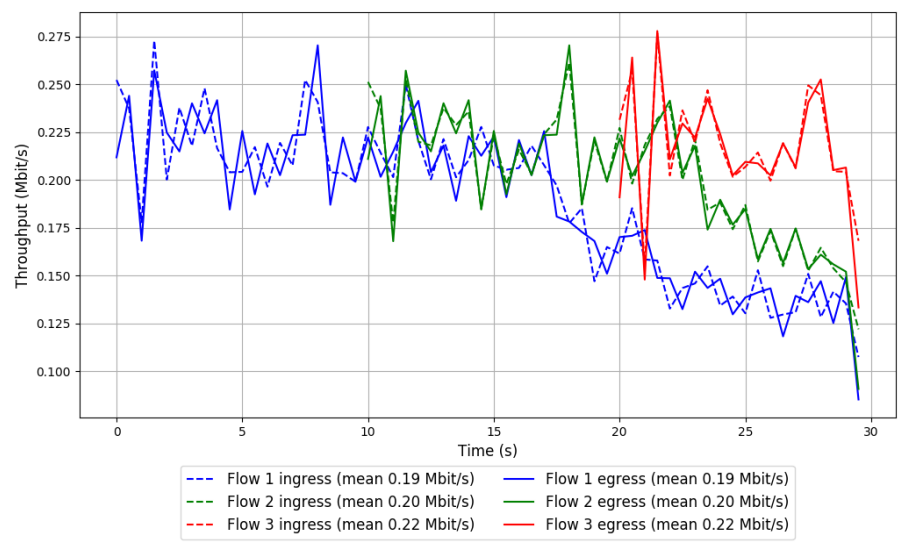
Run 10: Report of QUIC Cubic — Data Link

Legend:
- Flow 1 ingress (mean 19.24 Mbit/s)
- Flow 1 egress (mean 18.85 Mbit/s)
- Flow 2 ingress (mean 12.51 Mbit/s)
- Flow 2 egress (mean 12.21 Mbit/s)
- Flow 3 ingress (mean 19.76 Mbit/s)
- Flow 3 egress (mean 19.20 Mbit/s)

Legend:
- Flow 1 (95th percentile 85.45 ms)
- Flow 2 (95th percentile 85.66 ms)
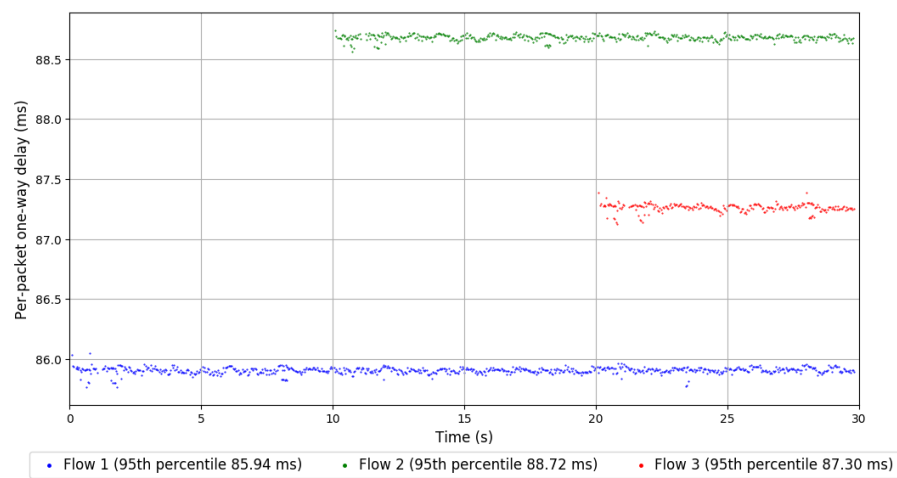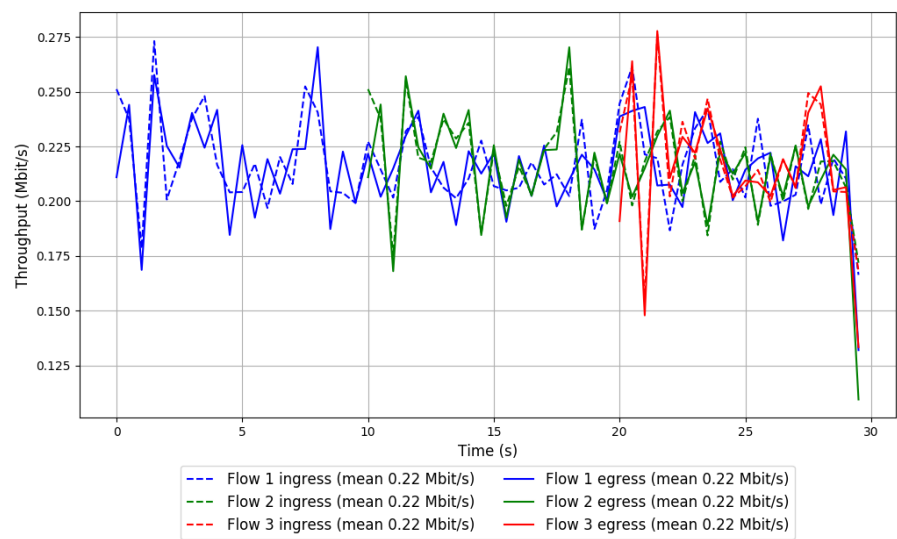- Flow 3 (95th percentile 85.26 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-10-12 03:44:56
End at: 2017-10-12 03:45:26
Local clock offset: 1.31 ms
Remote clock offset: -4.216 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 83.863 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 83.444 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 83.876 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.486 ms
Loss rate: 1.53%
```
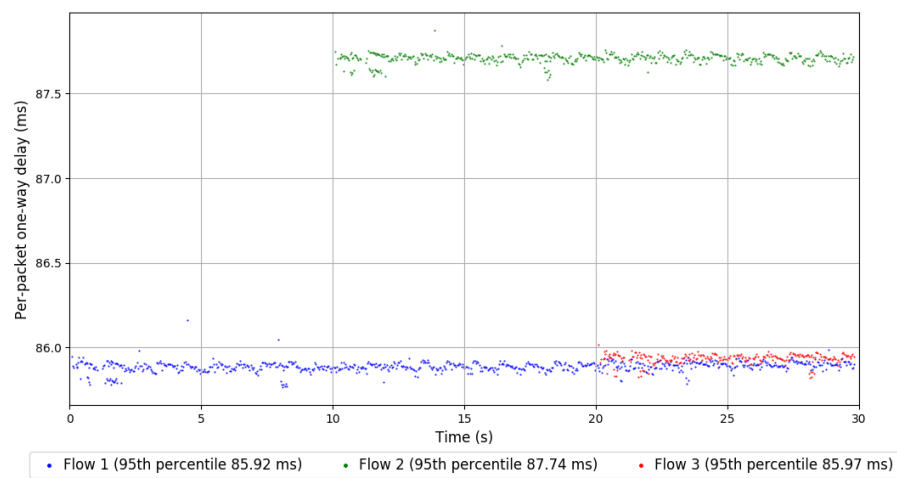
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2017-10-12 04:04:23
End at: 2017-10-12 04:04:53
Local clock offset: 1.363 ms
Remote clock offset: -7.676 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 88.704 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.941 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.716 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.301 ms
Loss rate: 1.53%
```
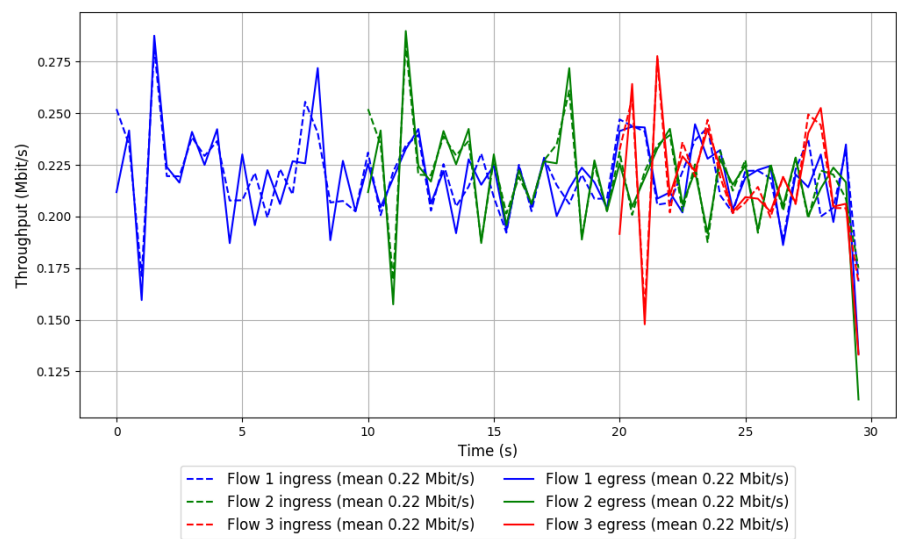
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2017-10-12 04:23:57
End at: 2017-10-12 04:24:27
Local clock offset: 1.124 ms
Remote clock offset: -5.898 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.729 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.924 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.739 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.970 ms
Loss rate: 1.53%
```
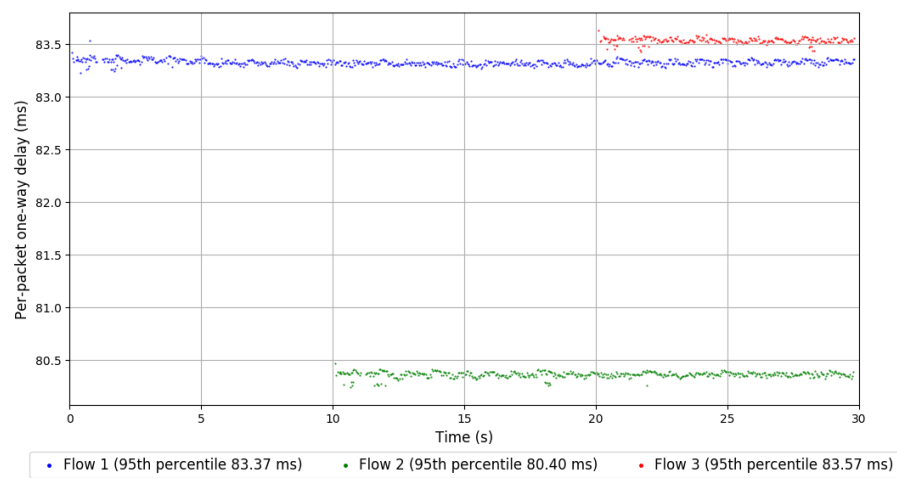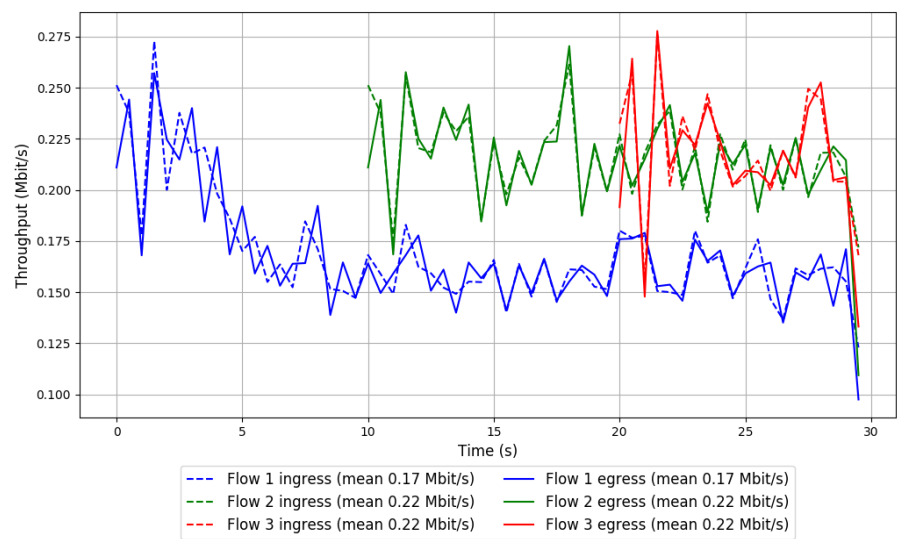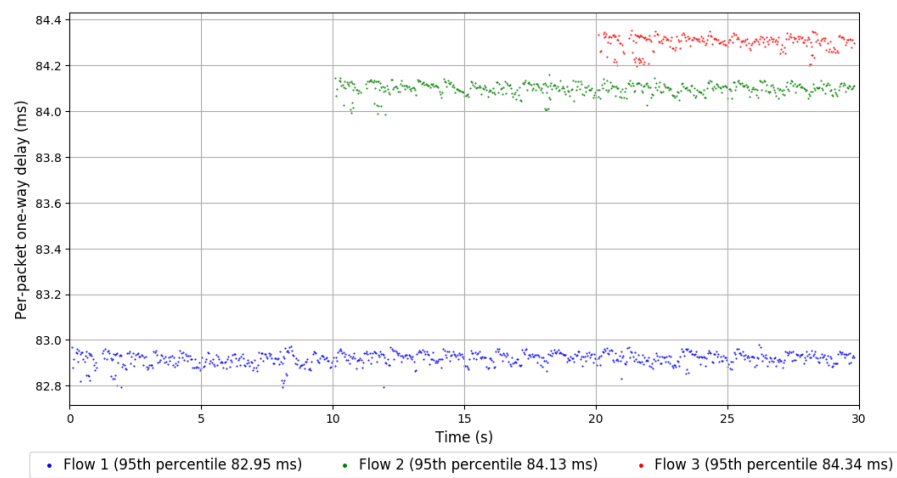
Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s)   Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)   Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)   Flow 3 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 85.92 ms)   Flow 2 (95th percentile 87.74 ms)   Flow 3 (95th percentile 85.97 ms)

```
Run 4: Statistics of SCReAM

Start at: 2017-10-12 04:43:00
End at: 2017-10-12 04:43:30
Local clock offset: 1.186 ms
Remote clock offset: -1.543 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 83.550 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 83.367 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.396 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.573 ms
Loss rate: 1.53%
```
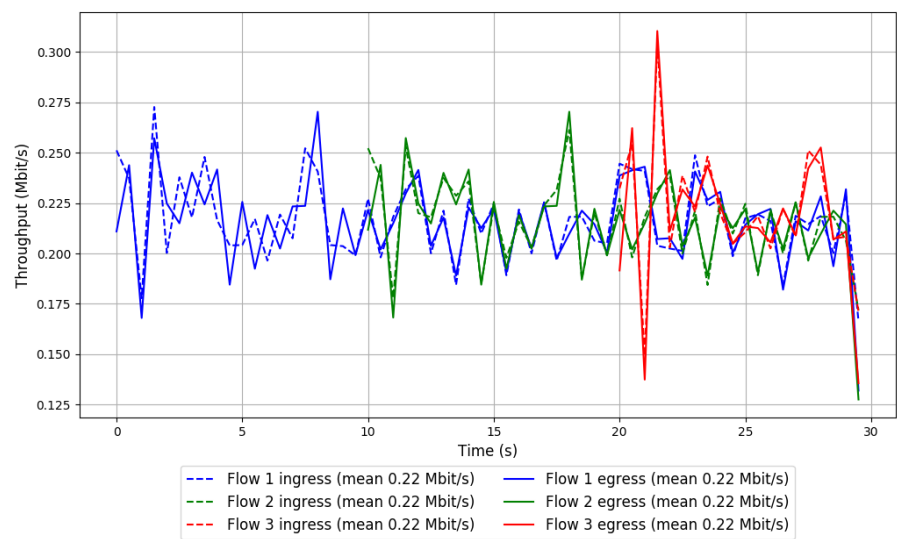
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2017-10-12 05:01:44
End at: 2017-10-12 05:02:14
Local clock offset: 1.198 ms
Remote clock offset: -1.783 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 84.320 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.954 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.132 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.337 ms
Loss rate: 1.53%
```
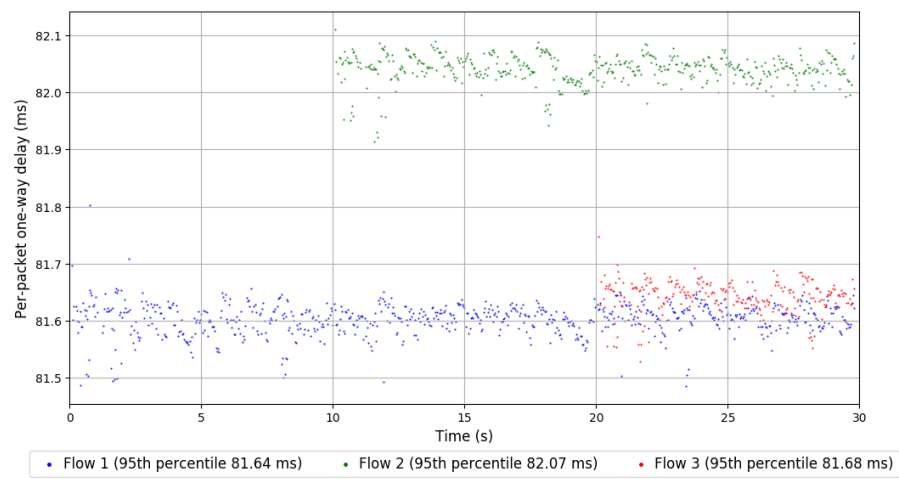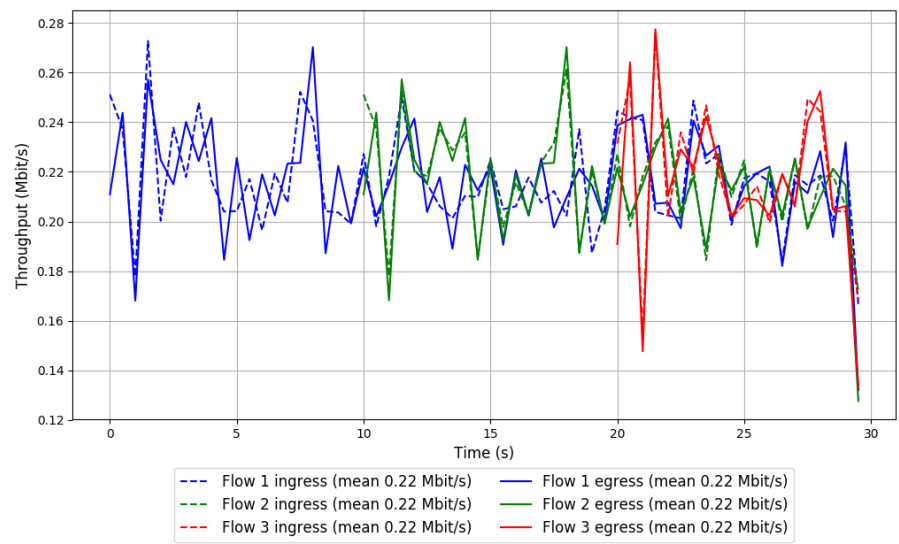
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2017-10-12 05:20:27
End at: 2017-10-12 05:20:57
Local clock offset: 1.169 ms
Remote clock offset: -0.669 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 82.064 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.641 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.074 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.677 ms
Loss rate: 1.53%
```
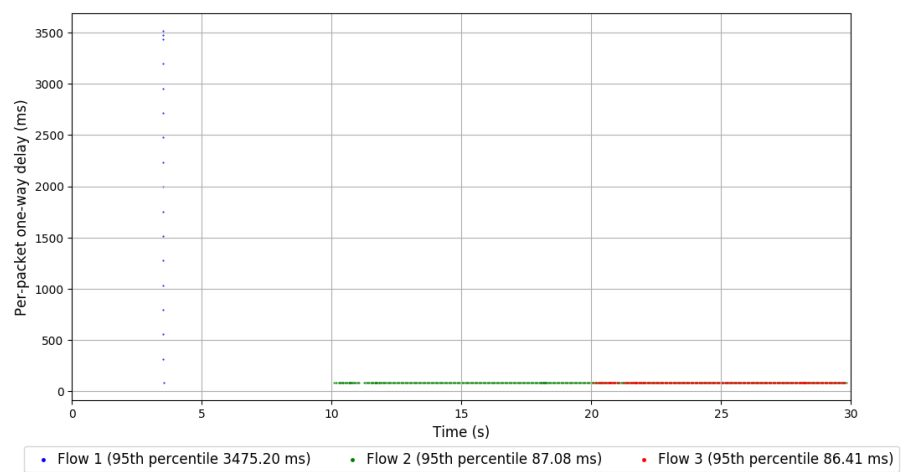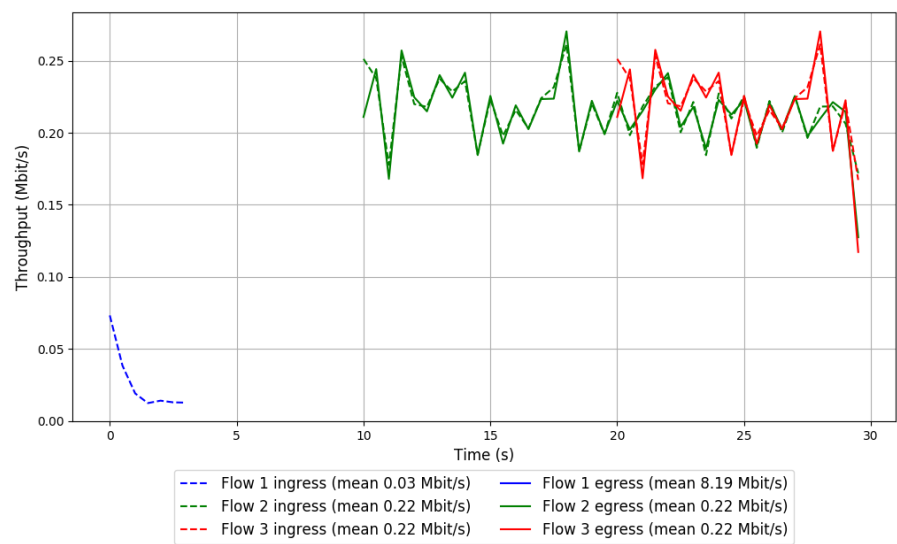
Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2017-10-12 05:39:36
End at: 2017-10-12 05:40:06
Local clock offset: 1.162 ms
Remote clock offset: -6.058 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 87.079 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 3475.199 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.079 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.410 ms
Loss rate: 1.87%
```
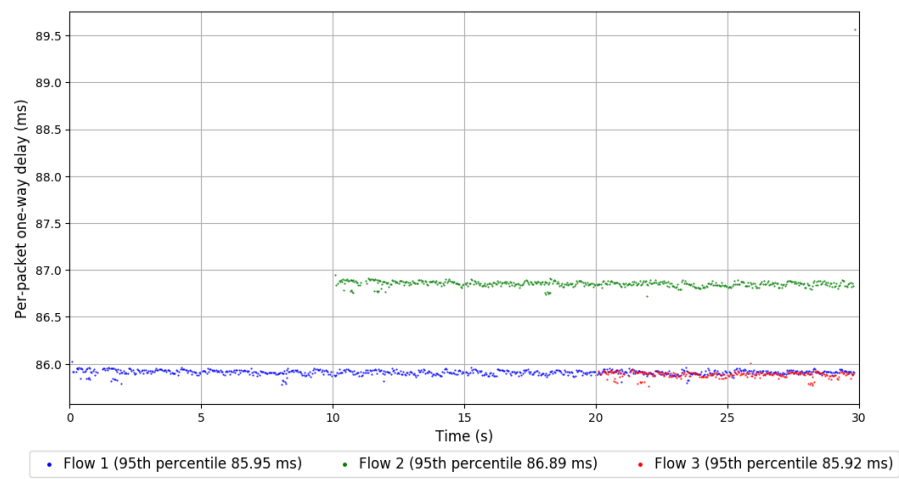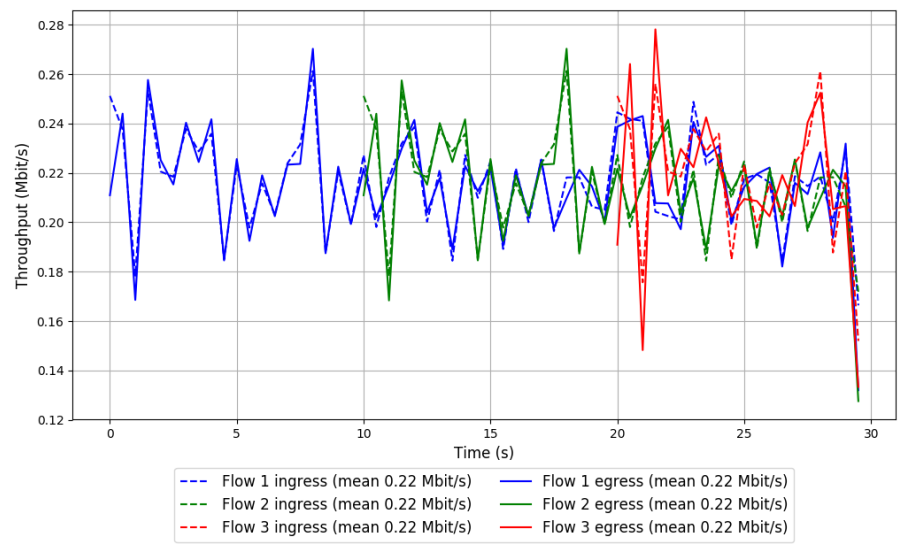
Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2017-10-12 05:58:19
End at: 2017-10-12 05:58:49
Local clock offset: 0.966 ms
Remote clock offset: -6.719 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 86.881 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.947 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.892 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.919 ms
Loss rate: 1.53%
```

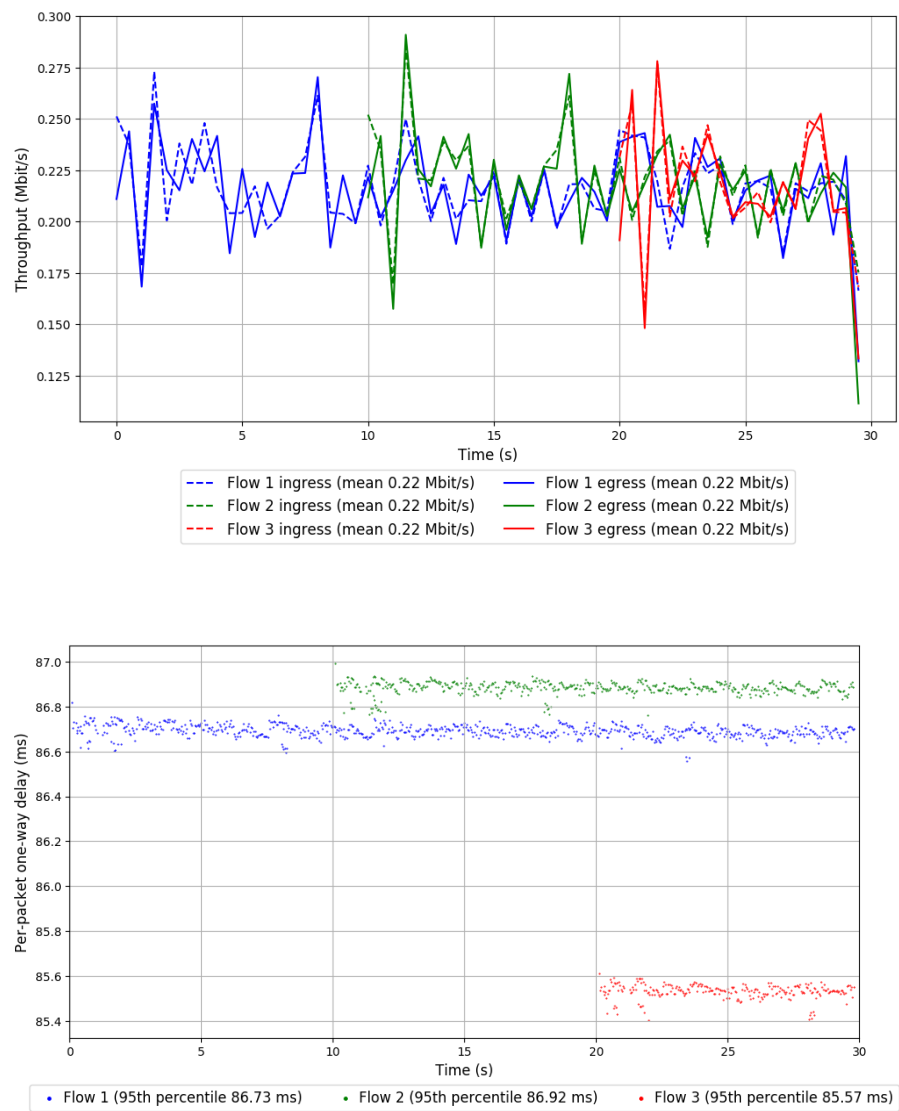# Run 8: Report of SCReAM — Data Link

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```
Run 9: Statistics of SCReAM

Start at: 2017-10-12 06:17:07
End at: 2017-10-12 06:17:37
Local clock offset: 0.713 ms
Remote clock offset: -7.003 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.909 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.734 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.919 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.572 ms
Loss rate: 1.53%
```

Run 9: Report of SCReAM — Data Link
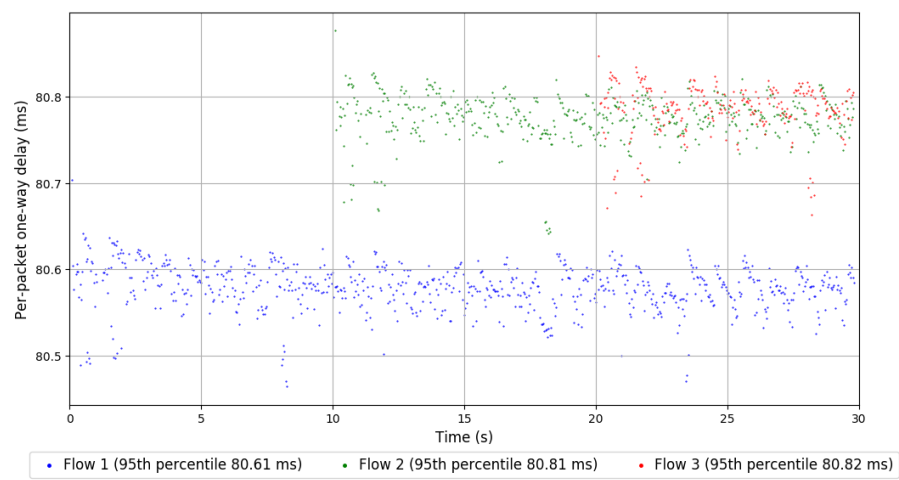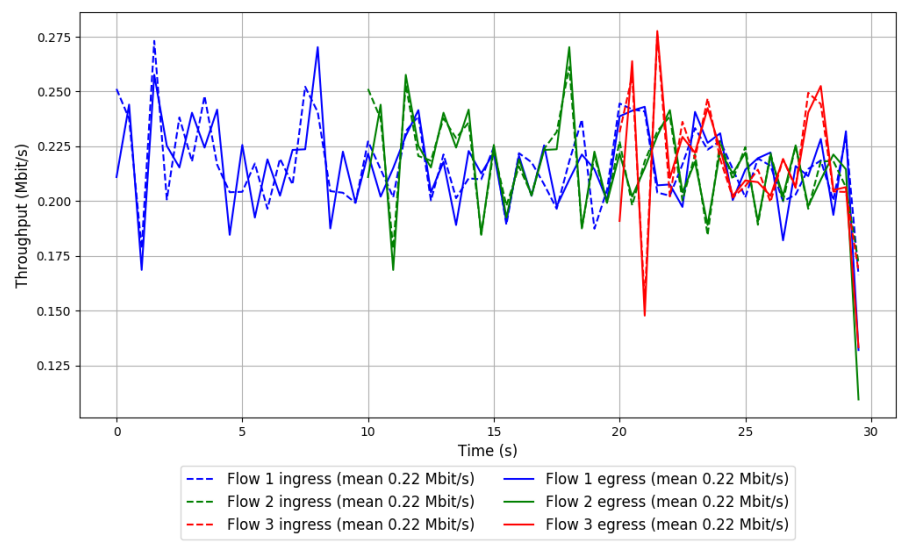

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```
Run 10: Statistics of SCReAM

Start at: 2017-10-12 06:36:00
End at: 2017-10-12 06:36:30
Local clock offset: 0.684 ms
Remote clock offset: -2.867 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 80.809 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.615 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.812 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.820 ms
Loss rate: 1.53%
```
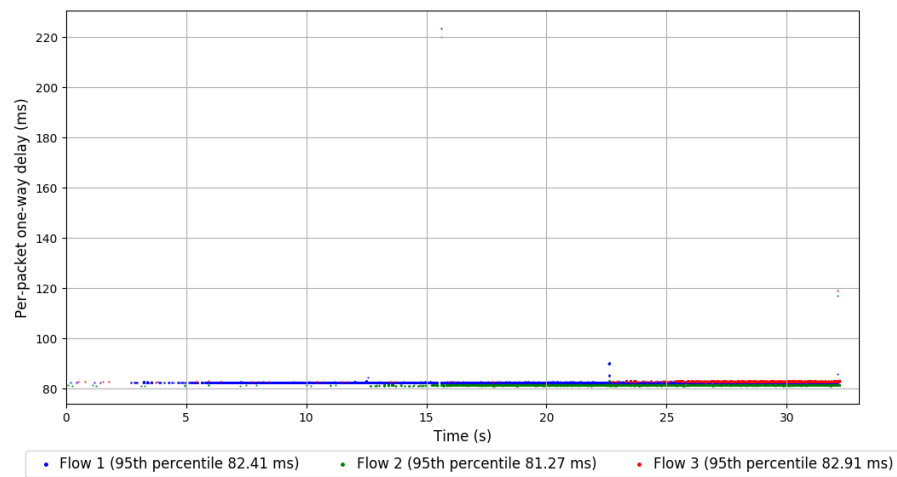
Run 10: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)
Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 80.61 ms)
Flow 2 (95th percentile 80.81 ms)
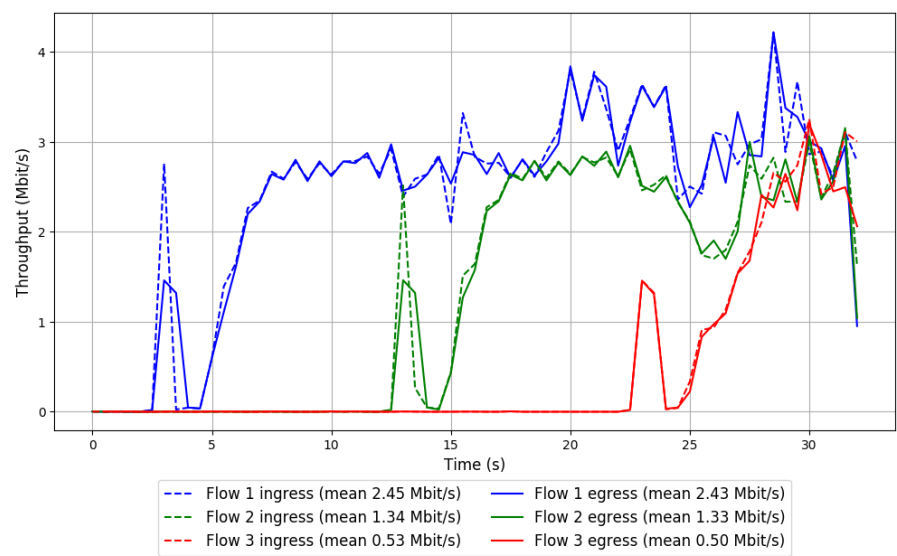Flow 3 (95th percentile 80.82 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2017-10-12 03:37:34
End at: 2017-10-12 03:38:04
Local clock offset: 1.235 ms
Remote clock offset: -3.498 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 82.762 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 82.407 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 81.270 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 82.908 ms
Loss rate: 5.97%
```

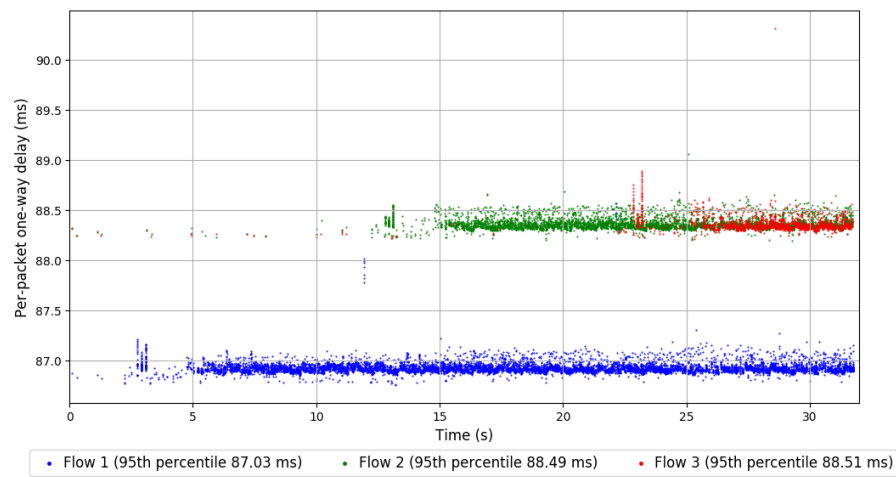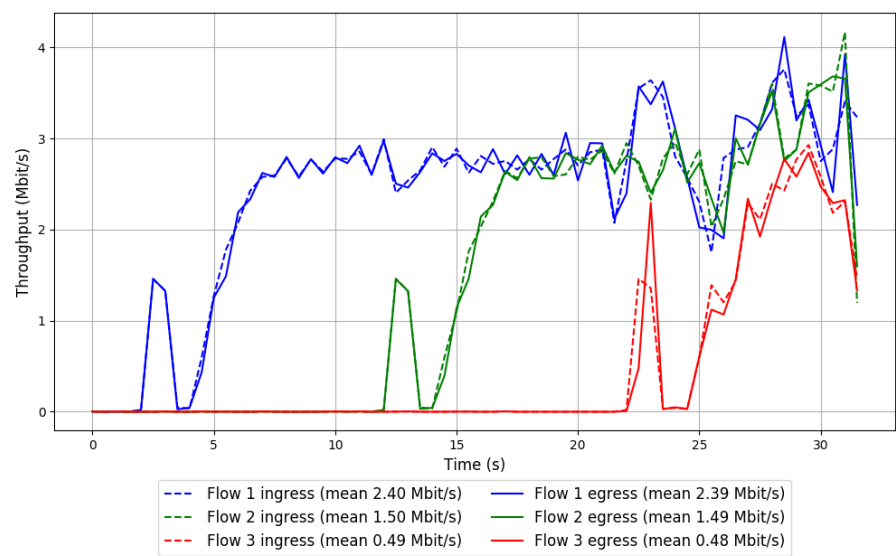Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2017-10-12 03:56:59
End at: 2017-10-12 03:57:29
Local clock offset: 1.254 ms
Remote clock offset: -7.604 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 88.437 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 87.028 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 88.490 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 88.506 ms
Loss rate: 2.37%
```

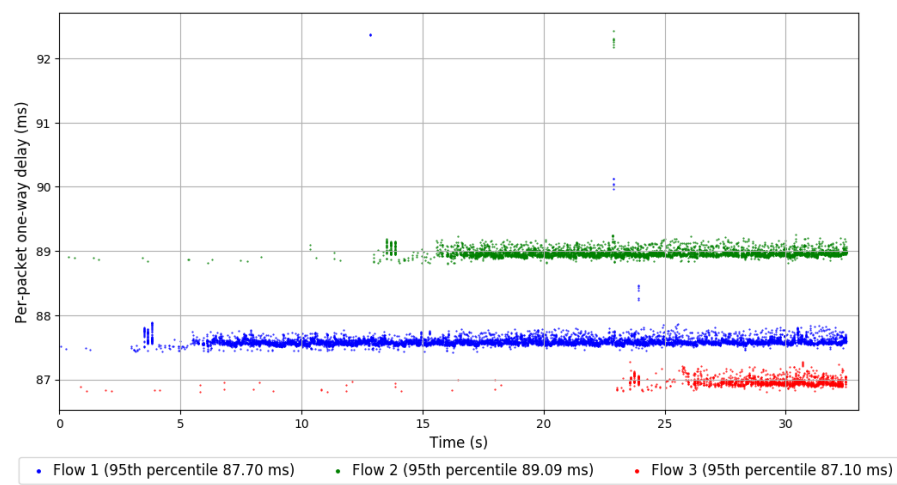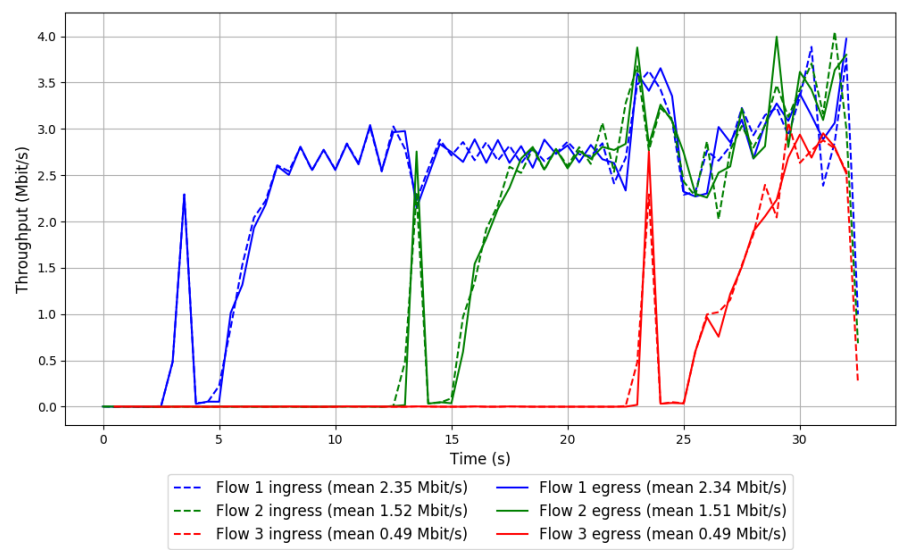Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2017-10-12 04:16:40
End at: 2017-10-12 04:17:10
Local clock offset: 1.137 ms
Remote clock offset: -7.394 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 89.019 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 87.698 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 89.091 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 87.098 ms
Loss rate: 2.26%
```

