Pantheon Report

Generated at 2018-01-10 16:40:30 (UTC).

Data path: AWS California 1 Ethernet (*local*) →Stanford ppp0 (*remote*).

Repeated the test of 14 congestion control schemes 3 times.

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

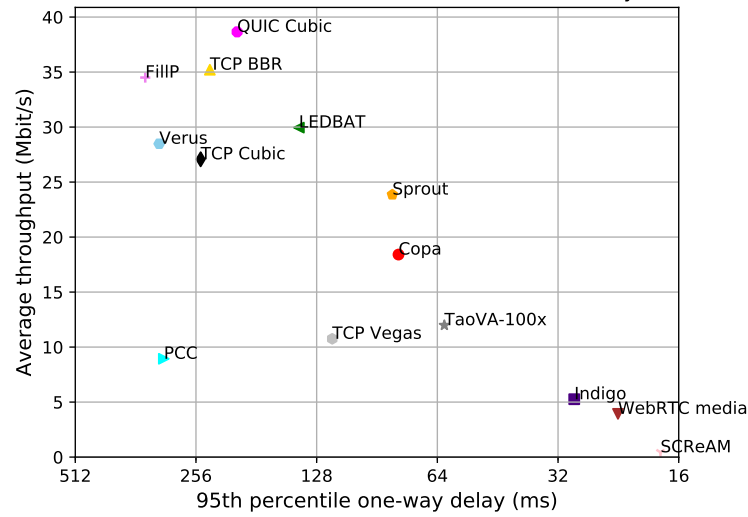Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.
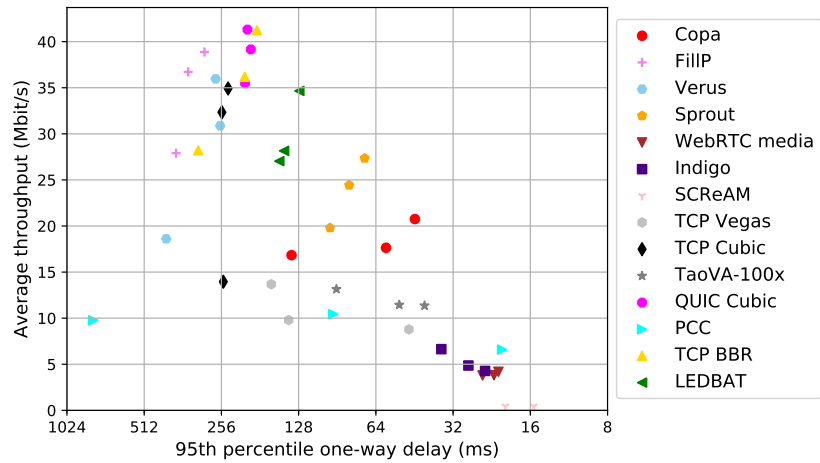
```
Git summary:
branch: master @ 56d1792c316a5efca3f2d21342905405fedffb48
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from AWS California 1 Ethernet to Stanford ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS California 1 Ethernet to Stanford ppp0, 3 runs of 30s each per scheme
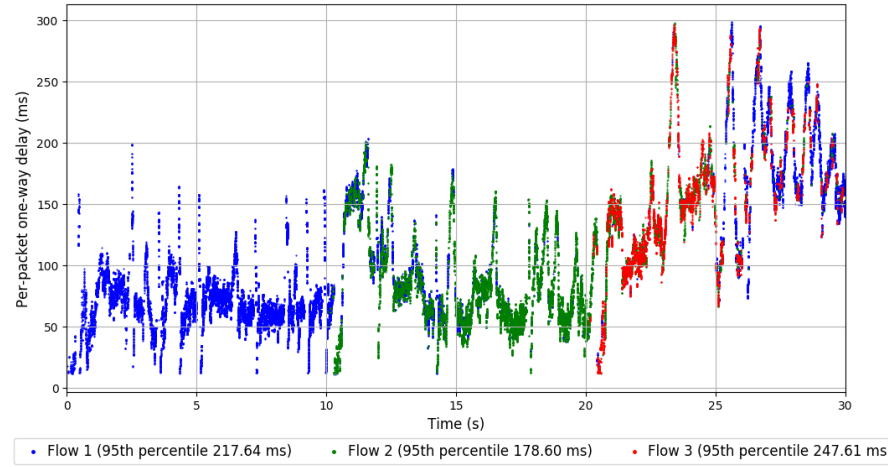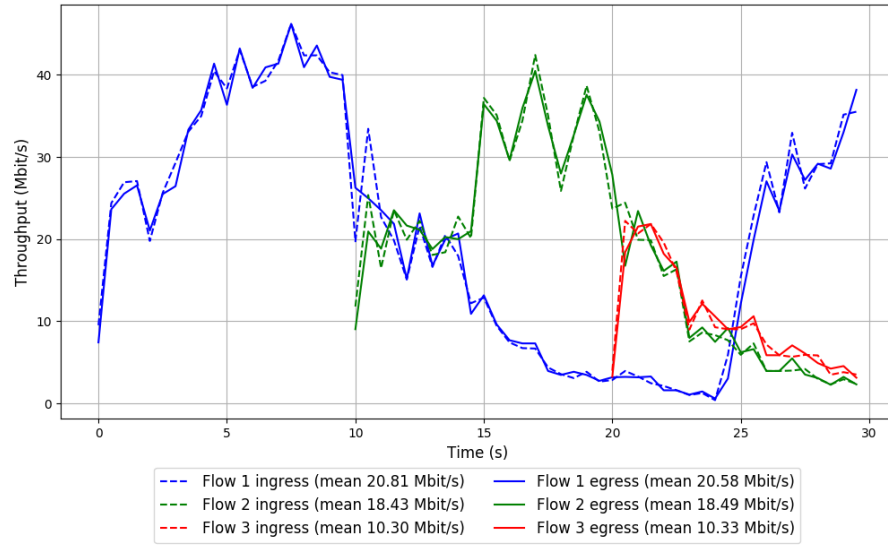## 3 flows with 10s interval between flows

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scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	18.18	15.60	20.57	217.67	236.96	250.32	0.88	0.97	4.02
TCP Cubic	3	14.32	14.93	8.60	258.72	246.54	285.67	0.16	0.41	2.09
LEDBAT	3	23.46	7.63	4.25	138.48	150.81	161.08	0.27	0.60	1.36
PCC	3	3.25	4.47	8.16	267.79	299.37	345.50	2.84	4.69	9.44
QUIC Cubic	3	26.66	13.21	9.96	189.56	215.95	229.30	0.39	0.96	2.25
SCReAM	2	0.22	0.22	0.22	19.75	17.26	16.76	0.00	0.00	0.00
WebRTC media	3	2.25	1.29	0.40	22.24	23.82	41.21	0.00	0.00	0.00
Sprout	3	12.82	11.93	9.13	75.08	82.62	101.02	0.05	0.18	0.69
TaoVA-100x	3	5.84	5.84	8.27	46.57	70.58	76.27	0.01	0.00	0.00
TCP Vegas	3	2.84	2.96	17.83	50.39	45.29	180.33	0.01	0.01	1.04
Verus	3	17.76	10.74	11.41	270.65	325.04	461.41	8.94	13.01	24.25
Copa	3	10.35	9.77	6.15	74.70	87.42	79.95	0.03	0.05	0.14
FillP	3	14.77	16.21	27.29	323.04	359.75	355.59	60.41	61.31	67.96
Indigo	3	2.37	3.10	2.60	29.30	28.68	28.31	0.00	0.00	0.05

```
Run 1: Statistics of TCP BBR

Start at: 2018-01-10 15:41:40
End at: 2018-01-10 15:42:10
Local clock offset: -1.314 ms
Remote clock offset: -4.506 ms


# Below is generated by plot.py at 2018-01-10 16:37:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.19 Mbit/s
95th percentile per-packet one-way delay: 207.759 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 20.58 Mbit/s
95th percentile per-packet one-way delay: 217.643 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 18.49 Mbit/s
95th percentile per-packet one-way delay: 178.605 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 10.33 Mbit/s
95th percentile per-packet one-way delay: 247.608 ms
Loss rate: 0.59%
```

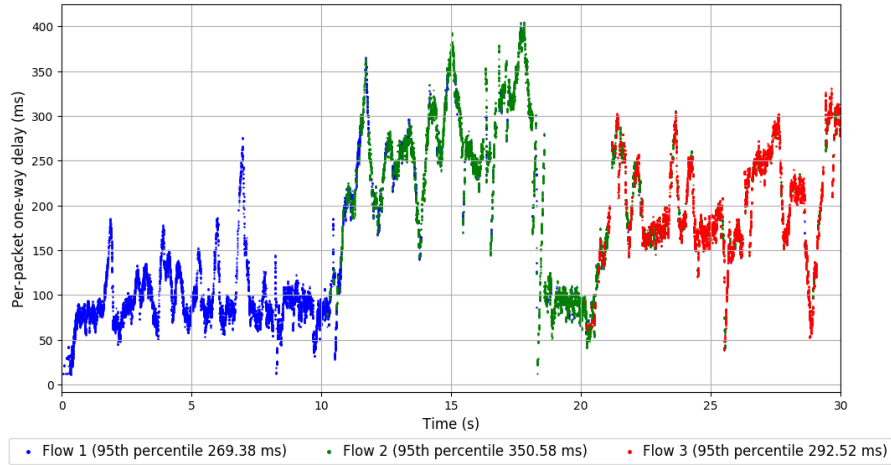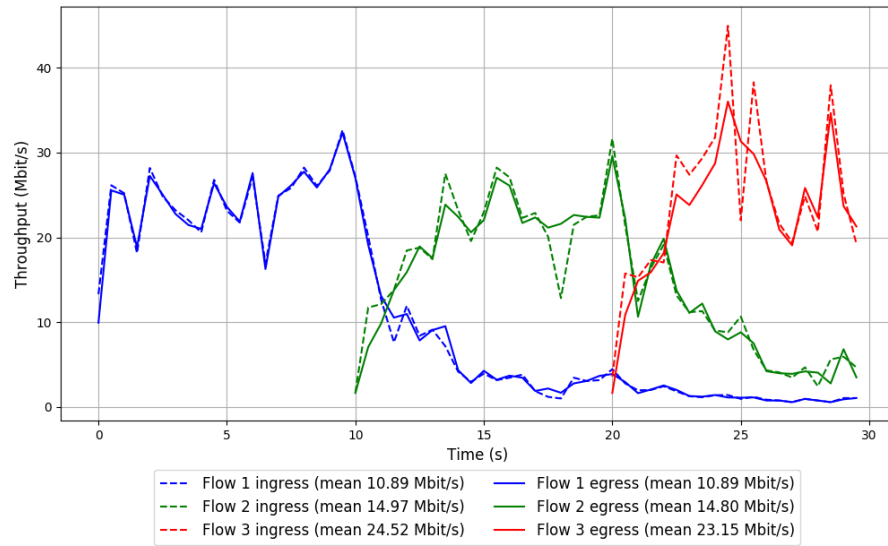Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-01-10 15:59:39
End at: 2018-01-10 16:00:09
Local clock offset: -1.28 ms
Remote clock offset: -4.739 ms


# Below is generated by plot.py at 2018-01-10 16:37:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.21 Mbit/s
95th percentile per-packet one-way delay: 315.205 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 10.89 Mbit/s
95th percentile per-packet one-way delay: 269.385 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 14.80 Mbit/s
95th percentile per-packet one-way delay: 350.581 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 23.15 Mbit/s
95th percentile per-packet one-way delay: 292.520 ms
Loss rate: 6.36%
```
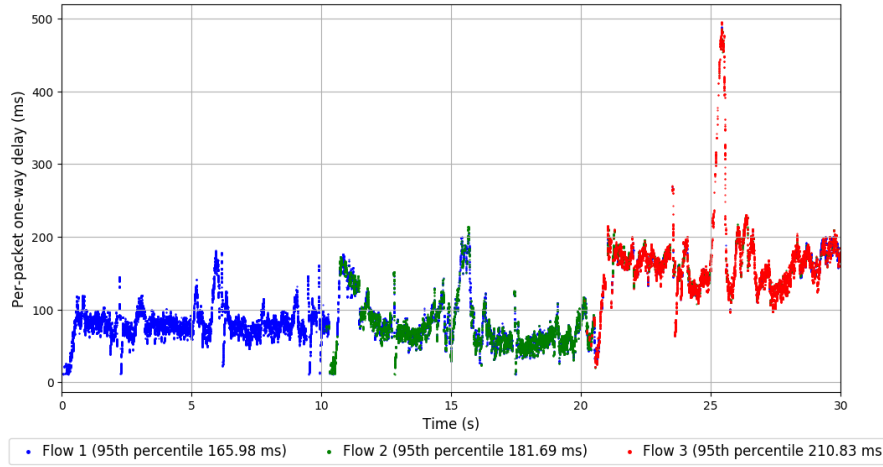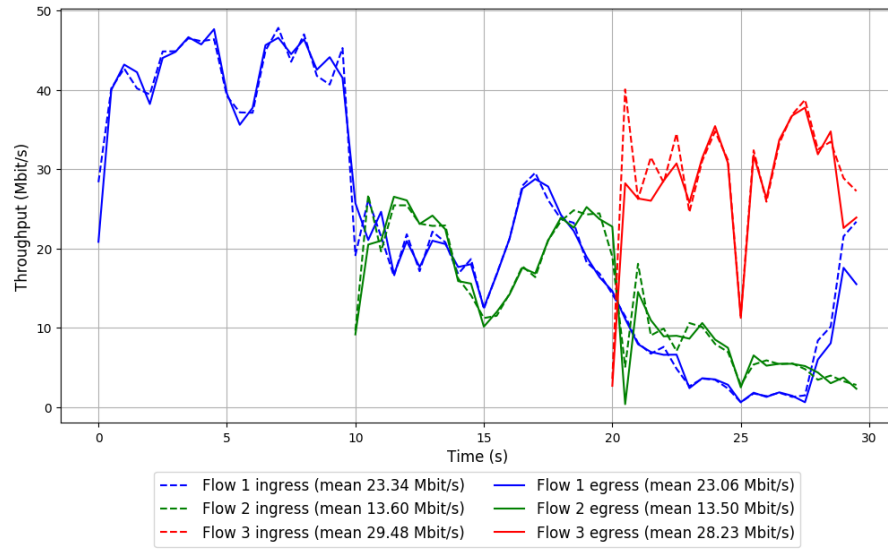
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-01-10 16:17:38
End at: 2018-01-10 16:18:08
Local clock offset: -1.418 ms
Remote clock offset: -4.724 ms