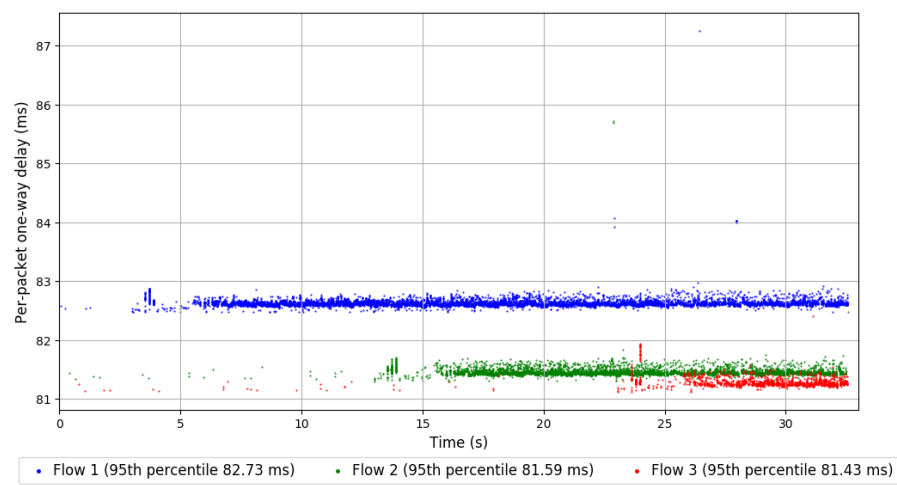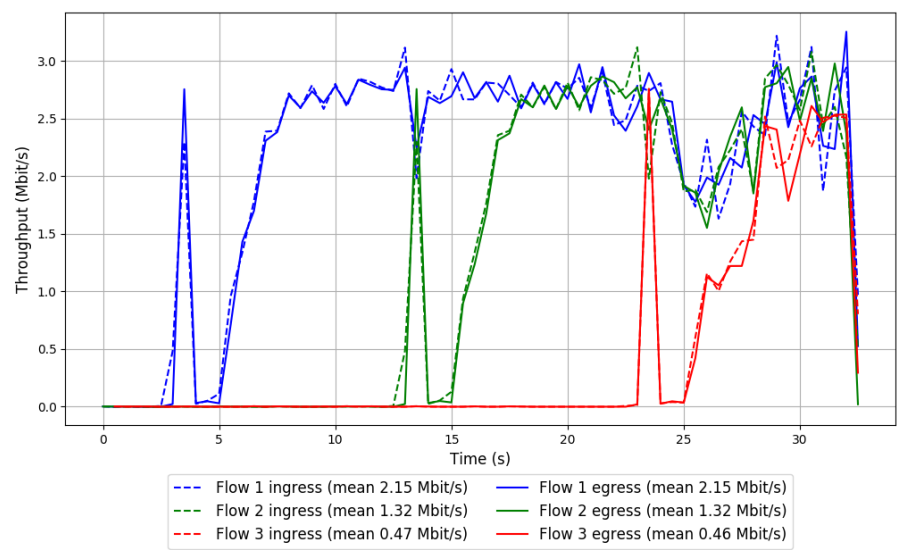Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2017-10-12 04:35:49
End at: 2017-10-12 04:36:19
Local clock offset: 1.094 ms
Remote clock offset: -2.875 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 82.699 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 82.730 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 81.588 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 81.428 ms
Loss rate: 2.71%
```

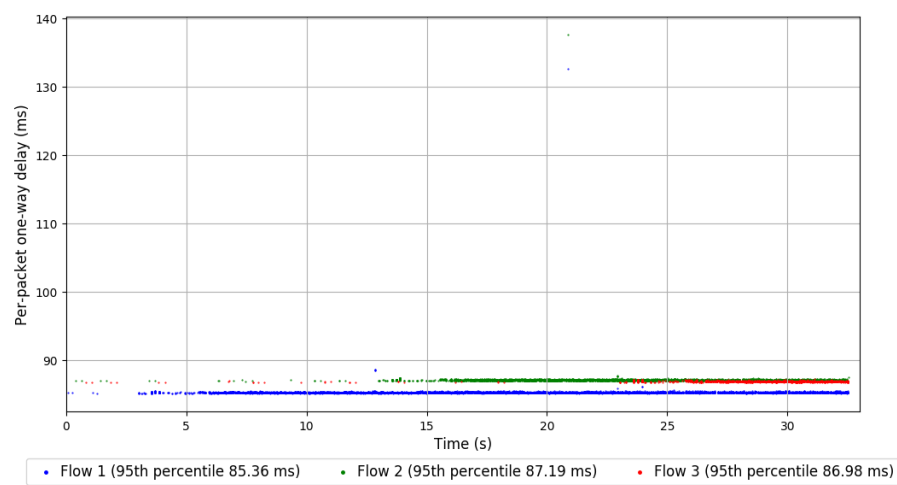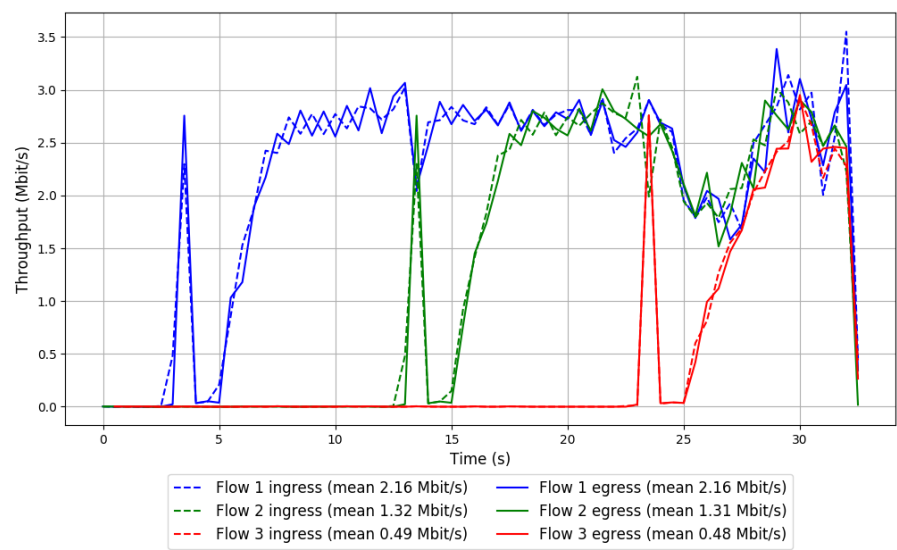Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2017-10-12 04:54:50
End at: 2017-10-12 04:55:20
Local clock offset: 1.196 ms
Remote clock offset: -6.248 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 87.105 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 85.355 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 87.185 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 86.984 ms
Loss rate: 1.43%
```

Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2017-10-12 05:13:27
End at: 2017-10-12 05:13:57
Local clock offset: 1.166 ms
Remote clock offset: -6.25 ms

# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.09 Mbit/s
95th percentile per-packet one-way delay: 88.927 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 87.600 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 88.994 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 85.641 ms
Loss rate: 2.46%
```
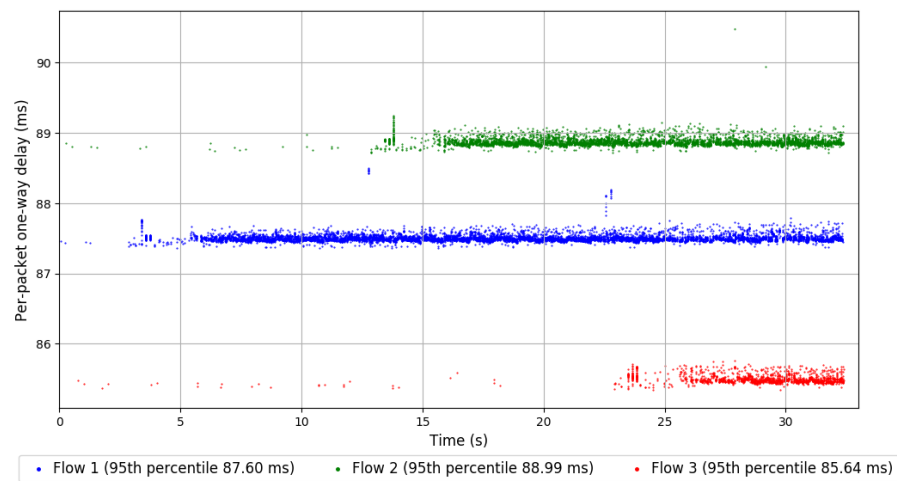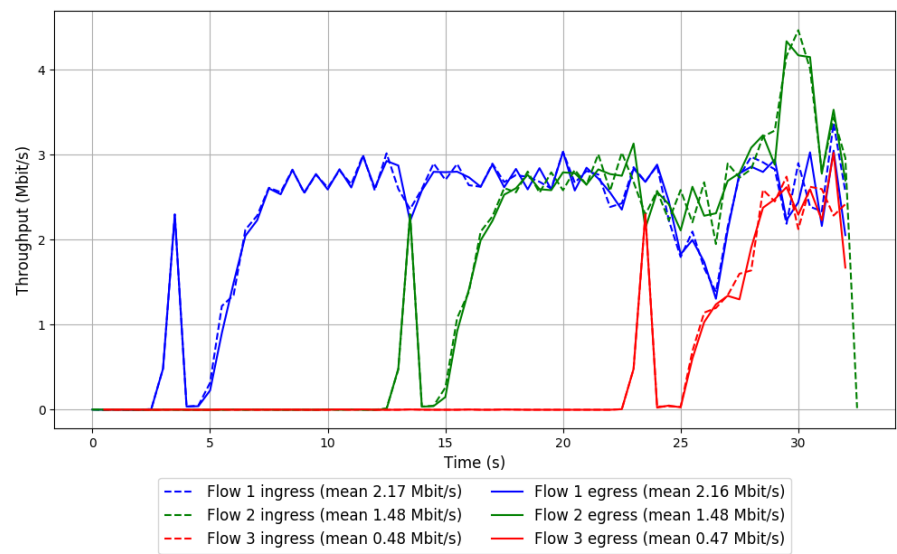
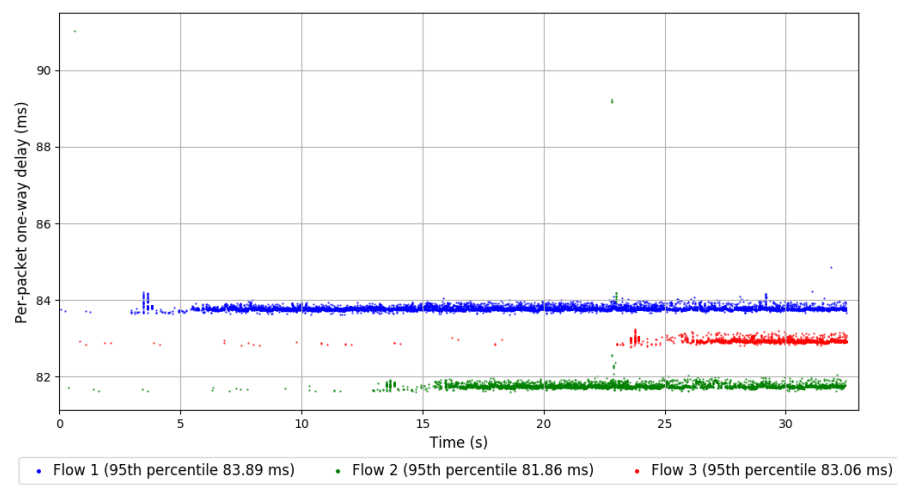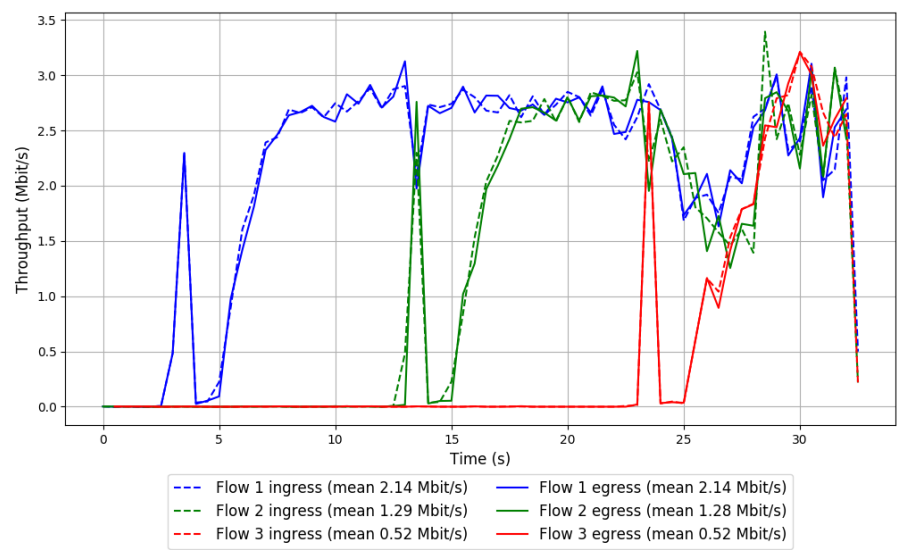Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2017-10-12 05:32:30
End at: 2017-10-12 05:33:00
Local clock offset: 1.19 ms
Remote clock offset: -2.263 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 83.848 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 83.886 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 81.865 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 83.061 ms
Loss rate: 1.80%
```

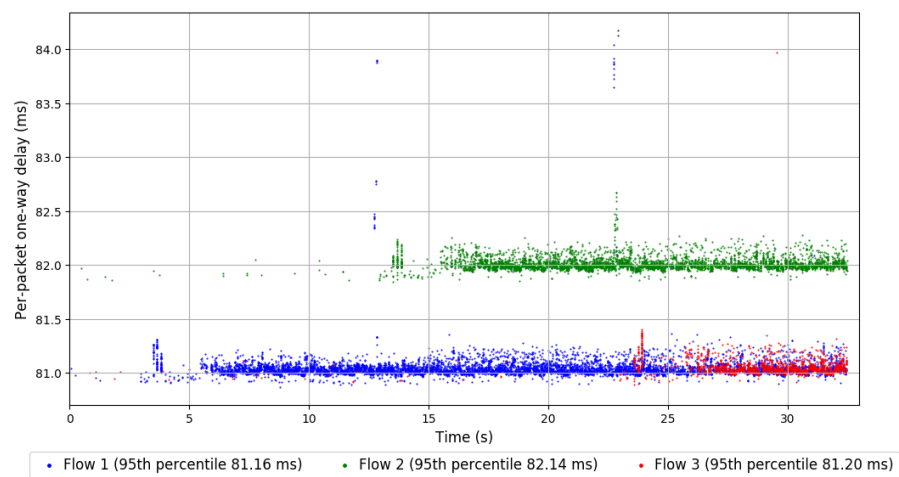Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2017-10-12 05:51:21
End at: 2017-10-12 05:51:51
Local clock offset: 0.949 ms
Remote clock offset: -1.813 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 82.067 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 81.158 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 82.136 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 81.202 ms
Loss rate: 1.70%
```
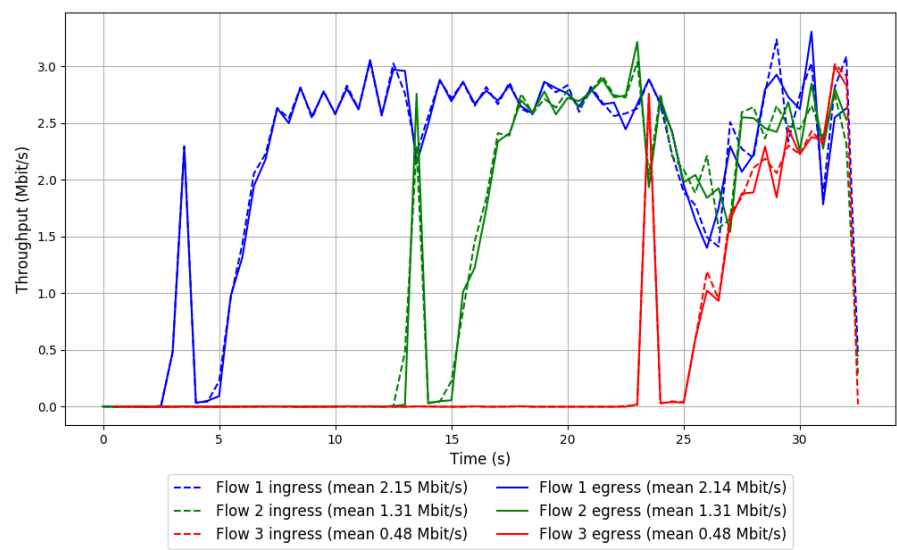
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2017-10-12 06:10:04
End at: 2017-10-12 06:10:34
Local clock offset: 0.766 ms
Remote clock offset: -1.858 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 82.091 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 82.125 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 80.780 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 80.409 ms
Loss rate: 2.43%
```
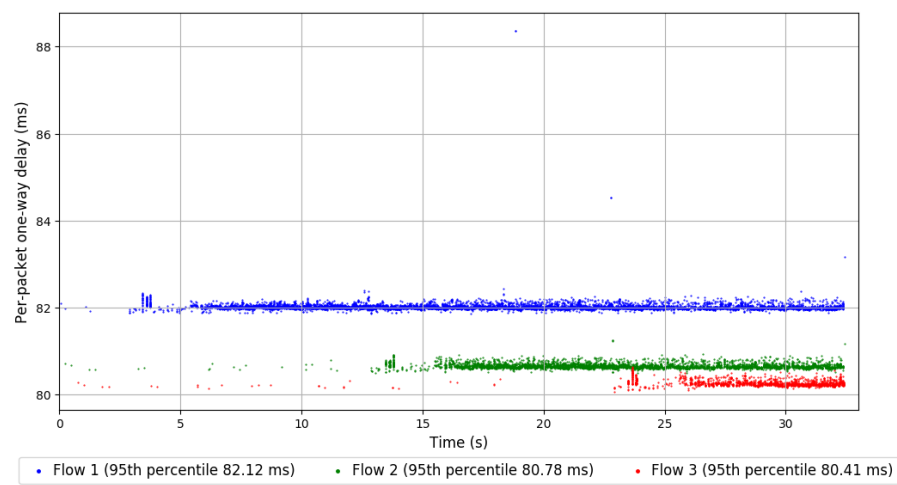
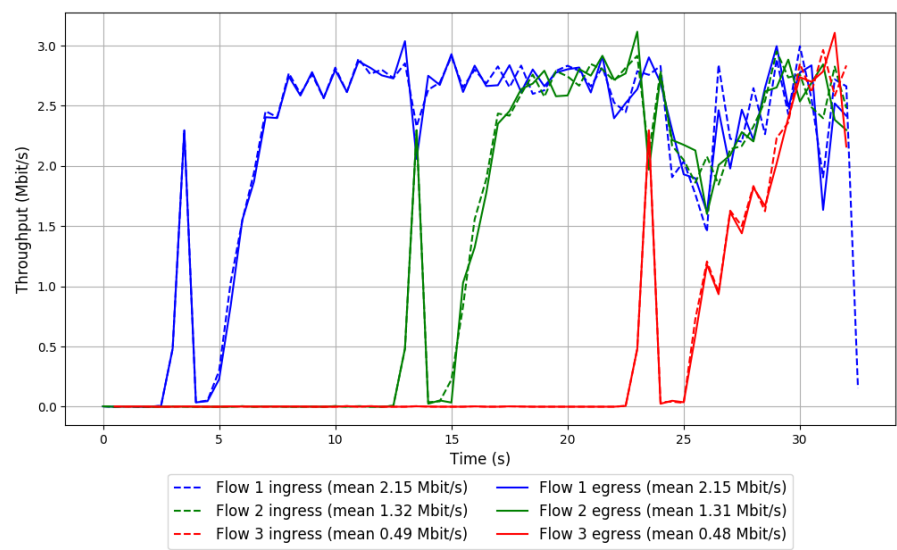Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2017-10-12 06:29:02
End at: 2017-10-12 06:29:32
Local clock offset: 0.698 ms
Remote clock offset: -7.585 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 87.148 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 87.160 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 85.439 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 87.212 ms
Loss rate: 2.45%
```
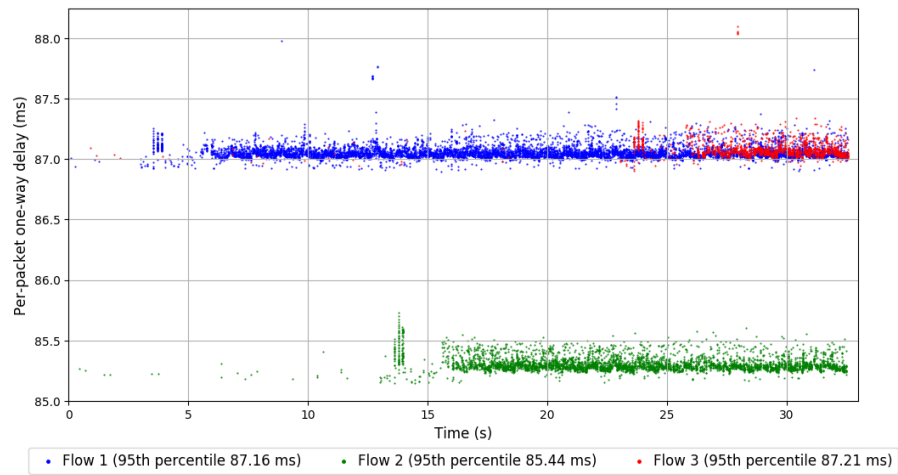
Run 10: Report of WebRTC media — Data Link

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```
Run 1: Statistics of Sprout

Start at: 2017-10-12 03:51:38
End at: 2017-10-12 03:52:08
Local clock offset: 1.225 ms
Remote clock offset: -3.783 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 84.953 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 81.859 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 83.248 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 85.251 ms
Loss rate: 2.98%
```
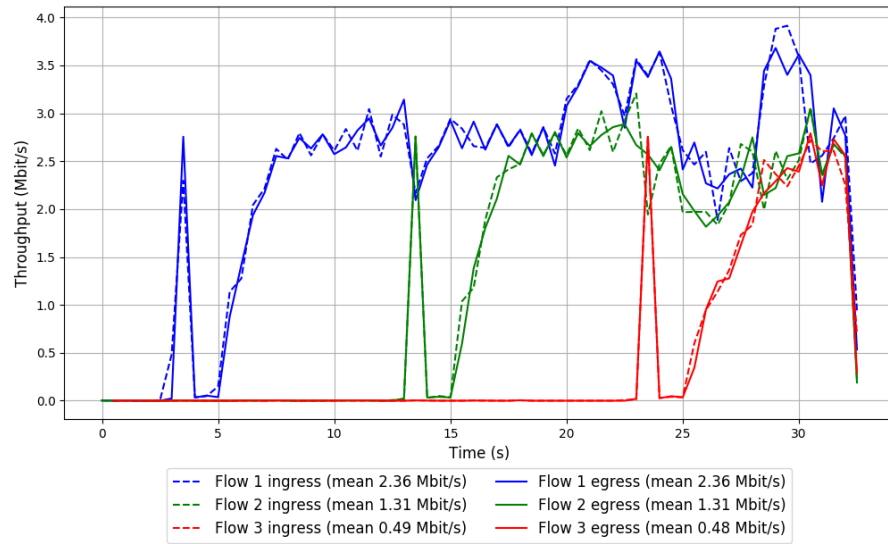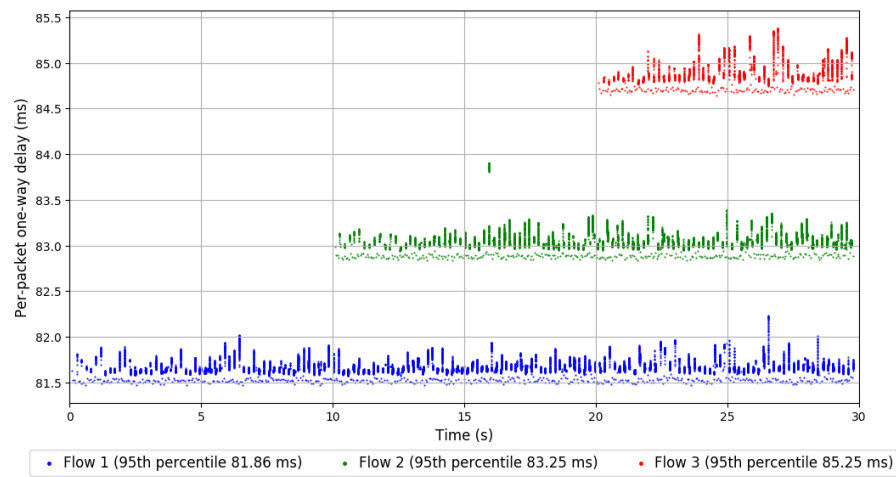
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2017-10-12 04:11:09
End at: 2017-10-12 04:11:39
Local clock offset: 1.355 ms
Remote clock offset: -3.369 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.43 Mbit/s
95th percentile per-packet one-way delay: 84.930 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 85.017 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 83.616 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 82.086 ms
Loss rate: 3.45%
```
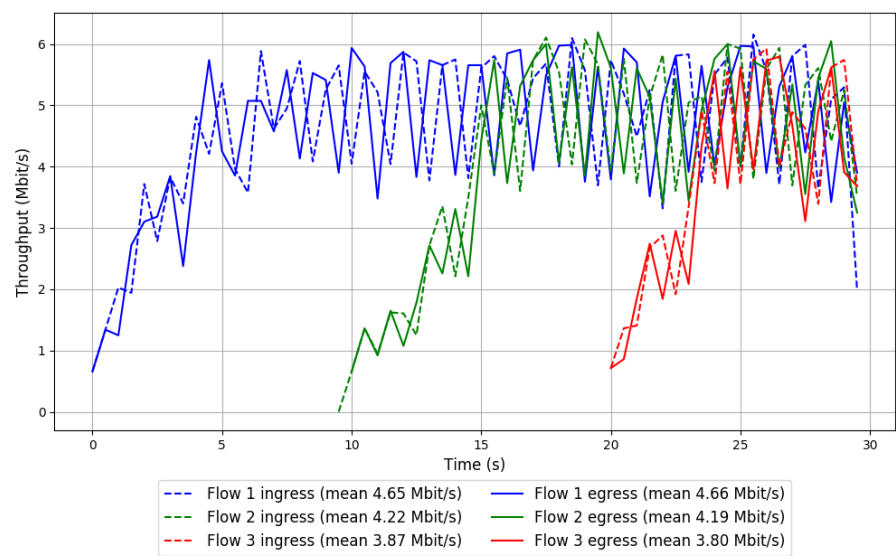
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2017-10-12 04:30:25
End at: 2017-10-12 04:30:55
Local clock offset: 1.068 ms
Remote clock offset: -5.818 ms


# Below is generated by plot.py at 2017-10-12 09:53:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.39 Mbit/s
95th percentile per-packet one-way delay: 87.892 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 86.415 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 85.693 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 88.247 ms
Loss rate: 2.47%
```
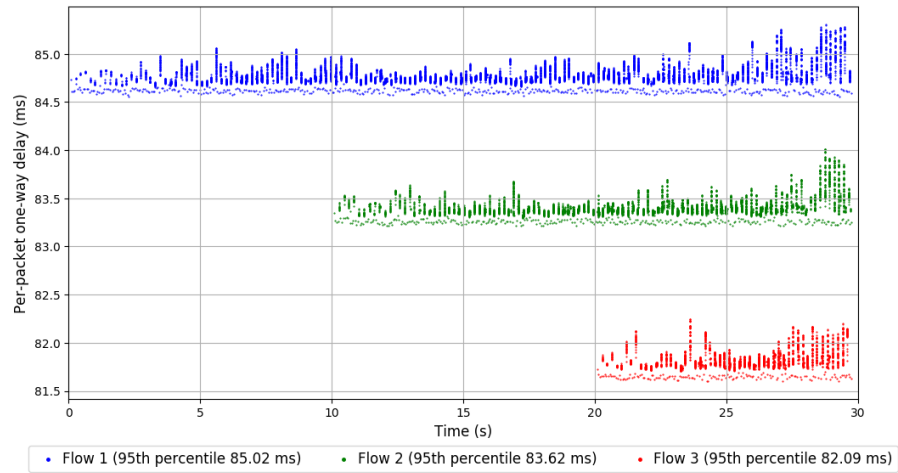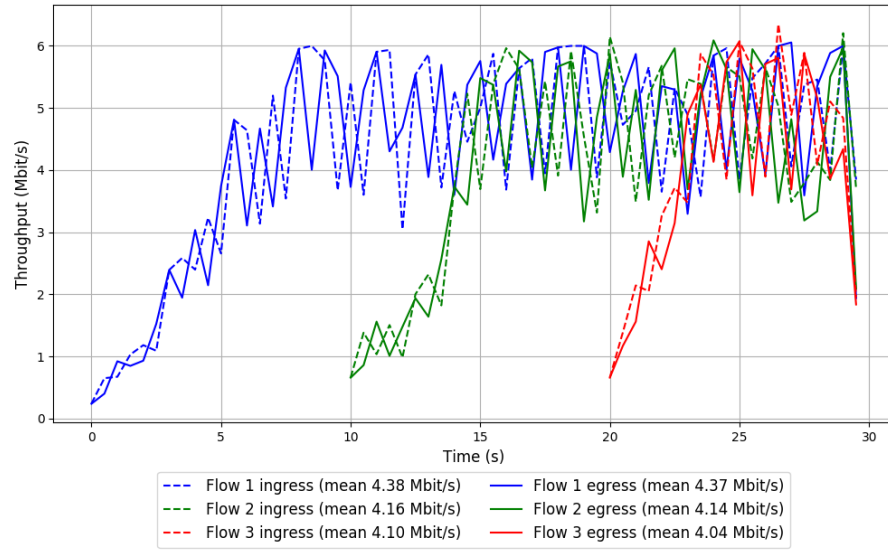
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2017-10-12 04:49:38
End at: 2017-10-12 04:50:08
Local clock offset: 1.189 ms
Remote clock offset: -0.616 ms


# Below is generated by plot.py at 2017-10-12 09:53:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 81.673 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 81.732 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 79.969 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 81.560 ms
Loss rate: 3.78%
```
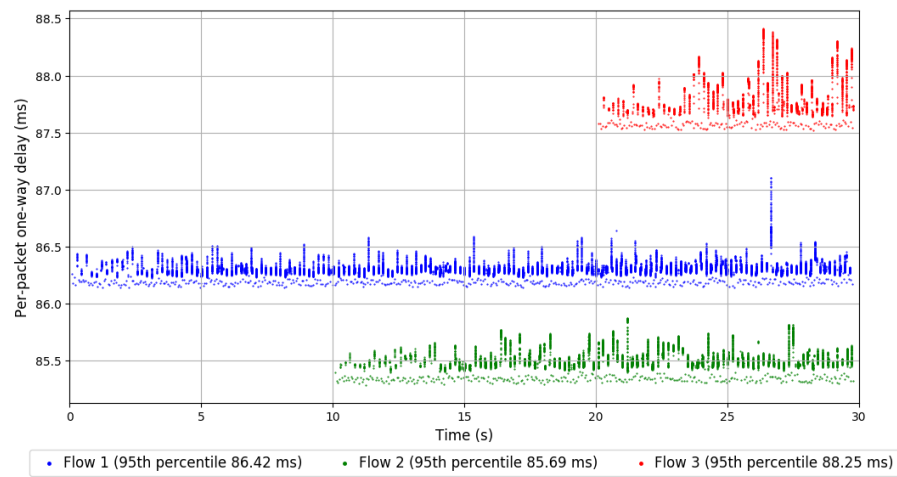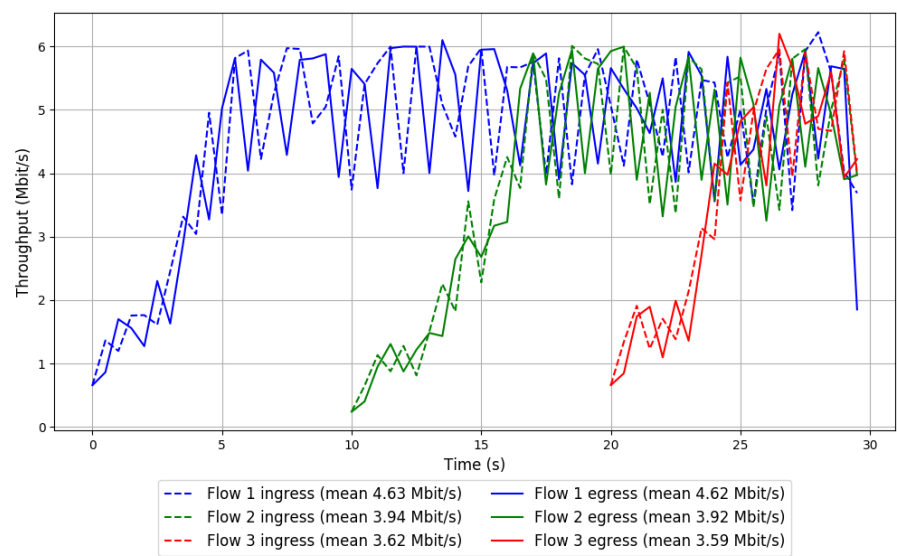
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2017-10-12 05:08:15
End at: 2017-10-12 05:08:45
Local clock offset: 1.104 ms
Remote clock offset: -0.531 ms


# Below is generated by plot.py at 2017-10-12 09:53:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.54 Mbit/s
95th percentile per-packet one-way delay: 81.329 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 81.379 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 79.767 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 79.871 ms
Loss rate: 3.18%
```
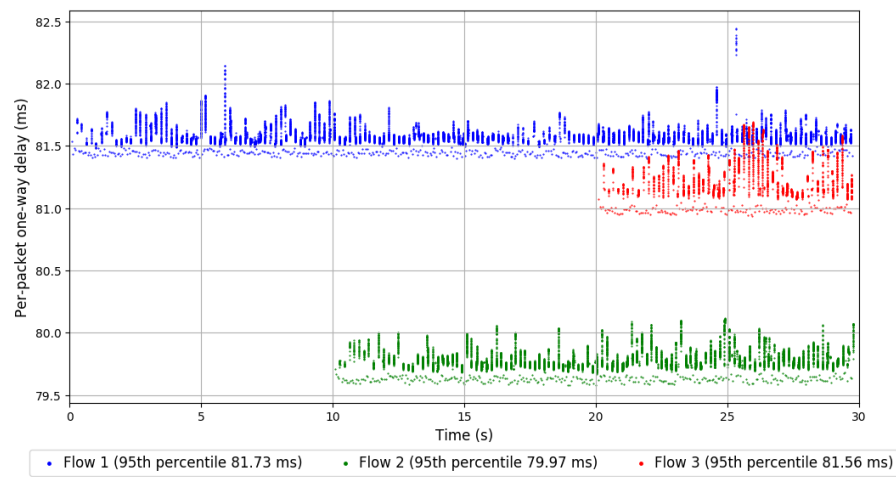
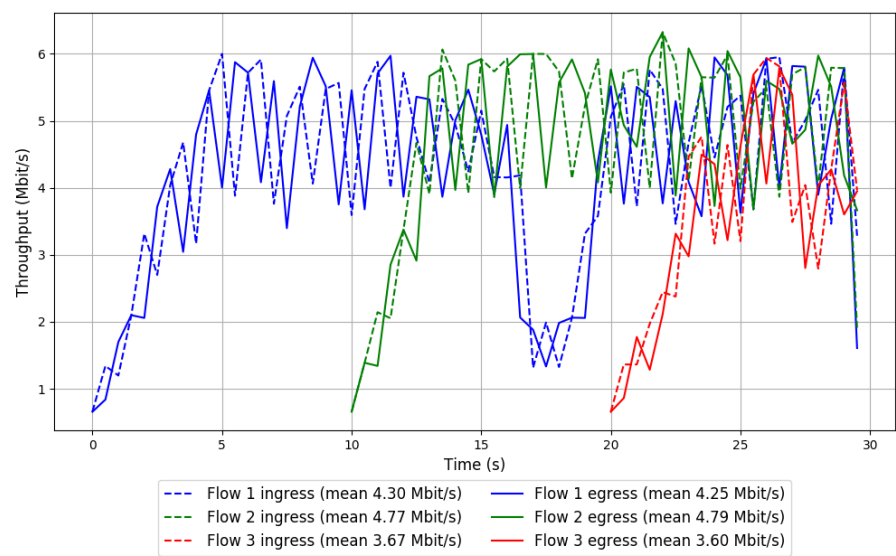# Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2017-10-12 05:27:13
End at: 2017-10-12 05:27:43
Local clock offset: 1.169 ms
Remote clock offset: -2.452 ms

# Below is generated by plot.py at 2017-10-12 09:53:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 85.085 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 82.049 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 83.368 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 85.232 ms
Loss rate: 1.46%
```
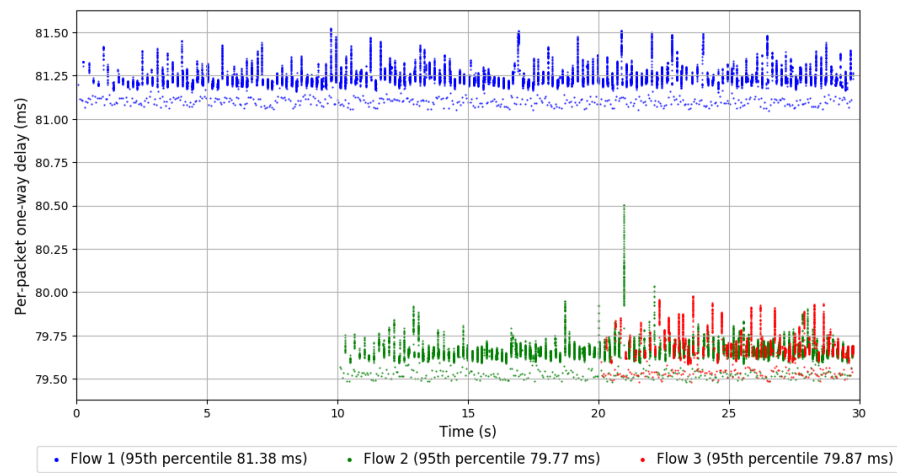
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2017-10-12 05:46:07
End at: 2017-10-12 05:46:37
Local clock offset: 1.082 ms
Remote clock offset: -6.567 ms


# Below is generated by plot.py at 2017-10-12 09:53:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.93 Mbit/s
95th percentile per-packet one-way delay: 87.526 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 87.569 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 86.018 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 86.282 ms
Loss rate: 3.38%
```
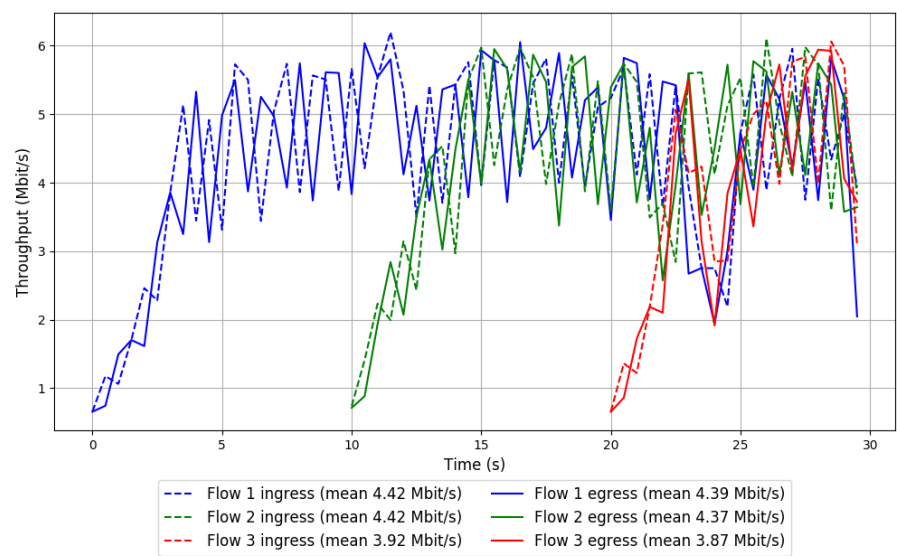
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2017-10-12 06:04:52
End at: 2017-10-12 06:05:22
Local clock offset: 0.911 ms
Remote clock offset: -1.506 ms


# Below is generated by plot.py at 2017-10-12 09:53:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 82.069 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 82.109 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 80.349 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 82.082 ms
Loss rate: 2.50%
```
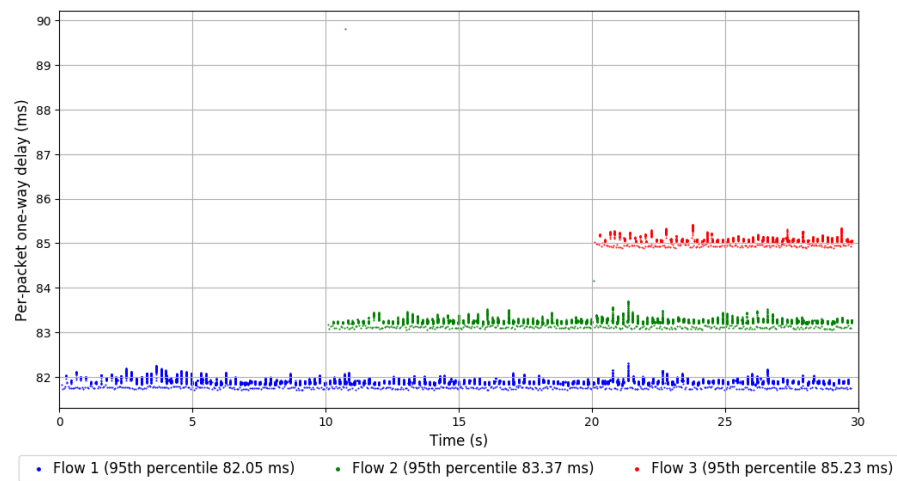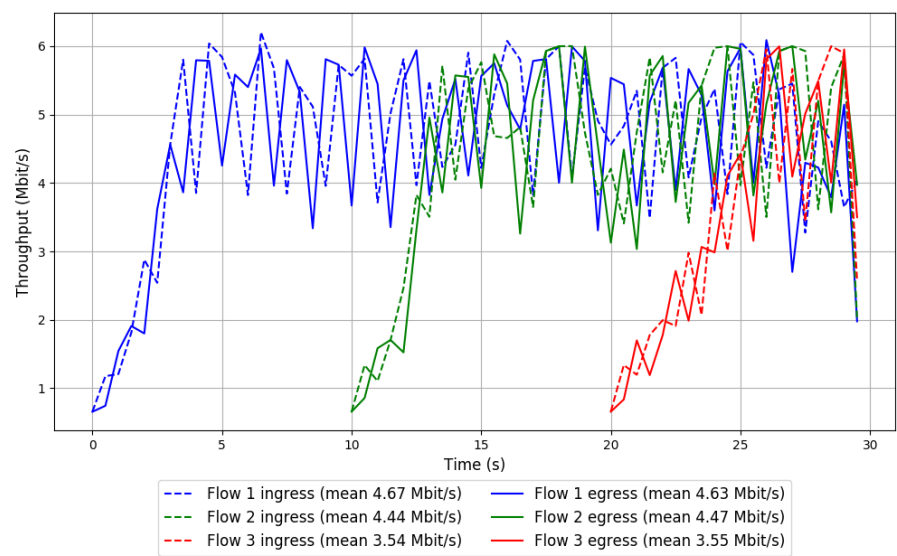
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2017-10-12 06:23:46
End at: 2017-10-12 06:24:16
Local clock offset: 0.693 ms
Remote clock offset: -2.485 ms


# Below is generated by plot.py at 2017-10-12 09:53:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 81.943 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 81.338 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 4.73 Mbit/s
95th percentile per-packet one-way delay: 81.985 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 82.068 ms
Loss rate: 2.60%
```
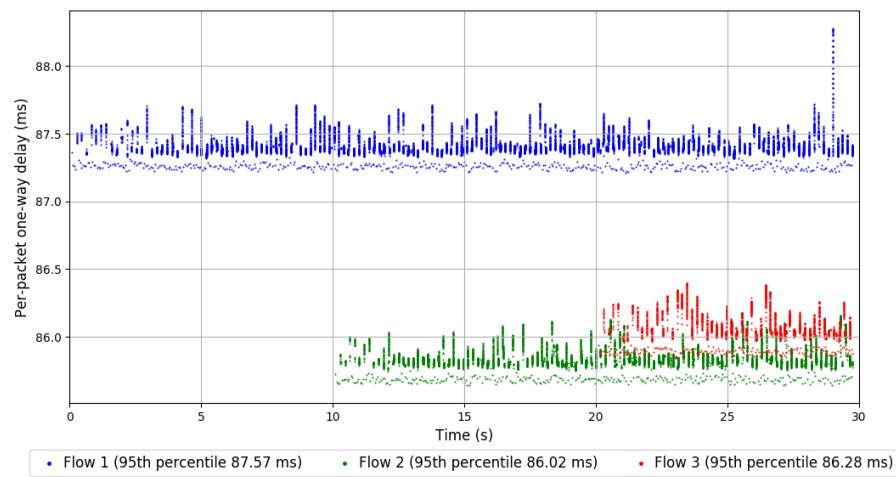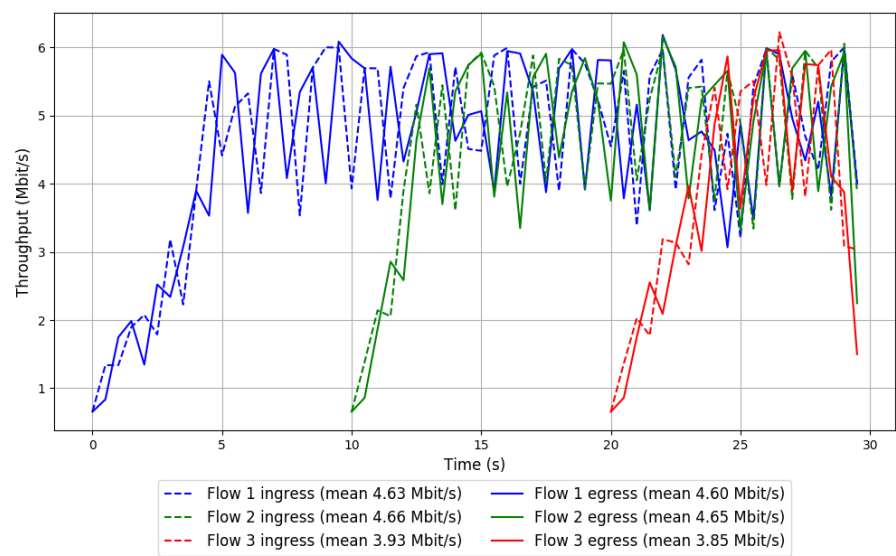
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2017-10-12 06:42:35
End at: 2017-10-12 06:43:05
Local clock offset: 0.705 ms
Remote clock offset: -2.913 ms


# Below is generated by plot.py at 2017-10-12 09:53:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 80.814 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 80.842 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 80.801 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 80.695 ms
Loss rate: 0.01%
```
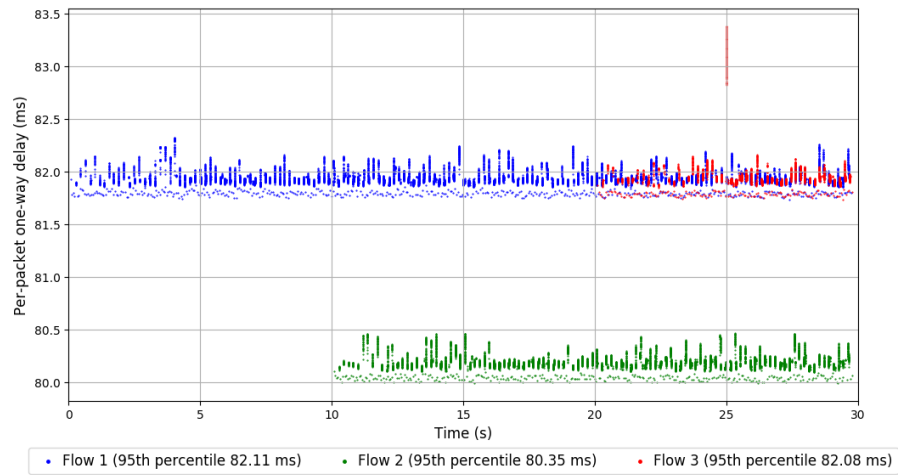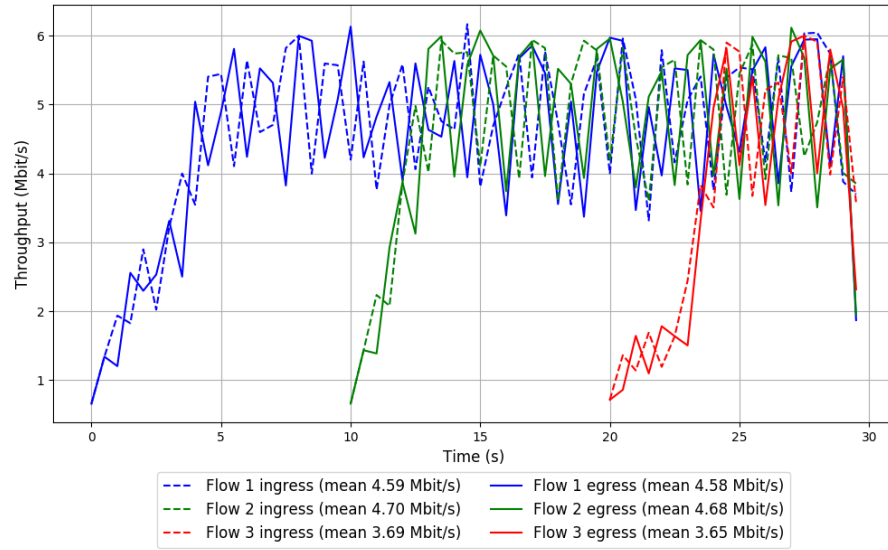
Run 10: Report of Sprout — Data Link

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

Start at: 2017-10-12 03:48:43
End at: 2017-10-12 03:49:13
Local clock offset: 1.302 ms
Remote clock offset: -8.062 ms


# Below is generated by plot.py at 2017-10-12 09:53:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.46 Mbit/s
95th percentile per-packet one-way delay: 85.967 ms
Loss rate: 23.30%
-- Flow 1:
Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 85.780 ms
Loss rate: 27.79%
-- Flow 2:
Average throughput: 12.97 Mbit/s
95th percentile per-packet one-way delay: 85.986 ms
Loss rate: 14.63%
-- Flow 3:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 85.784 ms
Loss rate: 18.02%
```
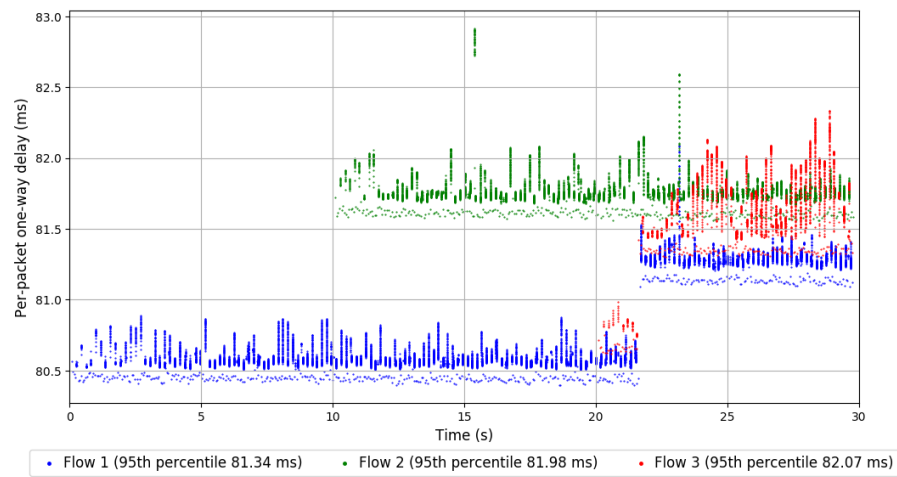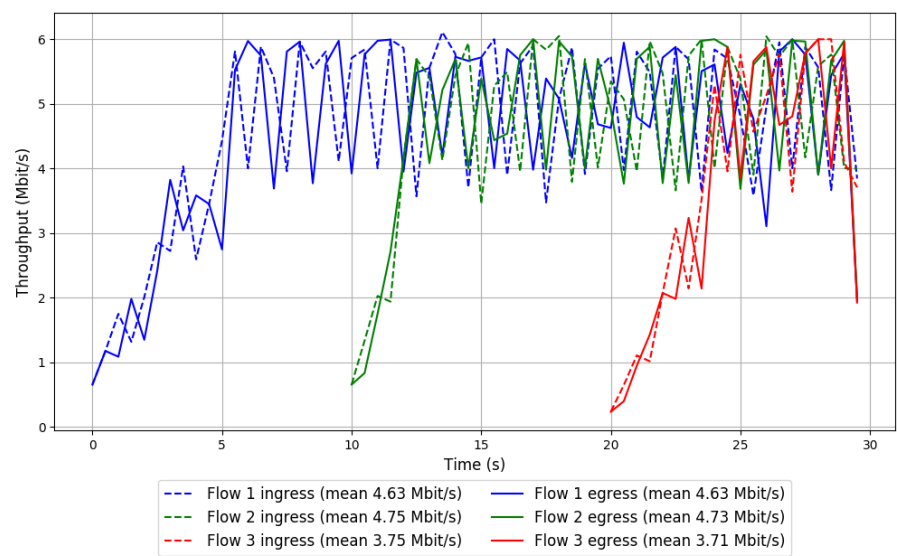
Run 1: Report of TaoVA-100x — Data Link

- - - Flow 1 ingress (mean 21.19 Mbit/s)   —— Flow 1 egress (mean 15.39 Mbit/s)
- - - Flow 2 ingress (mean 15.05 Mbit/s)   —— Flow 2 egress (mean 12.97 Mbit/s)
- - - Flow 3 ingress (mean 7.50 Mbit/s)   —— Flow 3 egress (mean 6.28 Mbit/s)

- Flow 1 (95th percentile 85.78 ms)   • Flow 2 (95th percentile 85.99 ms)   • Flow 3 (95th percentile 85.78 ms)

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

Start at: 2017-10-12 04:08:15
End at: 2017-10-12 04:08:45
Local clock offset: 1.396 ms
Remote clock offset: -6.522 ms


# Below is generated by plot.py at 2017-10-12 09:53:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 88.052 ms
Loss rate: 22.24%
-- Flow 1:
Average throughput: 15.59 Mbit/s
95th percentile per-packet one-way delay: 88.060 ms
Loss rate: 24.11%
-- Flow 2:
Average throughput: 14.13 Mbit/s
95th percentile per-packet one-way delay: 87.862 ms
Loss rate: 20.43%
-- Flow 3:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 84.905 ms
Loss rate: 15.77%
```
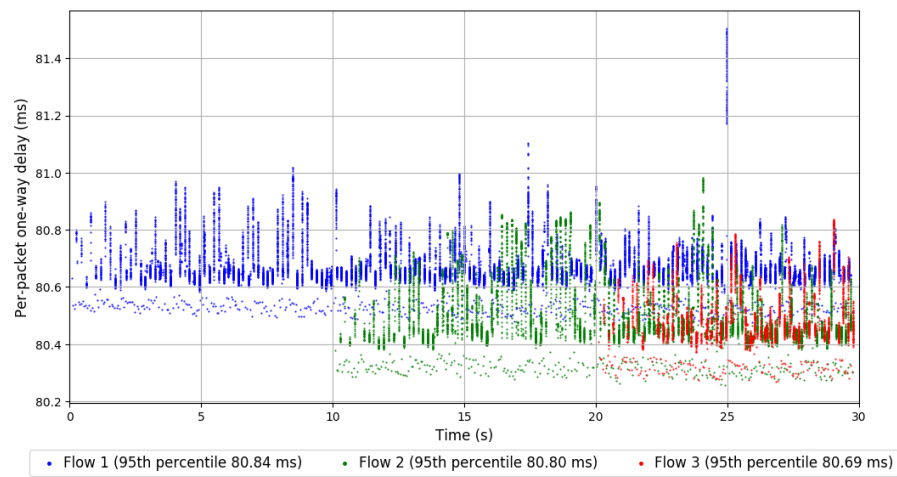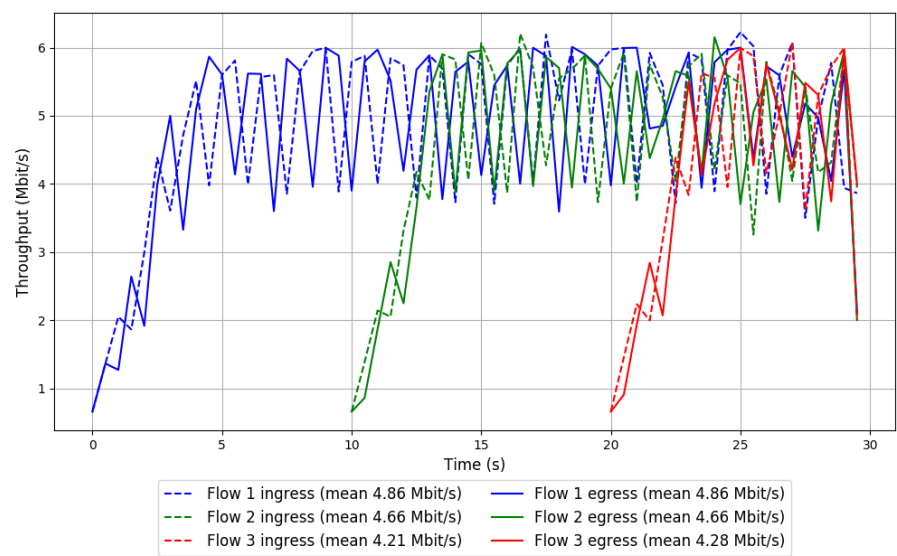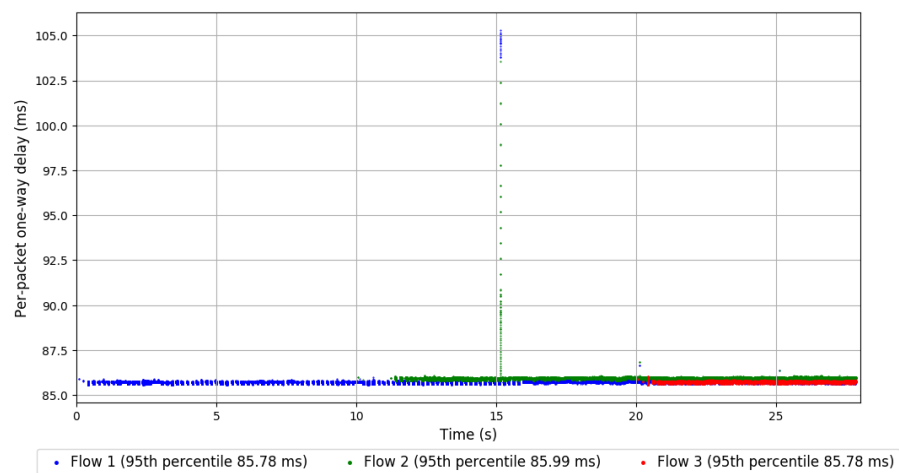
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2017-10-12 04:27:44
End at: 2017-10-12 04:28:14
Local clock offset: 1.169 ms
Remote clock offset: -6.117 ms


# Below is generated by plot.py at 2017-10-12 09:54:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.41 Mbit/s
95th percentile per-packet one-way delay: 88.010 ms
Loss rate: 25.99%
-- Flow 1:
Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 86.691 ms
Loss rate: 23.71%
-- Flow 2:
Average throughput: 14.33 Mbit/s
95th percentile per-packet one-way delay: 86.235 ms
Loss rate: 28.82%
-- Flow 3:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 88.061 ms
Loss rate: 28.43%
```

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

Flow 1 ingress (mean 20.05 Mbit/s)   Flow 1 egress (mean 15.39 Mbit/s)
Flow 2 ingress (mean 19.94 Mbit/s)   Flow 2 egress (mean 14.33 Mbit/s)
Flow 3 ingress (mean 13.90 Mbit/s)   Flow 3 egress (mean 10.17 Mbit/s)

Flow 1 (95th percentile 86.69 ms)   Flow 2 (95th percentile 86.23 ms)   Flow 3 (95th percentile 88.06 ms)
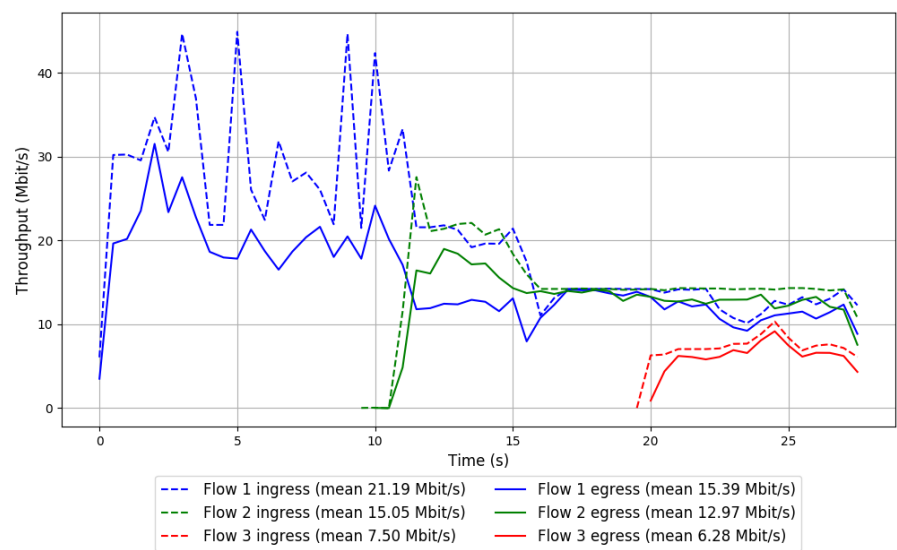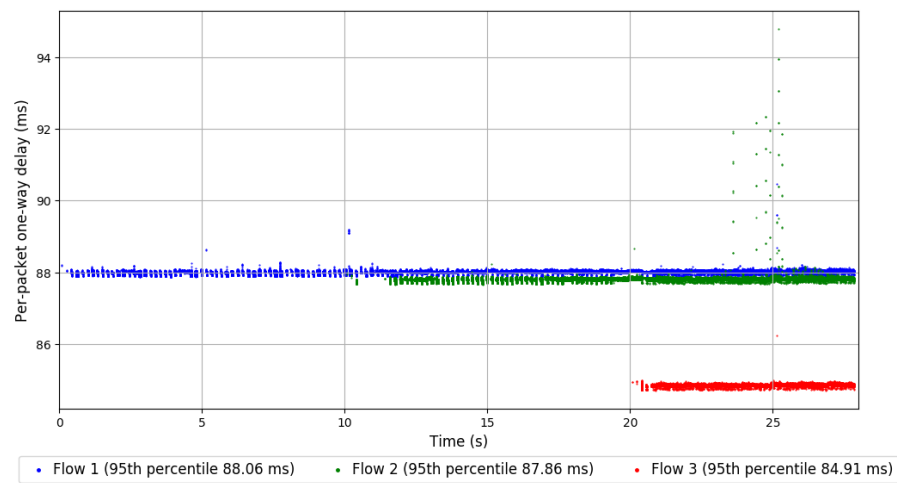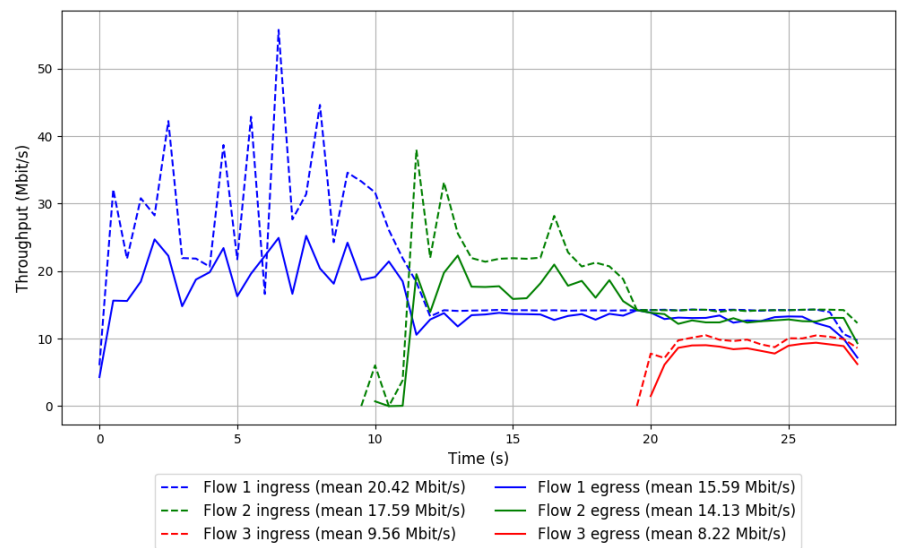
```
Run 4: Statistics of TaoVA-100x

Start at: 2017-10-12 04:46:50
End at: 2017-10-12 04:47:20
Local clock offset: 1.196 ms
Remote clock offset: -1.703 ms

# Below is generated by plot.py at 2017-10-12 09:54:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.61 Mbit/s
95th percentile per-packet one-way delay: 82.628 ms
Loss rate: 28.25%
-- Flow 1:
Average throughput: 16.36 Mbit/s
95th percentile per-packet one-way delay: 82.630 ms
Loss rate: 30.40%
-- Flow 2:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 80.442 ms
Loss rate: 27.66%
-- Flow 3:
Average throughput: 13.08 Mbit/s
95th percentile per-packet one-way delay: 82.641 ms
Loss rate: 18.61%
```

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

Flow 1 ingress (mean 23.37 Mbit/s)   Flow 1 egress (mean 16.36 Mbit/s)
Flow 2 ingress (mean 18.38 Mbit/s)   Flow 2 egress (mean 13.42 Mbit/s)
Flow 3 ingress (mean 15.73 Mbit/s)   Flow 3 egress (mean 13.08 Mbit/s)

Flow 1 (95th percentile 82.63 ms)   Flow 2 (95th percentile 80.44 ms)   Flow 3 (95th percentile 82.64 ms)
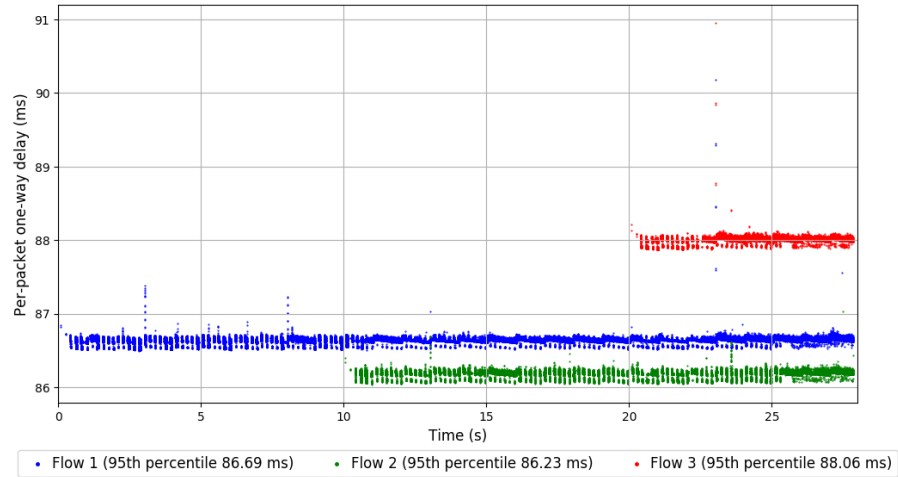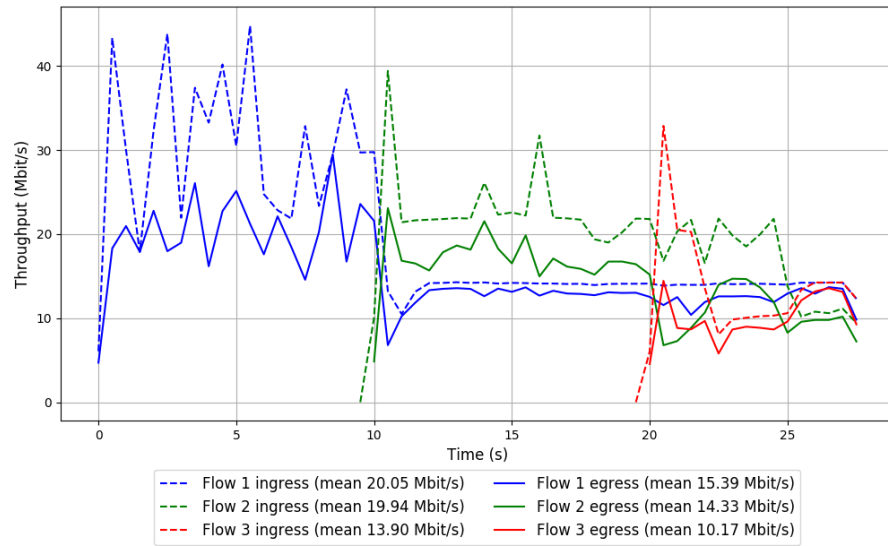
```
Run 5: Statistics of TaoVA-100x

Start at: 2017-10-12 05:05:32
End at: 2017-10-12 05:06:02
Local clock offset: 1.176 ms
Remote clock offset: -6.36 ms


# Below is generated by plot.py at 2017-10-12 09:54:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.90 Mbit/s
95th percentile per-packet one-way delay: 88.925 ms
Loss rate: 26.43%
-- Flow 1:
Average throughput: 18.55 Mbit/s
95th percentile per-packet one-way delay: 88.723 ms
Loss rate: 33.15%
-- Flow 2:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 88.940 ms
Loss rate: 11.78%
-- Flow 3:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 88.950 ms
Loss rate: 12.32%
```
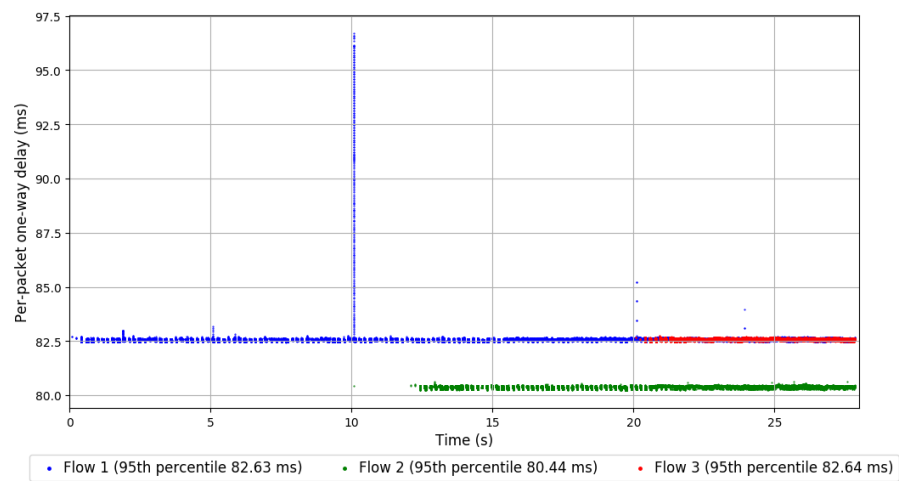
Run 5: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 27.58 Mbit/s) ——— Flow 1 egress (mean 18.55 Mbit/s)
- - - - Flow 2 ingress (mean 13.94 Mbit/s) ——— Flow 2 egress (mean 12.41 Mbit/s)
- - - - Flow 3 ingress (mean 13.53 Mbit/s) ——— Flow 3 egress (mean 12.12 Mbit/s)

- Flow 1 (95th percentile 88.72 ms)   - Flow 2 (95th percentile 88.94 ms)   - Flow 3 (95th percentile 88.95 ms)
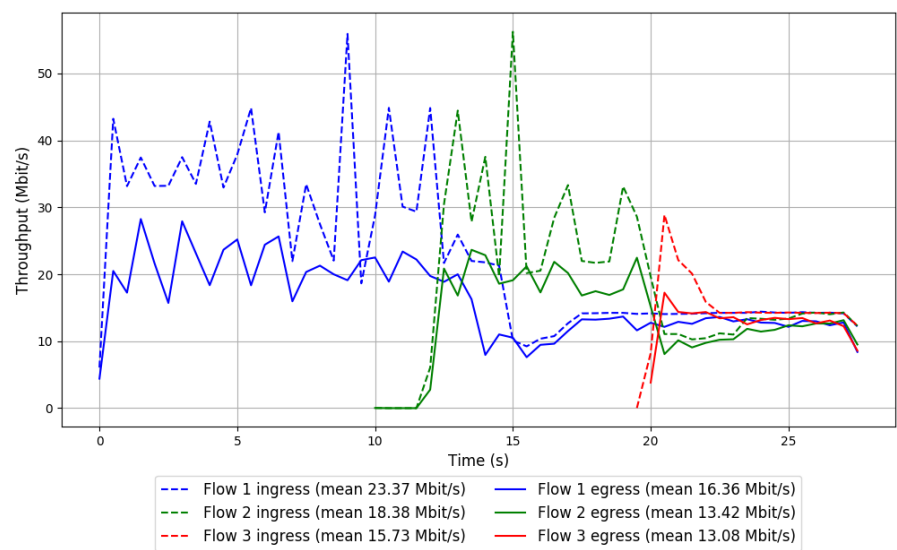
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```
Run 6: Statistics of TaoVA-100x

Start at: 2017-10-12 05:24:16
End at: 2017-10-12 05:24:46
Local clock offset: 1.172 ms
Remote clock offset: -1.568 ms

# Below is generated by plot.py at 2017-10-12 09:54:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 84.153 ms
Loss rate: 22.39%
-- Flow 1:
Average throughput: 18.55 Mbit/s
95th percentile per-packet one-way delay: 84.159 ms
Loss rate: 28.12%
-- Flow 2:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 81.195 ms
Loss rate: 11.78%
-- Flow 3:
Average throughput: 12.22 Mbit/s
95th percentile per-packet one-way delay: 83.002 ms
Loss rate: 10.55%
```

Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2017-10-12 05:43:23
End at: 2017-10-12 05:43:54
Local clock offset: 1.138 ms
Remote clock offset: -1.656 ms

# Below is generated by plot.py at 2017-10-12 09:54:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.93 Mbit/s
95th percentile per-packet one-way delay: 81.212 ms
Loss rate: 33.09%
-- Flow 1:
Average throughput: 16.67 Mbit/s
95th percentile per-packet one-way delay: 81.211 ms
Loss rate: 30.55%
-- Flow 2:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 81.213 ms
Loss rate: 34.59%
-- Flow 3:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 81.206 ms
Loss rate: 47.96%
```
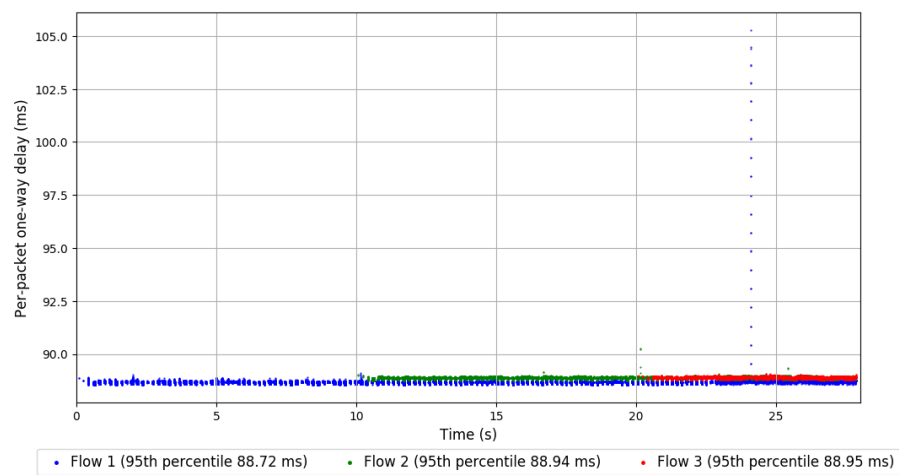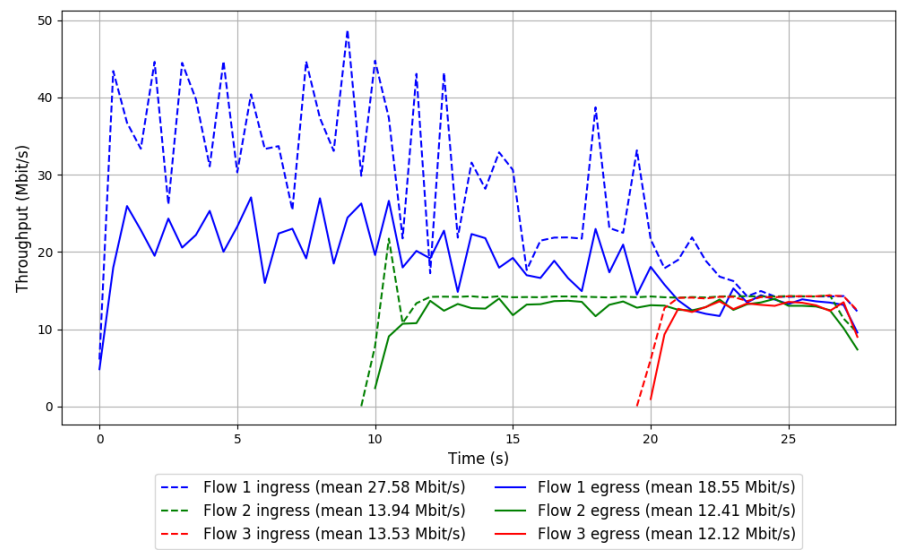
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 23.86 Mbit/s)   Flow 1 egress (mean 16.67 Mbit/s)
Flow 2 ingress (mean 28.60 Mbit/s)   Flow 2 egress (mean 18.87 Mbit/s)
Flow 3 ingress (mean 7.87 Mbit/s)   Flow 3 egress (mean 4.19 Mbit/s)

Flow 1 (95th percentile 81.21 ms)   Flow 2 (95th percentile 81.21 ms)   Flow 3 (95th percentile 81.21 ms)
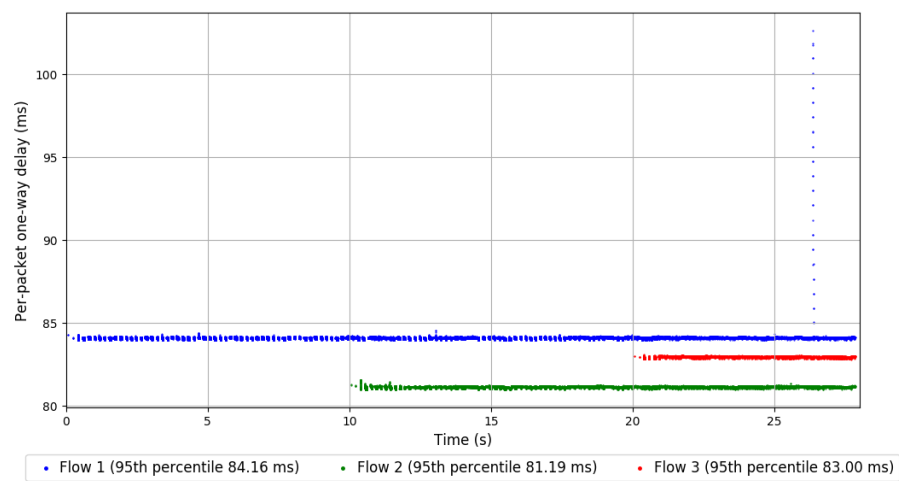
```
Run 8: Statistics of TaoVA-100x

Start at: 2017-10-12 06:02:07
End at: 2017-10-12 06:02:37
Local clock offset: 0.879 ms
Remote clock offset: -1.743 ms


# Below is generated by plot.py at 2017-10-12 09:54:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 82.185 ms
Loss rate: 34.14%
-- Flow 1:
Average throughput: 17.47 Mbit/s
95th percentile per-packet one-way delay: 82.188 ms
Loss rate: 34.14%
-- Flow 2:
Average throughput: 15.59 Mbit/s
95th percentile per-packet one-way delay: 80.826 ms
Loss rate: 33.82%
-- Flow 3:
Average throughput: 11.27 Mbit/s
95th percentile per-packet one-way delay: 82.203 ms
Loss rate: 35.14%
```