# Below is generated by plot.py at 2018-01-10 16:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.24 Mbit/s
95th percentile per-packet one-way delay: 186.130 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 23.06 Mbit/s
95th percentile per-packet one-way delay: 165.978 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 13.50 Mbit/s
95th percentile per-packet one-way delay: 181.688 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 28.23 Mbit/s
95th percentile per-packet one-way delay: 210.832 ms
Loss rate: 5.10%
```

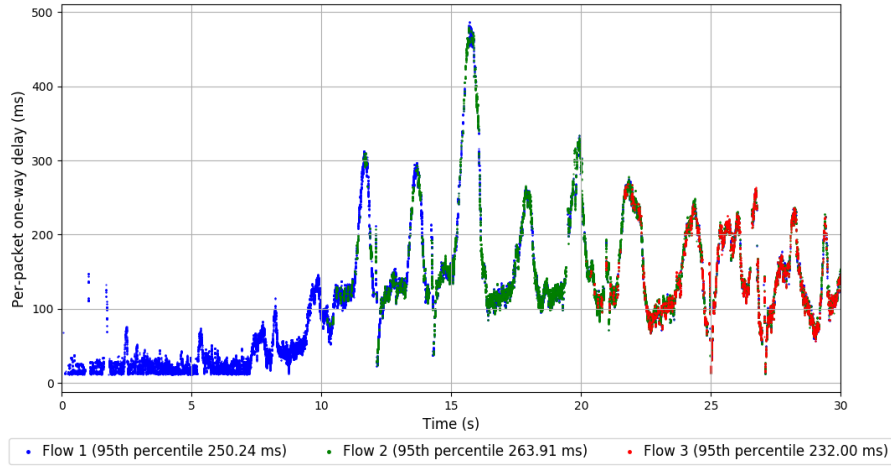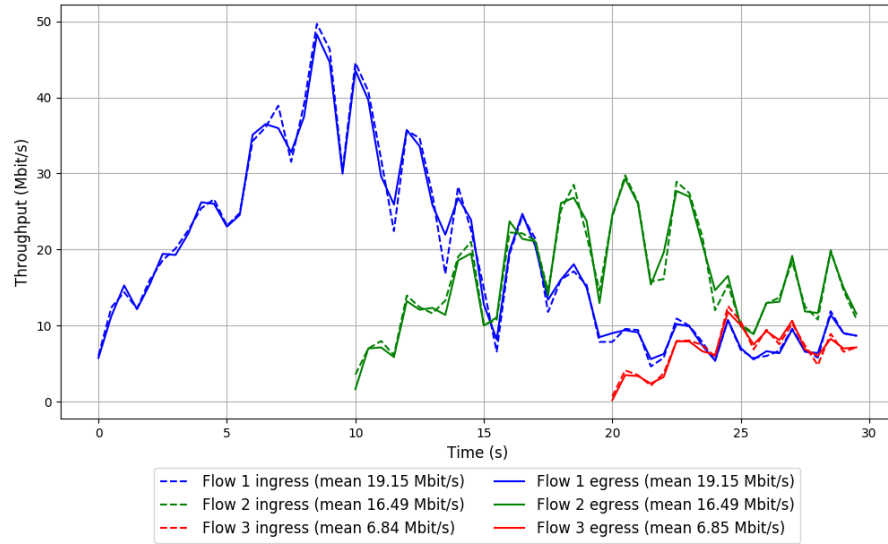Run 3: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-01-10 15:45:19
End at: 2018-01-10 15:45:49
Local clock offset: -1.386 ms
Remote clock offset: -4.432 ms


# Below is generated by plot.py at 2018-01-10 16:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.34 Mbit/s
95th percentile per-packet one-way delay: 254.922 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 250.235 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 16.49 Mbit/s
95th percentile per-packet one-way delay: 263.911 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 6.85 Mbit/s
95th percentile per-packet one-way delay: 231.995 ms
Loss rate: 1.11%
```

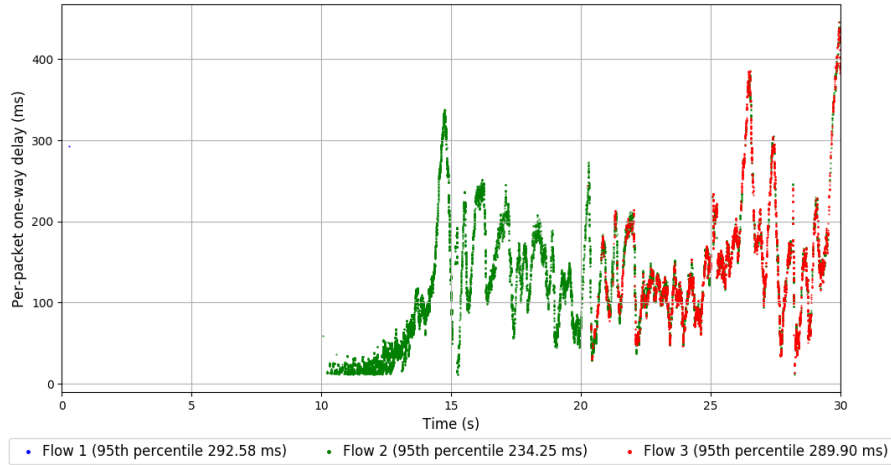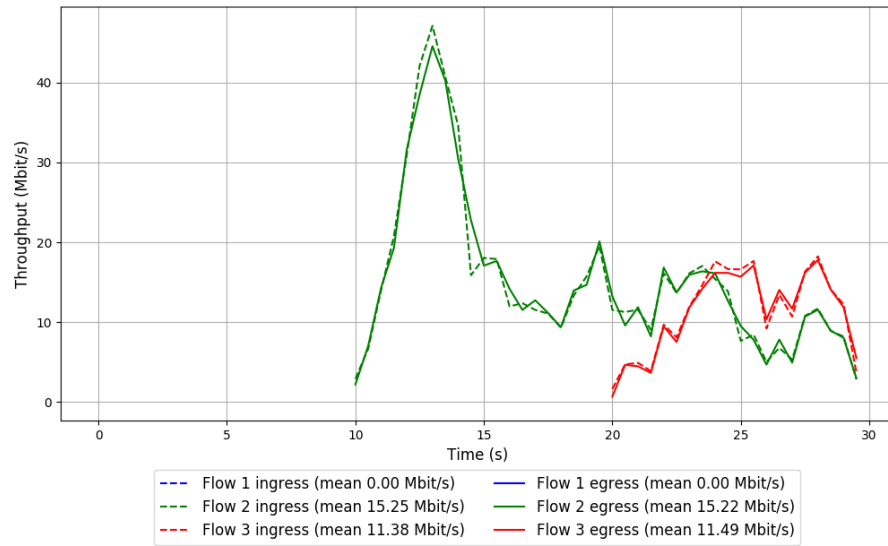Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-01-10 16:03:18
End at: 2018-01-10 16:03:48
Local clock offset: -1.297 ms
Remote clock offset: -4.887 ms


# Below is generated by plot.py at 2018-01-10 16:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.95 Mbit/s
95th percentile per-packet one-way delay: 251.619 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 292.579 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.22 Mbit/s
95th percentile per-packet one-way delay: 234.252 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 289.898 ms
Loss rate: 1.22%
```
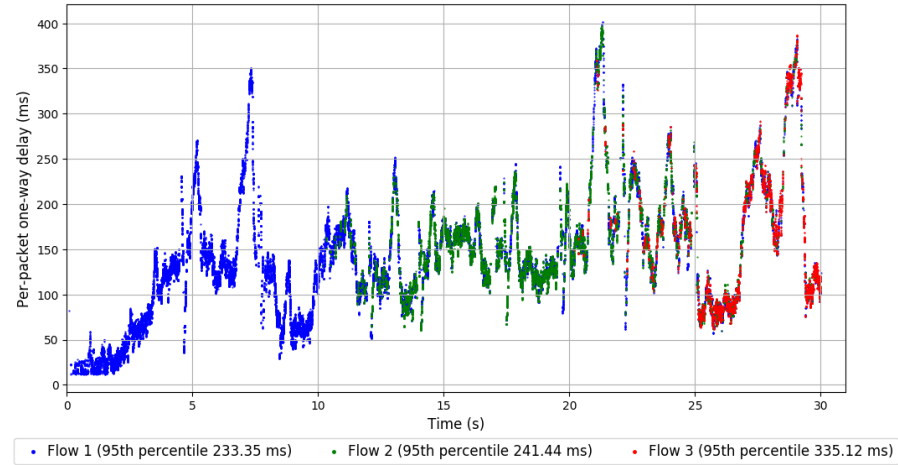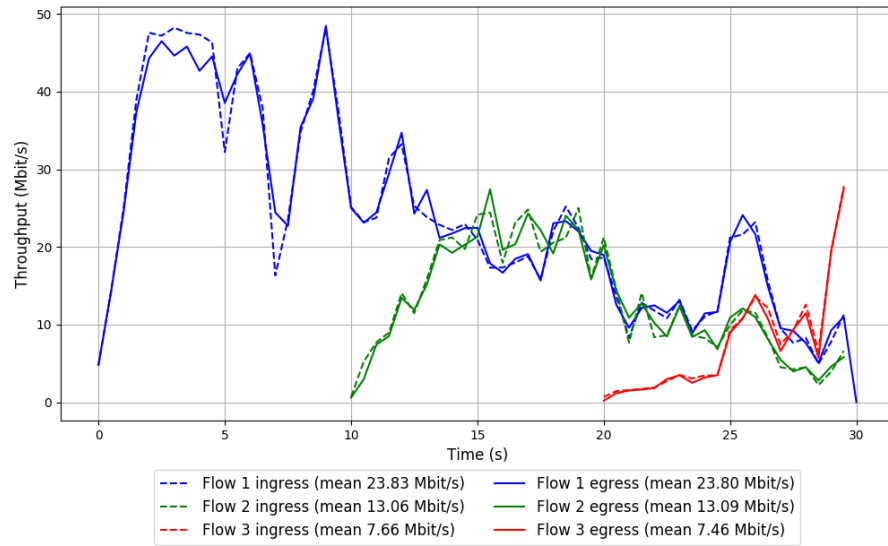
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 15.25 Mbit/s) --- Flow 2 egress (mean 15.22 Mbit/s)
Flow 3 ingress (mean 11.38 Mbit/s) --- Flow 3 egress (mean 11.49 Mbit/s)

Flow 1 (95th percentile 292.58 ms)   Flow 2 (95th percentile 234.25 ms)   Flow 3 (95th percentile 289.90 ms)

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```
Run 3: Statistics of TCP Cubic

Start at: 2018-01-10 16:21:18
End at: 2018-01-10 16:21:48
Local clock offset: -1.446 ms
Remote clock offset: -4.579 ms

# Below is generated by plot.py at 2018-01-10 16:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.92 Mbit/s
95th percentile per-packet one-way delay: 241.114 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 23.80 Mbit/s
95th percentile per-packet one-way delay: 233.347 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 241.443 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 7.46 Mbit/s
95th percentile per-packet one-way delay: 335.120 ms
Loss rate: 3.94%
```