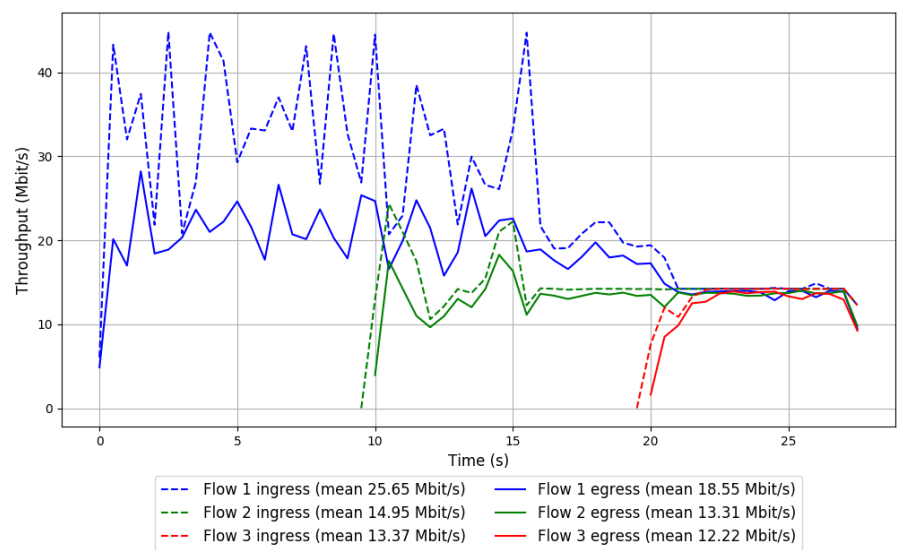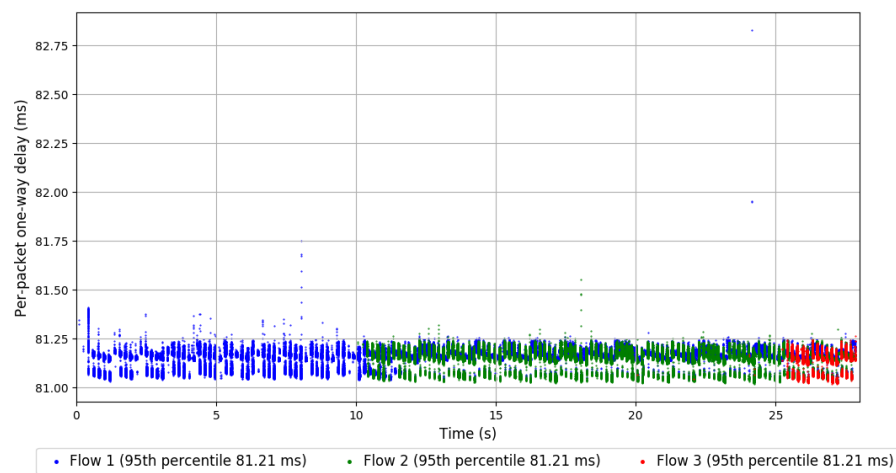Run 8: Report of TaoVA-100x — Data Link

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

Start at: 2017-10-12 06:20:56
End at: 2017-10-12 06:21:26
Local clock offset: 0.749 ms
Remote clock offset: -7.187 ms


# Below is generated by plot.py at 2017-10-12 09:55:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 85.654 ms
Loss rate: 27.61%
-- Flow 1:
Average throughput: 16.45 Mbit/s
95th percentile per-packet one-way delay: 85.662 ms
Loss rate: 28.77%
-- Flow 2:
Average throughput: 17.54 Mbit/s
95th percentile per-packet one-way delay: 85.248 ms
Loss rate: 29.30%
-- Flow 3:
Average throughput: 14.79 Mbit/s
95th percentile per-packet one-way delay: 85.652 ms
Loss rate: 16.86%
```

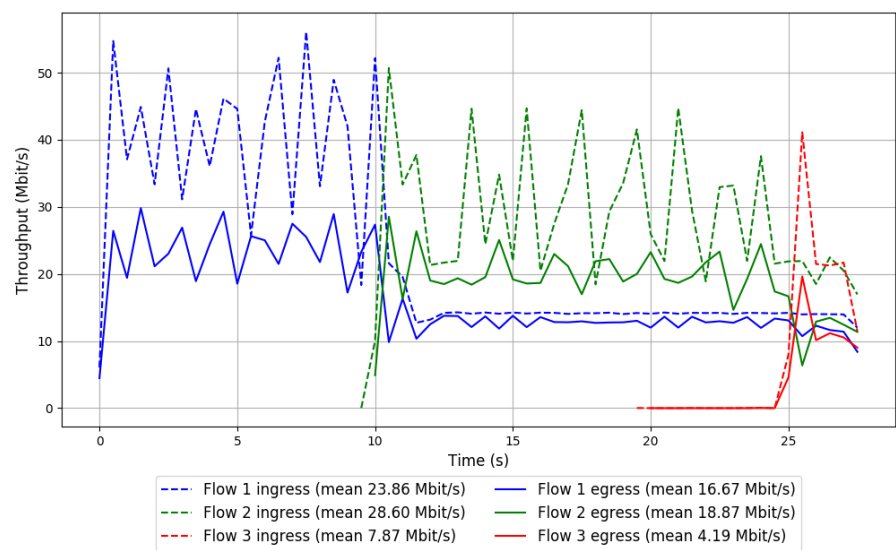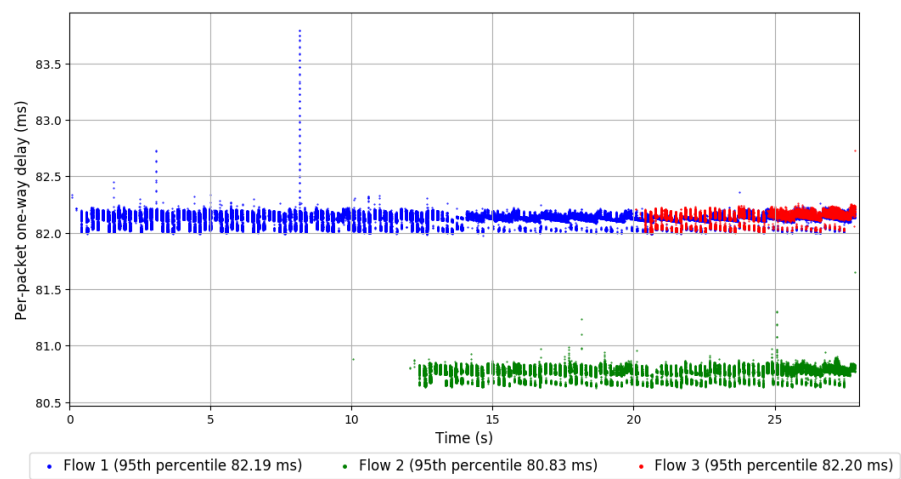Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 22.96 Mbit/s)   Flow 1 egress (mean 16.45 Mbit/s)
Flow 2 ingress (mean 24.58 Mbit/s)   Flow 2 egress (mean 17.54 Mbit/s)
Flow 3 ingress (mean 17.41 Mbit/s)   Flow 3 egress (mean 14.79 Mbit/s)

Flow 1 (95th percentile 85.66 ms)   Flow 2 (95th percentile 85.25 ms)   Flow 3 (95th percentile 85.65 ms)
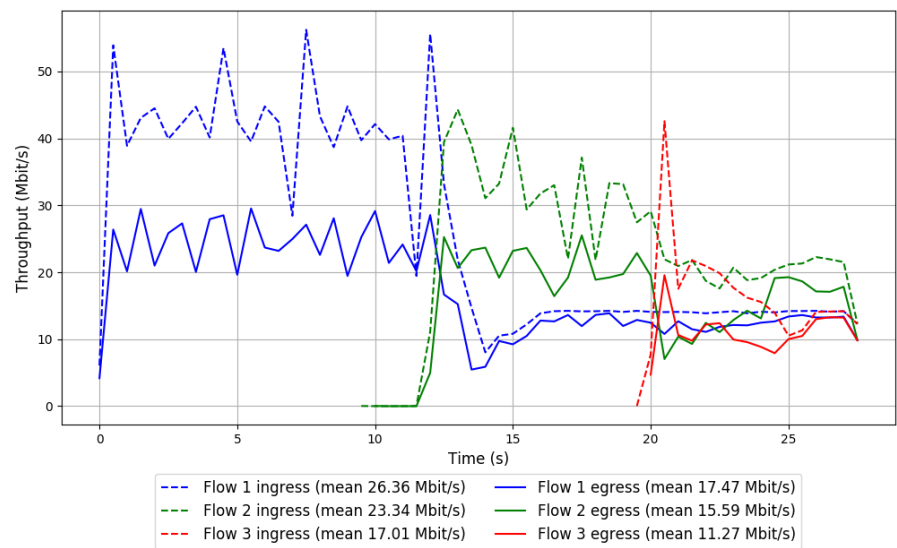
```
Run 10: Statistics of TaoVA-100x

Start at: 2017-10-12 06:39:48
End at: 2017-10-12 06:40:18
Local clock offset: 0.643 ms
Remote clock offset: -7.927 ms

# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 87.066 ms
Loss rate: 29.50%
-- Flow 1:
Average throughput: 19.59 Mbit/s
95th percentile per-packet one-way delay: 87.074 ms
Loss rate: 34.41%
-- Flow 2:
Average throughput: 12.35 Mbit/s
95th percentile per-packet one-way delay: 85.730 ms
Loss rate: 11.07%
-- Flow 3:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 85.714 ms
Loss rate: 32.59%
```
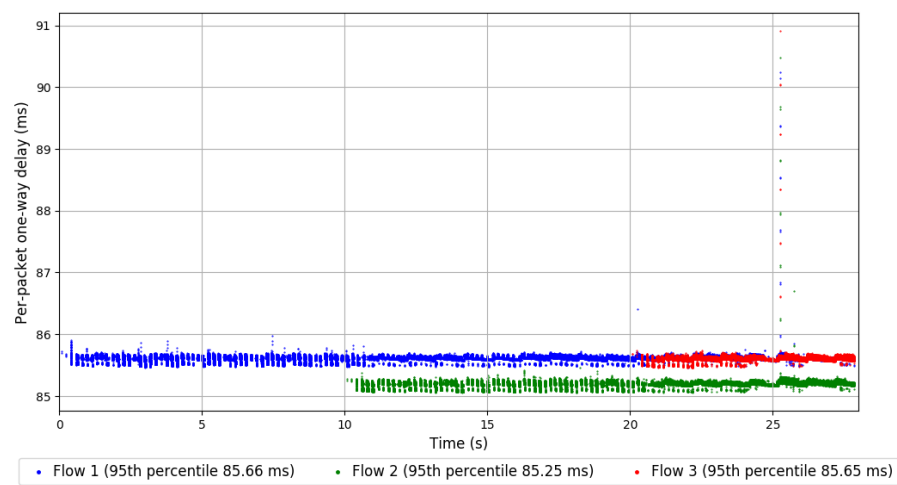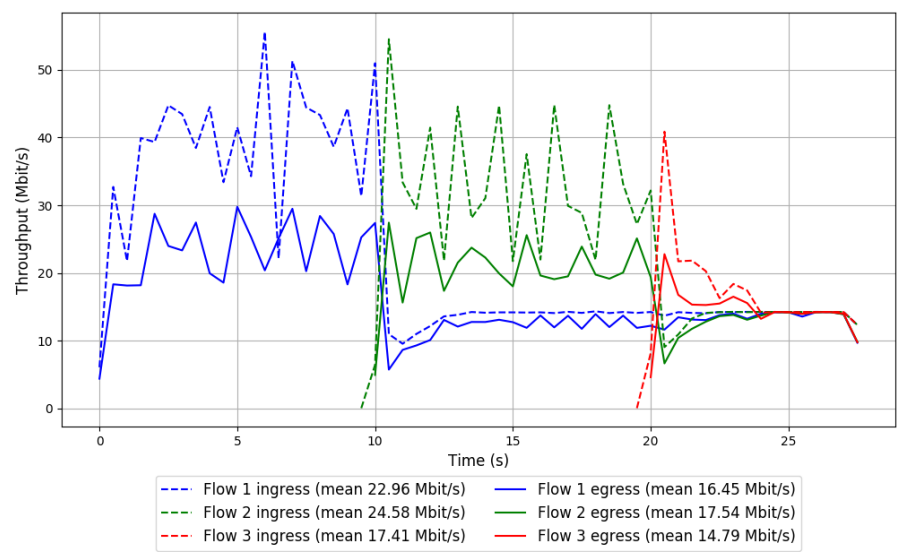
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 29.69 Mbit/s) — — —   Flow 1 egress (mean 19.59 Mbit/s) ———
Flow 2 ingress (mean 13.76 Mbit/s) — — —   Flow 2 egress (mean 12.35 Mbit/s) ———
Flow 3 ingress (mean 19.43 Mbit/s) — — —   Flow 3 egress (mean 13.38 Mbit/s) ———

• Flow 1 (95th percentile 87.07 ms)   • Flow 2 (95th percentile 85.73 ms)   • Flow 3 (95th percentile 85.71 ms)

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```
Run 1: Statistics of TCP Vegas

Start at: 2017-10-12 03:38:48
End at: 2017-10-12 03:39:18
Local clock offset: 1.247 ms
Remote clock offset: -8.044 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 87.145 ms
Loss rate: 3.80%
-- Flow 1:
Average throughput: 5.79 Mbit/s
95th percentile per-packet one-way delay: 87.151 ms
Loss rate: 3.87%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 85.412 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 85.414 ms
Loss rate: 5.71%
```
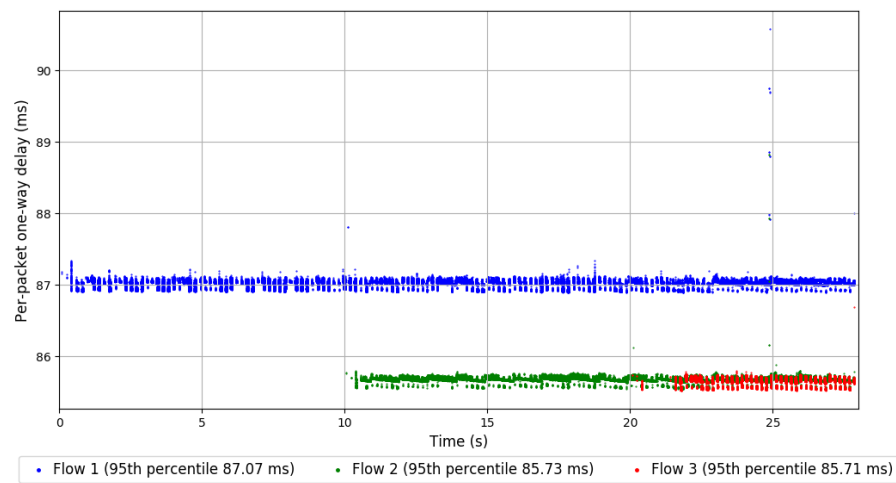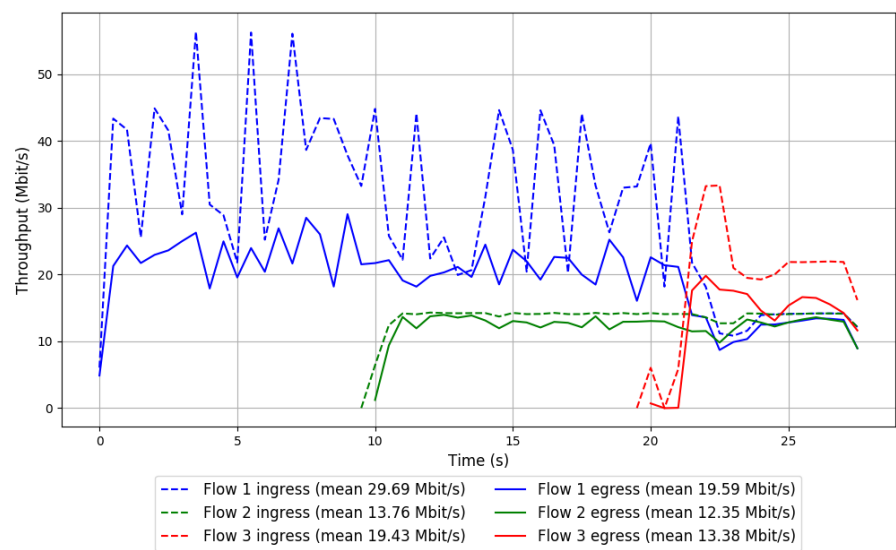
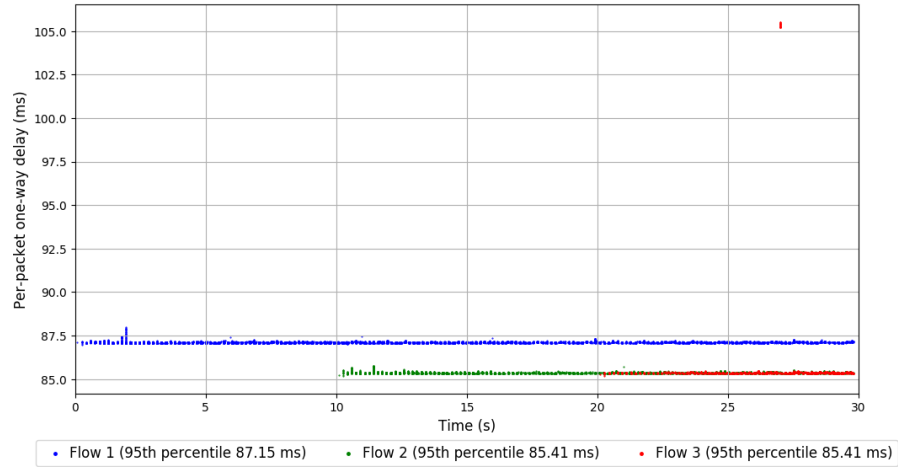Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2017-10-12 03:58:13
End at: 2017-10-12 03:58:43
Local clock offset: 1.282 ms
Remote clock offset: -3.737 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.91 Mbit/s
95th percentile per-packet one-way delay: 83.610 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 5.50 Mbit/s
95th percentile per-packet one-way delay: 83.620 ms
Loss rate: 3.08%
-- Flow 2:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 81.819 ms
Loss rate: 5.28%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 81.821 ms
Loss rate: 6.79%
```

Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 5.64 Mbit/s)   Flow 1 egress (mean 5.50 Mbit/s)
Flow 2 ingress (mean 3.39 Mbit/s)   Flow 2 egress (mean 3.24 Mbit/s)
Flow 3 ingress (mean 4.08 Mbit/s)   Flow 3 egress (mean 3.86 Mbit/s)

Flow 1 (95th percentile 83.62 ms)   Flow 2 (95th percentile 81.82 ms)   Flow 3 (95th percentile 81.82 ms)
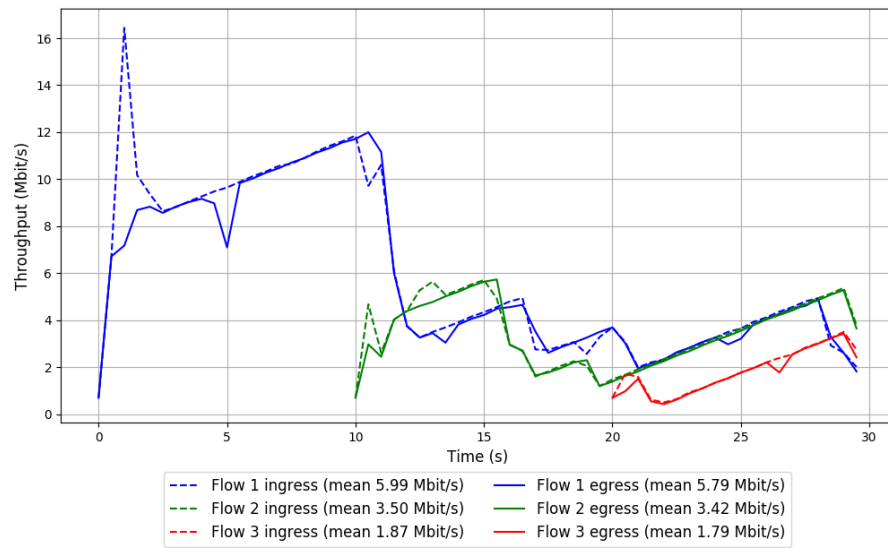
```
Run 3: Statistics of TCP Vegas

Start at: 2017-10-12 04:17:54
End at: 2017-10-12 04:18:24
Local clock offset: 1.228 ms
Remote clock offset: -7.412 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.01 Mbit/s
95th percentile per-packet one-way delay: 88.951 ms
Loss rate: 4.24%
-- Flow 1:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 87.807 ms
Loss rate: 3.32%
-- Flow 2:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 87.821 ms
Loss rate: 5.72%
-- Flow 3:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 89.004 ms
Loss rate: 5.36%
```
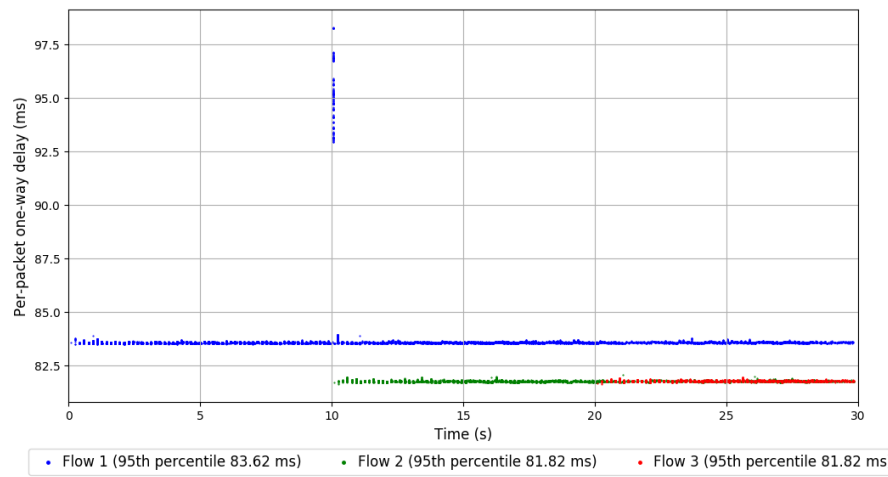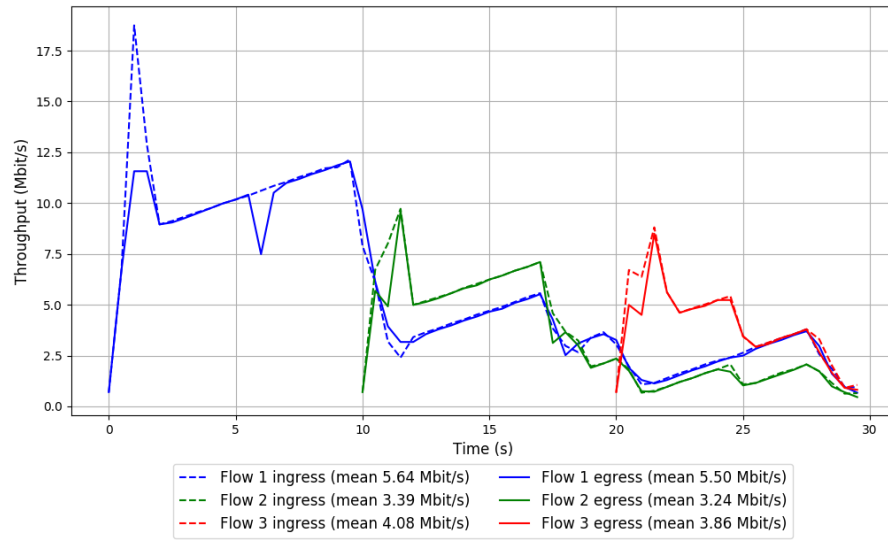
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 6.80 Mbit/s) --- Flow 1 egress (mean 6.61 Mbit/s) ---
Flow 2 ingress (mean 4.38 Mbit/s) --- Flow 2 egress (mean 4.17 Mbit/s) ---
Flow 3 ingress (mean 5.21 Mbit/s) --- Flow 3 egress (mean 5.01 Mbit/s) ---

Flow 1 (95th percentile 87.81 ms)   Flow 2 (95th percentile 87.82 ms)   Flow 3 (95th percentile 89.00 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2017-10-12 04:37:03
End at: 2017-10-12 04:37:33
Local clock offset: 1.149 ms
Remote clock offset: -6.488 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.73 Mbit/s
95th percentile per-packet one-way delay: 88.378 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 88.398 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 7.28 Mbit/s
95th percentile per-packet one-way delay: 85.234 ms
Loss rate: 3.58%
-- Flow 3:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 85.370 ms
Loss rate: 7.29%
```
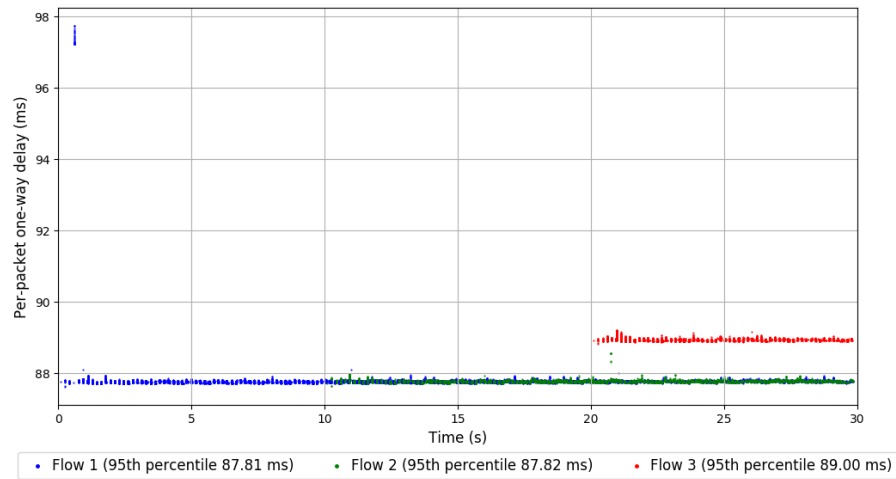
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2017-10-12 04:56:04
End at: 2017-10-12 04:56:34
Local clock offset: 1.2 ms
Remote clock offset: -6.203 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.46 Mbit/s
95th percentile per-packet one-way delay: 88.473 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 85.315 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 7.08 Mbit/s
95th percentile per-packet one-way delay: 88.492 ms
Loss rate: 3.41%
-- Flow 3:
Average throughput: 10.77 Mbit/s
95th percentile per-packet one-way delay: 88.289 ms
Loss rate: 3.61%
```
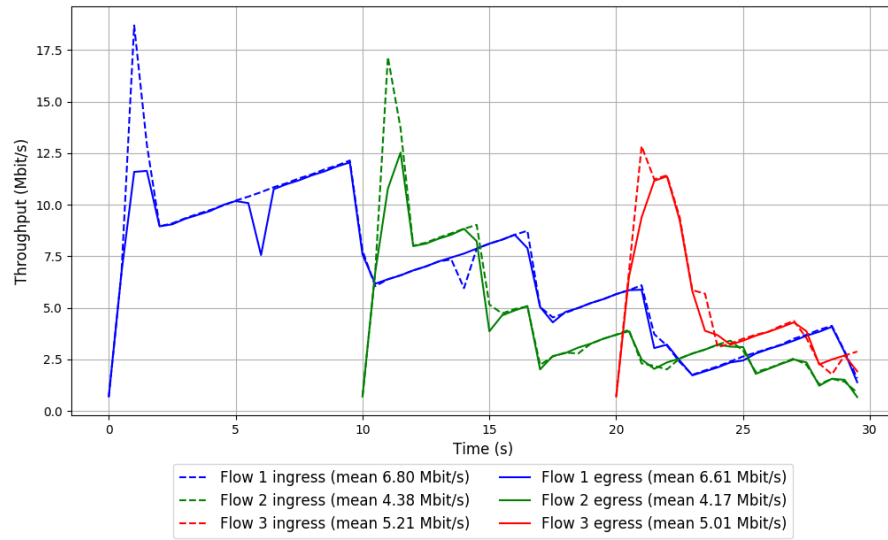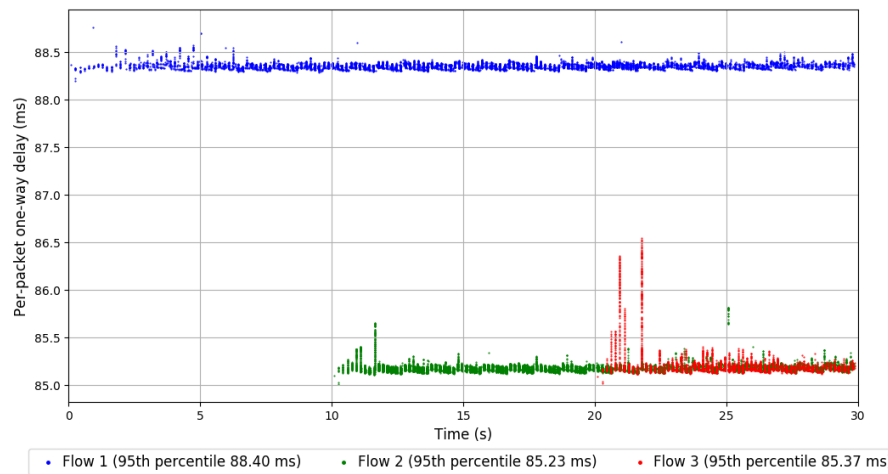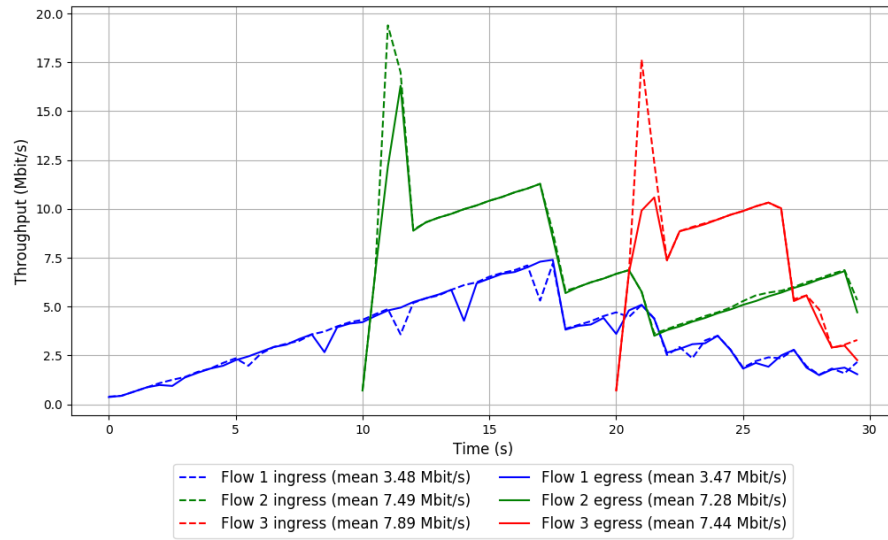
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 7.40 Mbit/s) --- Flow 1 egress (mean 7.25 Mbit/s)
Flow 2 ingress (mean 7.26 Mbit/s) --- Flow 2 egress (mean 7.08 Mbit/s)
Flow 3 ingress (mean 10.98 Mbit/s) --- Flow 3 egress (mean 10.77 Mbit/s)

Flow 1 (95th percentile 85.31 ms)   Flow 2 (95th percentile 88.49 ms)   Flow 3 (95th percentile 88.29 ms)

```
Run 6: Statistics of TCP Vegas

Start at: 2017-10-12 05:14:41
End at: 2017-10-12 05:15:11
Local clock offset: 1.187 ms
Remote clock offset: -6.452 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.88 Mbit/s
95th percentile per-packet one-way delay: 87.767 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 87.351 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 5.81 Mbit/s
95th percentile per-packet one-way delay: 87.784 ms
Loss rate: 2.39%
-- Flow 3:
Average throughput: 9.91 Mbit/s
95th percentile per-packet one-way delay: 87.366 ms
Loss rate: 6.12%
```
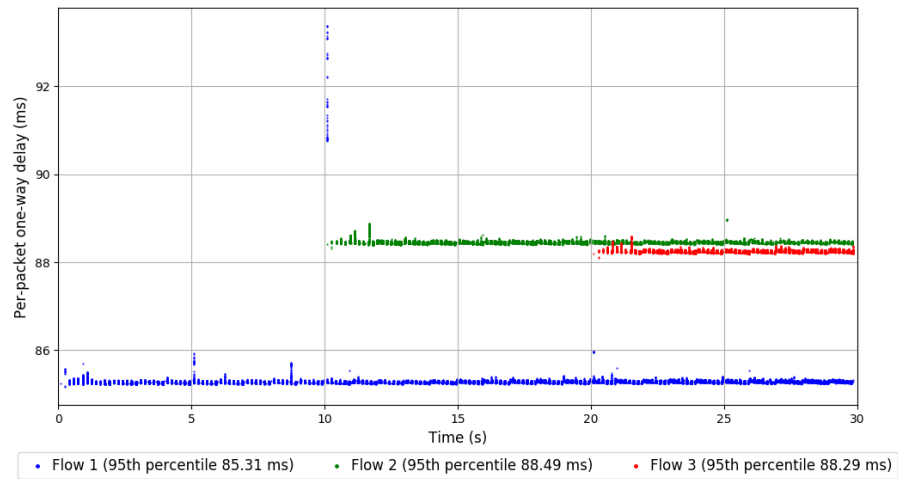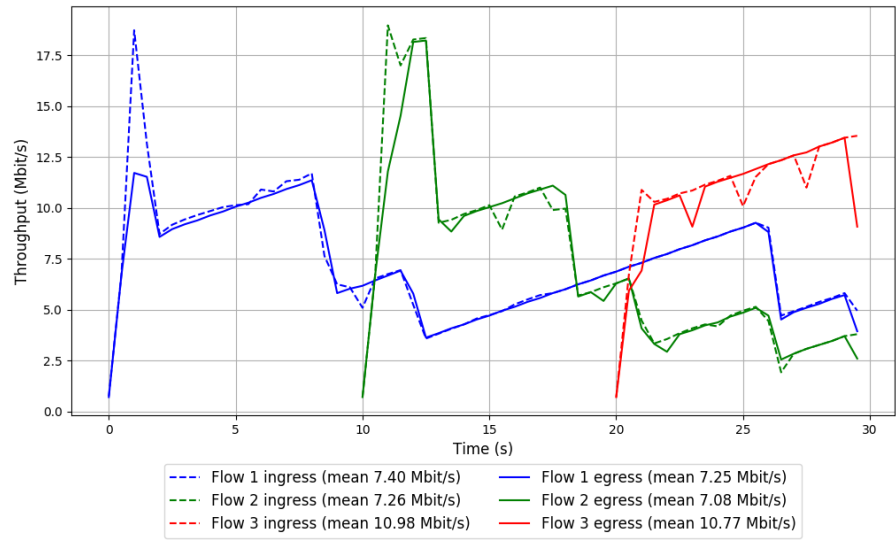
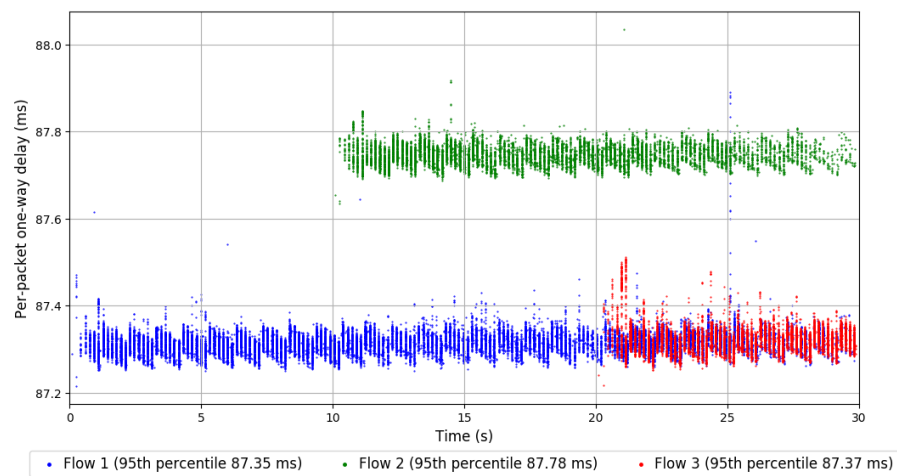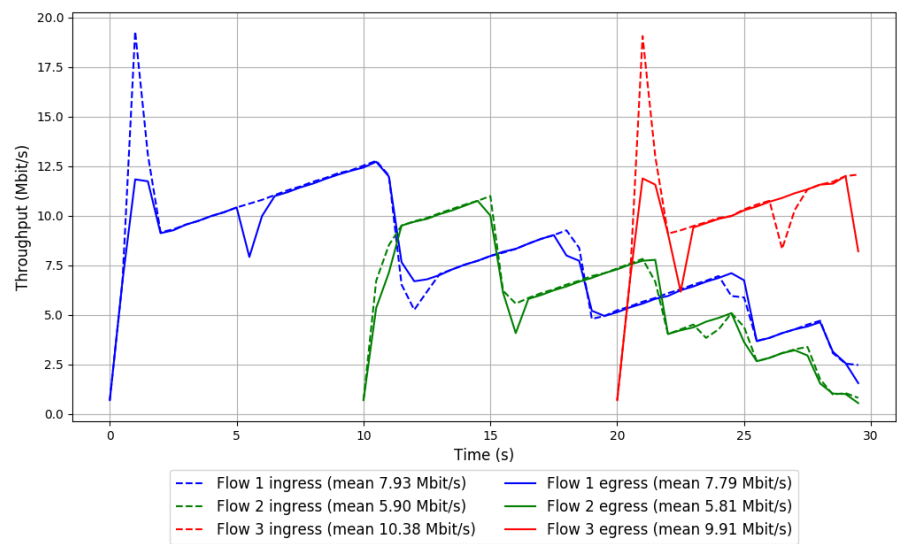Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2017-10-12 05:33:56
End at: 2017-10-12 05:34:26
Local clock offset: 1.191 ms
Remote clock offset: -6.221 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.72 Mbit/s
95th percentile per-packet one-way delay: 87.358 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 87.370 ms
Loss rate: 2.92%
-- Flow 2:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 85.609 ms
Loss rate: 2.26%
-- Flow 3:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 86.025 ms
Loss rate: 9.21%
```

Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 6.52 Mbit/s) Flow 1 egress (mean 6.36 Mbit/s)
Flow 2 ingress (mean 11.35 Mbit/s) Flow 2 egress (mean 11.19 Mbit/s)
Flow 3 ingress (mean 6.39 Mbit/s) Flow 3 egress (mean 5.90 Mbit/s)

Flow 1 (95th percentile 87.37 ms) Flow 2 (95th percentile 85.61 ms) Flow 3 (95th percentile 86.03 ms)

197

```
Run 8: Statistics of TCP Vegas

Start at: 2017-10-12 05:52:35
End at: 2017-10-12 05:53:05
Local clock offset: 0.957 ms
Remote clock offset: -1.576 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.73 Mbit/s
95th percentile per-packet one-way delay: 82.222 ms
Loss rate: 3.52%
-- Flow 1:
Average throughput: 8.79 Mbit/s
95th percentile per-packet one-way delay: 82.237 ms
Loss rate: 1.95%
-- Flow 2:
Average throughput: 6.97 Mbit/s
95th percentile per-packet one-way delay: 82.059 ms
Loss rate: 4.58%
-- Flow 3:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 81.839 ms
Loss rate: 6.05%
```
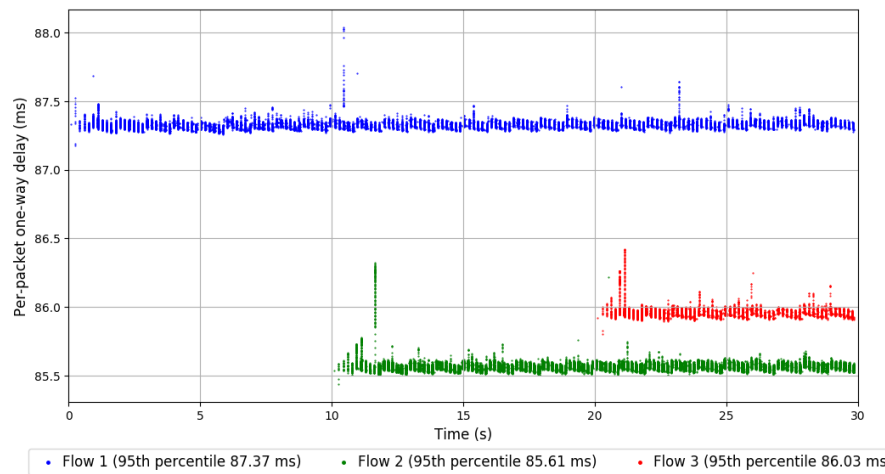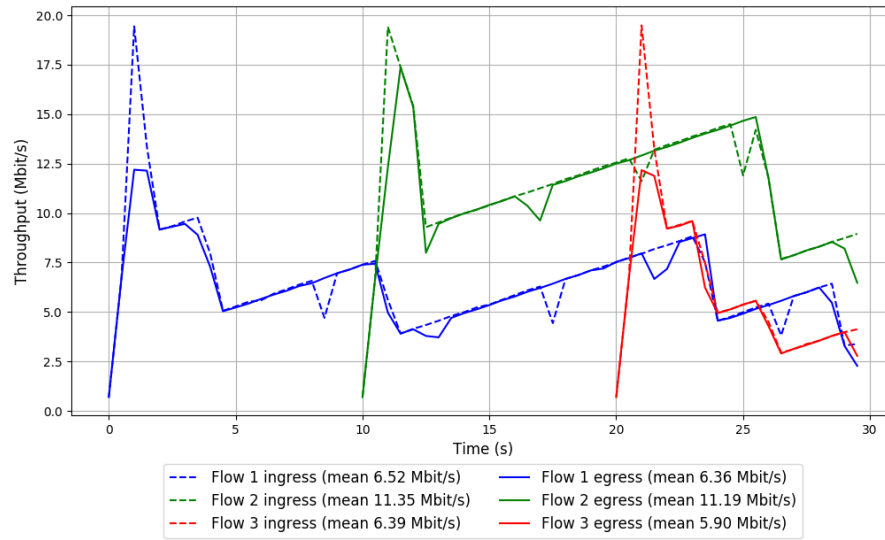
Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2017-10-12 06:11:18
End at: 2017-10-12 06:11:48
Local clock offset: 0.821 ms
Remote clock offset: -1.76 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.13 Mbit/s
95th percentile per-packet one-way delay: 81.979 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 80.634 ms
Loss rate: 2.54%
-- Flow 2:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 82.012 ms
Loss rate: 5.23%
-- Flow 3:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 81.811 ms
Loss rate: 5.94%
```
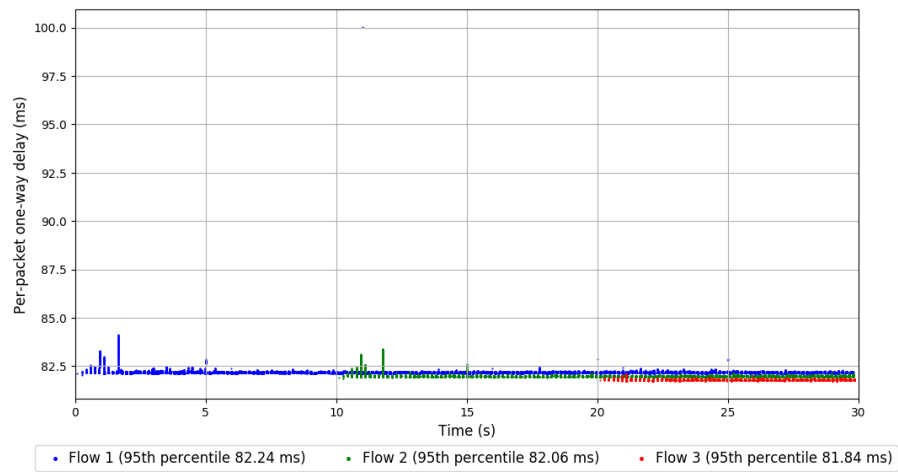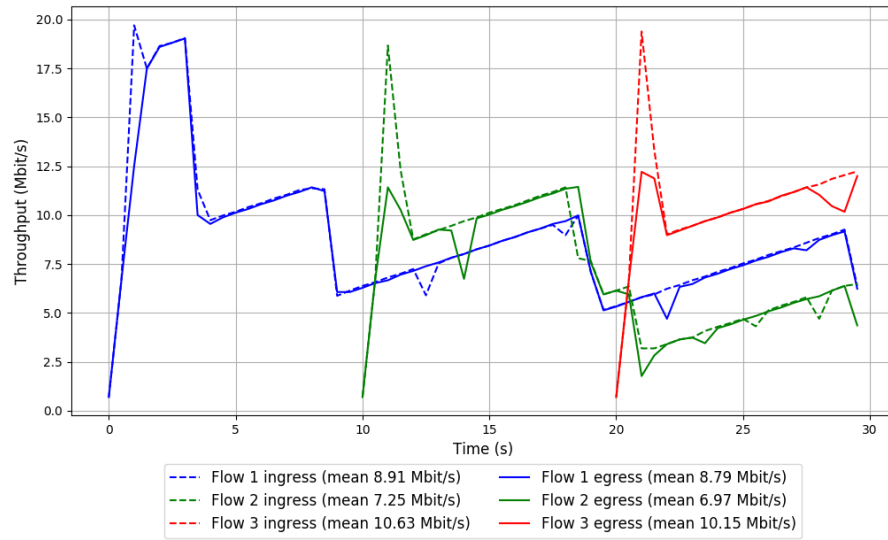
Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2017-10-12 06:30:16
End at: 2017-10-12 06:30:46
Local clock offset: 0.699 ms
Remote clock offset: -7.548 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.23 Mbit/s
95th percentile per-packet one-way delay: 87.049 ms
Loss rate: 3.25%
-- Flow 1:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 87.064 ms
Loss rate: 2.23%
-- Flow 2:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 85.307 ms
Loss rate: 3.07%
-- Flow 3:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 85.314 ms
Loss rate: 7.28%
```

Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2017-10-12 03:52:52
End at: 2017-10-12 03:53:22
Local clock offset: 1.362 ms
Remote clock offset: -3.991 ms


# Below is generated by plot.py at 2017-10-12 09:55:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 84.545 ms
Loss rate: 87.52%
-- Flow 1:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 84.083 ms
Loss rate: 66.62%
-- Flow 2:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 84.972 ms
Loss rate: 78.58%
-- Flow 3:
Average throughput: 10.18 Mbit/s
95th percentile per-packet one-way delay: 85.118 ms
Loss rate: 93.74%
```
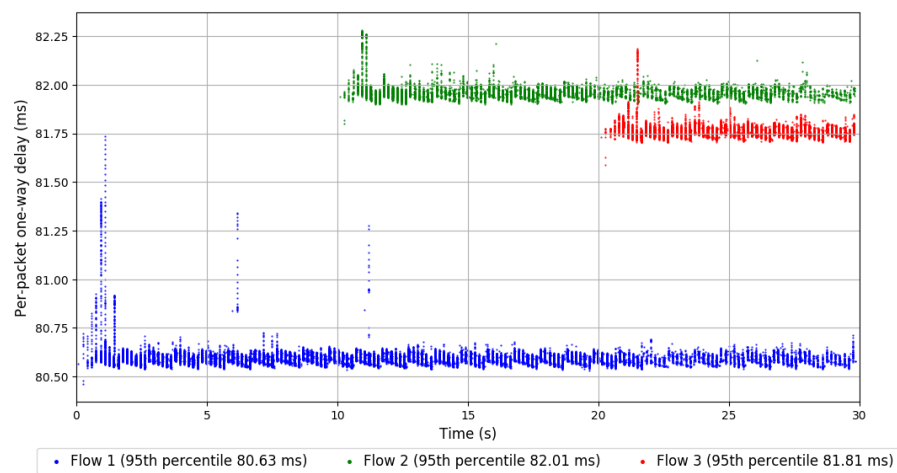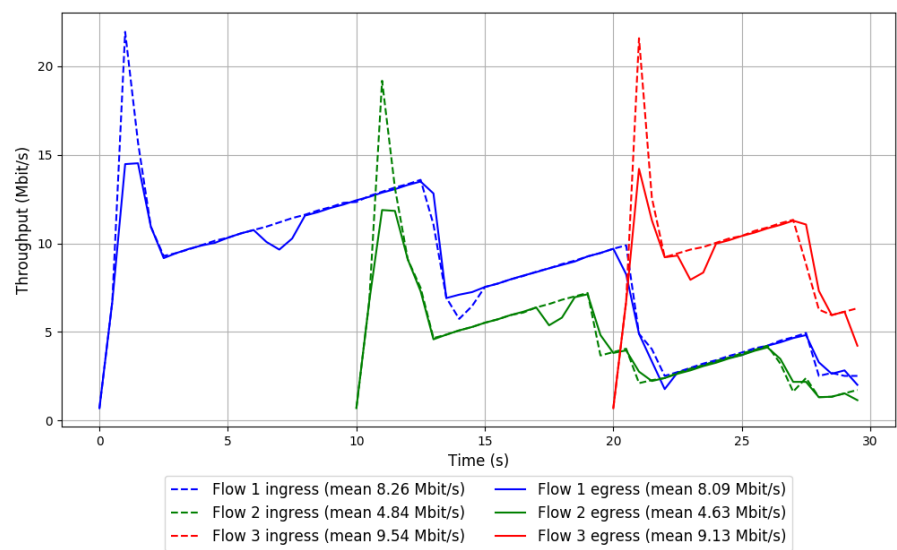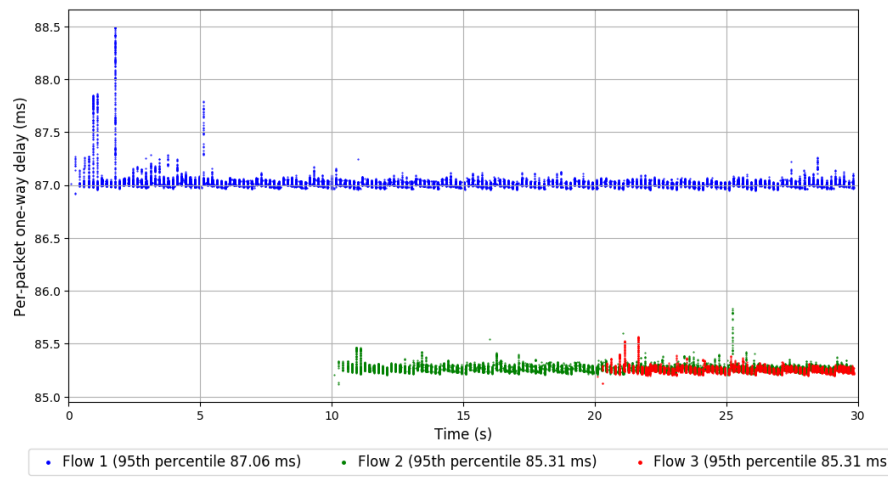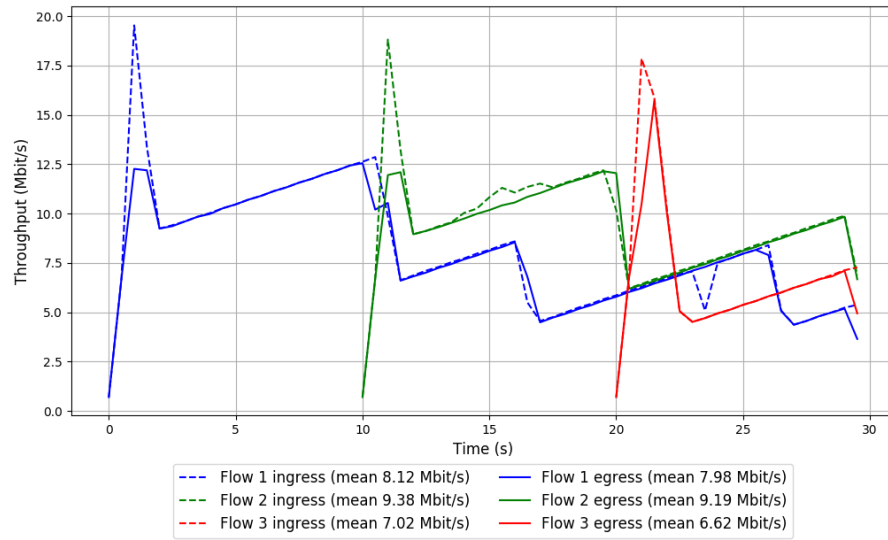
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2017-10-12 04:12:23
End at: 2017-10-12 04:12:53
Local clock offset: 1.352 ms
Remote clock offset: -2.768 ms


# Below is generated by plot.py at 2017-10-12 09:55:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.56 Mbit/s
95th percentile per-packet one-way delay: 87.600 ms
Loss rate: 86.99%
-- Flow 1:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 87.438 ms
Loss rate: 84.74%
-- Flow 2:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 84.835 ms
Loss rate: 65.25%
-- Flow 3:
Average throughput: 12.16 Mbit/s
95th percentile per-packet one-way delay: 87.993 ms
Loss rate: 91.71%
```
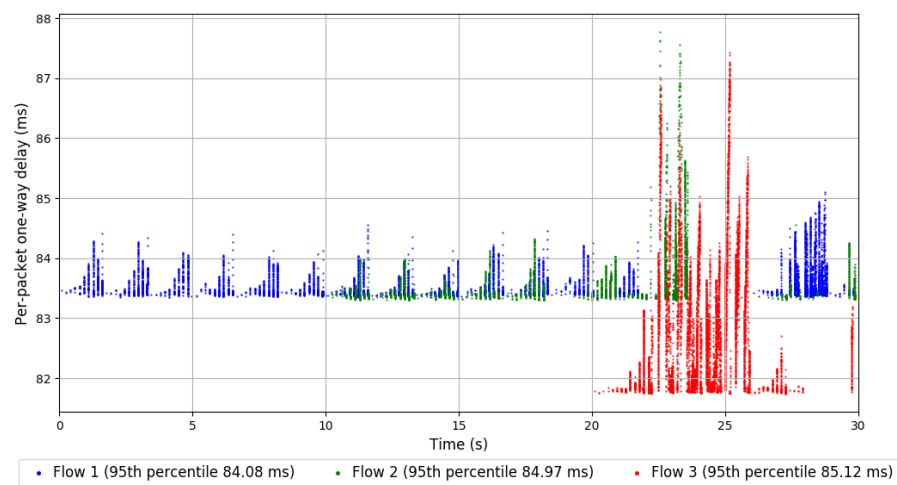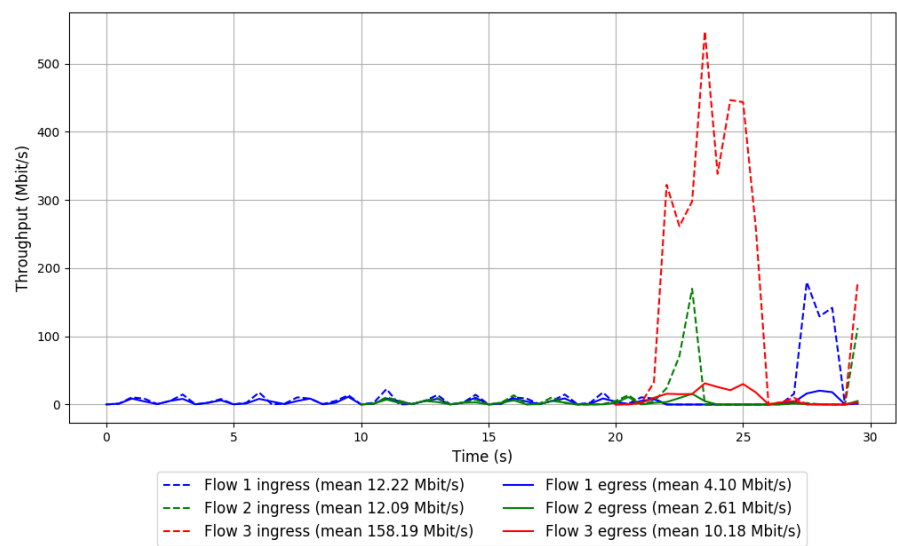
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 43.12 Mbit/s)   Flow 1 egress (mean 6.62 Mbit/s)
Flow 2 ingress (mean 8.85 Mbit/s)   Flow 2 egress (mean 3.10 Mbit/s)
Flow 3 ingress (mean 141.90 Mbit/s)   Flow 3 egress (mean 12.16 Mbit/s)

Flow 1 (95th percentile 87.44 ms)   Flow 2 (95th percentile 84.83 ms)   Flow 3 (95th percentile 87.99 ms)
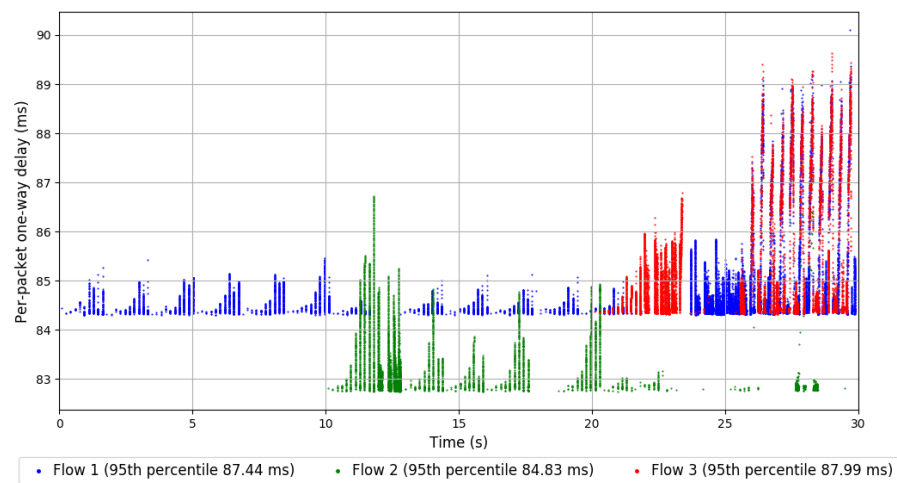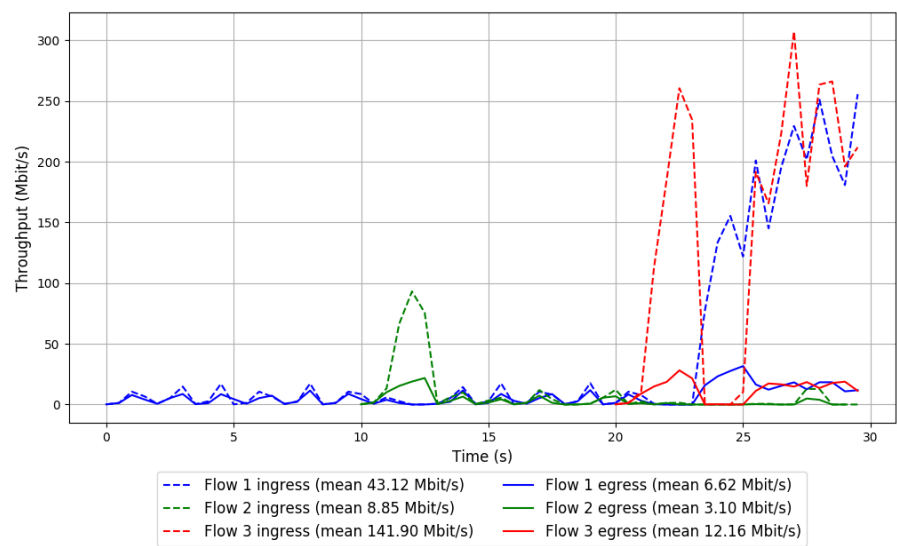
```
Run 3: Statistics of Verus

Start at: 2017-10-12 04:31:39
End at: 2017-10-12 04:32:09
Local clock offset: 1.054 ms
Remote clock offset: -5.762 ms


# Below is generated by plot.py at 2017-10-12 09:55:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 90.349 ms
Loss rate: 91.05%
-- Flow 1:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 86.296 ms
Loss rate: 56.37%
-- Flow 2:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 90.158 ms
Loss rate: 91.10%
-- Flow 3:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 90.805 ms
Loss rate: 94.72%
```

Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 7.73 Mbit/s)   Flow 1 egress (mean 3.39 Mbit/s)
Flow 2 ingress (mean 122.81 Mbit/s)   Flow 2 egress (mean 11.02 Mbit/s)
Flow 3 ingress (mean 217.71 Mbit/s)   Flow 3 egress (mean 12.82 Mbit/s)

Flow 1 (95th percentile 86.30 ms)   Flow 2 (95th percentile 90.16 ms)   Flow 3 (95th percentile 90.81 ms)

209

```
Run 4: Statistics of Verus

Start at: 2017-10-12 04:50:53
End at: 2017-10-12 04:51:23
Local clock offset: 1.143 ms
Remote clock offset: -6.588 ms


# Below is generated by plot.py at 2017-10-12 09:55:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.38 Mbit/s
95th percentile per-packet one-way delay: 89.564 ms
Loss rate: 87.49%
-- Flow 1:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 89.849 ms
Loss rate: 65.10%
-- Flow 2:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 87.985 ms
Loss rate: 32.49%
-- Flow 3:
Average throughput: 23.85 Mbit/s
95th percentile per-packet one-way delay: 89.409 ms
Loss rate: 92.07%
```
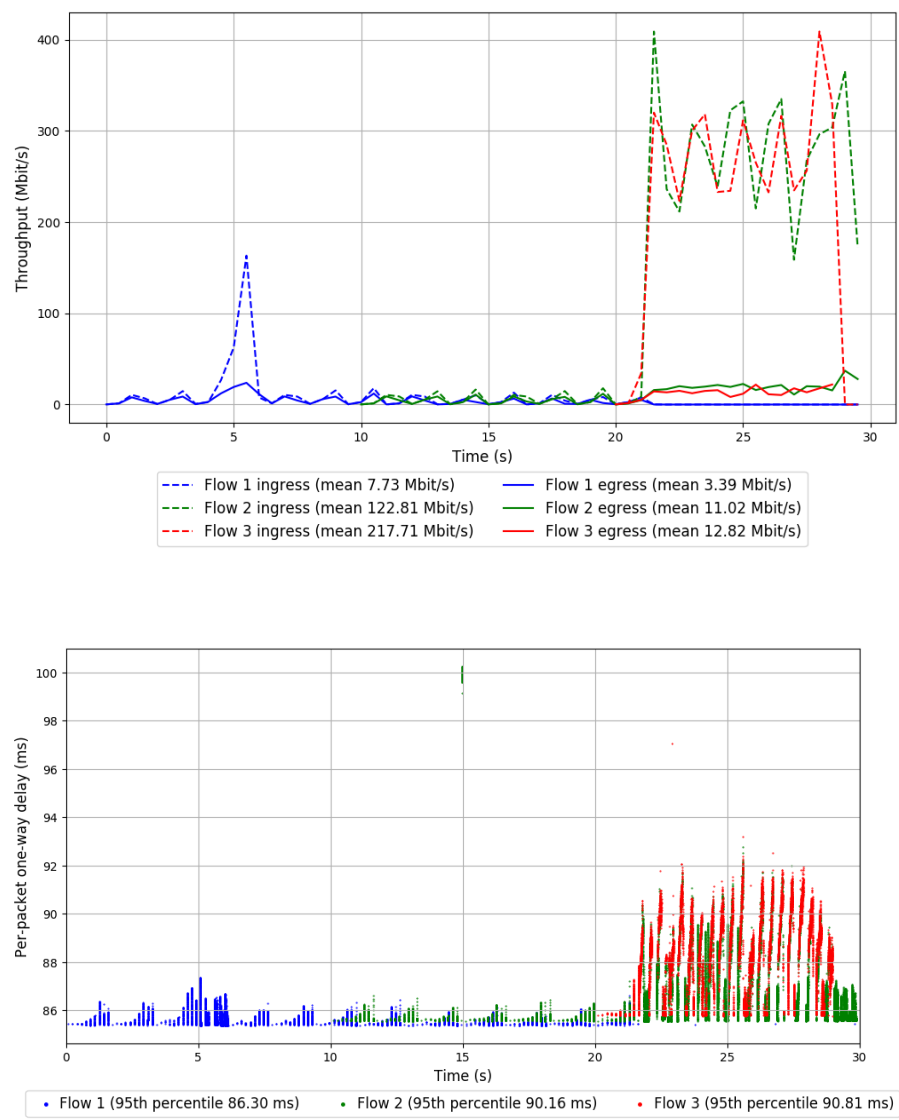
Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 13.78 Mbit/s) --- Flow 1 egress (mean 4.84 Mbit/s)
Flow 2 ingress (mean 3.95 Mbit/s) --- Flow 2 egress (mean 2.81 Mbit/s)
Flow 3 ingress (mean 295.76 Mbit/s) --- Flow 3 egress (mean 23.85 Mbit/s)

Flow 1 (95th percentile 89.85 ms)   Flow 2 (95th percentile 87.98 ms)   Flow 3 (95th percentile 89.41 ms)

```
Run 5: Statistics of Verus

Start at: 2017-10-12 05:09:29
End at: 2017-10-12 05:09:59
Local clock offset: 1.221 ms
Remote clock offset: -5.629 ms


# Below is generated by plot.py at 2017-10-12 09:55:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 88.741 ms
Loss rate: 86.75%
-- Flow 1:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 85.621 ms
Loss rate: 53.96%
-- Flow 2:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 87.058 ms
Loss rate: 30.66%
-- Flow 3:
Average throughput: 17.75 Mbit/s
95th percentile per-packet one-way delay: 89.140 ms
Loss rate: 92.51%
```
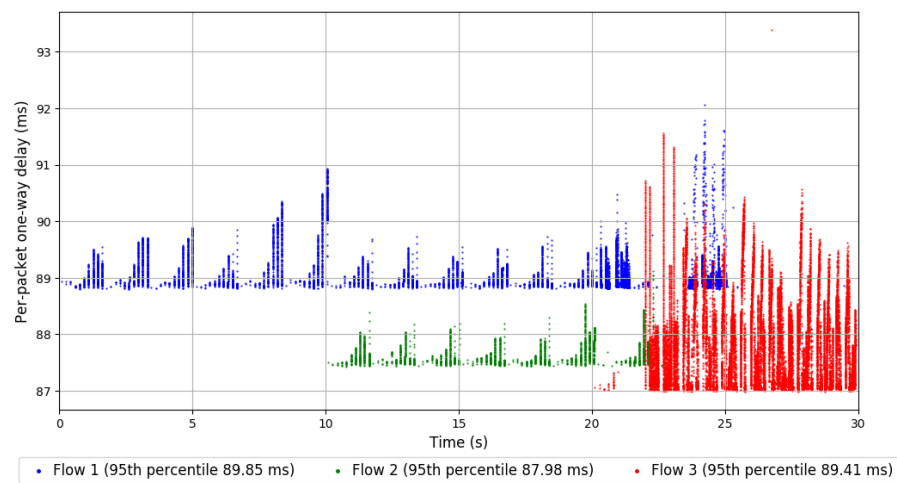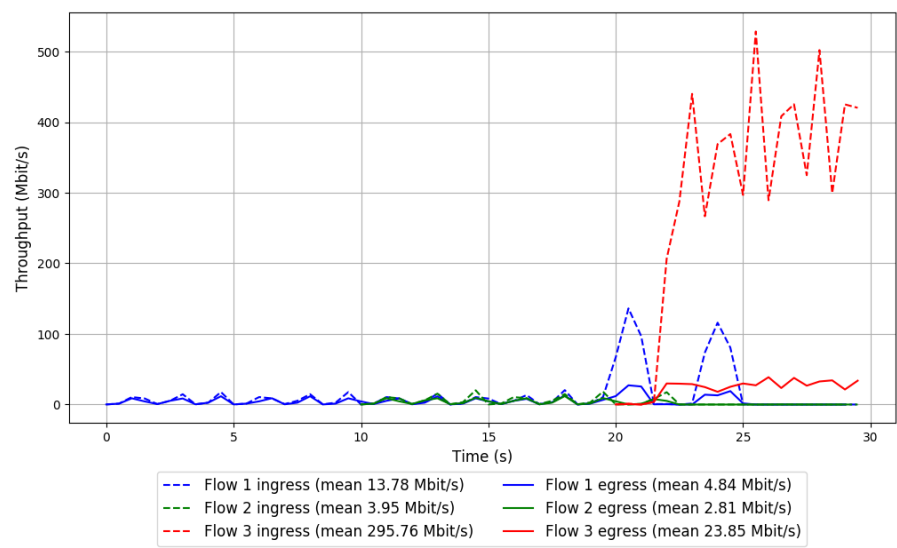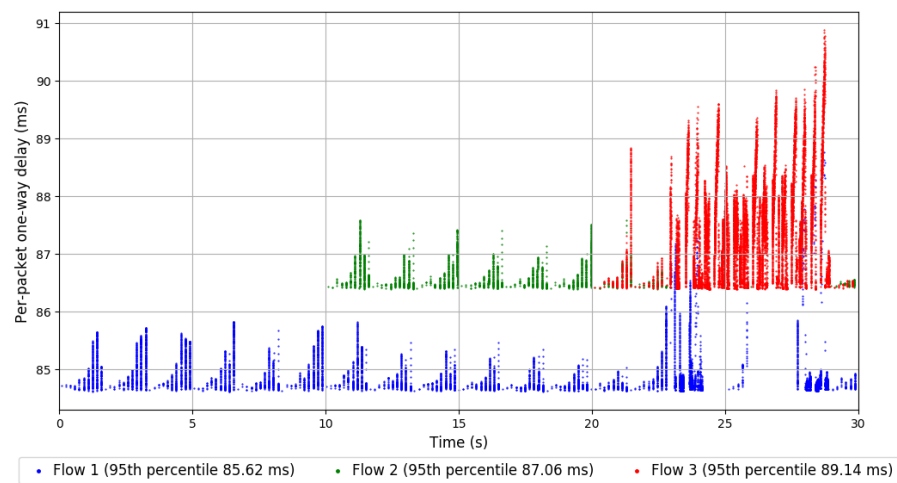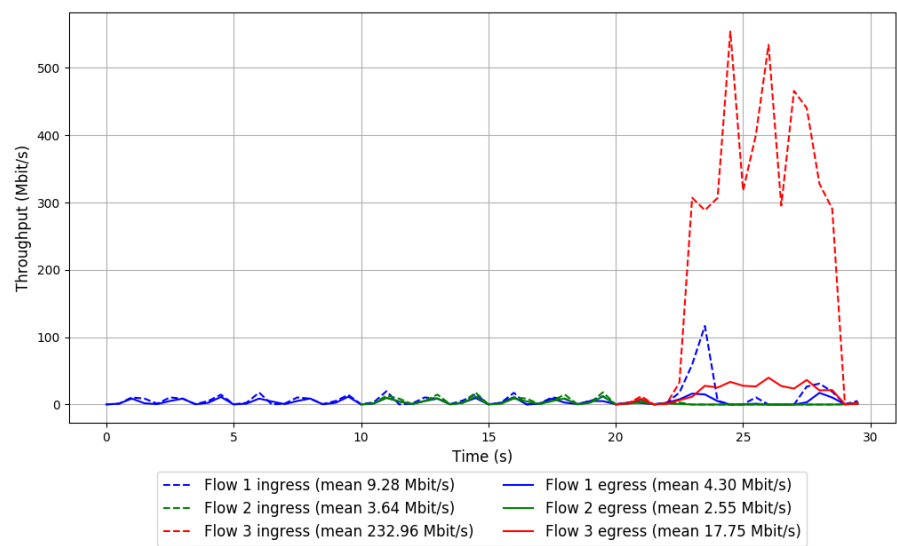
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 9.28 Mbit/s) --- Flow 1 egress (mean 4.30 Mbit/s) ---
Flow 2 ingress (mean 3.64 Mbit/s) --- Flow 2 egress (mean 2.55 Mbit/s) ---
Flow 3 ingress (mean 232.96 Mbit/s) --- Flow 3 egress (mean 17.75 Mbit/s) ---

- Flow 1 (95th percentile 85.62 ms)   - Flow 2 (95th percentile 87.06 ms)   - Flow 3 (95th percentile 89.14 ms)

```
Run 6: Statistics of Verus

Start at: 2017-10-12 05:28:28
End at: 2017-10-12 05:28:58
Local clock offset: 1.18 ms
Remote clock offset: -1.149 ms


# Below is generated by plot.py at 2017-10-12 09:55:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.25 Mbit/s
95th percentile per-packet one-way delay: 83.575 ms
Loss rate: 87.82%
-- Flow 1:
Average throughput: 8.99 Mbit/s
95th percentile per-packet one-way delay: 83.494 ms
Loss rate: 84.70%
-- Flow 2:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 83.958 ms
Loss rate: 87.80%
-- Flow 3:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 82.683 ms
Loss rate: 92.54%
```
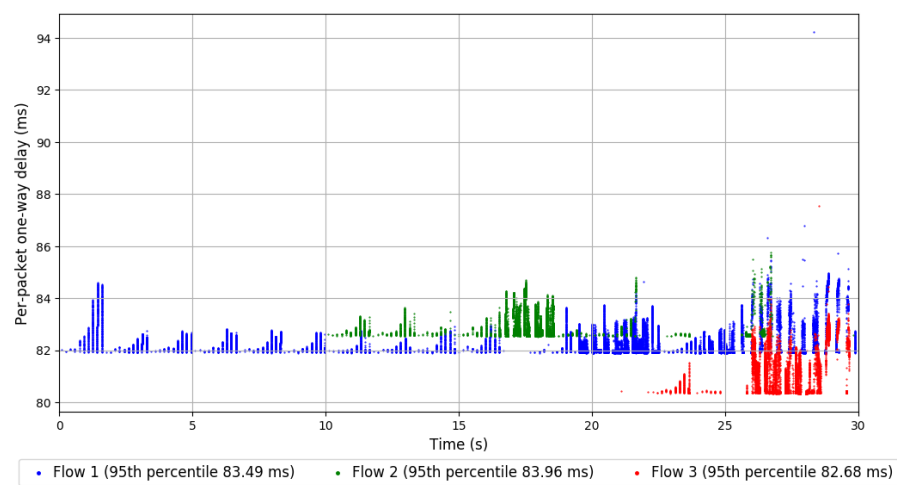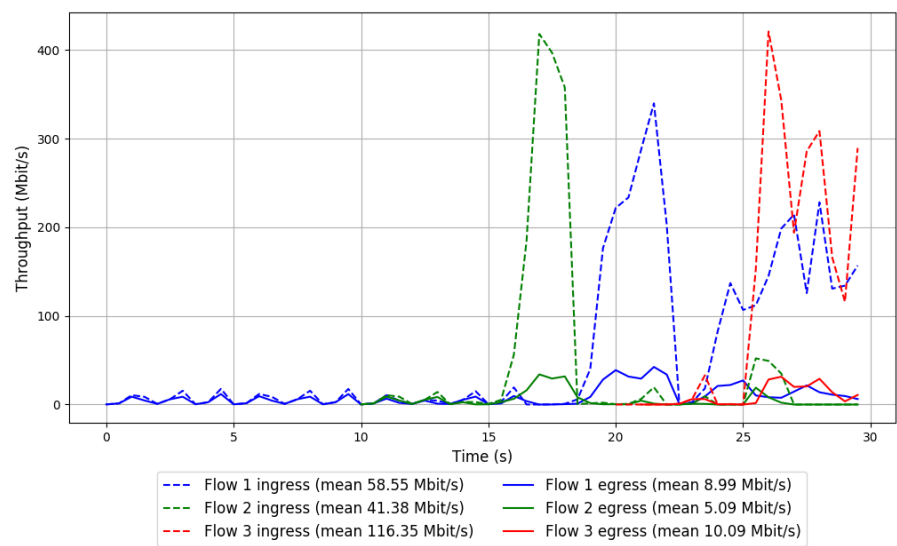
Run 6: Report of Verus — Data Link

Flow 1 ingress (mean 58.55 Mbit/s) --- Flow 1 egress (mean 8.99 Mbit/s)
Flow 2 ingress (mean 41.38 Mbit/s) --- Flow 2 egress (mean 5.09 Mbit/s)
Flow 3 ingress (mean 116.35 Mbit/s) --- Flow 3 egress (mean 10.09 Mbit/s)

Flow 1 (95th percentile 83.49 ms)   Flow 2 (95th percentile 83.96 ms)   Flow 3 (95th percentile 82.68 ms)
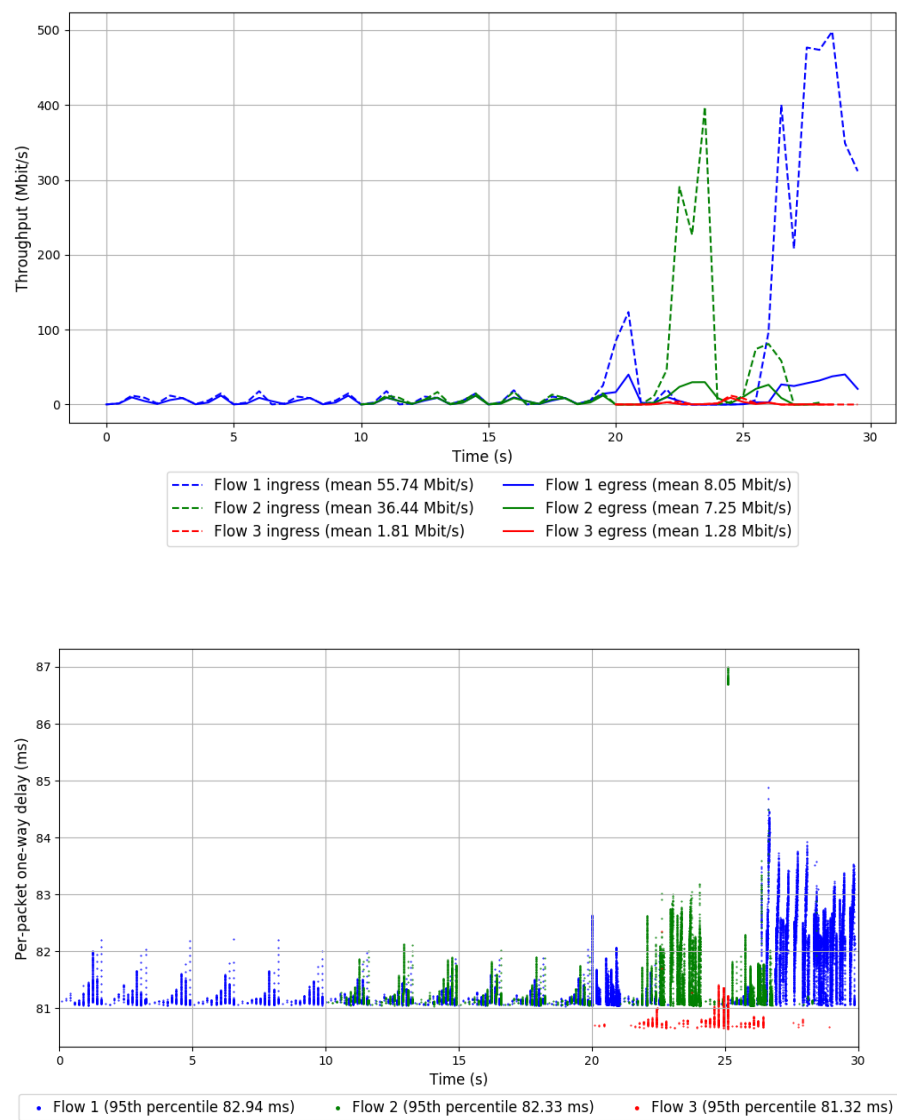
215

```
Run 7: Statistics of Verus

Start at: 2017-10-12 05:47:22
End at: 2017-10-12 05:47:52
Local clock offset: 1.071 ms
Remote clock offset: -1.676 ms


# Below is generated by plot.py at 2017-10-12 09:55:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 82.747 ms
Loss rate: 83.62%
-- Flow 1:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 82.943 ms
Loss rate: 85.55%
-- Flow 2:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 82.334 ms
Loss rate: 80.09%
-- Flow 3:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 81.316 ms
Loss rate: 36.42%
```
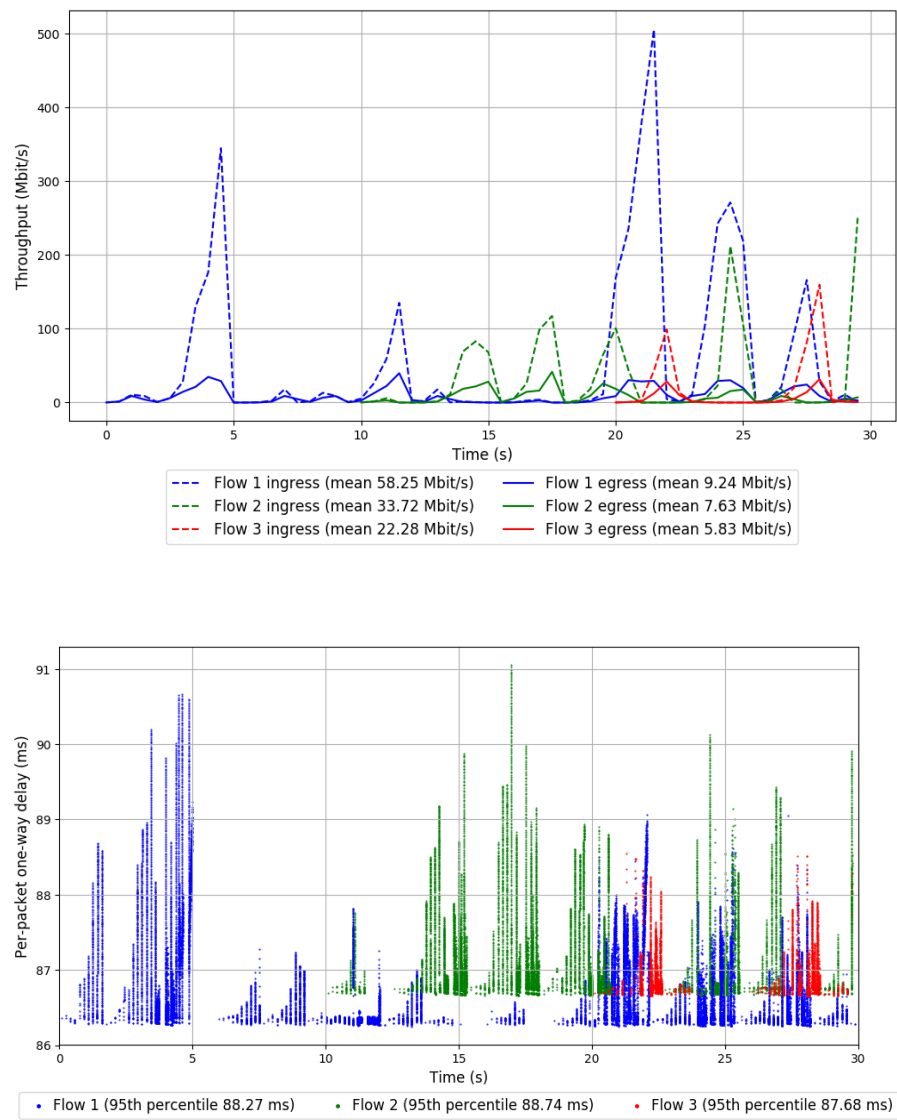
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2017-10-12 06:06:07
End at: 2017-10-12 06:06:37
Local clock offset: 0.823 ms
Remote clock offset: -6.415 ms