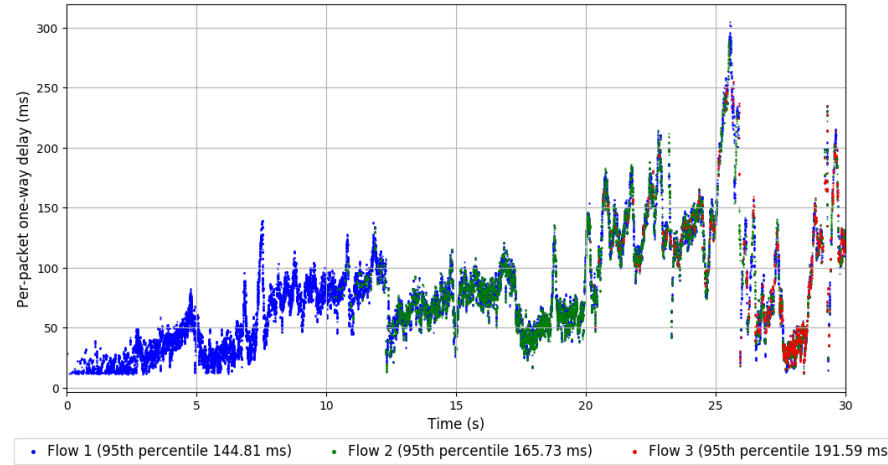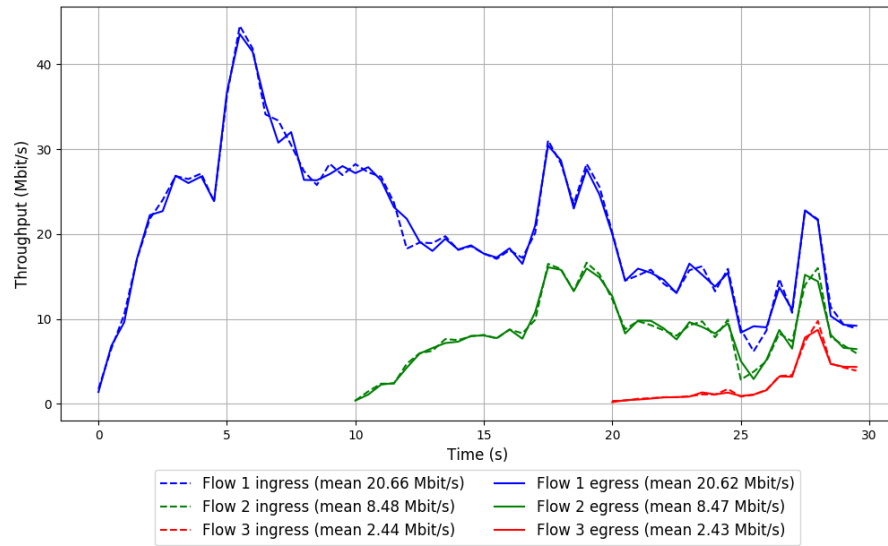Run 3: Report of TCP Cubic — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-01-10 15:54:51
End at: 2018-01-10 15:55:21
Local clock offset: -1.269 ms
Remote clock offset: -4.519 ms


# Below is generated by plot.py at 2018-01-10 16:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.04 Mbit/s
95th percentile per-packet one-way delay: 152.279 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 20.62 Mbit/s
95th percentile per-packet one-way delay: 144.807 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 165.730 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 191.592 ms
Loss rate: 1.50%
```

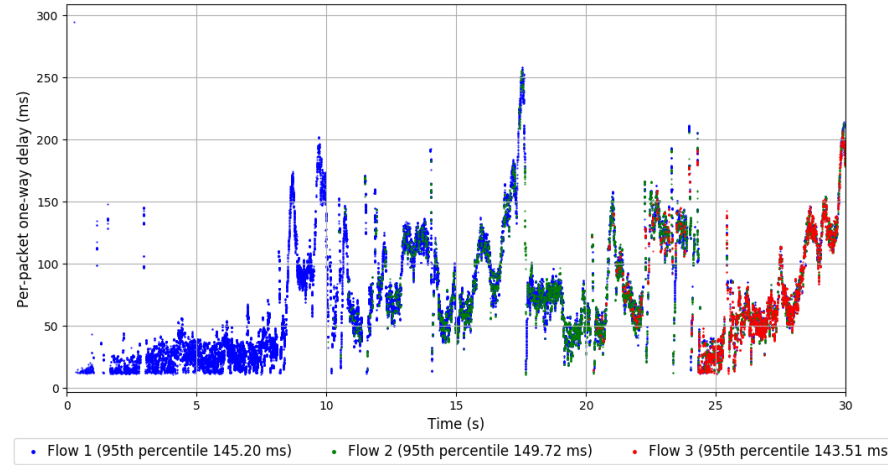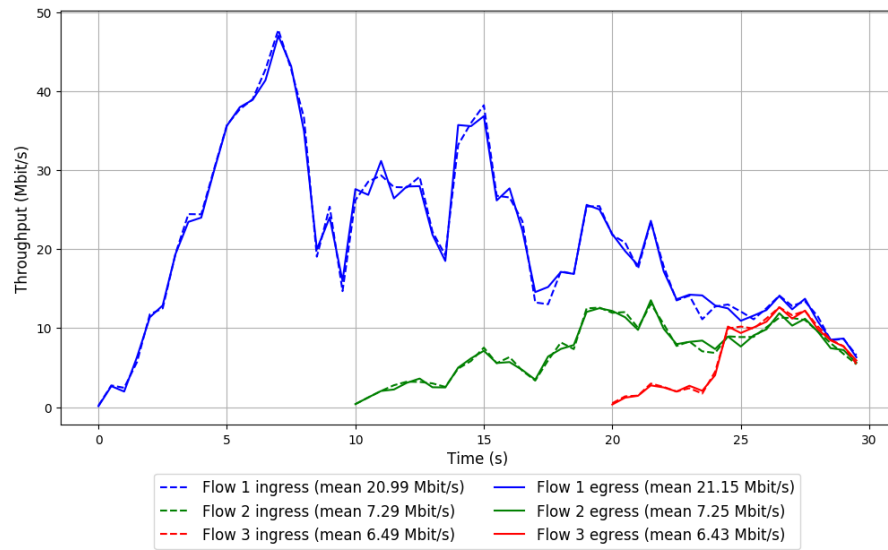# Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-01-10 16:12:49
End at: 2018-01-10 16:13:19
Local clock offset: -1.349 ms
Remote clock offset: -4.782 ms


# Below is generated by plot.py at 2018-01-10 16:37:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.16 Mbit/s
95th percentile per-packet one-way delay: 145.909 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 21.15 Mbit/s
95th percentile per-packet one-way delay: 145.202 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 149.724 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 143.507 ms
Loss rate: 1.34%
```

Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-01-10 16:30:51
End at: 2018-01-10 16:31:21
Local clock offset: -1.541 ms
Remote clock offset: -4.274 ms


# Below is generated by plot.py at 2018-01-10 16:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.66 Mbit/s
95th percentile per-packet one-way delay: 127.224 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 28.62 Mbit/s
95th percentile per-packet one-way delay: 125.440 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 136.988 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 148.127 ms
Loss rate: 1.23%
```
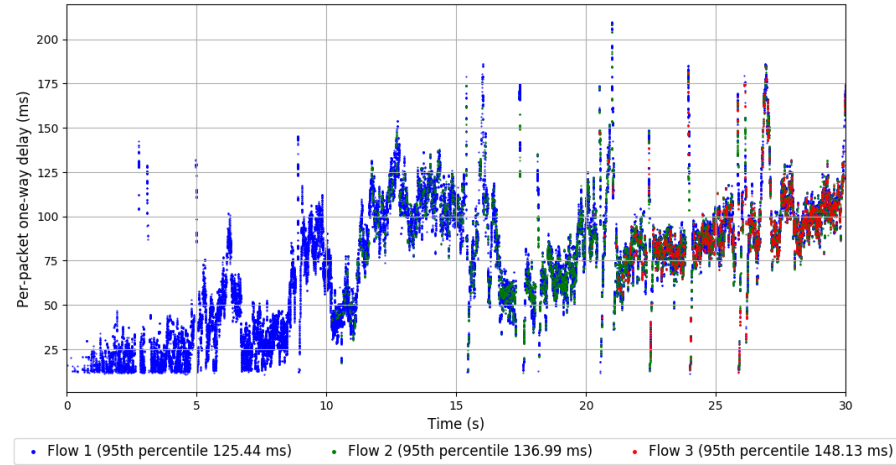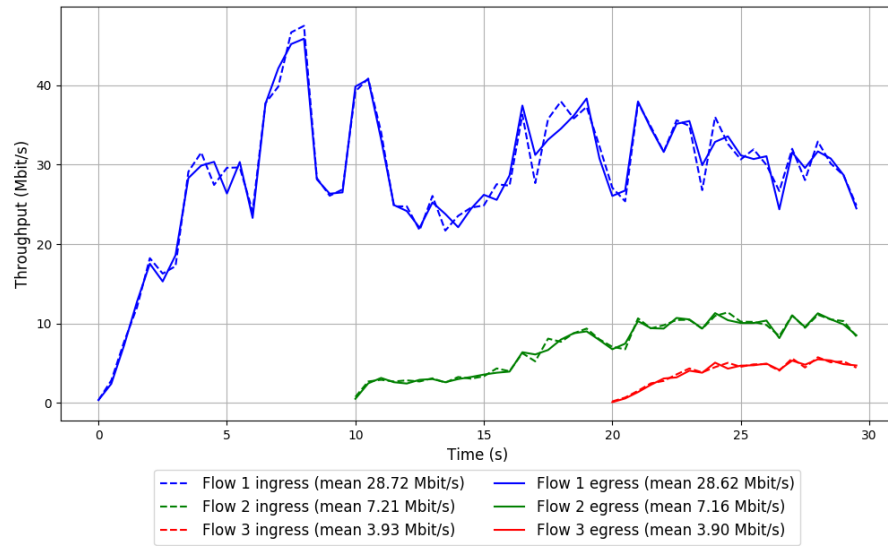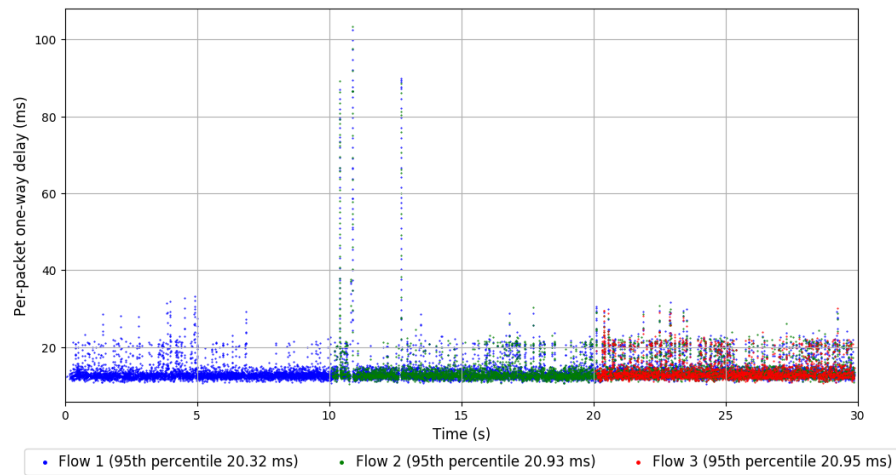
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 28.72 Mbit/s) --- Flow 1 egress (mean 28.62 Mbit/s)
Flow 2 ingress (mean 7.21 Mbit/s) --- Flow 2 egress (mean 7.16 Mbit/s)
Flow 3 ingress (mean 3.93 Mbit/s) --- Flow 3 egress (mean 3.90 Mbit/s)

Flow 1 (95th percentile 125.44 ms)   Flow 2 (95th percentile 136.99 ms)   Flow 3 (95th percentile 148.13 ms)
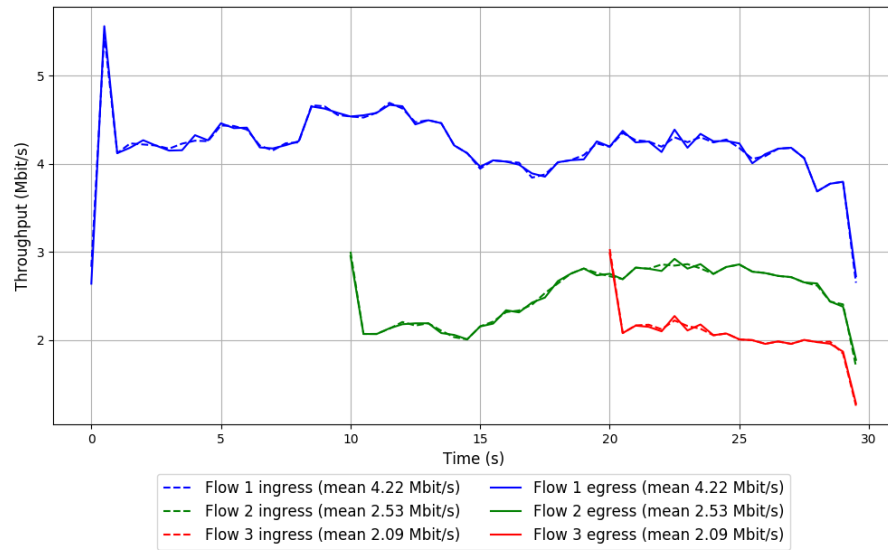
```
Run 1: Statistics of PCC

Start at: 2018-01-10 15:50:06
End at: 2018-01-10 15:50:36
Local clock offset: -1.395 ms
Remote clock offset: -4.371 ms