# Below is generated by plot.py at 2017-10-12 09:55:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.17 Mbit/s
95th percentile per-packet one-way delay: 88.442 ms
Loss rate: 81.71%
-- Flow 1:
Average throughput: 9.24 Mbit/s
95th percentile per-packet one-way delay: 88.269 ms
Loss rate: 84.22%
-- Flow 2:
Average throughput: 7.63 Mbit/s
95th percentile per-packet one-way delay: 88.738 ms
Loss rate: 77.69%
-- Flow 3:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 87.680 ms
Loss rate: 73.85%
```

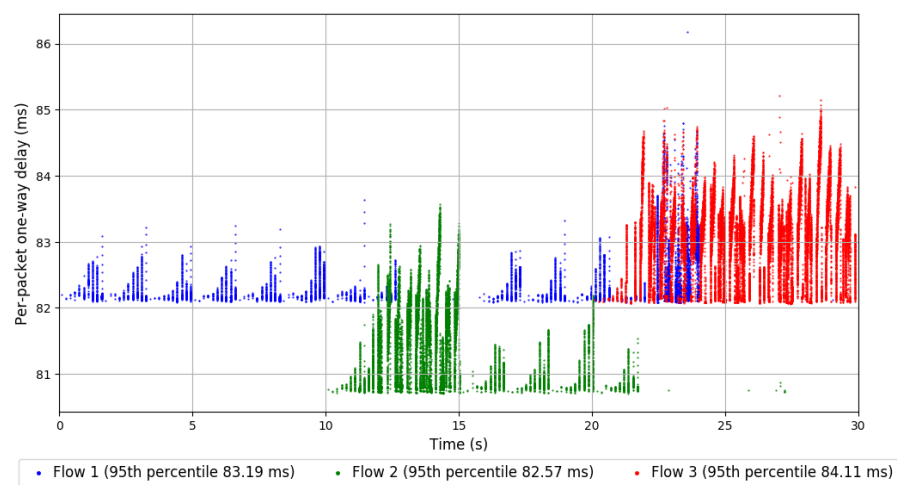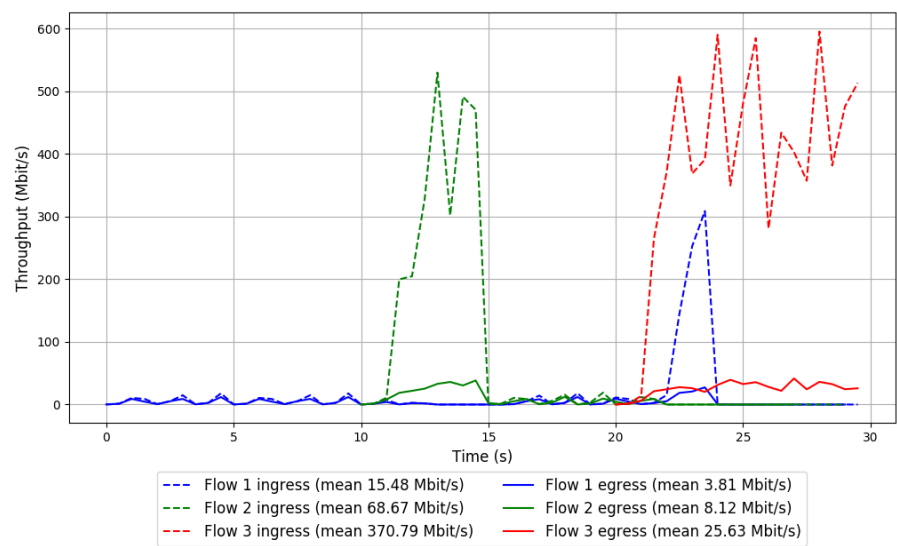# Run 8: Report of Verus — Data Link

219

```
Run 9: Statistics of Verus

Start at: 2017-10-12 06:25:00
End at: 2017-10-12 06:25:30
Local clock offset: 0.658 ms
Remote clock offset: -2.565 ms


# Below is generated by plot.py at 2017-10-12 09:55:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.79 Mbit/s
95th percentile per-packet one-way delay: 83.895 ms
Loss rate: 90.86%
-- Flow 1:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 83.190 ms
Loss rate: 76.19%
-- Flow 2:
Average throughput: 8.12 Mbit/s
95th percentile per-packet one-way delay: 82.566 ms
Loss rate: 89.42%
-- Flow 3:
Average throughput: 25.63 Mbit/s
95th percentile per-packet one-way delay: 84.111 ms
Loss rate: 93.21%
```

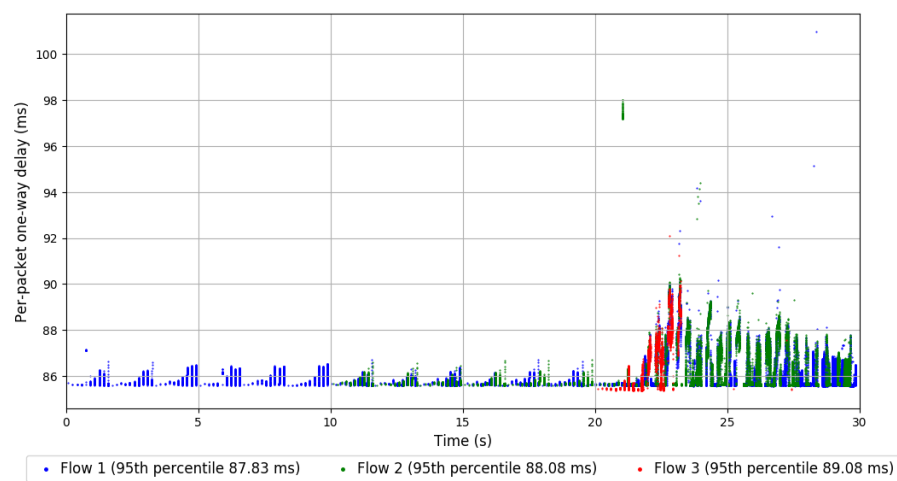Run 9: Report of Verus — Data Link

221

```
Run 10: Statistics of Verus

Start at: 2017-10-12 06:43:49
End at: 2017-10-12 06:44:19
Local clock offset: 0.67 ms
Remote clock offset: -7.975 ms

# Below is generated by plot.py at 2017-10-12 09:55:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.42 Mbit/s
95th percentile per-packet one-way delay: 88.017 ms
Loss rate: 88.58%
-- Flow 1:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 87.835 ms
Loss rate: 86.32%
-- Flow 2:
Average throughput: 8.99 Mbit/s
95th percentile per-packet one-way delay: 88.083 ms
Loss rate: 90.09%
-- Flow 3:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 89.081 ms
Loss rate: 93.15%
```
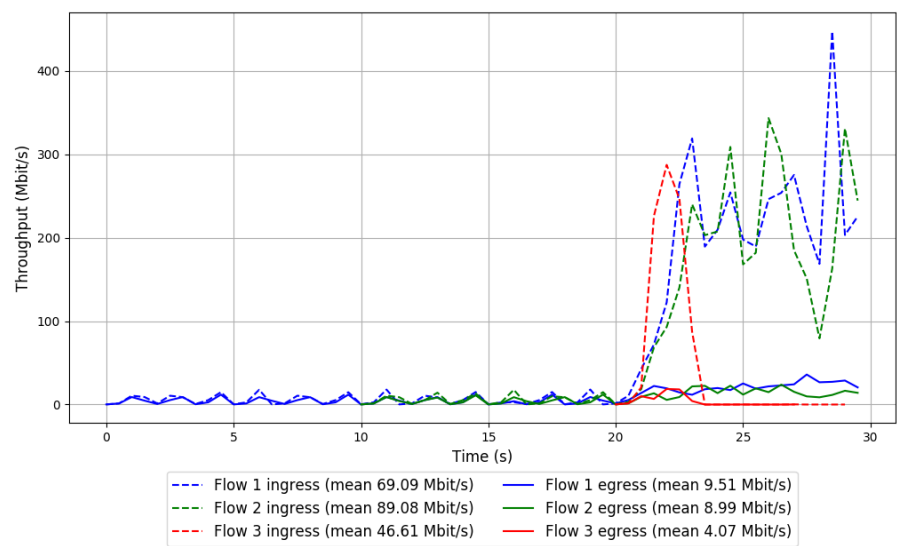
Run 10: Report of Verus — Data Link

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```
Run 1: Statistics of Copa

Start at: 2017-10-12 03:43:01
End at: 2017-10-12 03:43:31
Local clock offset: 1.268 ms
Remote clock offset: -3.423 ms


# Below is generated by plot.py at 2017-10-12 09:58:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 82.553 ms
Loss rate: 84.86%
-- Flow 1:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 82.553 ms
Loss rate: 84.86%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 83.051 ms
Loss rate: 80.80%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.950 ms
Loss rate: 92.35%
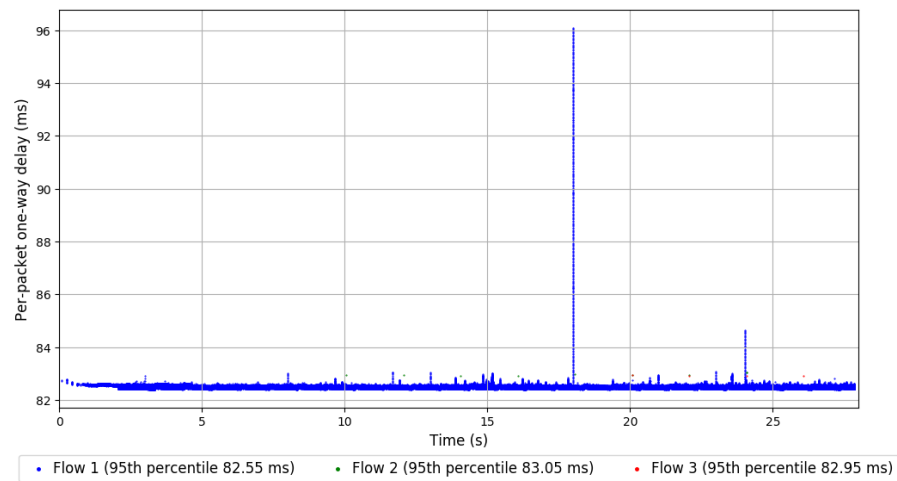```

Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2017-10-12 04:02:28
End at: 2017-10-12 04:02:58
Local clock offset: 1.361 ms
Remote clock offset: -7.457 ms

Below is generated by plot.py at 2017-10-12 09:58:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 33.91 Mbit/s
95th percentile per-packet one-way delay: 85.470 ms
Loss rate: 84.56%
-- Flow 1:
Average throughput: 33.91 Mbit/s
95th percentile per-packet one-way delay: 85.470 ms
Loss rate: 84.56%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 88.460 ms
Loss rate: 80.80%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 87.088 ms
Loss rate: 61.56%
```
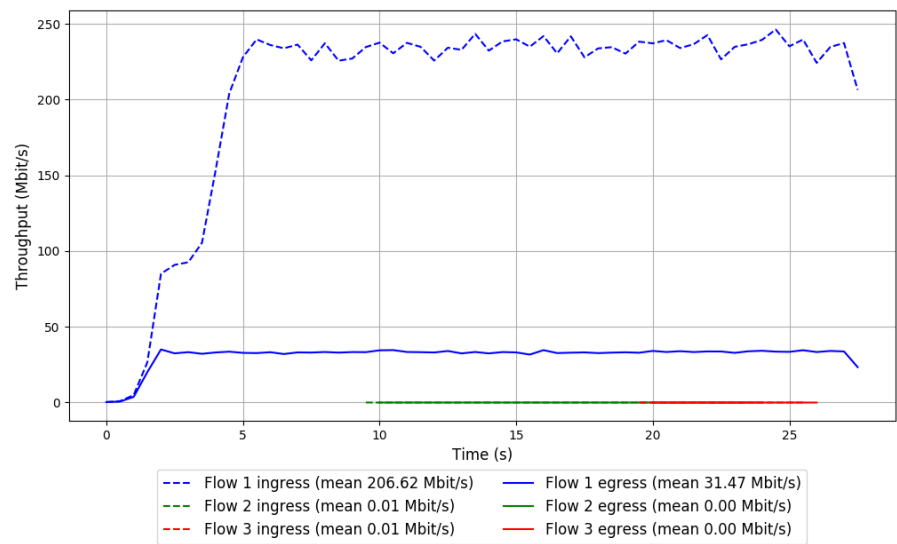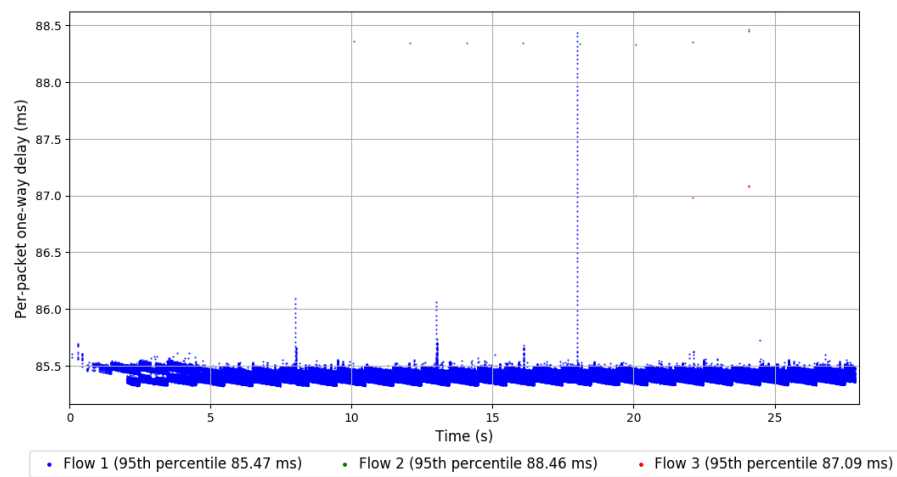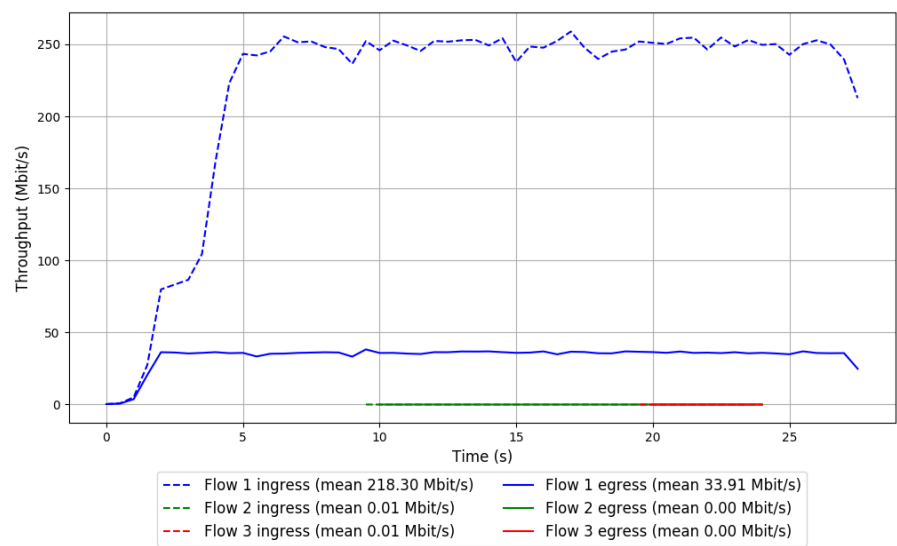
Run 2: Report of Copa — Data Link



- - - Flow 1 ingress (mean 218.30 Mbit/s) —— Flow 1 egress (mean 33.91 Mbit/s)
- - - Flow 2 ingress (mean 0.01 Mbit/s) —— Flow 2 egress (mean 0.00 Mbit/s)
- - - Flow 3 ingress (mean 0.01 Mbit/s) —— Flow 3 egress (mean 0.00 Mbit/s)



• Flow 1 (95th percentile 85.47 ms)   • Flow 2 (95th percentile 88.46 ms)   • Flow 3 (95th percentile 87.09 ms)

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```
Run 3: Statistics of Copa

Start at: 2017-10-12 04:22:04
End at: 2017-10-12 04:22:34
Local clock offset: 1.156 ms
Remote clock offset: -2.162 ms

Below is generated by plot.py at 2017-10-12 09:58:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 35.74 Mbit/s
95th percentile per-packet one-way delay: 81.746 ms
Loss rate: 83.62%
-- Flow 1:
Average throughput: 35.74 Mbit/s
95th percentile per-packet one-way delay: 81.746 ms
Loss rate: 83.62%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 81.850 ms
Loss rate: 93.20%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 83.972 ms
Loss rate: 71.17%
```
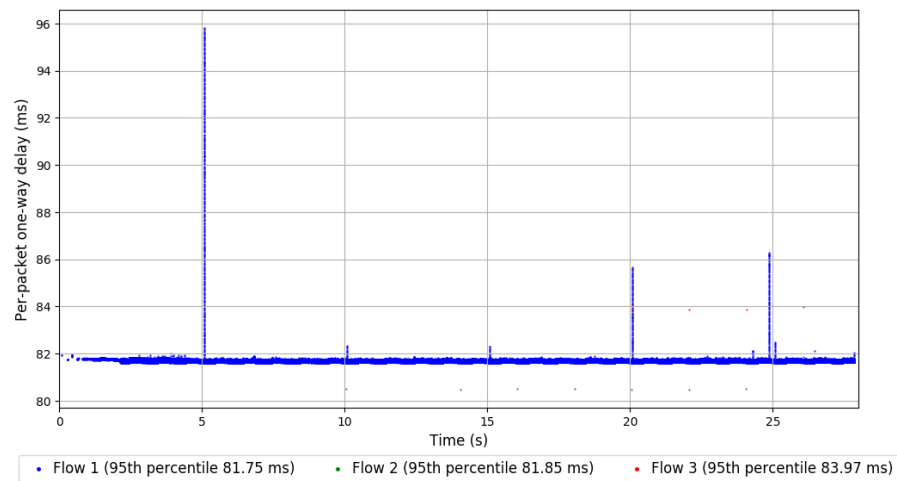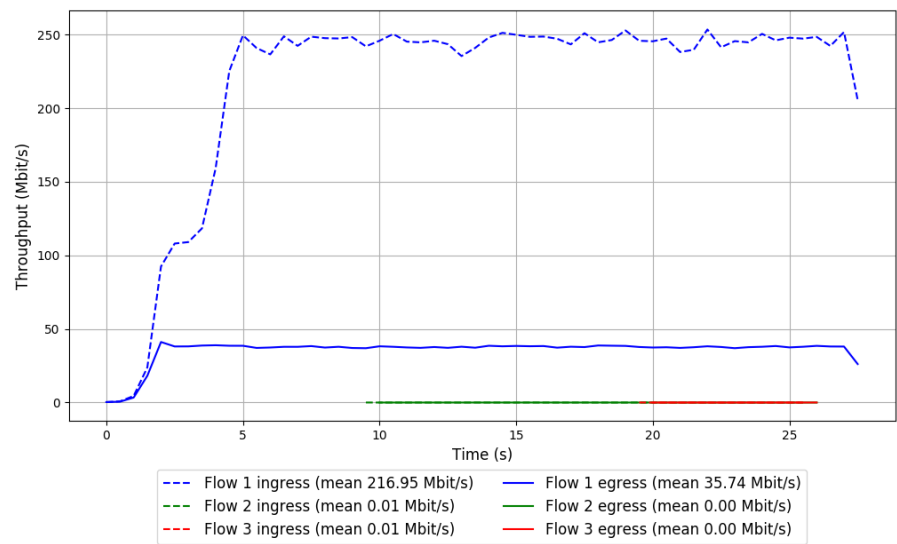
Run 3: Report of Copa — Data Link



Flow 1 ingress (mean 216.95 Mbit/s)          Flow 1 egress (mean 35.74 Mbit/s)
Flow 2 ingress (mean 0.01 Mbit/s)            Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 0.01 Mbit/s)            Flow 3 egress (mean 0.00 Mbit/s)



Flow 1 (95th percentile 81.75 ms)      Flow 2 (95th percentile 81.85 ms)      Flow 3 (95th percentile 83.97 ms)
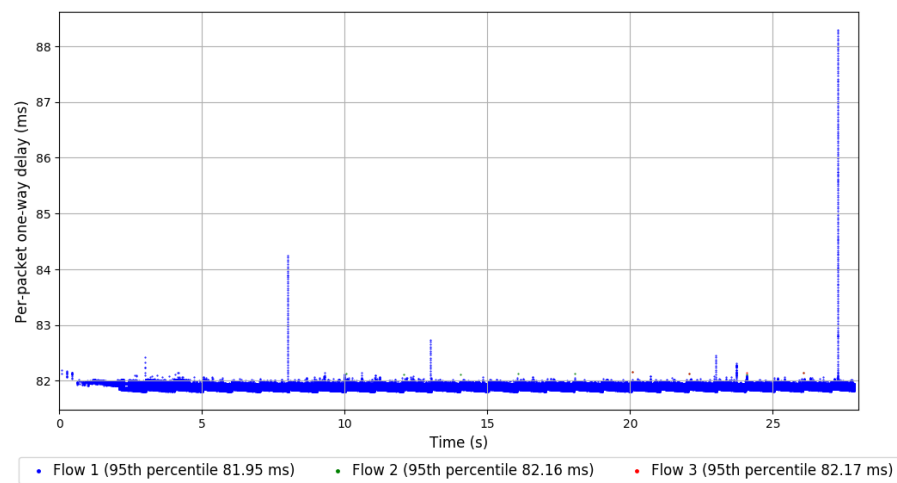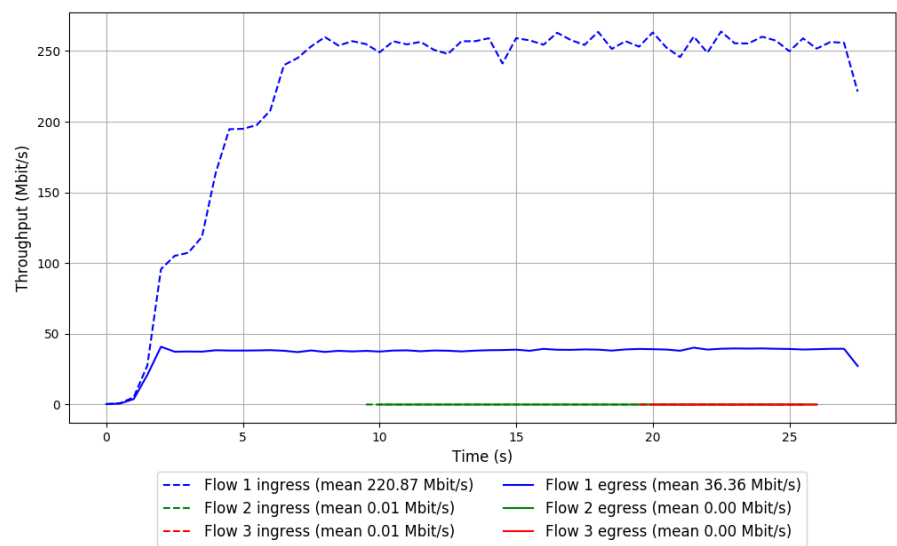
```
Run 4: Statistics of Copa

Start at: 2017-10-12 04:41:08
End at: 2017-10-12 04:41:38
Local clock offset: 1.118 ms
Remote clock offset: -1.866 ms

Below is generated by plot.py at 2017-10-12 09:58:56
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.36 Mbit/s
95th percentile per-packet one-way delay: 81.954 ms
Loss rate: 83.64%
-- Flow 1:
Average throughput: 36.36 Mbit/s
95th percentile per-packet one-way delay: 81.954 ms
Loss rate: 83.64%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.158 ms
Loss rate: 92.35%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.165 ms
Loss rate: 92.35%
```

Run 4: Report of Copa — Data Link

- - - Flow 1 ingress (mean 220.87 Mbit/s) ——— Flow 1 egress (mean 36.36 Mbit/s)
- - - Flow 2 ingress (mean 0.01 Mbit/s) ——— Flow 2 egress (mean 0.00 Mbit/s)
- - - Flow 3 ingress (mean 0.01 Mbit/s) ——— Flow 3 egress (mean 0.00 Mbit/s)

- Flow 1 (95th percentile 81.95 ms)   - Flow 2 (95th percentile 82.16 ms)   - Flow 3 (95th percentile 82.17 ms)
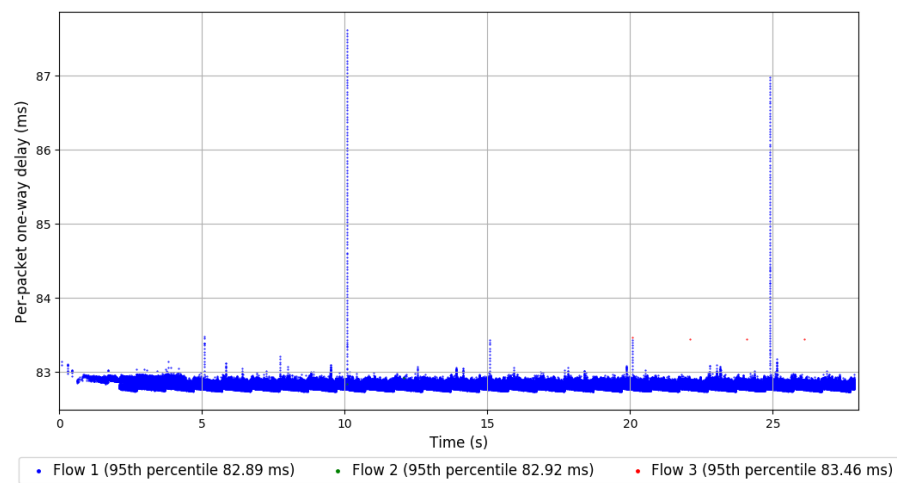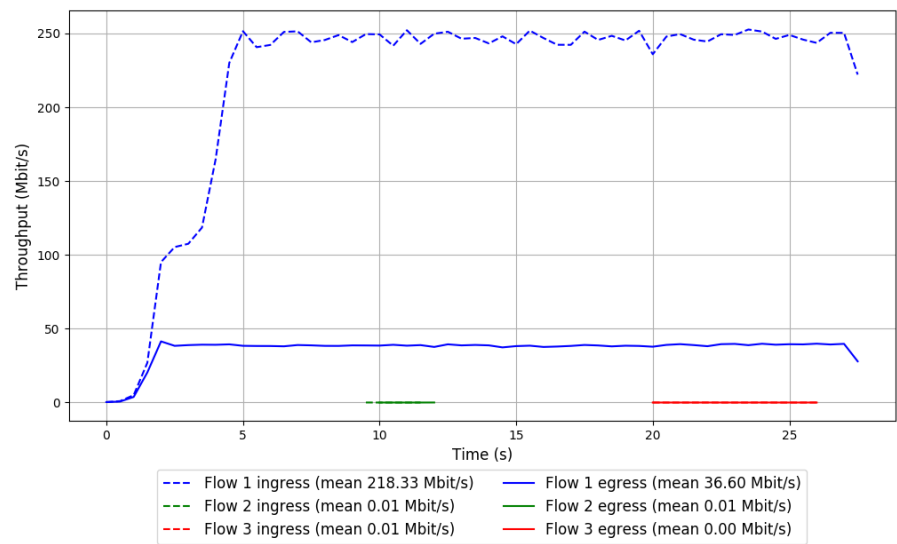
231

```
Run 5: Statistics of Copa

Start at: 2017-10-12 05:00:04
End at: 2017-10-12 05:00:34
Local clock offset: 1.162 ms
Remote clock offset: -2.444 ms

# Below is generated by plot.py at 2017-10-12 09:58:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.60 Mbit/s
95th percentile per-packet one-way delay: 82.888 ms
Loss rate: 83.34%
-- Flow 1:
Average throughput: 36.60 Mbit/s
95th percentile per-packet one-way delay: 82.888 ms
Loss rate: 83.34%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 82.917 ms
Loss rate: 46.17%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 83.462 ms
Loss rate: 92.35%
```

Run 5: Report of Copa — Data Link

- Flow 1 ingress (mean 218.33 Mbit/s)
- Flow 2 ingress (mean 0.01 Mbit/s)
- Flow 3 ingress (mean 0.01 Mbit/s)
- Flow 1 egress (mean 36.60 Mbit/s)
- Flow 2 egress (mean 0.01 Mbit/s)
- Flow 3 egress (mean 0.00 Mbit/s)

- Flow 1 (95th percentile 82.89 ms)
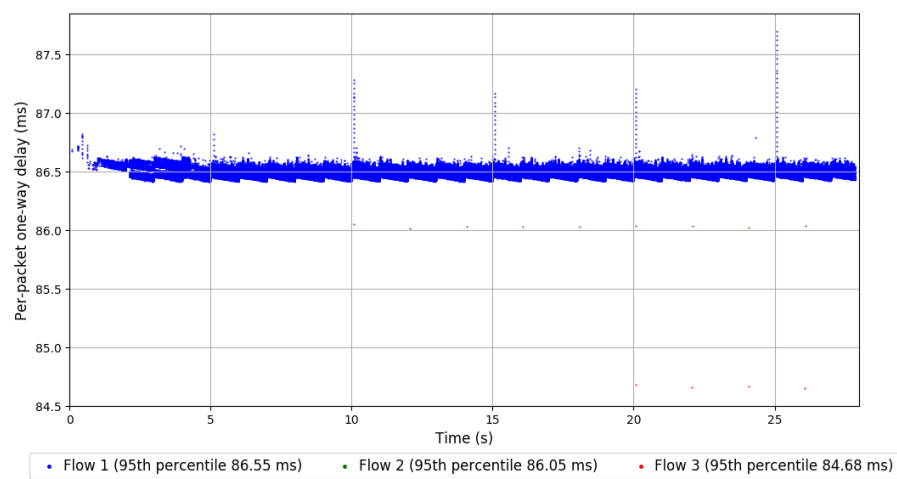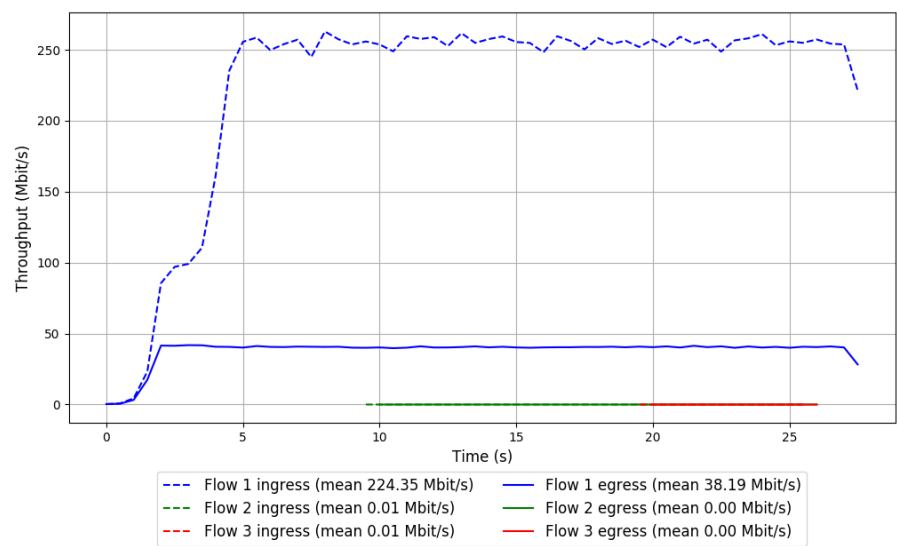- Flow 2 (95th percentile 82.92 ms)
- Flow 3 (95th percentile 83.46 ms)

```
Run 6: Statistics of Copa

Start at: 2017-10-12 05:18:41
End at: 2017-10-12 05:19:11
Local clock offset: 1.137 ms
Remote clock offset: -5.238 ms


# Below is generated by plot.py at 2017-10-12 09:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.19 Mbit/s
95th percentile per-packet one-way delay: 86.550 ms
Loss rate: 83.08%
-- Flow 1:
Average throughput: 38.19 Mbit/s
95th percentile per-packet one-way delay: 86.550 ms
Loss rate: 83.08%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.049 ms
Loss rate: 92.35%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 84.680 ms
Loss rate: 92.35%
```

Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 224.35 Mbit/s)   Flow 1 egress (mean 38.19 Mbit/s)
Flow 2 ingress (mean 0.01 Mbit/s)   Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 0.01 Mbit/s)   Flow 3 egress (mean 0.00 Mbit/s)

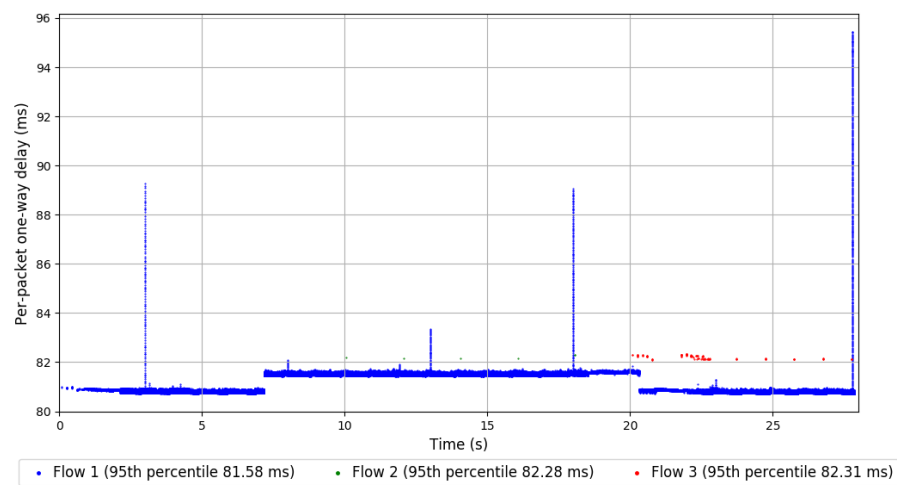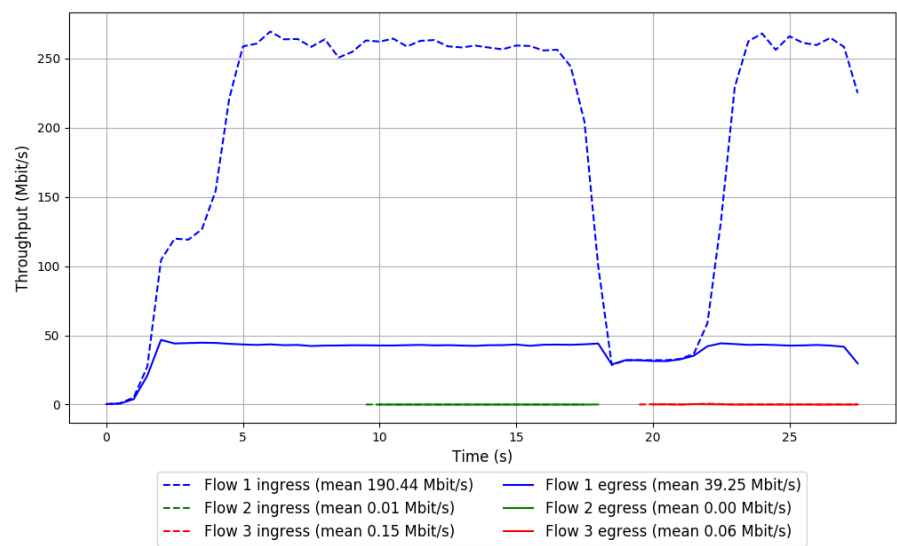Flow 1 (95th percentile 86.55 ms)   Flow 2 (95th percentile 86.05 ms)   Flow 3 (95th percentile 84.68 ms)

```
Run 7: Statistics of Copa

Start at: 2017-10-12 05:37:59
End at: 2017-10-12 05:38:29
Local clock offset: 1.166 ms
Remote clock offset: -1.227 ms


# Below is generated by plot.py at 2017-10-12 09:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.27 Mbit/s
95th percentile per-packet one-way delay: 81.583 ms
Loss rate: 79.51%
-- Flow 1:
Average throughput: 39.25 Mbit/s
95th percentile per-packet one-way delay: 81.583 ms
Loss rate: 79.51%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.285 ms
Loss rate: 73.88%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 82.311 ms
Loss rate: 61.73%
```
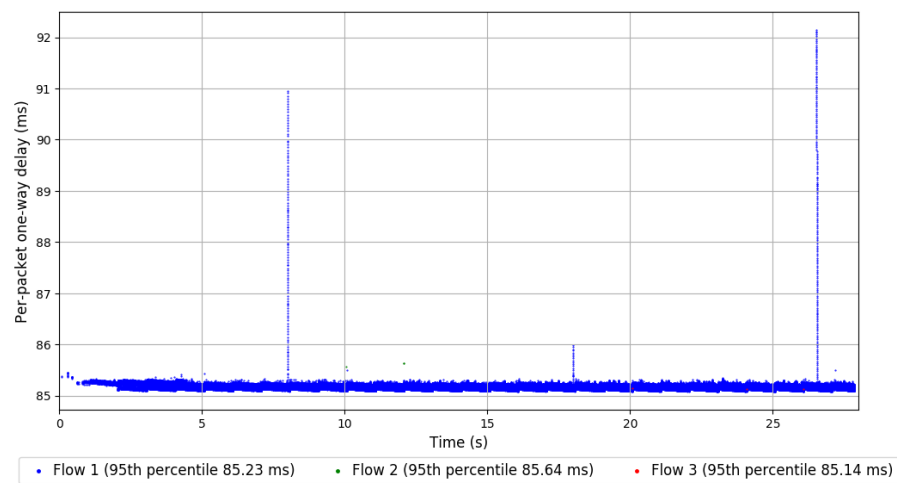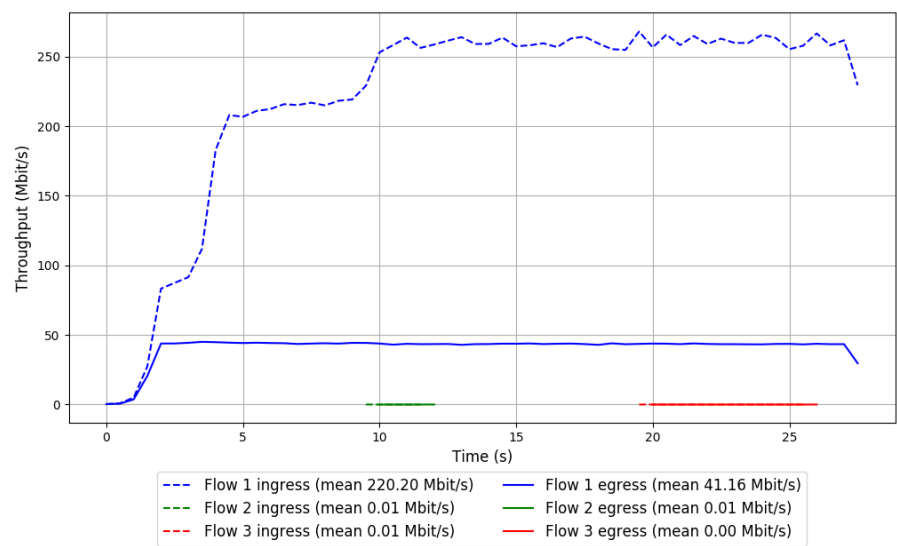
Run 7: Report of Copa — Data Link

Flow 1 ingress (mean 190.44 Mbit/s) --- Flow 1 egress (mean 39.25 Mbit/s) ——
Flow 2 ingress (mean 0.01 Mbit/s) --- Flow 2 egress (mean 0.00 Mbit/s) ——
Flow 3 ingress (mean 0.15 Mbit/s) --- Flow 3 egress (mean 0.06 Mbit/s) ——

Flow 1 (95th percentile 81.58 ms) • Flow 2 (95th percentile 82.28 ms) • Flow 3 (95th percentile 82.31 ms)

237

```
Run 8: Statistics of Copa

Start at: 2017-10-12 05:56:35
End at: 2017-10-12 05:57:05
Local clock offset: 0.906 ms
Remote clock offset: -6.496 ms


# Below is generated by plot.py at 2017-10-12 09:59:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.16 Mbit/s
95th percentile per-packet one-way delay: 85.235 ms
Loss rate: 81.42%
-- Flow 1:
Average throughput: 41.16 Mbit/s
95th percentile per-packet one-way delay: 85.235 ms
Loss rate: 81.42%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 85.640 ms
Loss rate: 46.17%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 85.137 ms
Loss rate: 94.26%
```
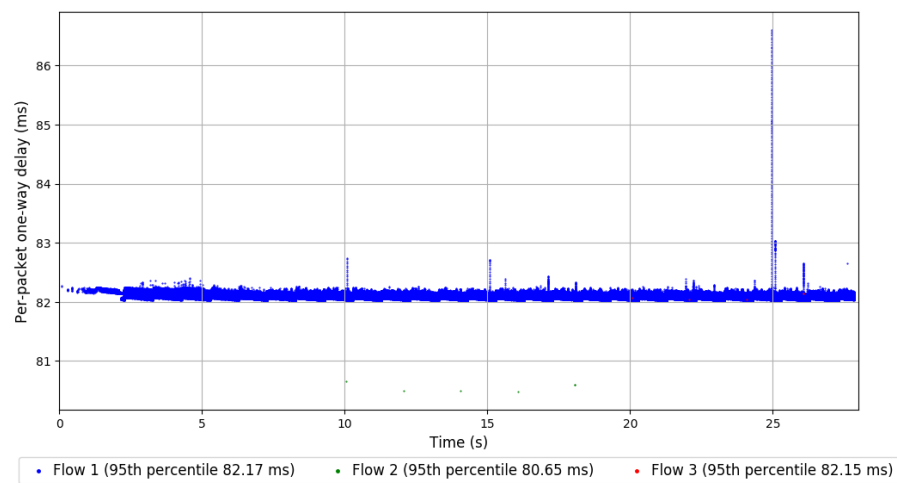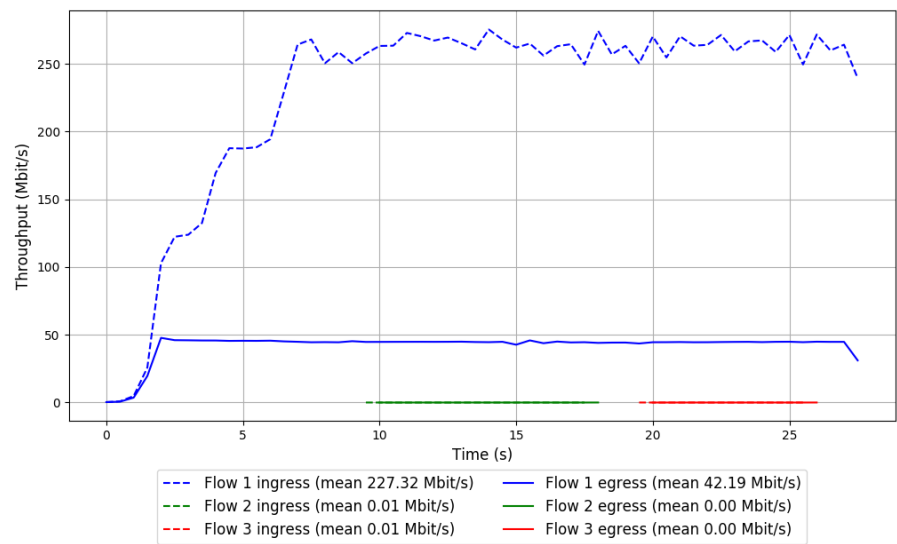
Run 8: Report of Copa — Data Link

- - - Flow 1 ingress (mean 220.20 Mbit/s) ——— Flow 1 egress (mean 41.16 Mbit/s)
- - - Flow 2 ingress (mean 0.01 Mbit/s) ——— Flow 2 egress (mean 0.01 Mbit/s)
- - - Flow 3 ingress (mean 0.01 Mbit/s) ——— Flow 3 egress (mean 0.00 Mbit/s)

• Flow 1 (95th percentile 85.23 ms)   • Flow 2 (95th percentile 85.64 ms)   • Flow 3 (95th percentile 85.14 ms)

```
Run 9: Statistics of Copa

Start at: 2017-10-12 06:15:19
End at: 2017-10-12 06:15:49
Local clock offset: 0.8 ms
Remote clock offset: -2.111 ms


# Below is generated by plot.py at 2017-10-12 10:01:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.19 Mbit/s
95th percentile per-packet one-way delay: 82.173 ms
Loss rate: 81.55%
-- Flow 1:
Average throughput: 42.19 Mbit/s
95th percentile per-packet one-way delay: 82.173 ms
Loss rate: 81.55%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 80.653 ms
Loss rate: 56.94%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.149 ms
Loss rate: 69.26%
```
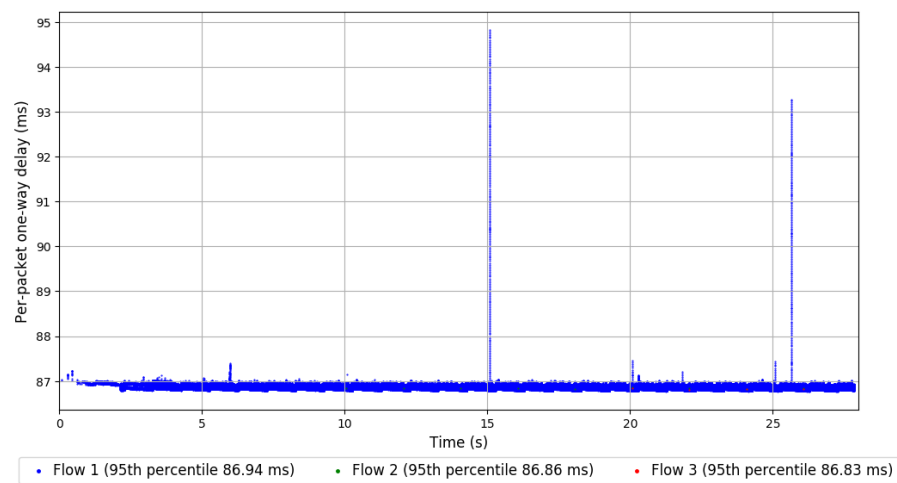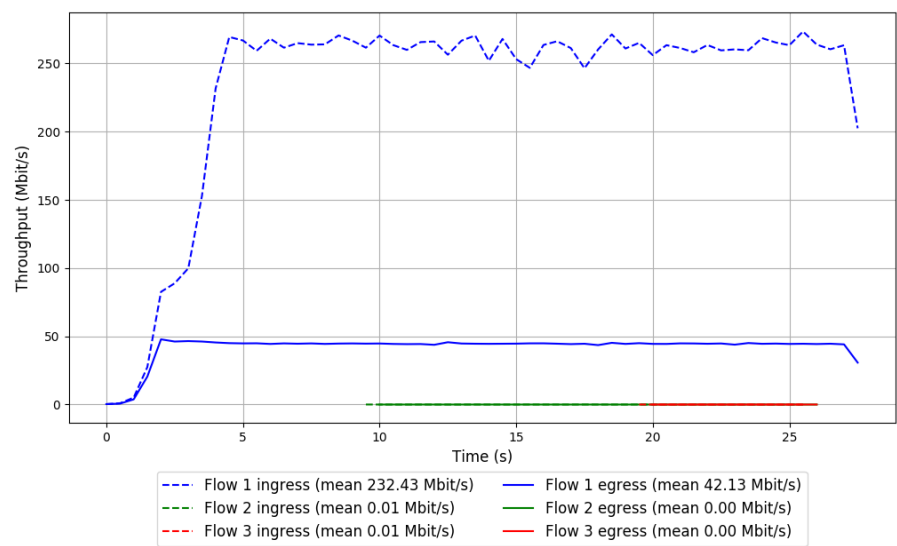
Run 9: Report of Copa — Data Link

- - - Flow 1 ingress (mean 227.32 Mbit/s) —— Flow 1 egress (mean 42.19 Mbit/s)
- - - Flow 2 ingress (mean 0.01 Mbit/s) —— Flow 2 egress (mean 0.00 Mbit/s)
- - - Flow 3 ingress (mean 0.01 Mbit/s) —— Flow 3 egress (mean 0.00 Mbit/s)

- Flow 1 (95th percentile 82.17 ms) • Flow 2 (95th percentile 80.65 ms) • Flow 3 (95th percentile 82.15 ms)

```
Run 10: Statistics of Copa

Start at: 2017-10-12 06:34:20
End at: 2017-10-12 06:34:50
Local clock offset: 0.692 ms
Remote clock offset: -7.605 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.14 Mbit/s
95th percentile per-packet one-way delay: 86.935 ms
Loss rate: 81.98%
-- Flow 1:
Average throughput: 42.13 Mbit/s
95th percentile per-packet one-way delay: 86.935 ms
Loss rate: 81.98%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.855 ms
Loss rate: 92.35%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.834 ms
Loss rate: 92.35%
```
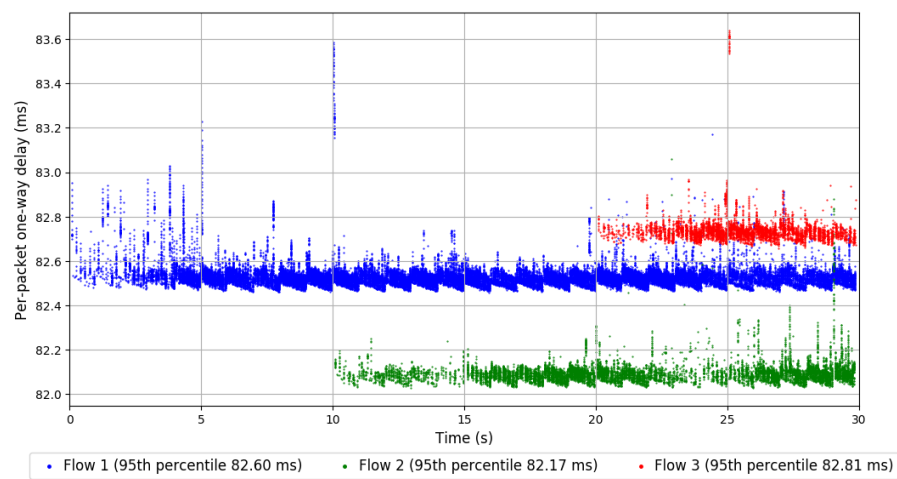
Run 10: Report of Copa — Data Link

```
Run 1: Statistics of CalibratedKoho

Start at: 2017-10-12 03:50:02
End at: 2017-10-12 03:50:32
Local clock offset: 1.3 ms
Remote clock offset: -3.01 ms

# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.76 Mbit/s
95th percentile per-packet one-way delay: 82.737 ms
Loss rate: 66.99%
-- Flow 1:
Average throughput: 14.06 Mbit/s
95th percentile per-packet one-way delay: 82.602 ms
Loss rate: 68.70%
-- Flow 2:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 82.165 ms
Loss rate: 63.04%
-- Flow 3:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 82.807 ms
Loss rate: 59.12%
```
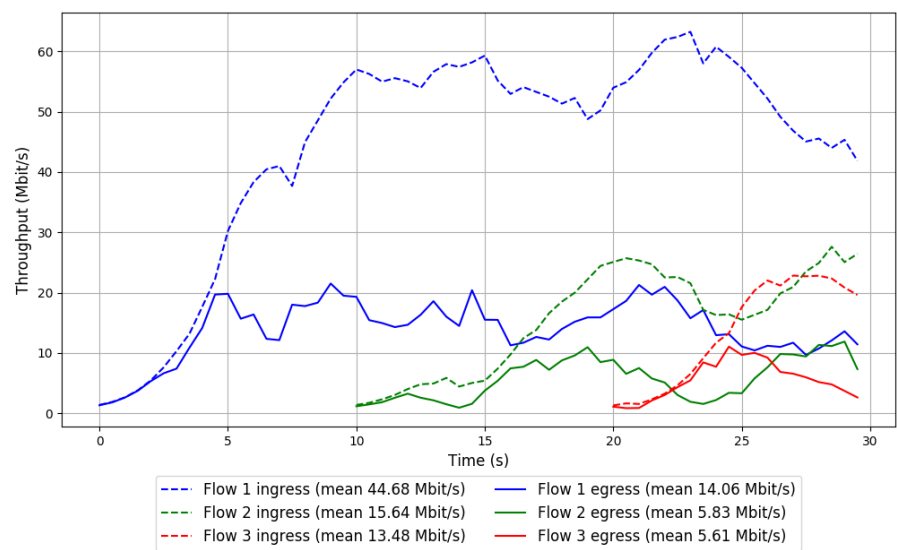
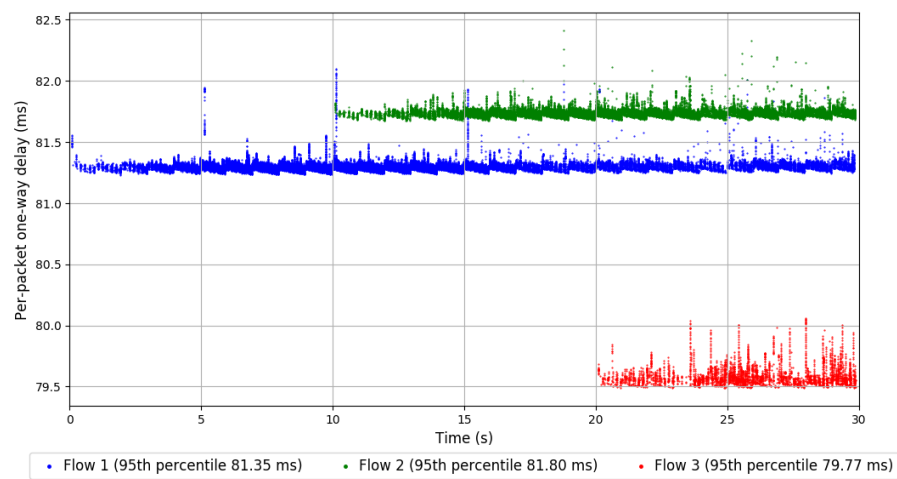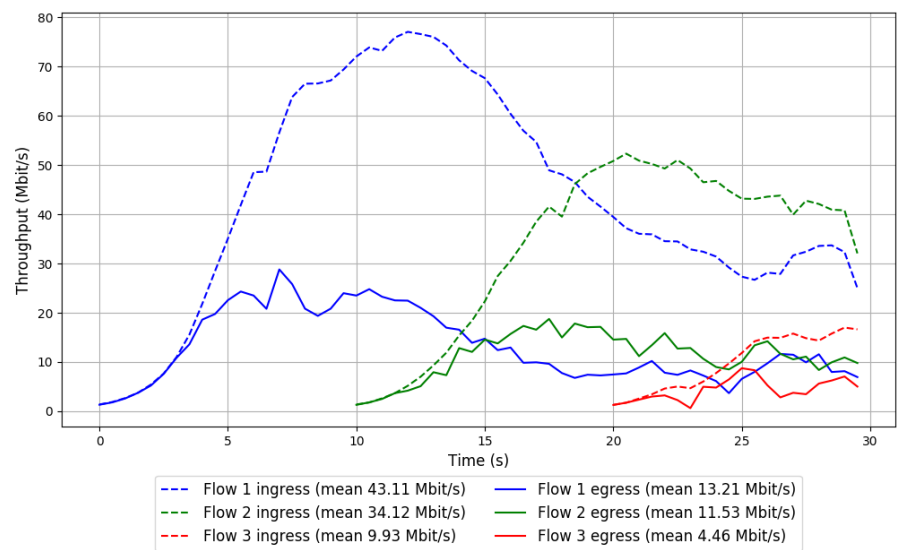Run 1: Report of CalibratedKoho — Data Link

```
Run 2: Statistics of CalibratedKoho

Start at: 2017-10-12 04:09:42
End at: 2017-10-12 04:10:12
Local clock offset: 1.391 ms
Remote clock offset: -1.543 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.31 Mbit/s
95th percentile per-packet one-way delay: 81.768 ms
Loss rate: 67.88%
-- Flow 1:
Average throughput: 13.21 Mbit/s
95th percentile per-packet one-way delay: 81.349 ms
Loss rate: 69.53%
-- Flow 2:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 81.798 ms
Loss rate: 66.48%
-- Flow 3:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 79.768 ms
Loss rate: 55.90%
```

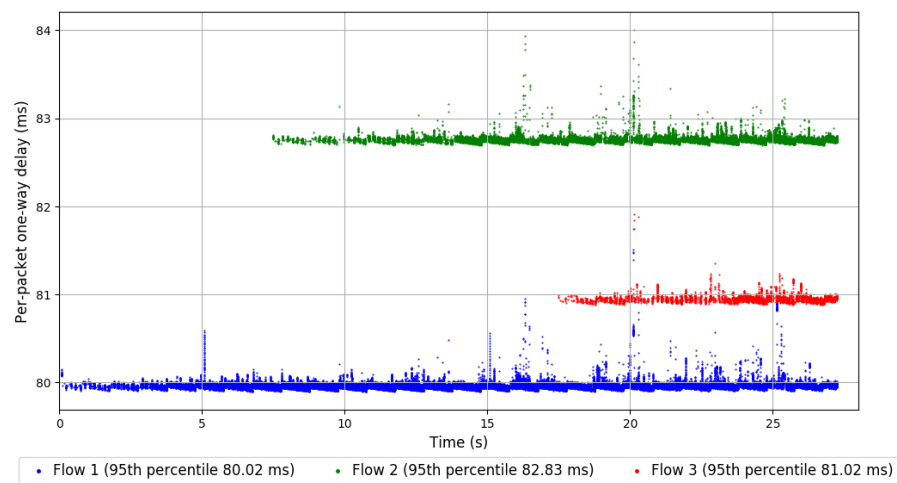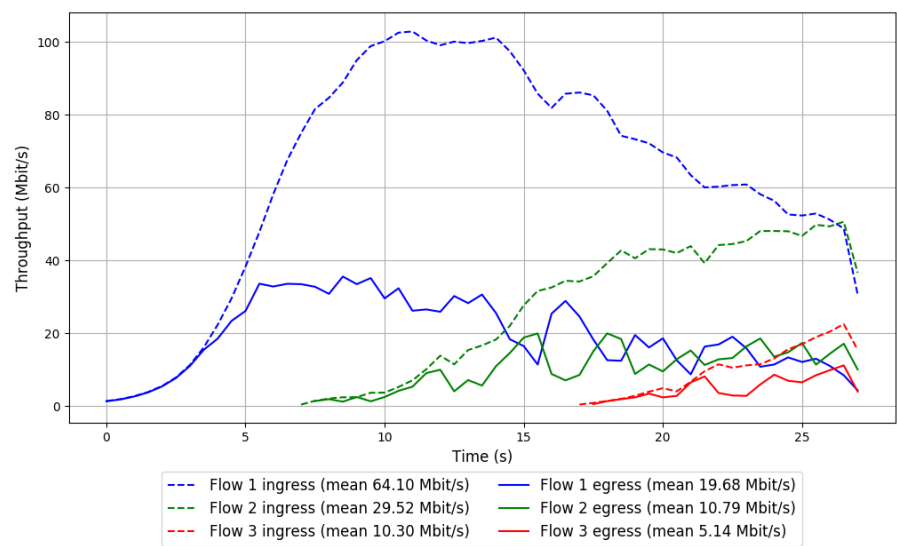Run 2: Report of CalibratedKoho — Data Link

```
Run 3: Statistics of CalibratedKoho

Start at: 2017-10-12 04:29:04
End at: 2017-10-12 04:29:34
Local clock offset: 1.13 ms
Remote clock offset: -1.258 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.35 Mbit/s
95th percentile per-packet one-way delay: 82.784 ms
Loss rate: 67.34%
-- Flow 1:
Average throughput: 19.68 Mbit/s
95th percentile per-packet one-way delay: 80.015 ms
Loss rate: 69.49%
-- Flow 2:
Average throughput: 10.79 Mbit/s
95th percentile per-packet one-way delay: 82.826 ms
Loss rate: 63.77%
-- Flow 3:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 81.024 ms
Loss rate: 51.00%
```

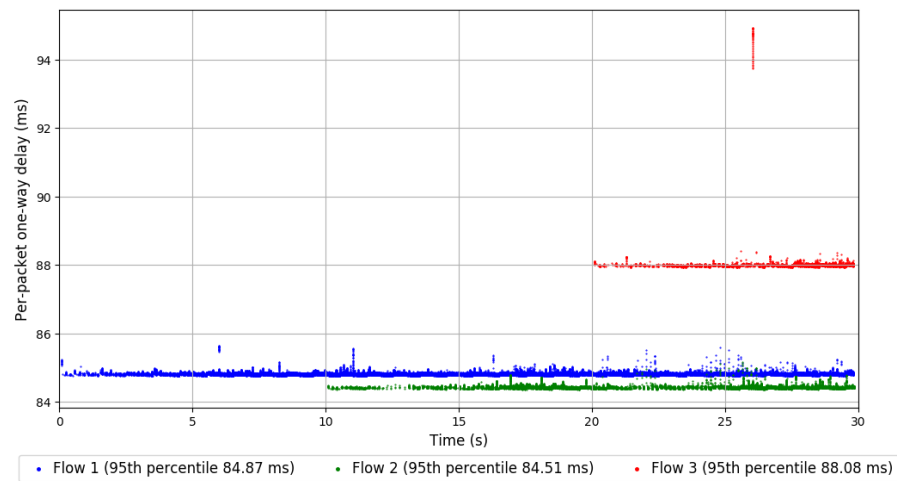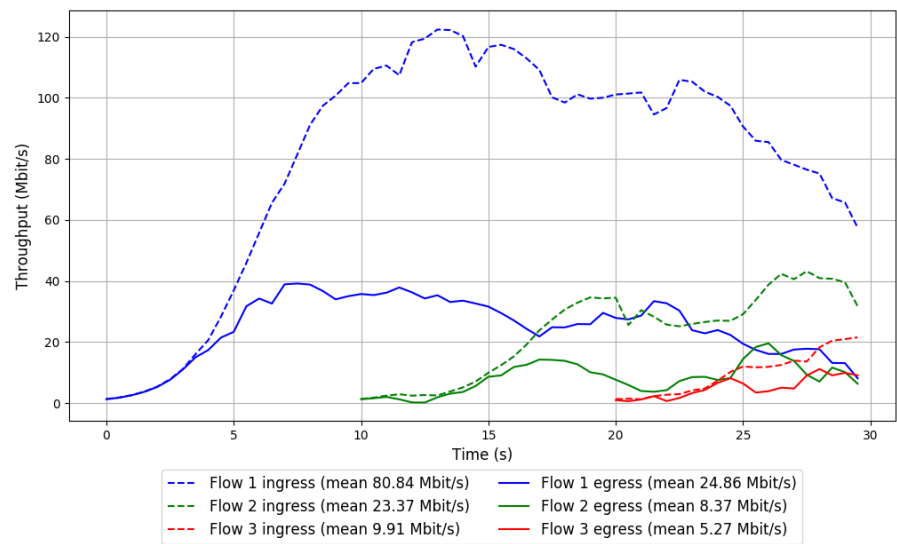Run 3: Report of CalibratedKoho — Data Link

```
Run 4: Statistics of CalibratedKoho

Start at: 2017-10-12 04:48:16
End at: 2017-10-12 04:48:46
Local clock offset: 1.161 ms
Remote clock offset: -5.733 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 87.961 ms
Loss rate: 67.94%
-- Flow 1:
Average throughput: 24.86 Mbit/s
95th percentile per-packet one-way delay: 84.866 ms
Loss rate: 69.43%
-- Flow 2:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 84.512 ms
Loss rate: 64.47%
-- Flow 3:
Average throughput: 5.27 Mbit/s
95th percentile per-packet one-way delay: 88.076 ms
Loss rate: 47.78%
```

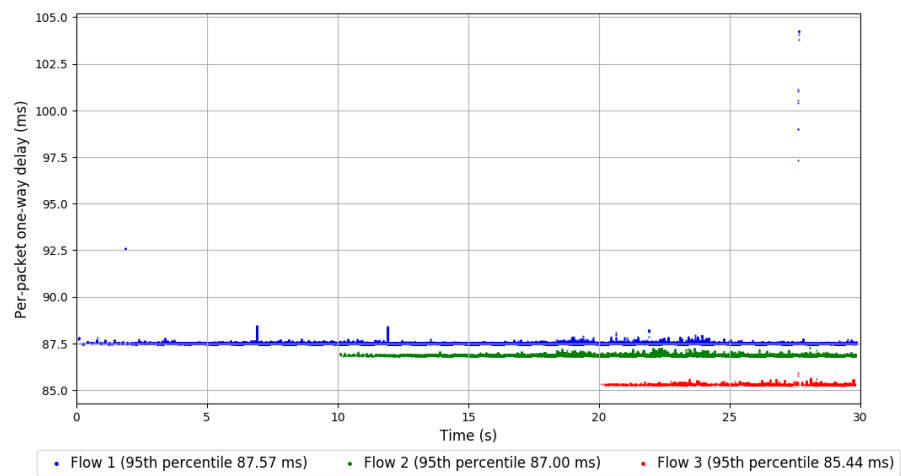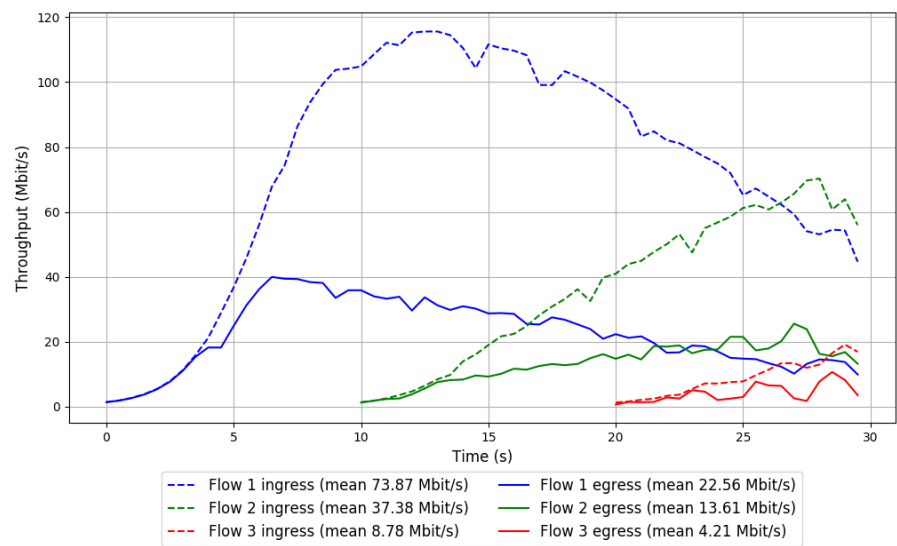Run 4: Report of CalibratedKoho — Data Link

```
Run 5: Statistics of CalibratedKoho

Start at: 2017-10-12 05:06:52
End at: 2017-10-12 05:07:22
Local clock offset: 1.157 ms
Remote clock offset: -6.326 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 87.552 ms
Loss rate: 67.75%
-- Flow 1:
Average throughput: 22.56 Mbit/s
95th percentile per-packet one-way delay: 87.567 ms
Loss rate: 69.63%
-- Flow 2:
Average throughput: 13.61 Mbit/s
95th percentile per-packet one-way delay: 86.997 ms
Loss rate: 63.89%
-- Flow 3:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 85.441 ms
Loss rate: 53.06%
```

Run 5: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 73.87 Mbit/s) --- Flow 1 egress (mean 22.56 Mbit/s)
Flow 2 ingress (mean 37.38 Mbit/s) --- Flow 2 egress (mean 13.61 Mbit/s)
Flow 3 ingress (mean 8.78 Mbit/s) --- Flow 3 egress (mean 4.21 Mbit/s)

Flow 1 (95th percentile 87.57 ms)   Flow 2 (95th percentile 87.00 ms)   Flow 3 (95th percentile 85.44 ms)
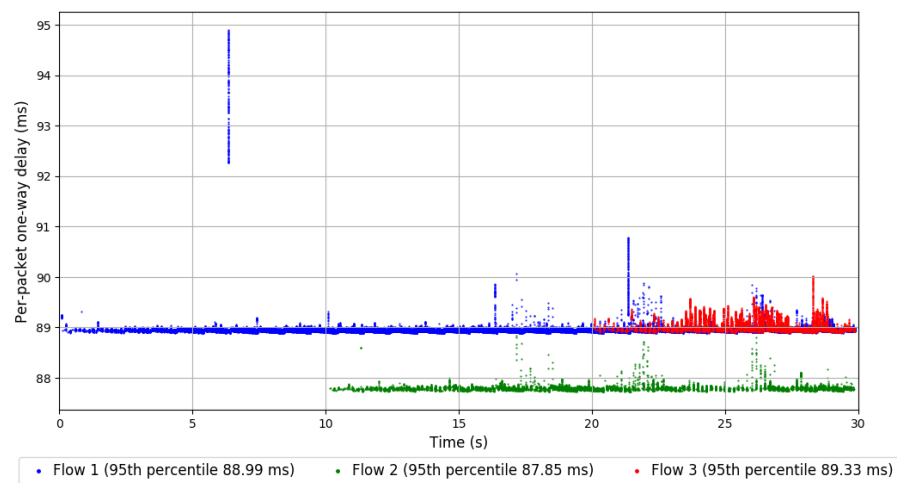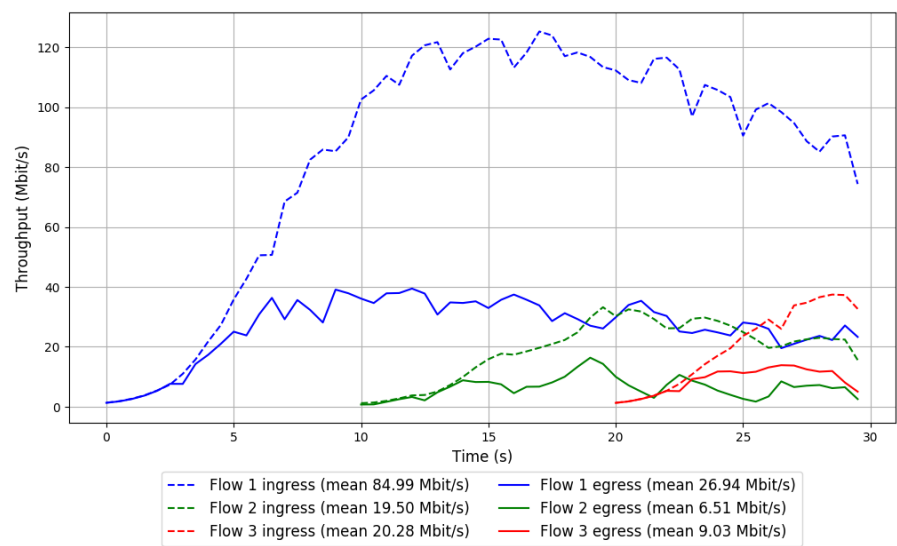
253

```
Run 6: Statistics of CalibratedKoho

Start at: 2017-10-12 05:25:44
End at: 2017-10-12 05:26:14
Local clock offset: 1.21 ms
Remote clock offset: -6.333 ms

# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.20 Mbit/s
95th percentile per-packet one-way delay: 89.030 ms
Loss rate: 67.51%
-- Flow 1:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 88.991 ms
Loss rate: 68.48%
-- Flow 2:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 87.854 ms
Loss rate: 66.96%
-- Flow 3:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 89.334 ms
Loss rate: 56.26%
```
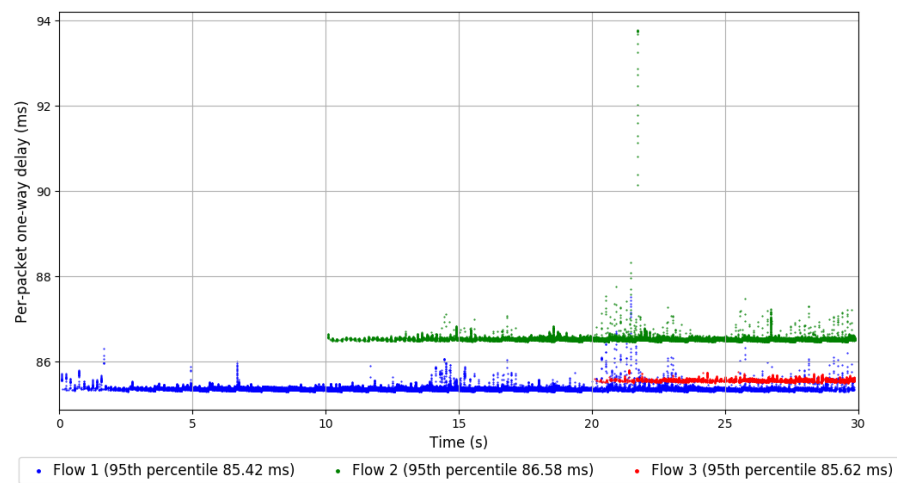
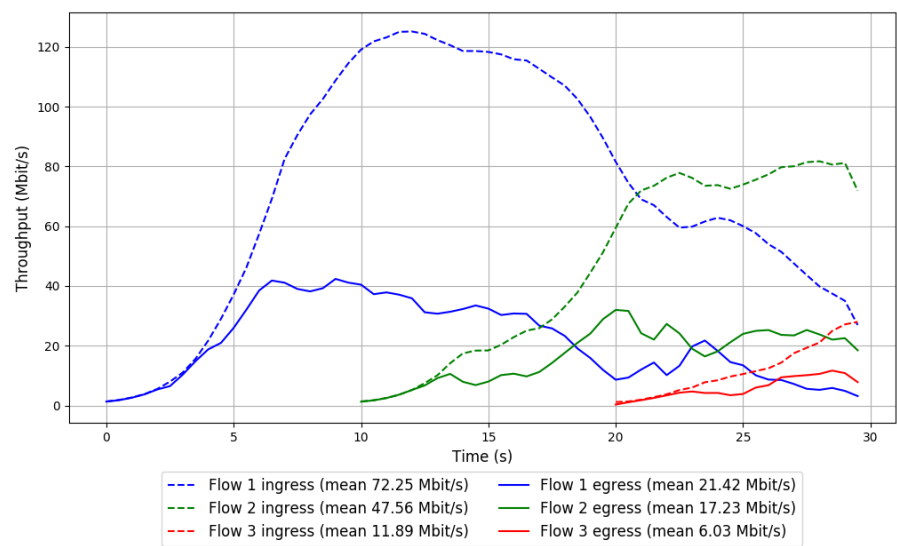Run 6: Report of CalibratedKoho — Data Link

```
Run 7: Statistics of CalibratedKoho

Start at: 2017-10-12 05:44:44
End at: 2017-10-12 05:45:14
Local clock offset: 1.083 ms
Remote clock offset: -6.106 ms

# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.82 Mbit/s
95th percentile per-packet one-way delay: 86.559 ms
Loss rate: 67.88%
-- Flow 1:
Average throughput: 21.42 Mbit/s
95th percentile per-packet one-way delay: 85.415 ms
Loss rate: 70.51%
-- Flow 2:
Average throughput: 17.23 Mbit/s
95th percentile per-packet one-way delay: 86.582 ms
Loss rate: 64.09%
-- Flow 3:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 85.623 ms
Loss rate: 50.17%
```

Run 7: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 72.25 Mbit/s)   Flow 1 egress (mean 21.42 Mbit/s)
Flow 2 ingress (mean 47.56 Mbit/s)   Flow 2 egress (mean 17.23 Mbit/s)
Flow 3 ingress (mean 11.89 Mbit/s)   Flow 3 egress (mean 6.03 Mbit/s)

Flow 1 (95th percentile 85.42 ms)   Flow 2 (95th percentile 86.58 ms)   Flow 3 (95th percentile 85.62 ms)
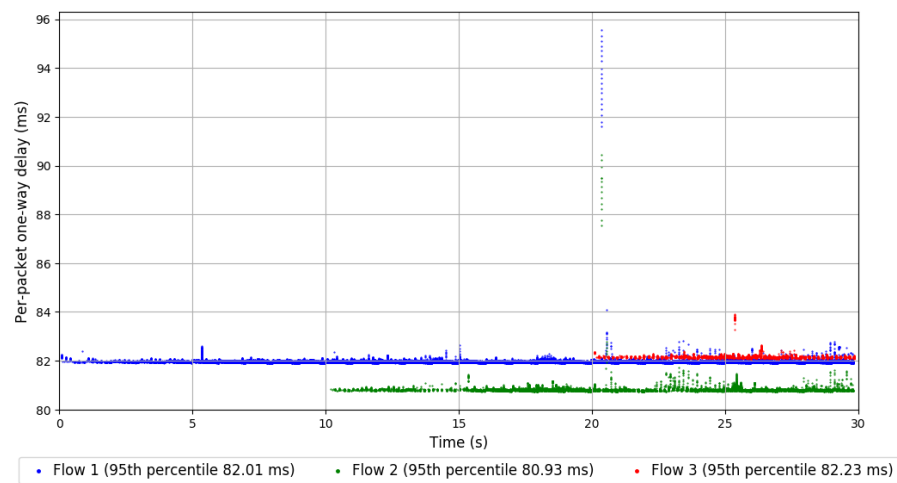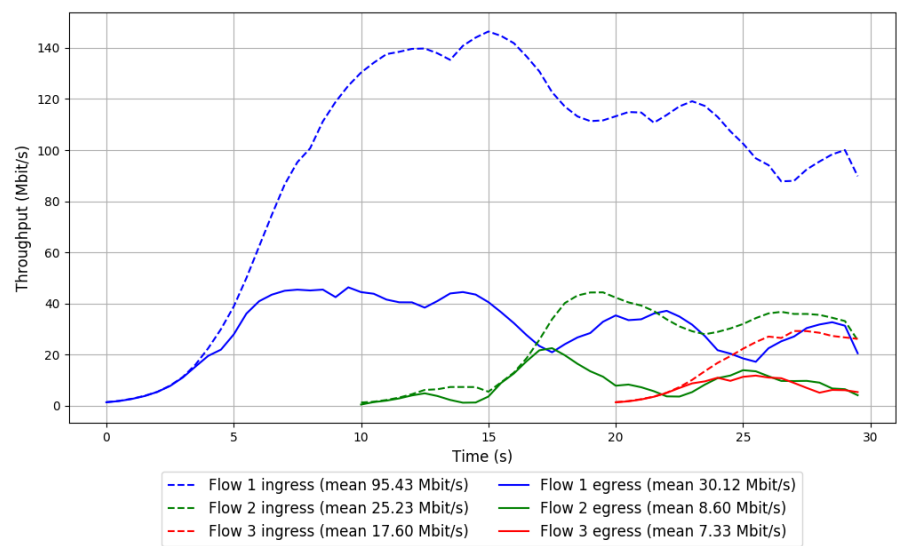
```
Run 8: Statistics of CalibratedKoho

Start at: 2017-10-12 06:03:28
End at: 2017-10-12 06:03:58
Local clock offset: 0.921 ms
Remote clock offset: -1.732 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.16 Mbit/s
95th percentile per-packet one-way delay: 82.135 ms
Loss rate: 67.82%
-- Flow 1:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 82.008 ms
Loss rate: 68.61%
-- Flow 2:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 80.928 ms
Loss rate: 66.38%
-- Flow 3:
Average throughput: 7.33 Mbit/s
95th percentile per-packet one-way delay: 82.234 ms
Loss rate: 59.07%
```

Run 8: Report of CalibratedKoho — Data Link