# Below is generated by plot.py at 2018-01-10 16:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 20.612 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 20.320 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 20.928 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 20.947 ms
Loss rate: 0.06%
```
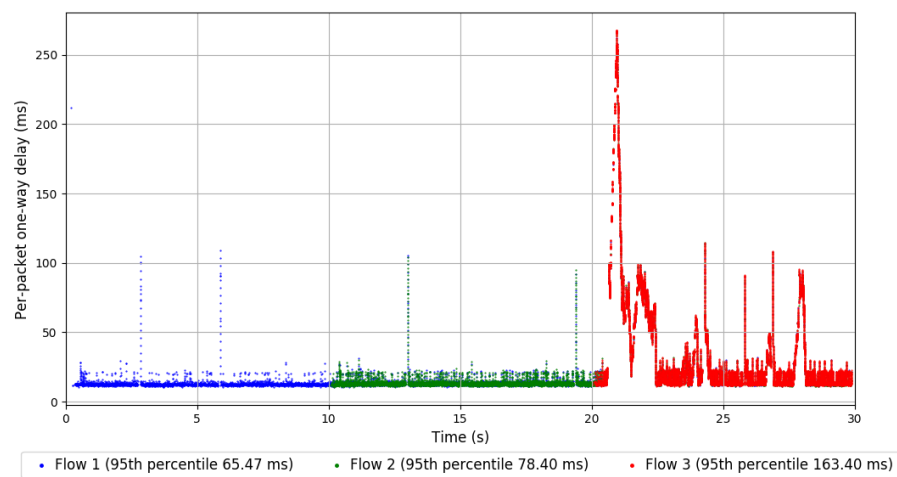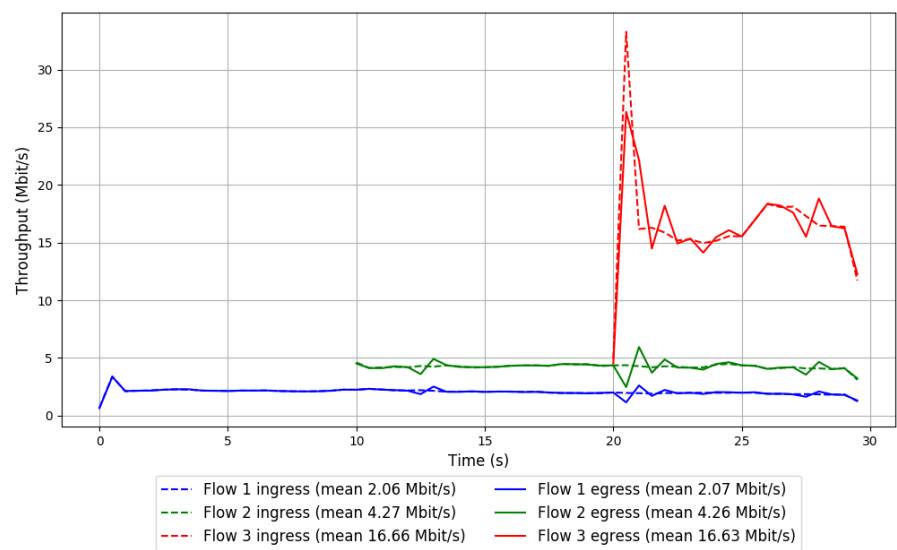
Run 1: Report of PCC — Data Link

Flow 1 ingress (mean 4.22 Mbit/s)   Flow 1 egress (mean 4.22 Mbit/s)
Flow 2 ingress (mean 2.53 Mbit/s)   Flow 2 egress (mean 2.53 Mbit/s)
Flow 3 ingress (mean 2.09 Mbit/s)   Flow 3 egress (mean 2.09 Mbit/s)

Flow 1 (95th percentile 20.32 ms)   Flow 2 (95th percentile 20.93 ms)   Flow 3 (95th percentile 20.95 ms)

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```
Run 2: Statistics of PCC

Start at: 2018-01-10 16:08:04
End at: 2018-01-10 16:08:34
Local clock offset: -1.346 ms
Remote clock offset: -5.03 ms


# Below is generated by plot.py at 2018-01-10 16:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.44 Mbit/s
95th percentile per-packet one-way delay: 93.769 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 65.466 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 78.401 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 16.63 Mbit/s
95th percentile per-packet one-way delay: 163.402 ms
Loss rate: 0.15%
```
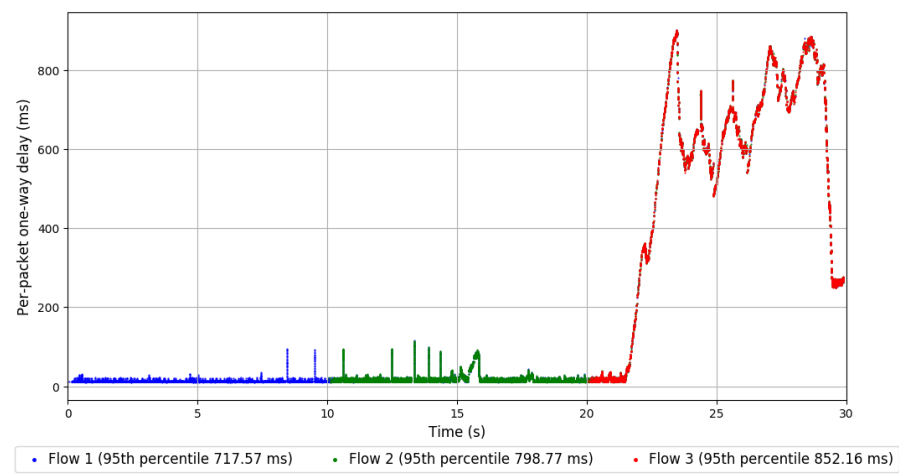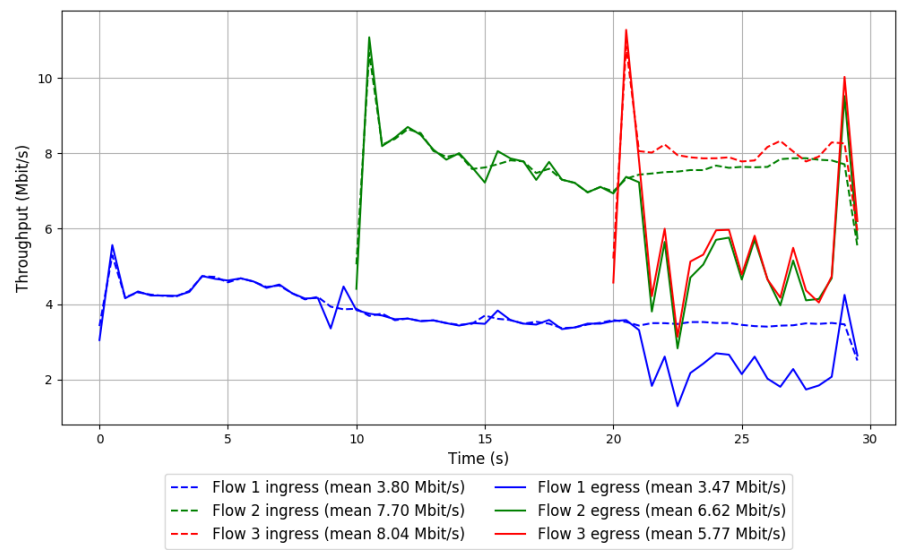
Run 2: Report of PCC — Data Link

```
Run 3: Statistics of PCC

Start at: 2018-01-10 16:26:06
End at: 2018-01-10 16:26:36
Local clock offset: -1.443 ms
Remote clock offset: -4.434 ms


# Below is generated by plot.py at 2018-01-10 16:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 809.177 ms
Loss rate: 15.42%
-- Flow 1:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 717.570 ms
Loss rate: 8.46%
-- Flow 2:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 798.770 ms
Loss rate: 14.00%
-- Flow 3:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 852.165 ms
Loss rate: 28.12%
```
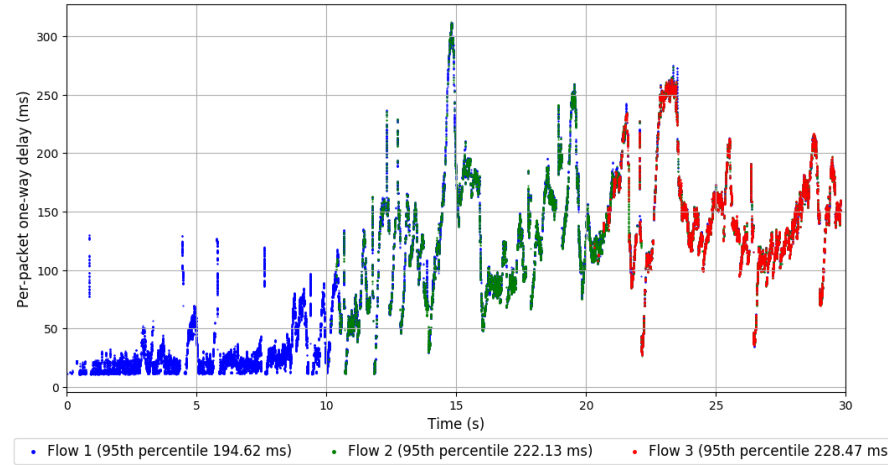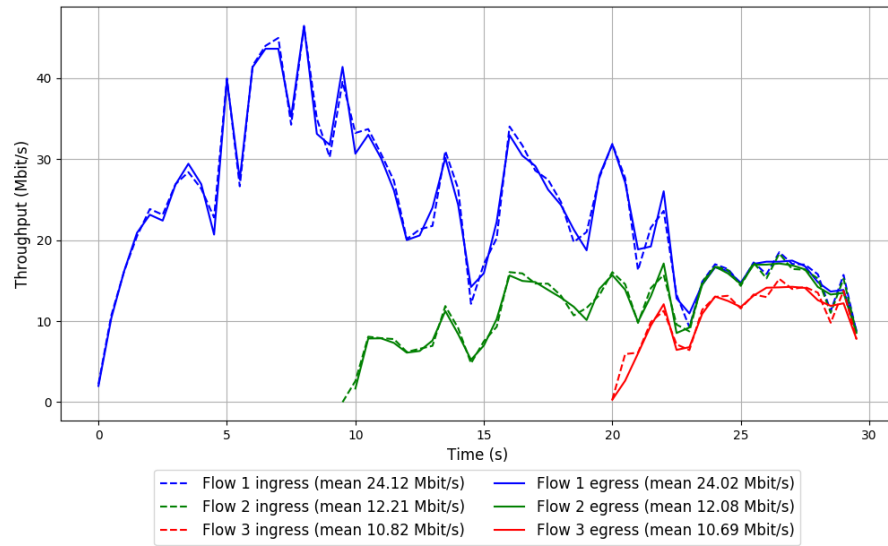
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 3.80 Mbit/s)   Flow 1 egress (mean 3.47 Mbit/s)
Flow 2 ingress (mean 7.70 Mbit/s)   Flow 2 egress (mean 6.62 Mbit/s)
Flow 3 ingress (mean 8.04 Mbit/s)   Flow 3 egress (mean 5.77 Mbit/s)

Flow 1 (95th percentile 717.57 ms)   Flow 2 (95th percentile 798.77 ms)   Flow 3 (95th percentile 852.16 ms)

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```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-10 15:42:53
End at: 2018-01-10 15:43:23
Local clock offset: -1.319 ms
Remote clock offset: -4.515 ms