```
Run 9: Statistics of CalibratedKoho

Start at: 2017-10-12 06:22:17
End at: 2017-10-12 06:22:47
Local clock offset: 0.683 ms
Remote clock offset: -2.5 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.44 Mbit/s
95th percentile per-packet one-way delay: 82.220 ms
Loss rate: 67.71%
-- Flow 1:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 80.883 ms
Loss rate: 70.13%
-- Flow 2:
Average throughput: 16.25 Mbit/s
95th percentile per-packet one-way delay: 82.257 ms
Loss rate: 64.38%
-- Flow 3:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 82.286 ms
Loss rate: 53.89%
```
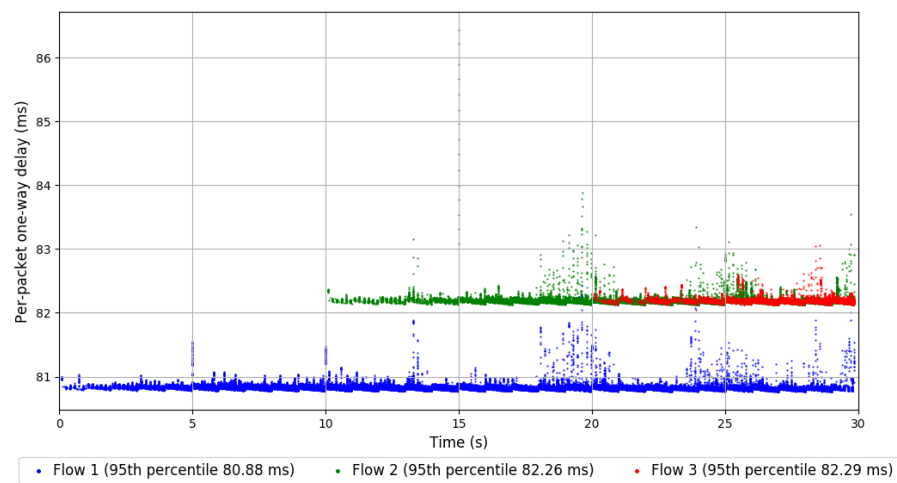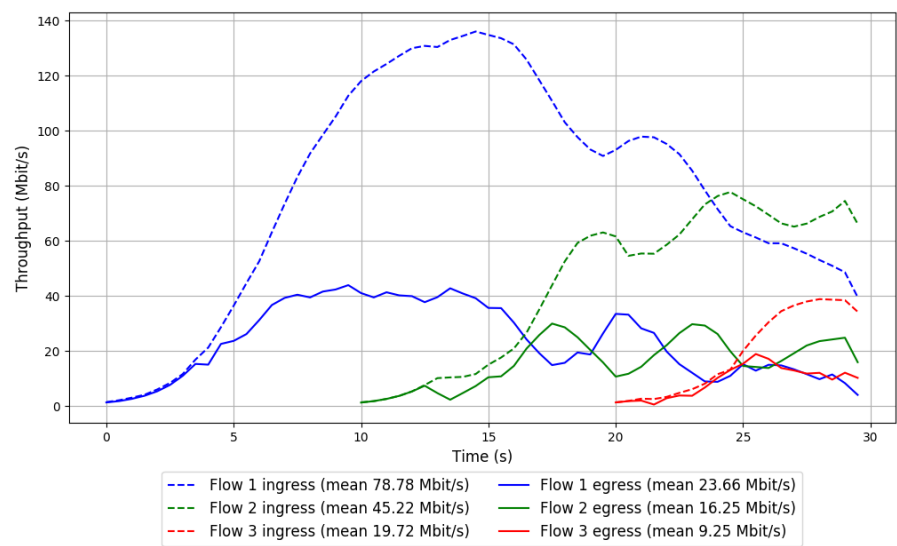
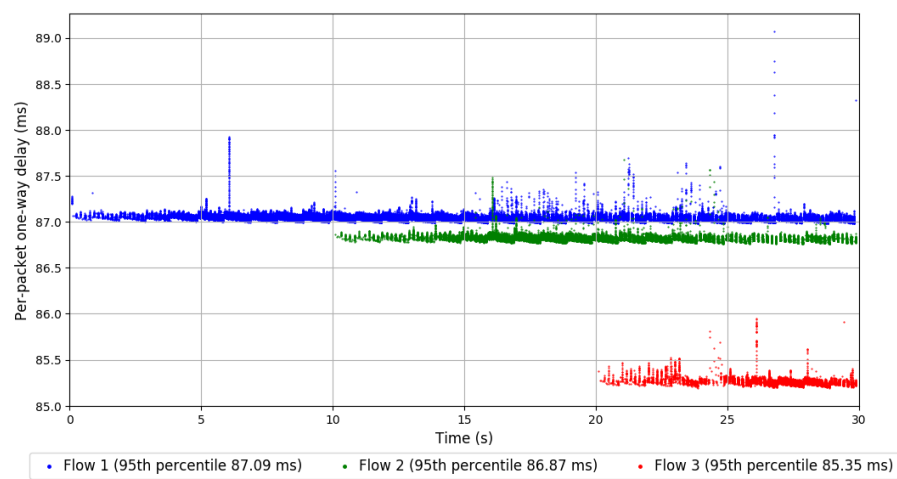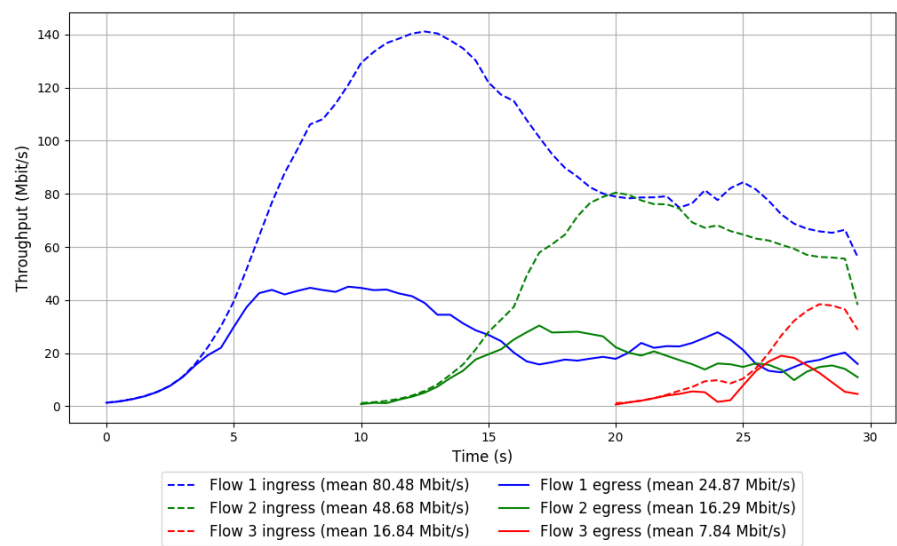Run 9: Report of CalibratedKoho — Data Link

```
Run 10: Statistics of CalibratedKoho

Start at: 2017-10-12 06:41:10
End at: 2017-10-12 06:41:40
Local clock offset: 0.633 ms
Remote clock offset: -7.978 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.25 Mbit/s
95th percentile per-packet one-way delay: 87.087 ms
Loss rate: 67.89%
-- Flow 1:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 87.092 ms
Loss rate: 69.27%
-- Flow 2:
Average throughput: 16.29 Mbit/s
95th percentile per-packet one-way delay: 86.867 ms
Loss rate: 66.82%
-- Flow 3:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 85.347 ms
Loss rate: 54.19%
```

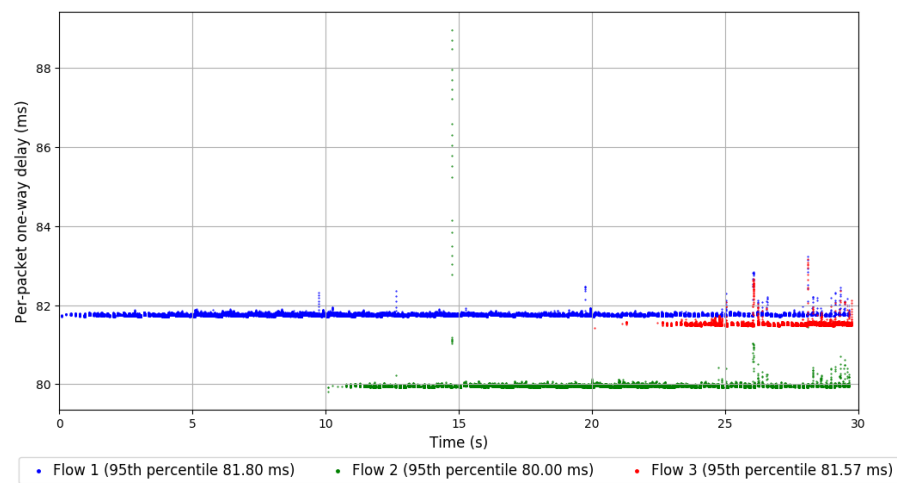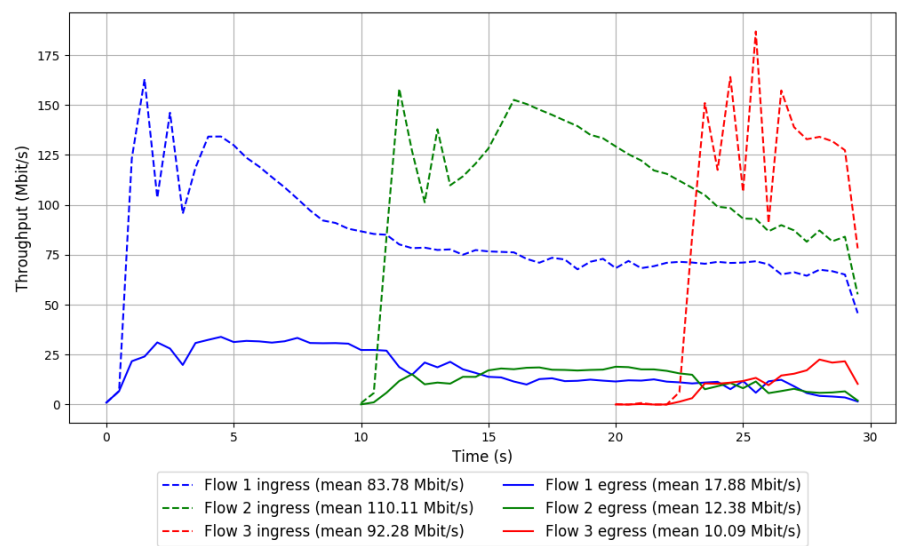Run 10: Report of CalibratedKoho — Data Link

```
Run 1: Statistics of Indigo

Start at: 2017-10-12 03:40:02
End at: 2017-10-12 03:40:32
Local clock offset: 1.233 ms
Remote clock offset: -2.473 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.27 Mbit/s
95th percentile per-packet one-way delay: 81.794 ms
Loss rate: 84.41%
-- Flow 1:
Average throughput: 17.88 Mbit/s
95th percentile per-packet one-way delay: 81.801 ms
Loss rate: 78.79%
-- Flow 2:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 80.005 ms
Loss rate: 88.85%
-- Flow 3:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 81.572 ms
Loss rate: 89.26%
```
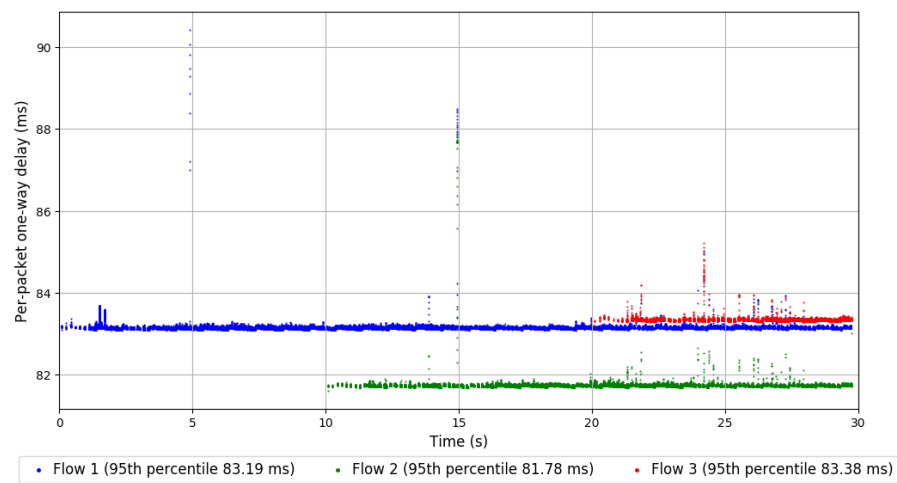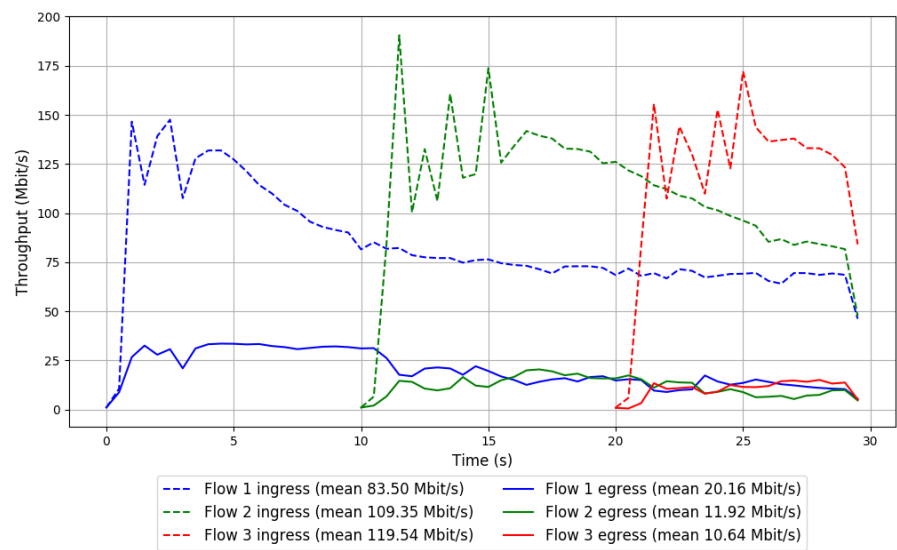
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2017-10-12 03:59:28
End at: 2017-10-12 03:59:58
Local clock offset: 1.291 ms
Remote clock offset: -3.654 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.49 Mbit/s
95th percentile per-packet one-way delay: 83.339 ms
Loss rate: 83.97%
-- Flow 1:
Average throughput: 20.16 Mbit/s
95th percentile per-packet one-way delay: 83.190 ms
Loss rate: 76.00%
-- Flow 2:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 81.779 ms
Loss rate: 89.19%
-- Flow 3:
Average throughput: 10.64 Mbit/s
95th percentile per-packet one-way delay: 83.383 ms
Loss rate: 91.25%
```
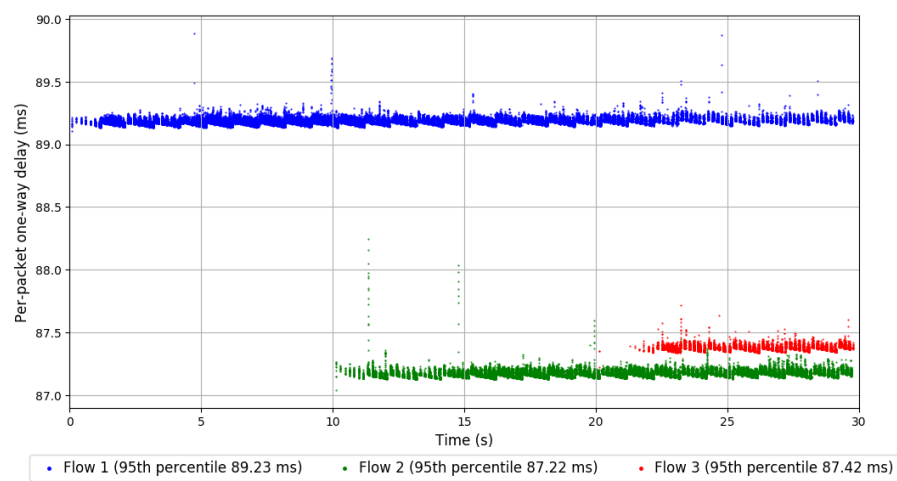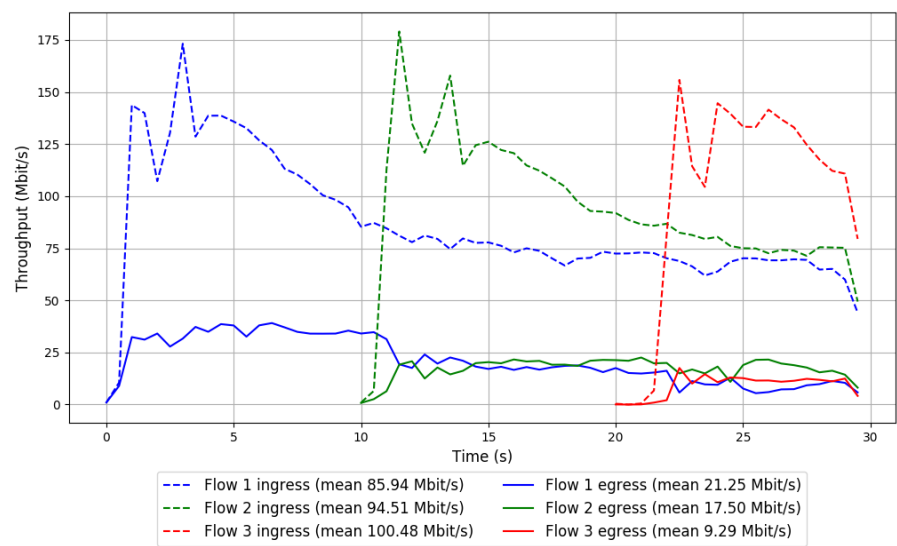
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2017-10-12 04:19:08
End at: 2017-10-12 04:19:38
Local clock offset: 1.225 ms
Remote clock offset: -7.448 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.82 Mbit/s
95th percentile per-packet one-way delay: 89.219 ms
Loss rate: 80.38%
-- Flow 1:
Average throughput: 21.25 Mbit/s
95th percentile per-packet one-way delay: 89.227 ms
Loss rate: 75.41%
-- Flow 2:
Average throughput: 17.50 Mbit/s
95th percentile per-packet one-way delay: 87.219 ms
Loss rate: 81.64%
-- Flow 3:
Average throughput: 9.29 Mbit/s
95th percentile per-packet one-way delay: 87.419 ms
Loss rate: 90.91%
```

Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 85.94 Mbit/s)   Flow 1 egress (mean 21.25 Mbit/s)
Flow 2 ingress (mean 94.51 Mbit/s)   Flow 2 egress (mean 17.50 Mbit/s)
Flow 3 ingress (mean 100.48 Mbit/s)   Flow 3 egress (mean 9.29 Mbit/s)

Flow 1 (95th percentile 89.23 ms)   Flow 2 (95th percentile 87.22 ms)   Flow 3 (95th percentile 87.42 ms)
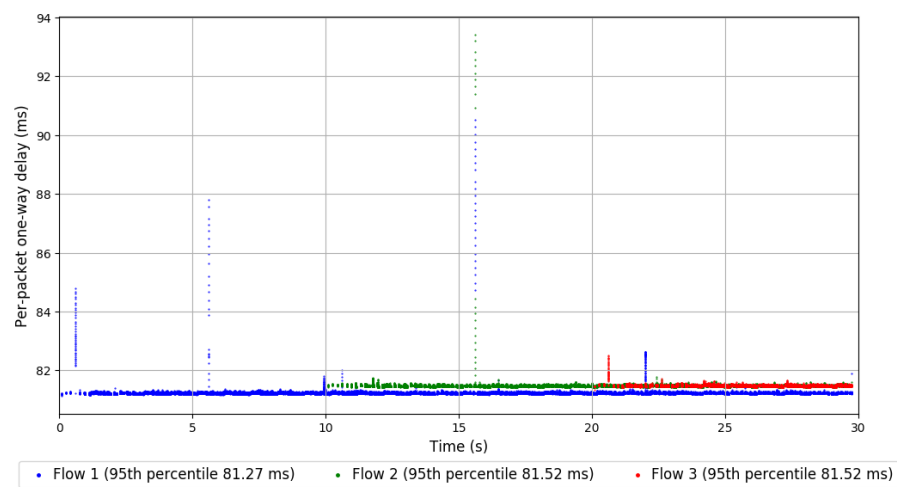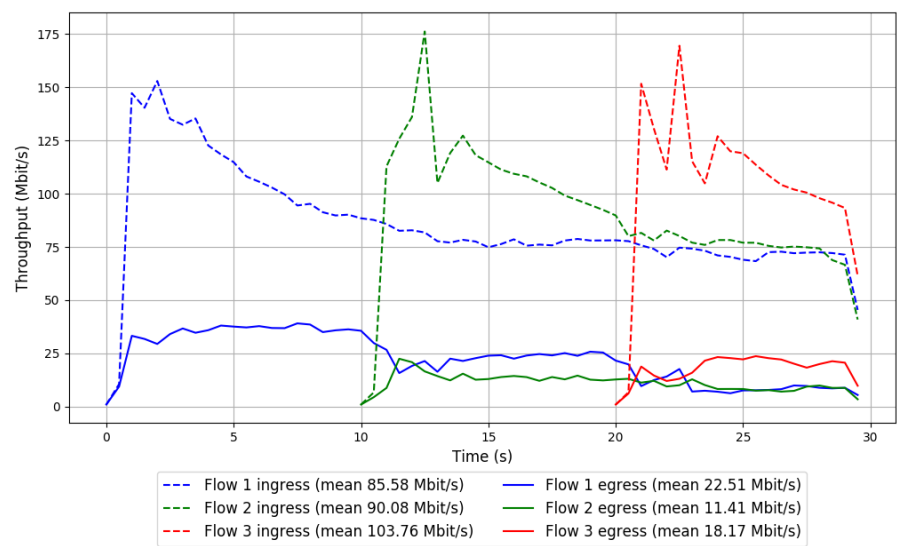
```
Run 4: Statistics of Indigo

Start at: 2017-10-12 04:38:17
End at: 2017-10-12 04:38:47
Local clock offset: 1.066 ms
Remote clock offset: -1.041 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.97 Mbit/s
95th percentile per-packet one-way delay: 81.502 ms
Loss rate: 80.08%
-- Flow 1:
Average throughput: 22.51 Mbit/s
95th percentile per-packet one-way delay: 81.268 ms
Loss rate: 73.84%
-- Flow 2:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 81.520 ms
Loss rate: 87.44%
-- Flow 3:
Average throughput: 18.17 Mbit/s
95th percentile per-packet one-way delay: 81.521 ms
Loss rate: 82.80%
```
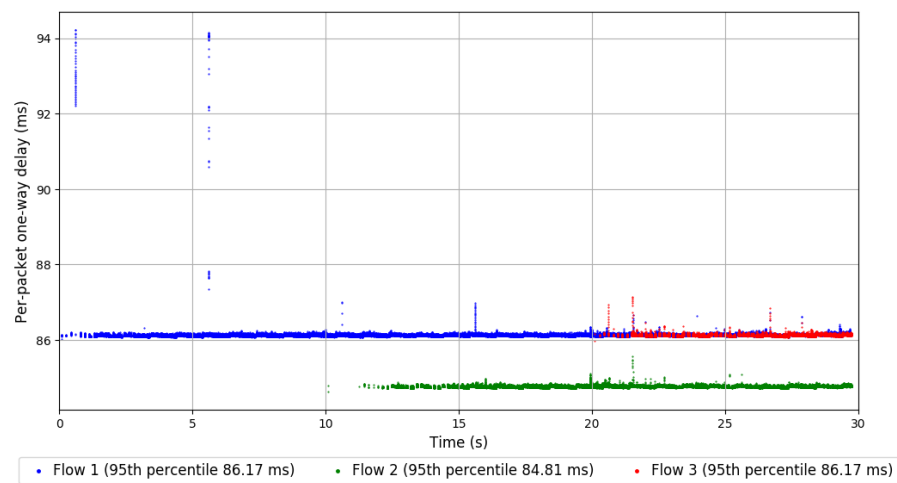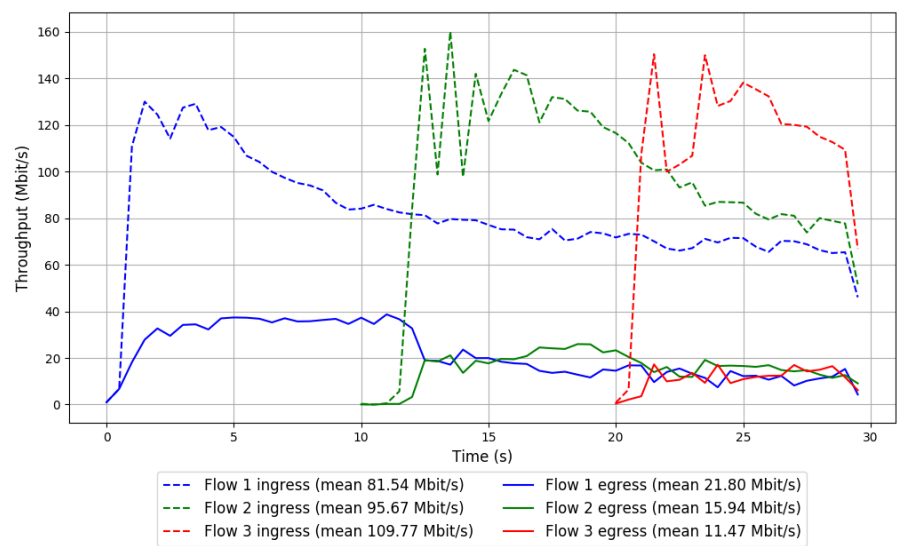
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2017-10-12 04:57:19
End at: 2017-10-12 04:57:49
Local clock offset: 1.179 ms
Remote clock offset: -5.504 ms

# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 86.166 ms
Loss rate: 80.20%
-- Flow 1:
Average throughput: 21.80 Mbit/s
95th percentile per-packet one-way delay: 86.171 ms
Loss rate: 73.42%
-- Flow 2:
Average throughput: 15.94 Mbit/s
95th percentile per-packet one-way delay: 84.810 ms
Loss rate: 83.48%
-- Flow 3:
Average throughput: 11.47 Mbit/s
95th percentile per-packet one-way delay: 86.171 ms
Loss rate: 89.73%
```
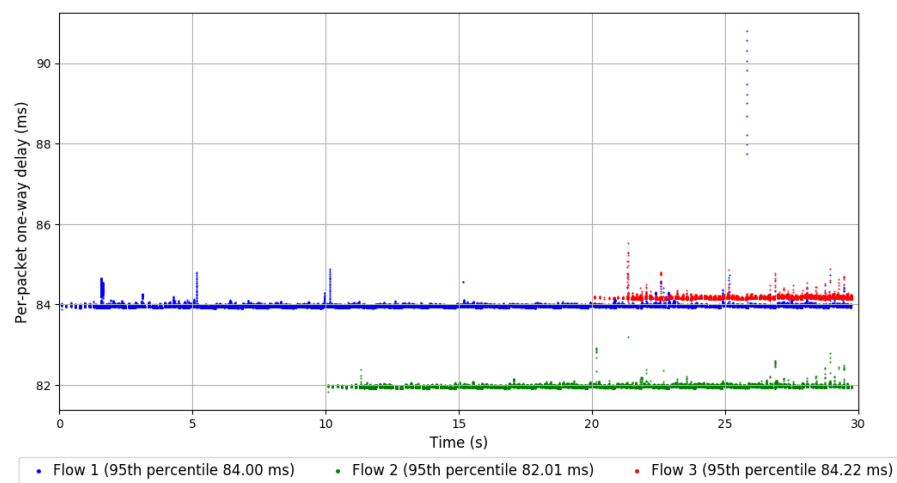
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2017-10-12 05:15:57
End at: 2017-10-12 05:16:27
Local clock offset: 1.127 ms
Remote clock offset: -1.537 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.74 Mbit/s
95th percentile per-packet one-way delay: 84.164 ms
Loss rate: 78.96%
-- Flow 1:
Average throughput: 22.91 Mbit/s
95th percentile per-packet one-way delay: 84.005 ms
Loss rate: 73.07%
-- Flow 2:
Average throughput: 16.32 Mbit/s
95th percentile per-packet one-way delay: 82.008 ms
Loss rate: 81.97%
-- Flow 3:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 84.218 ms
Loss rate: 88.27%
```
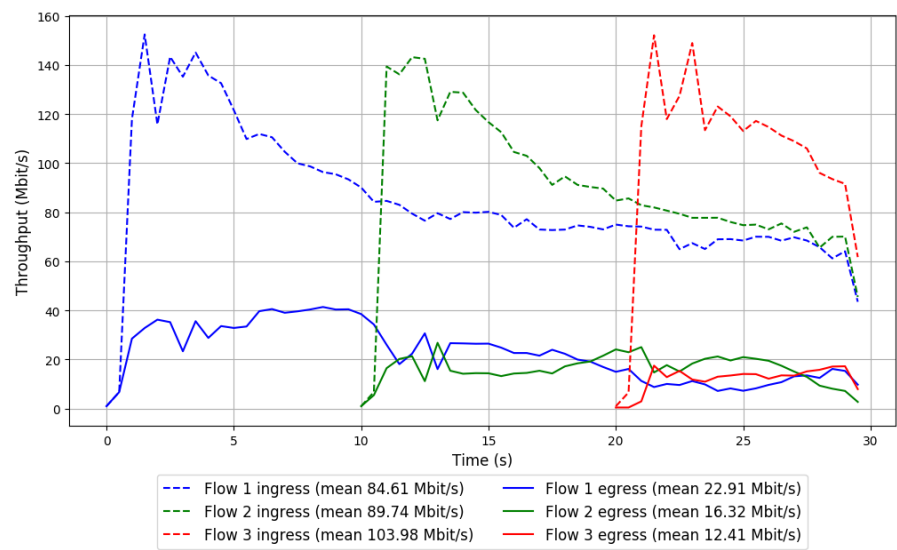
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2017-10-12 05:35:15
End at: 2017-10-12 05:35:45
Local clock offset: 1.217 ms
Remote clock offset: -1.338 ms


# Below is generated by plot.py at 2017-10-12 10:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 82.478 ms
Loss rate: 77.68%
-- Flow 1:
Average throughput: 25.24 Mbit/s
95th percentile per-packet one-way delay: 82.486 ms
Loss rate: 70.10%
-- Flow 2:
Average throughput: 16.67 Mbit/s
95th percentile per-packet one-way delay: 81.105 ms
Loss rate: 83.70%
-- Flow 3:
Average throughput: 13.58 Mbit/s
95th percentile per-packet one-way delay: 80.903 ms
Loss rate: 85.35%
```

Run 7: Report of Indigo — Data Link

- Flow 1 ingress (mean 83.95 Mbit/s)
- Flow 2 ingress (mean 101.43 Mbit/s)
- Flow 3 ingress (mean 91.13 Mbit/s)
- Flow 1 egress (mean 25.24 Mbit/s)
- Flow 2 egress (mean 16.67 Mbit/s)
- Flow 3 egress (mean 13.58 Mbit/s)

- Flow 1 (95th percentile 82.49 ms)
- Flow 2 (95th percentile 81.11 ms)
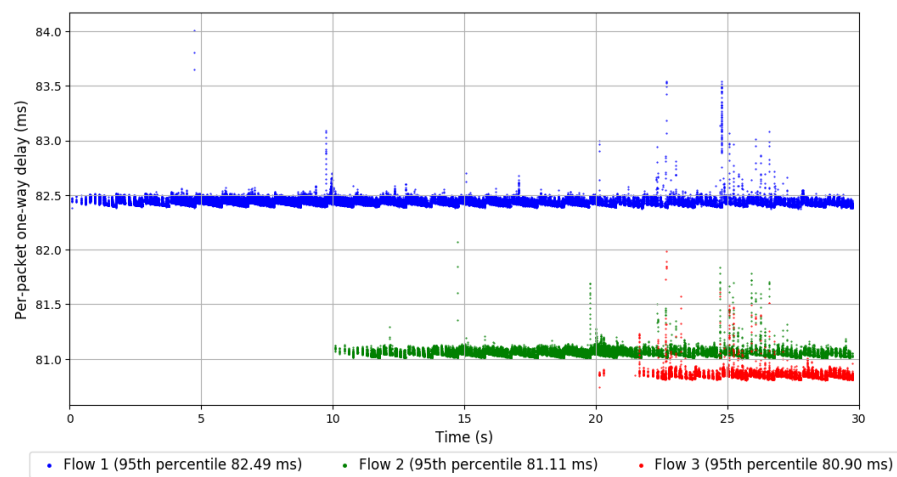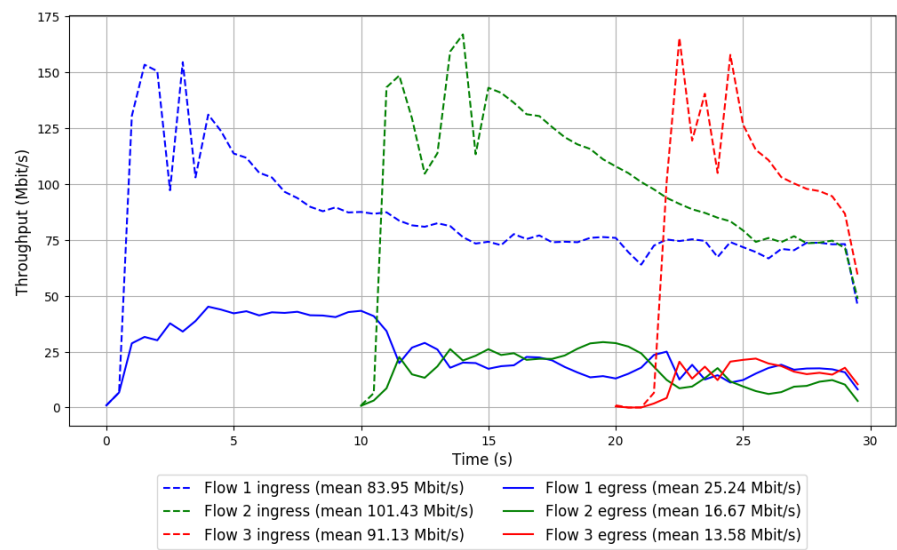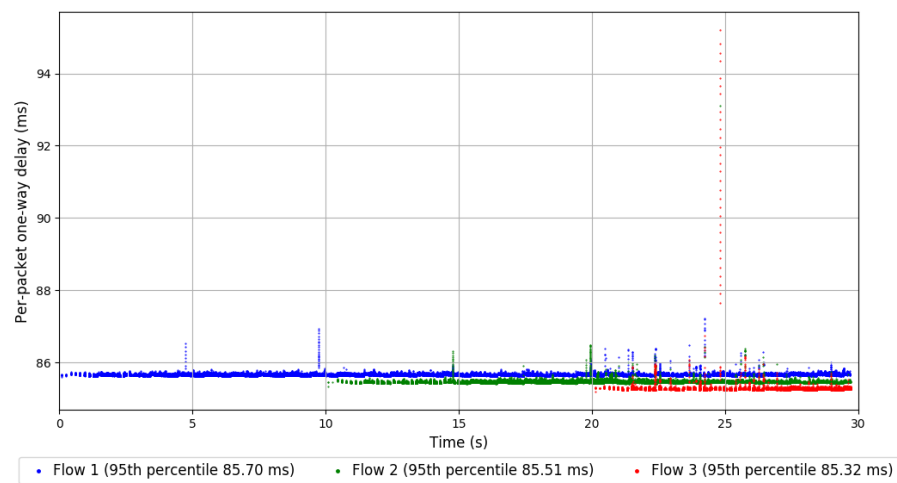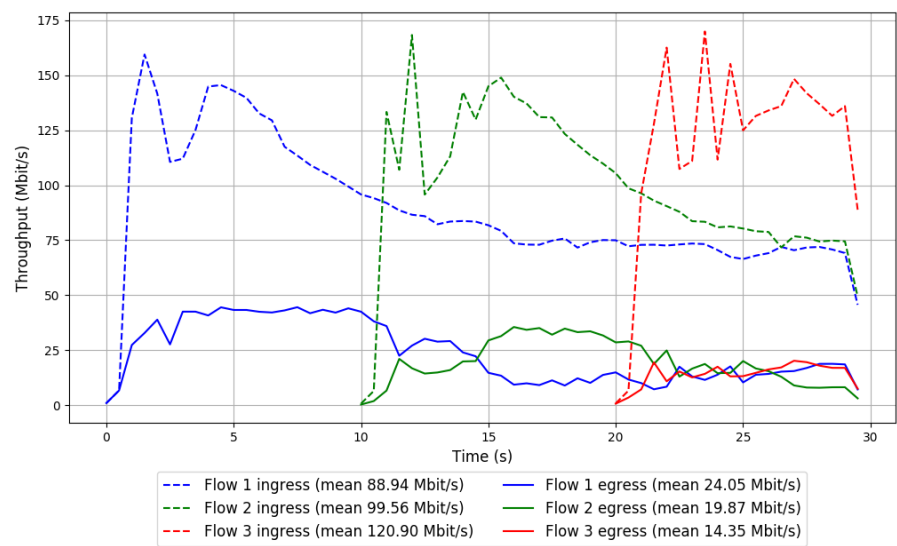- Flow 3 (95th percentile 80.90 ms)

```
Run 8: Statistics of Indigo

Start at: 2017-10-12 05:53:50
End at: 2017-10-12 05:54:20
Local clock offset: 1.01 ms
Remote clock offset: -6.384 ms

# Below is generated by plot.py at 2017-10-12 10:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.83 Mbit/s
95th percentile per-packet one-way delay: 85.697 ms
Loss rate: 78.62%
-- Flow 1:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 85.705 ms
Loss rate: 73.11%
-- Flow 2:
Average throughput: 19.87 Mbit/s
95th percentile per-packet one-way delay: 85.512 ms
Loss rate: 80.21%
-- Flow 3:
Average throughput: 14.35 Mbit/s
95th percentile per-packet one-way delay: 85.318 ms
Loss rate: 88.33%
```

Run 8: Report of Indigo — Data Link

- - - - Flow 1 ingress (mean 88.94 Mbit/s)   —— Flow 1 egress (mean 24.05 Mbit/s)
- - - - Flow 2 ingress (mean 99.56 Mbit/s)   —— Flow 2 egress (mean 19.87 Mbit/s)
- - - - Flow 3 ingress (mean 120.90 Mbit/s)   —— Flow 3 egress (mean 14.35 Mbit/s)

- Flow 1 (95th percentile 85.70 ms)   • Flow 2 (95th percentile 85.51 ms)   • Flow 3 (95th percentile 85.32 ms)
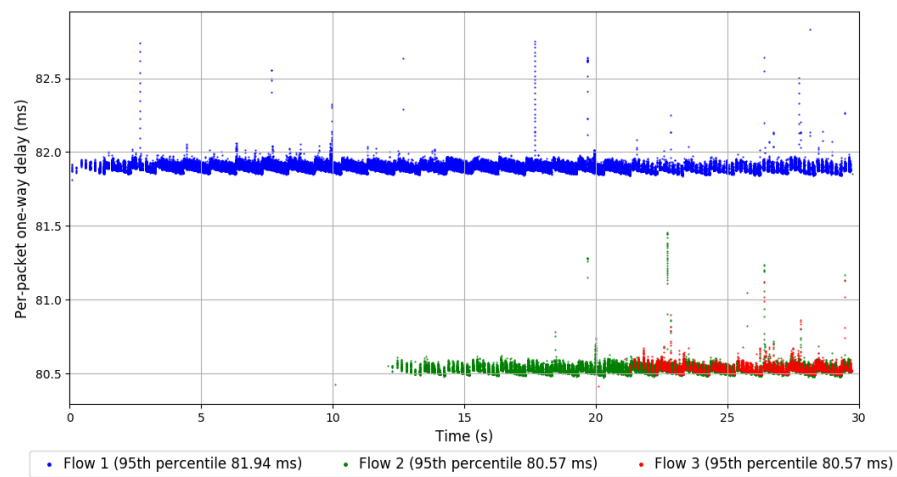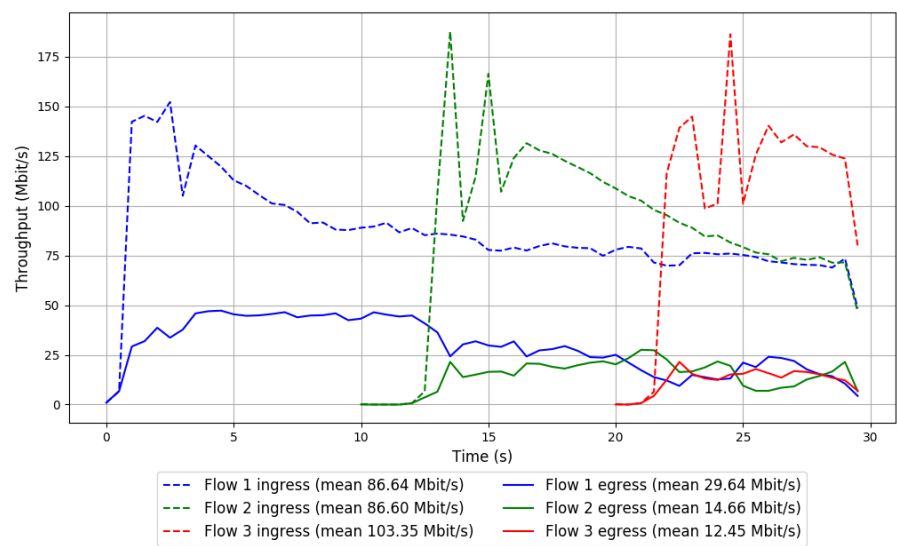
279

```
Run 9: Statistics of Indigo

Start at: 2017-10-12 06:12:33
End at: 2017-10-12 06:13:03
Local clock offset: 0.768 ms
Remote clock offset: -1.802 ms


# Below is generated by plot.py at 2017-10-12 10:02:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.29 Mbit/s
95th percentile per-packet one-way delay: 81.933 ms
Loss rate: 75.75%
-- Flow 1:
Average throughput: 29.64 Mbit/s
95th percentile per-packet one-way delay: 81.938 ms
Loss rate: 65.99%
-- Flow 2:
Average throughput: 14.66 Mbit/s
95th percentile per-packet one-way delay: 80.570 ms
Loss rate: 83.14%
-- Flow 3:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 80.570 ms
Loss rate: 88.17%
```

Run 9: Report of Indigo — Data Link

Flow 1 ingress (mean 86.64 Mbit/s)   Flow 1 egress (mean 29.64 Mbit/s)
Flow 2 ingress (mean 86.60 Mbit/s)   Flow 2 egress (mean 14.66 Mbit/s)
Flow 3 ingress (mean 103.35 Mbit/s)   Flow 3 egress (mean 12.45 Mbit/s)

Flow 1 (95th percentile 81.94 ms)   Flow 2 (95th percentile 80.57 ms)   Flow 3 (95th percentile 80.57 ms)

```
Run 10: Statistics of Indigo

Start at: 2017-10-12 06:31:31
End at: 2017-10-12 06:32:01
Local clock offset: 0.676 ms
Remote clock offset: -7.53 ms


# Below is generated by plot.py at 2017-10-12 10:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.38 Mbit/s
95th percentile per-packet one-way delay: 85.611 ms
Loss rate: 78.32%
-- Flow 1:
Average throughput: 27.05 Mbit/s
95th percentile per-packet one-way delay: 85.614 ms
Loss rate: 70.27%
-- Flow 2:
Average throughput: 17.45 Mbit/s
95th percentile per-packet one-way delay: 85.610 ms
Loss rate: 83.34%
-- Flow 3:
Average throughput: 14.78 Mbit/s
95th percentile per-packet one-way delay: 85.209 ms
Loss rate: 87.94%
```

Run 10: Report of Indigo — Data Link