# Below is generated by plot.py at 2018-01-10 16:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.49 Mbit/s
95th percentile per-packet one-way delay: 207.060 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 24.02 Mbit/s
95th percentile per-packet one-way delay: 194.621 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 12.08 Mbit/s
95th percentile per-packet one-way delay: 222.130 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 10.69 Mbit/s
95th percentile per-packet one-way delay: 228.468 ms
Loss rate: 2.12%
```

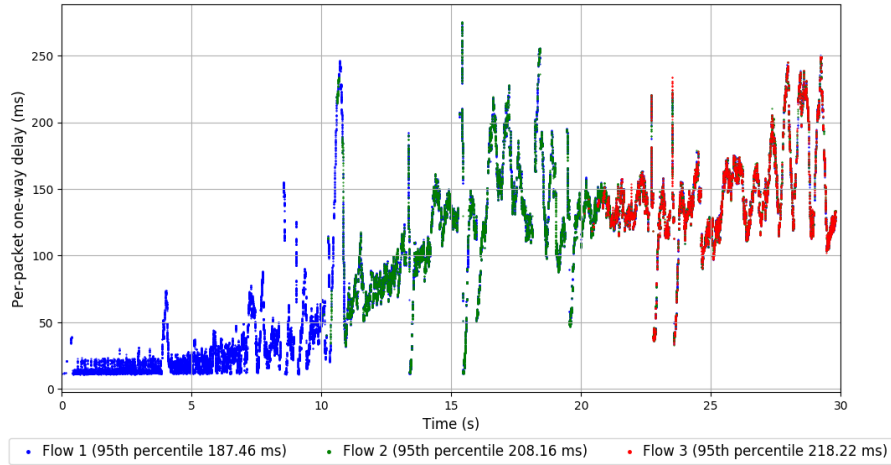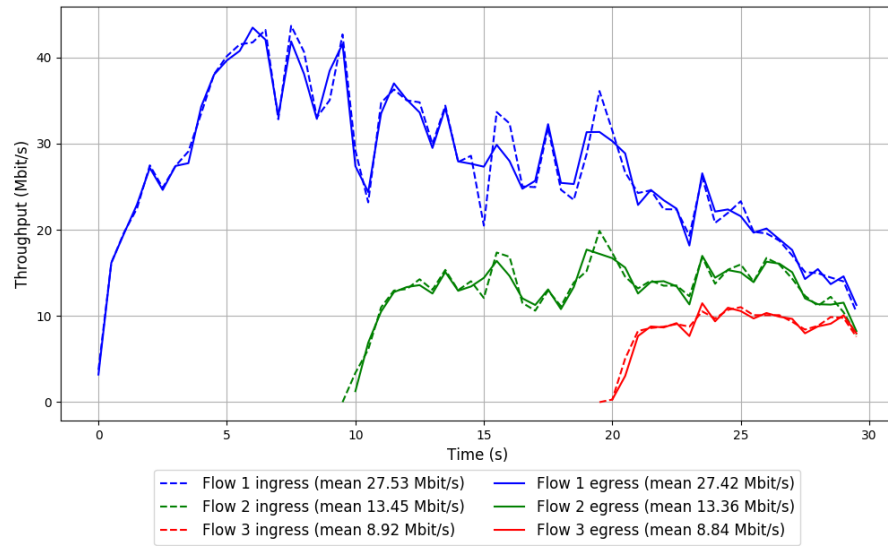Run 1: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 24.12 Mbit/s)   Flow 1 egress (mean 24.02 Mbit/s)
Flow 2 ingress (mean 12.21 Mbit/s)   Flow 2 egress (mean 12.08 Mbit/s)
Flow 3 ingress (mean 10.82 Mbit/s)   Flow 3 egress (mean 10.69 Mbit/s)

• Flow 1 (95th percentile 194.62 ms)   • Flow 2 (95th percentile 222.13 ms)   • Flow 3 (95th percentile 228.47 ms)
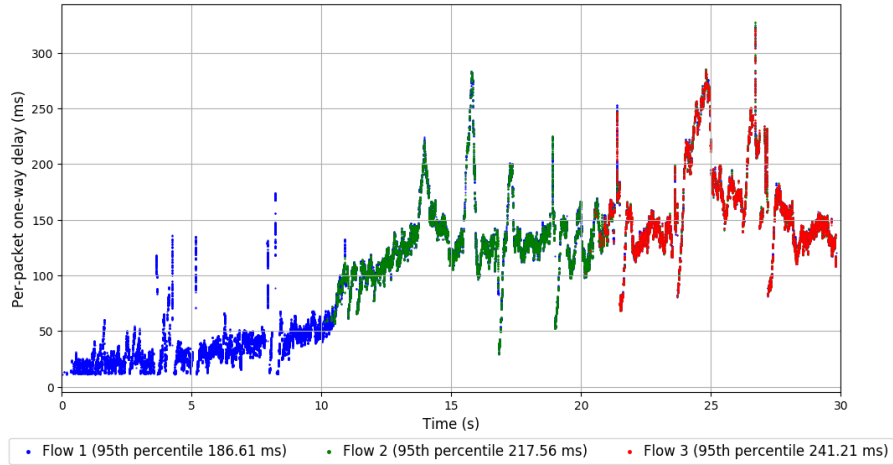
```
Run 2: Statistics of QUIC Cubic

Start at: 2018-01-10 16:00:51
End at: 2018-01-10 16:01:21
Local clock offset: -1.317 ms
Remote clock offset: -4.828 ms


# Below is generated by plot.py at 2018-01-10 16:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.17 Mbit/s
95th percentile per-packet one-way delay: 196.619 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 27.42 Mbit/s
95th percentile per-packet one-way delay: 187.455 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 208.160 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 218.218 ms
Loss rate: 2.07%
```
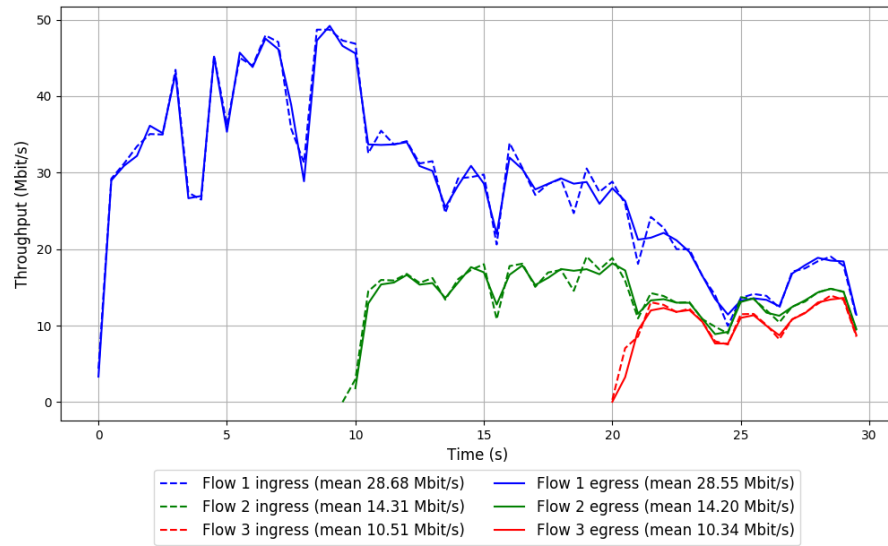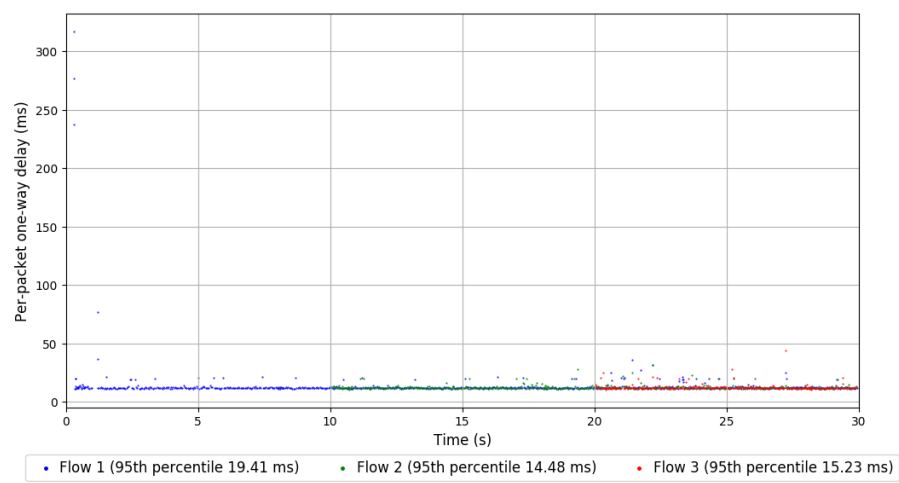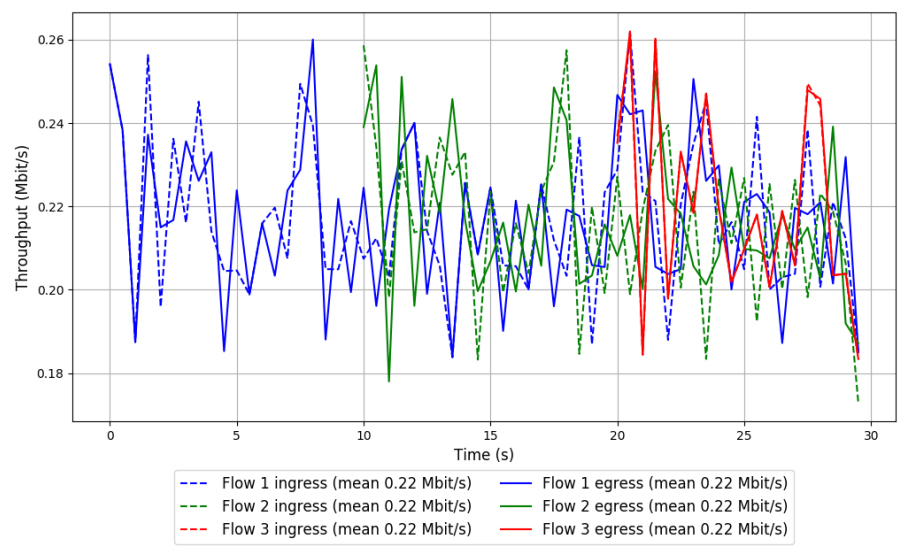
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 27.53 Mbit/s) --- Flow 1 egress (mean 27.42 Mbit/s)
Flow 2 ingress (mean 13.45 Mbit/s) --- Flow 2 egress (mean 13.36 Mbit/s)
Flow 3 ingress (mean 8.92 Mbit/s) --- Flow 3 egress (mean 8.84 Mbit/s)

Flow 1 (95th percentile 187.46 ms)   Flow 2 (95th percentile 208.16 ms)   Flow 3 (95th percentile 218.22 ms)

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```
Run 3: Statistics of QUIC Cubic

Start at: 2018-01-10 16:18:51
End at: 2018-01-10 16:19:21
Local clock offset: -1.515 ms
Remote clock offset: -4.613 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.31 Mbit/s
95th percentile per-packet one-way delay: 202.628 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 28.55 Mbit/s
95th percentile per-packet one-way delay: 186.610 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 217.563 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 10.34 Mbit/s
95th percentile per-packet one-way delay: 241.210 ms
Loss rate: 2.56%
```
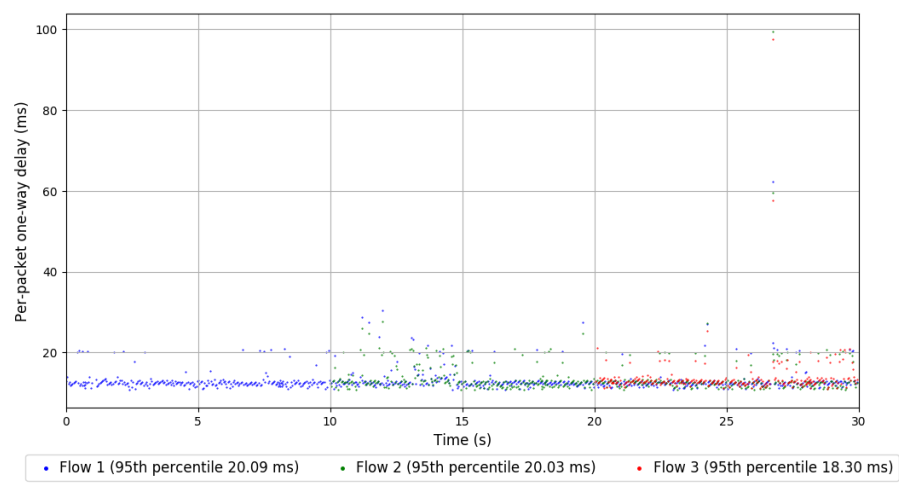
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 28.68 Mbit/s)   Flow 1 egress (mean 28.55 Mbit/s)
Flow 2 ingress (mean 14.31 Mbit/s)   Flow 2 egress (mean 14.20 Mbit/s)
Flow 3 ingress (mean 10.51 Mbit/s)   Flow 3 egress (mean 10.34 Mbit/s)

Flow 1 (95th percentile 186.61 ms)   Flow 2 (95th percentile 217.56 ms)   Flow 3 (95th percentile 241.21 ms)
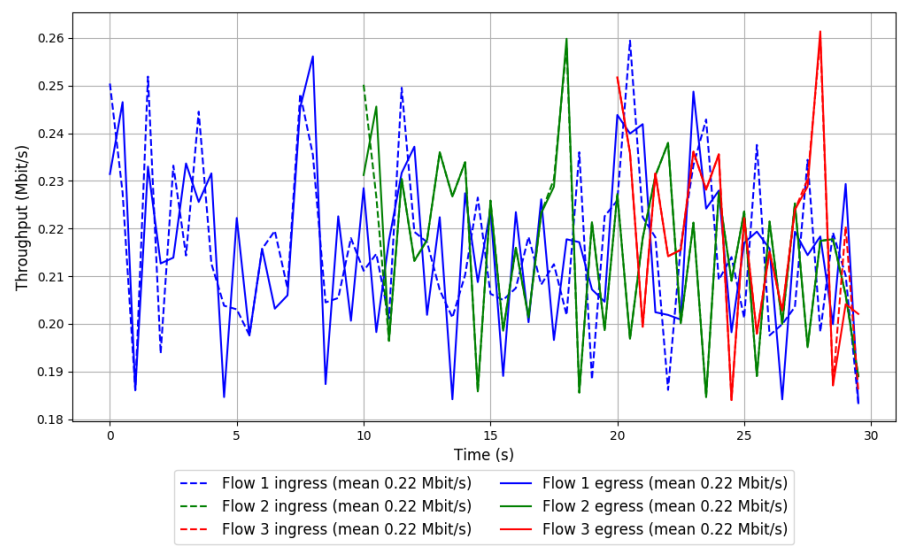
33

```
Run 1: Statistics of SCReAM

Start at: 2018-01-10 15:52:28
End at: 2018-01-10 15:52:58
Local clock offset: -1.285 ms
Remote clock offset: -4.539 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 15.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.407 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 14.482 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 15.228 ms
Loss rate: 0.00%
```

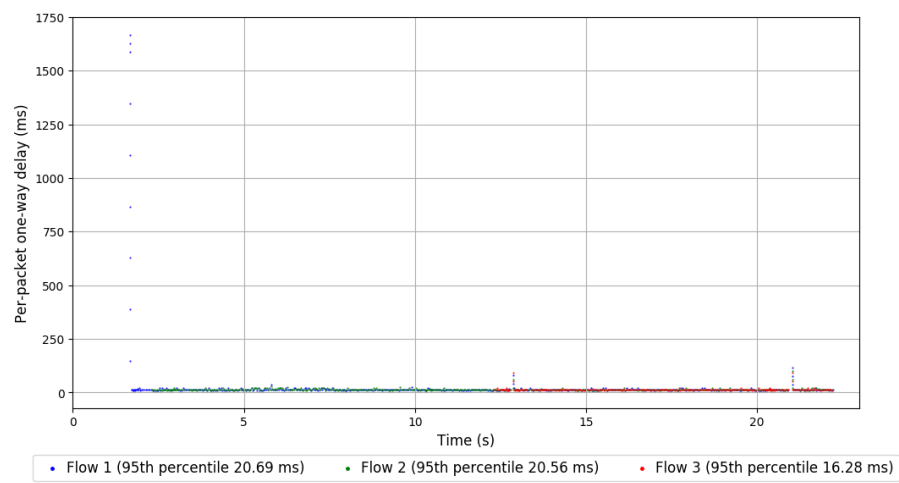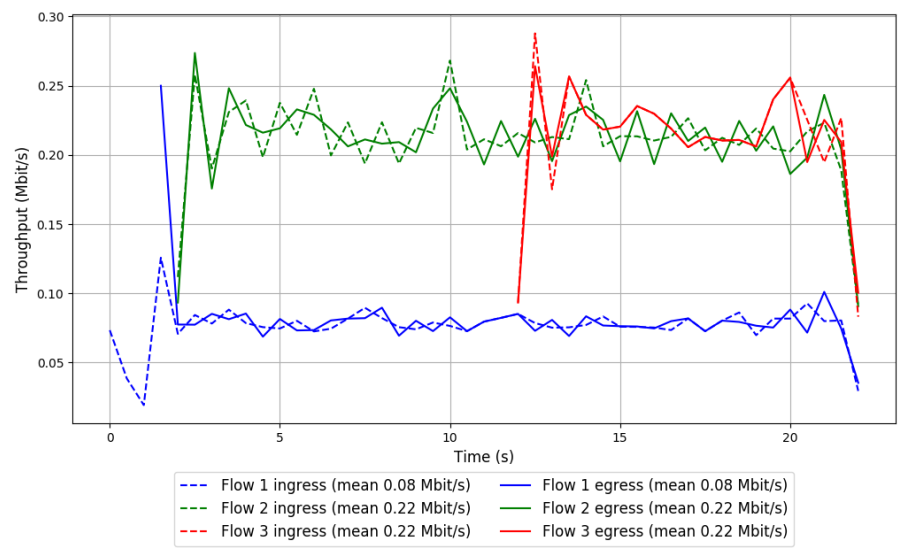Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-01-10 16:10:27
End at: 2018-01-10 16:10:57
Local clock offset: -1.366 ms
Remote clock offset: -4.946 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 20.016 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 20.089 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 20.032 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 18.295 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-01-10 16:28:29
End at: 2018-01-10 16:28:59
Local clock offset: -1.406 ms
Remote clock offset: -4.338 ms
```

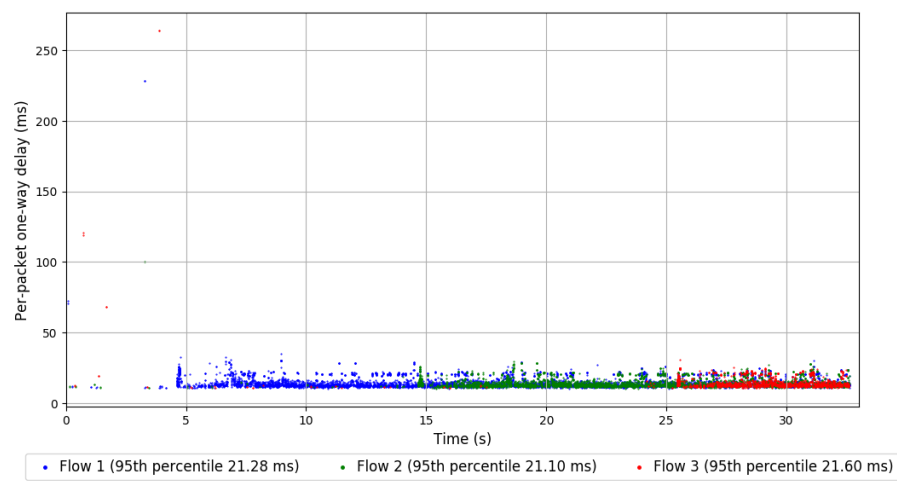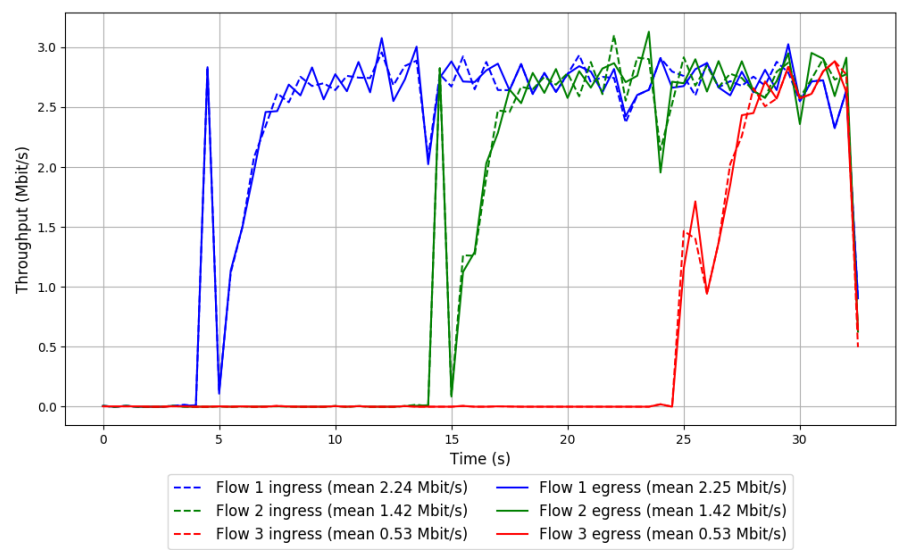# Run 3: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-01-10 15:47:42
End at: 2018-01-10 15:48:12
Local clock offset: -1.324 ms
Remote clock offset: -4.339 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 21.306 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 21.277 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 21.104 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 21.597 ms
Loss rate: 0.00%
```
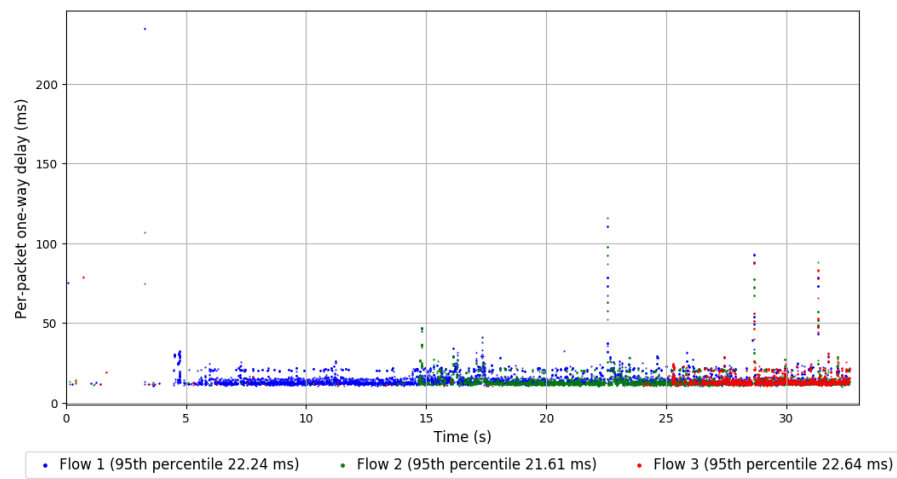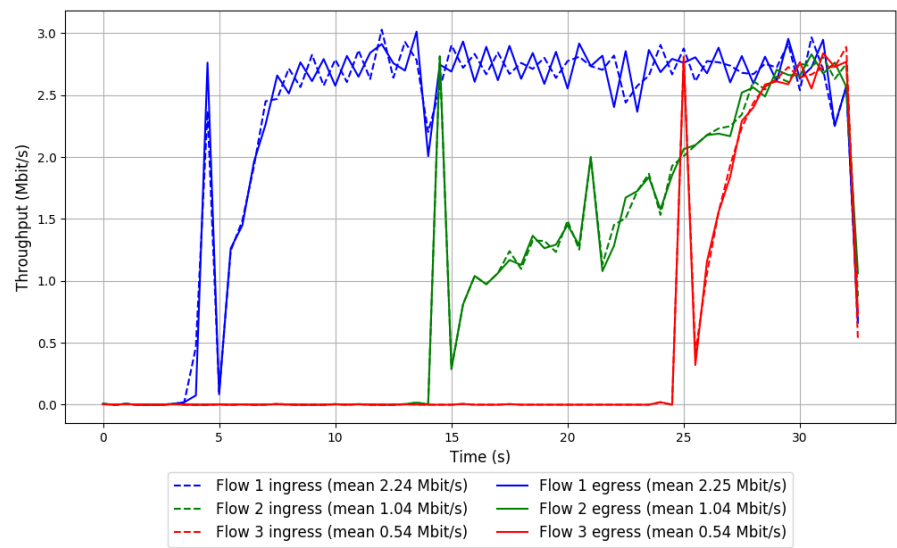
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.24 Mbit/s) — — —   Flow 1 egress (mean 2.25 Mbit/s)
Flow 2 ingress (mean 1.42 Mbit/s) — — —   Flow 2 egress (mean 1.42 Mbit/s)
Flow 3 ingress (mean 0.53 Mbit/s) — — —   Flow 3 egress (mean 0.53 Mbit/s)

Flow 1 (95th percentile 21.28 ms)   Flow 2 (95th percentile 21.10 ms)   Flow 3 (95th percentile 21.60 ms)
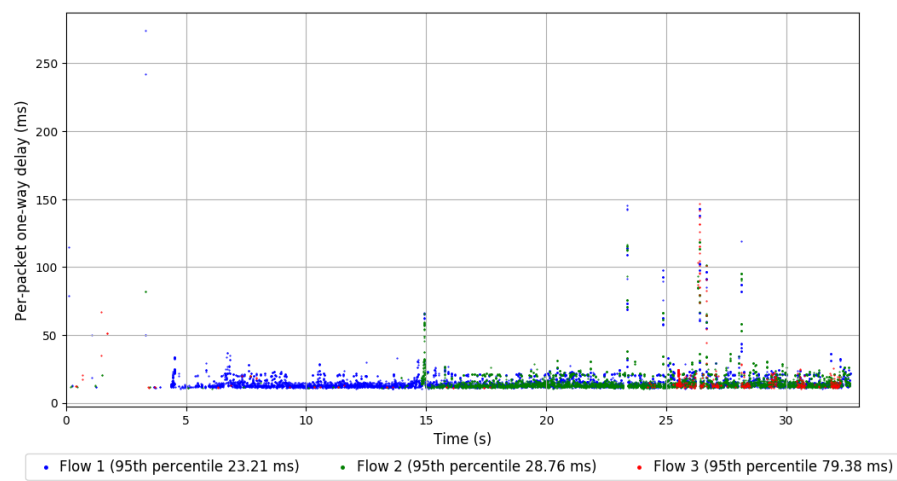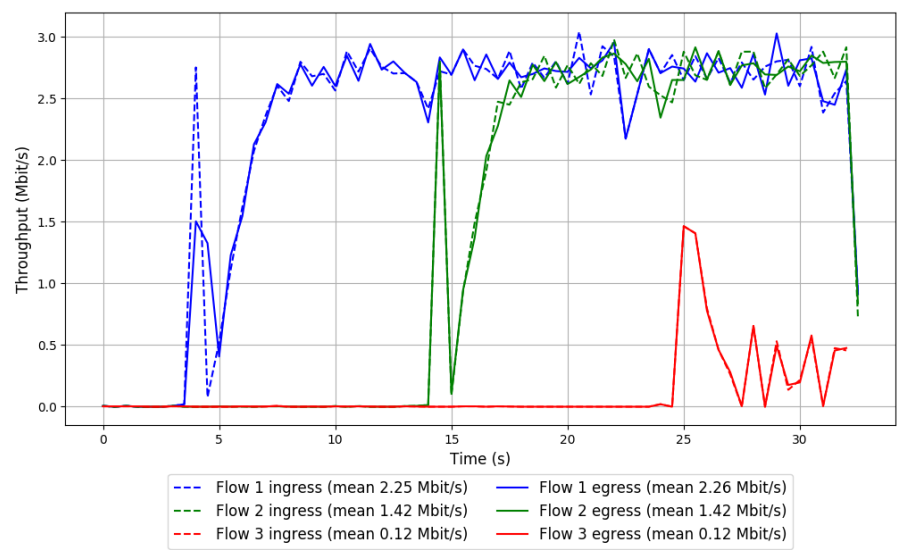
```
Run 2: Statistics of WebRTC media

Start at: 2018-01-10 16:05:41
End at: 2018-01-10 16:06:11
Local clock offset: -1.404 ms
Remote clock offset: -4.937 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 22.173 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 22.240 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 21.606 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 22.643 ms
Loss rate: 0.00%
```
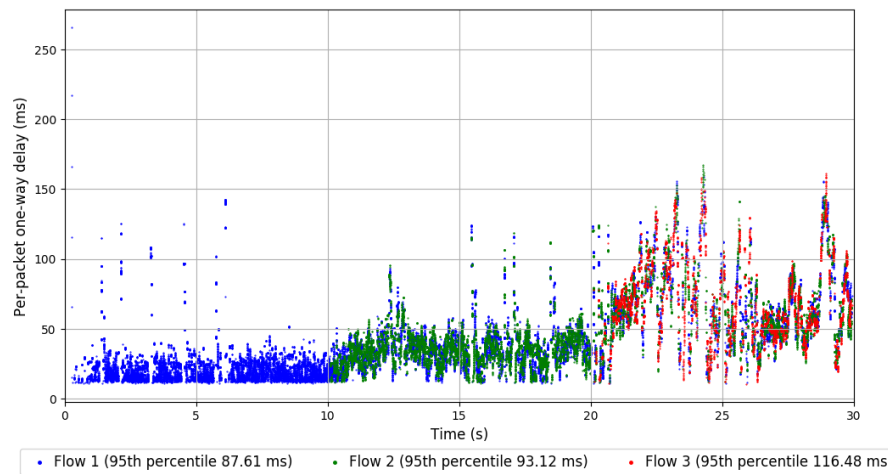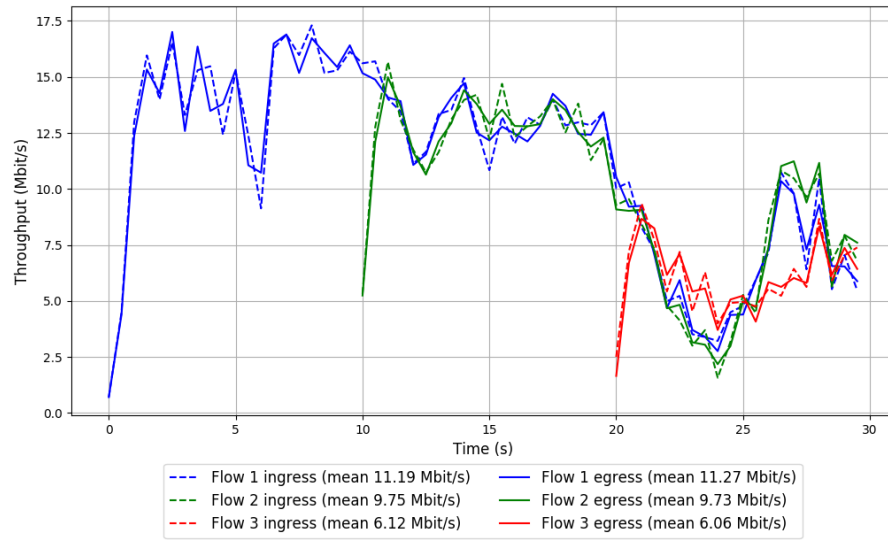
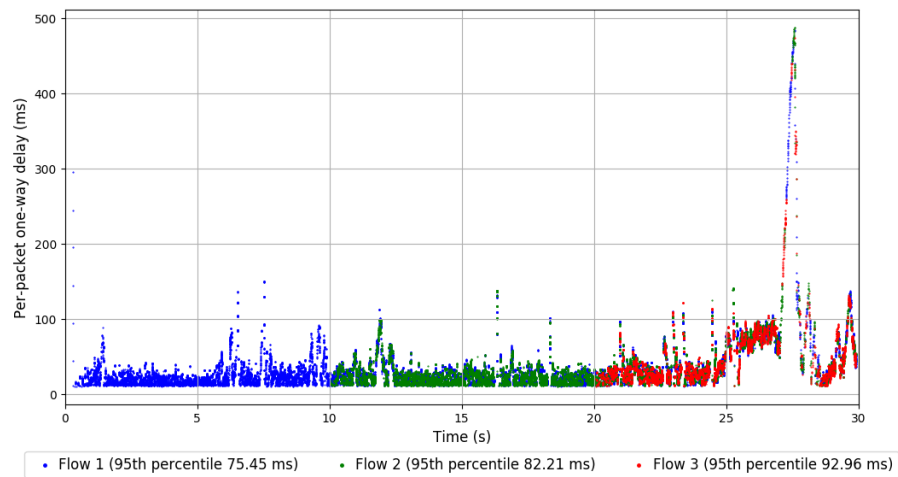Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-01-10 16:23:42
End at: 2018-01-10 16:24:12
Local clock offset: -1.44 ms
Remote clock offset: -4.478 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 24.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 23.213 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 28.762 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 79.377 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.25 Mbit/s)   Flow 1 egress (mean 2.26 Mbit/s)
Flow 2 ingress (mean 1.42 Mbit/s)   Flow 2 egress (mean 1.42 Mbit/s)
Flow 3 ingress (mean 0.12 Mbit/s)   Flow 3 egress (mean 0.12 Mbit/s)

Flow 1 (95th percentile 23.21 ms)   Flow 2 (95th percentile 28.76 ms)   Flow 3 (95th percentile 79.38 ms)
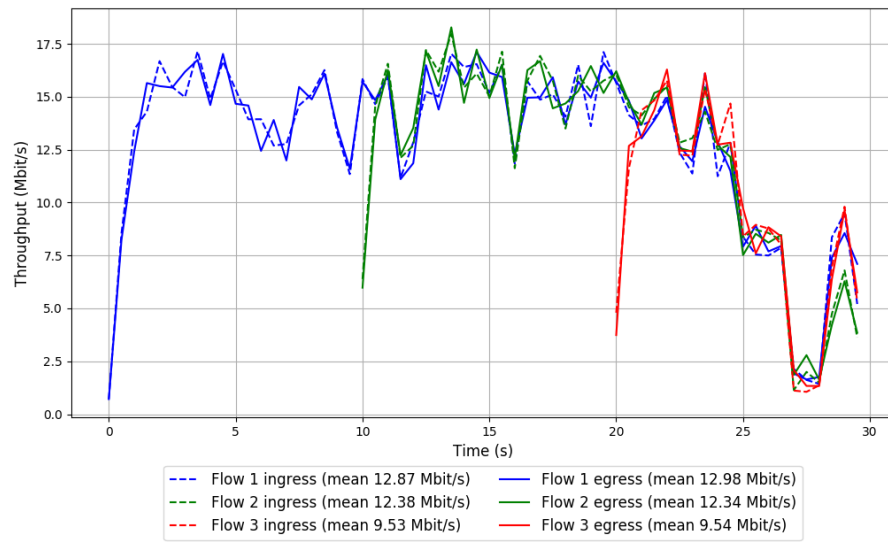
```
Run 1: Statistics of Sprout

Start at: 2018-01-10 15:46:31
End at: 2018-01-10 15:47:01
Local clock offset: -1.301 ms
Remote clock offset: -4.328 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.80 Mbit/s
95th percentile per-packet one-way delay: 96.559 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 11.27 Mbit/s
95th percentile per-packet one-way delay: 87.614 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 93.123 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 116.478 ms
Loss rate: 1.26%
```
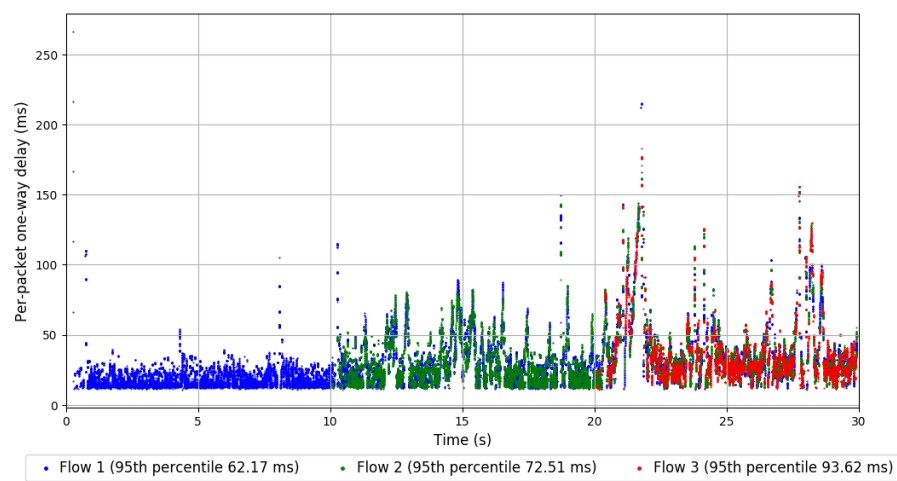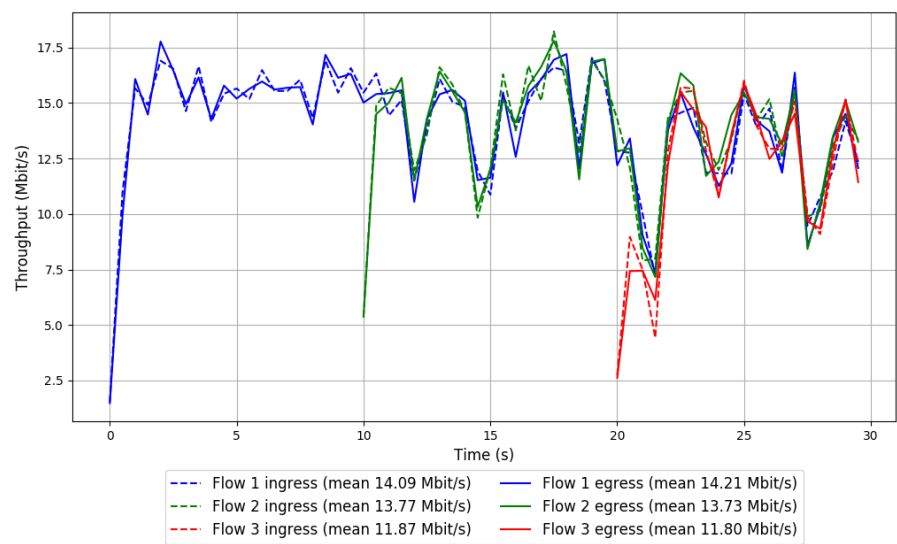
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-01-10 16:04:29
End at: 2018-01-10 16:04:59
Local clock offset: -1.289 ms
Remote clock offset: -4.914 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 81.325 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 12.98 Mbit/s
95th percentile per-packet one-way delay: 75.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.34 Mbit/s
95th percentile per-packet one-way delay: 82.212 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 92.961 ms
Loss rate: 0.27%
```
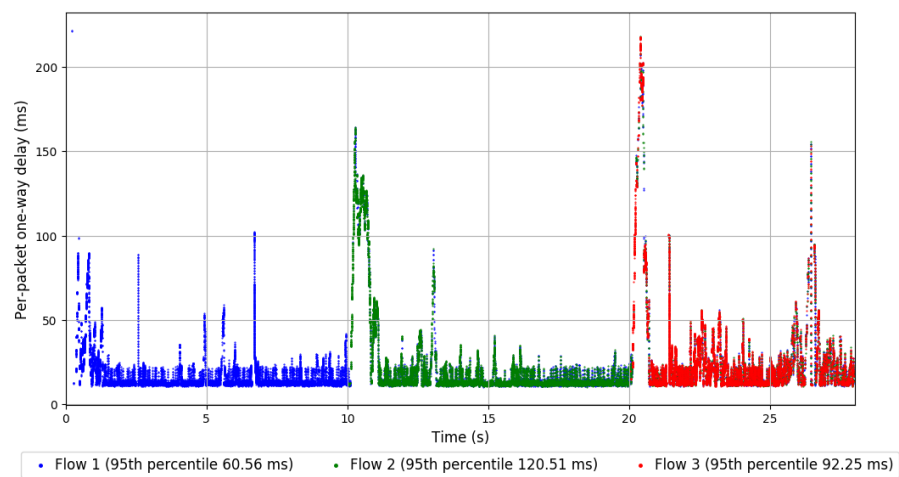
Run 2: Report of Sprout — Data Link

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```
Run 3: Statistics of Sprout

Start at: 2018-01-10 16:22:30
End at: 2018-01-10 16:23:00
Local clock offset: -1.427 ms
Remote clock offset: -4.489 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.34 Mbit/s
95th percentile per-packet one-way delay: 70.772 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 62.168 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 13.73 Mbit/s
95th percentile per-packet one-way delay: 72.512 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 93.616 ms
Loss rate: 0.55%
```
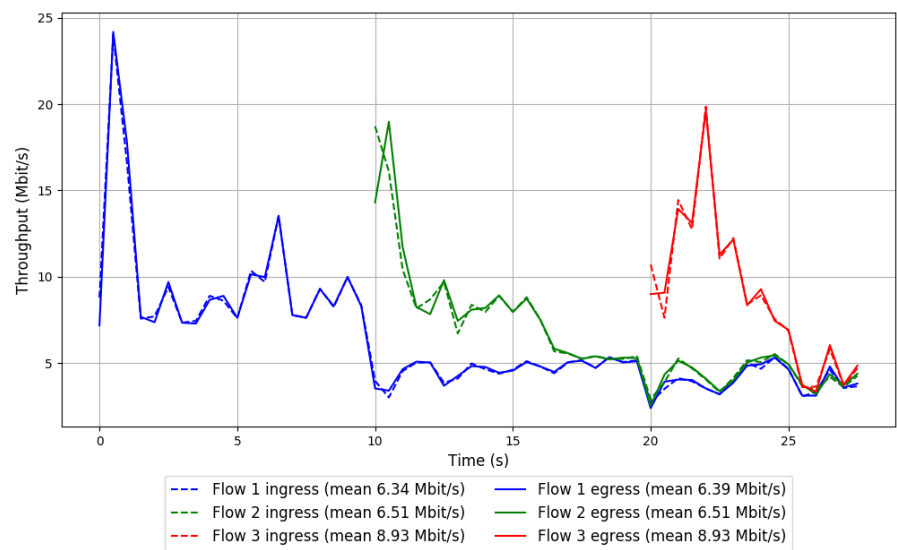
Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 14.09 Mbit/s) --- Flow 1 egress (mean 14.21 Mbit/s)
Flow 2 ingress (mean 13.77 Mbit/s) --- Flow 2 egress (mean 13.73 Mbit/s)
Flow 3 ingress (mean 11.87 Mbit/s) --- Flow 3 egress (mean 11.80 Mbit/s)

Flow 1 (95th percentile 62.17 ms) Flow 2 (95th percentile 72.51 ms) Flow 3 (95th percentile 93.62 ms)
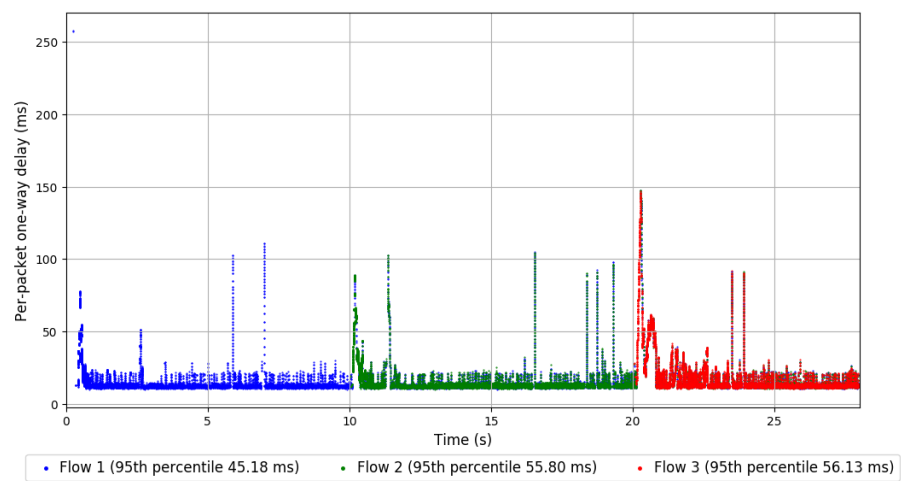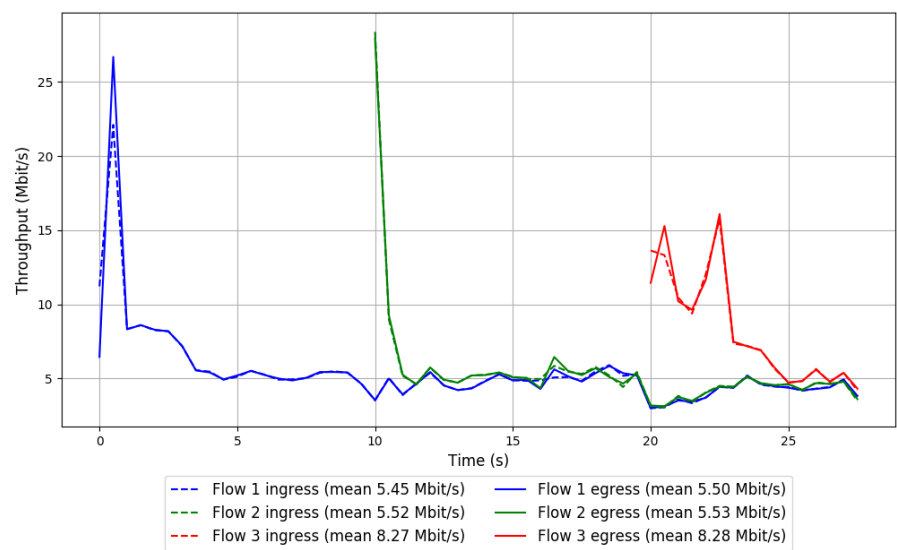
51

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

Start at: 2018-01-10 15:57:15
End at: 2018-01-10 15:57:45
Local clock offset: -1.291 ms
Remote clock offset: -4.663 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.15 Mbit/s
95th percentile per-packet one-way delay: 91.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 60.562 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 120.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.93 Mbit/s
95th percentile per-packet one-way delay: 92.251 ms
Loss rate: 0.00%
```
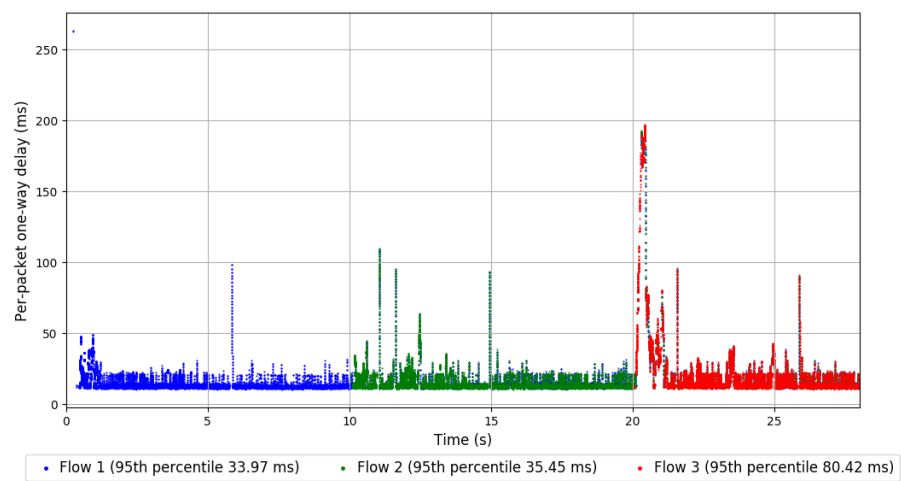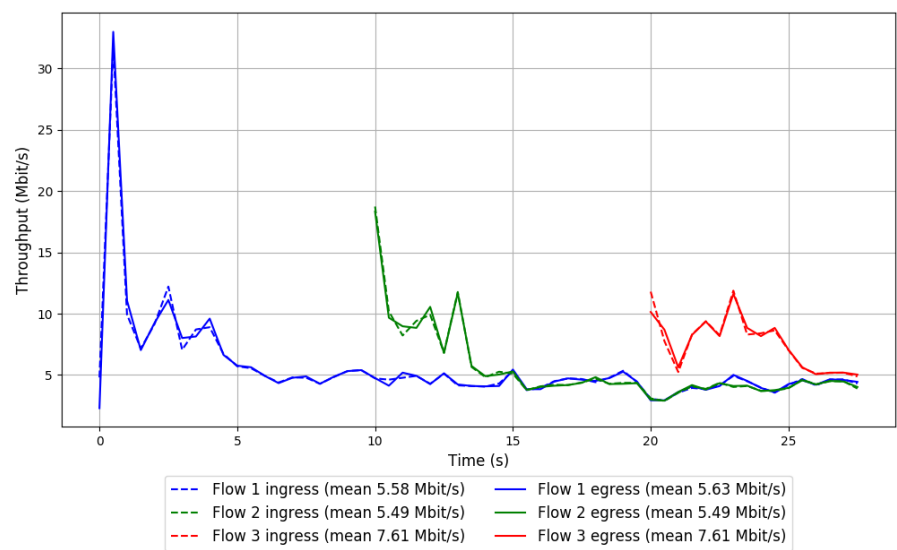
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-01-10 16:15:14
End at: 2018-01-10 16:15:44
Local clock offset: -1.398 ms
Remote clock offset: -4.792 ms


# Below is generated by plot.py at 2018-01-10 16:39:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 51.870 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.50 Mbit/s
95th percentile per-packet one-way delay: 45.176 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 55.796 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 56.129 ms
Loss rate: 0.00%
```
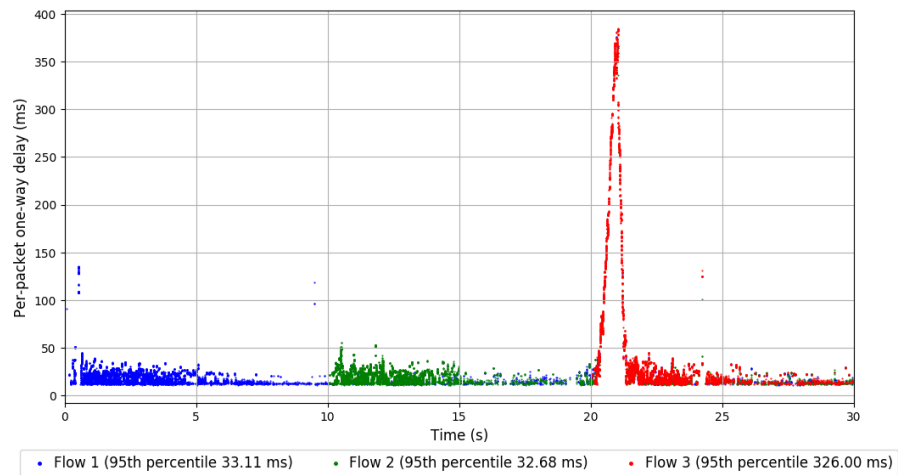
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-01-10 16:33:17
End at: 2018-01-10 16:33:47
Local clock offset: -1.45 ms
Remote clock offset: -4.255 ms


# Below is generated by plot.py at 2018-01-10 16:39:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.36 Mbit/s
95th percentile per-packet one-way delay: 41.344 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.63 Mbit/s
95th percentile per-packet one-way delay: 33.974 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.49 Mbit/s
95th percentile per-packet one-way delay: 35.446 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 80.423 ms
Loss rate: 0.00%
```

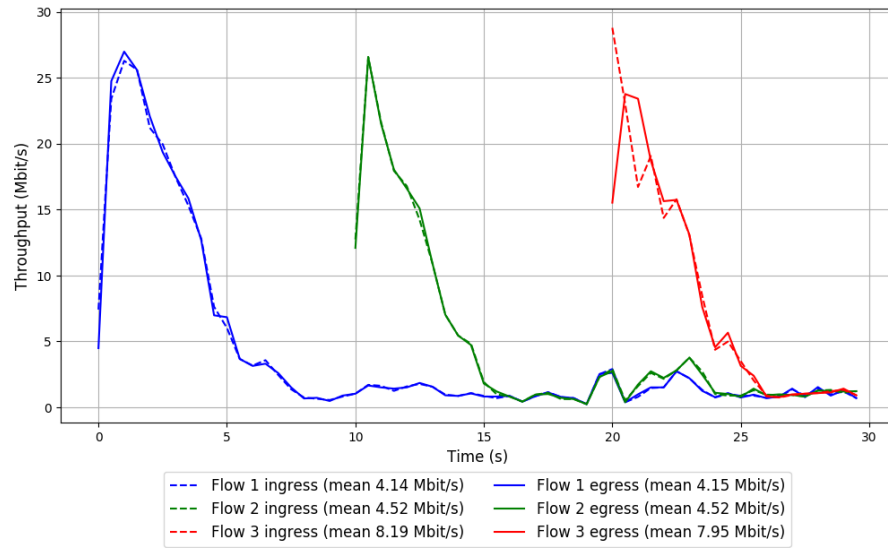Run 3: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2018-01-10 15:40:29
End at: 2018-01-10 15:40:59
Local clock offset: -1.391 ms
Remote clock offset: -4.604 ms


# Below is generated by plot.py at 2018-01-10 16:39:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 139.991 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 33.110 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 32.679 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 326.000 ms
Loss rate: 3.03%
```

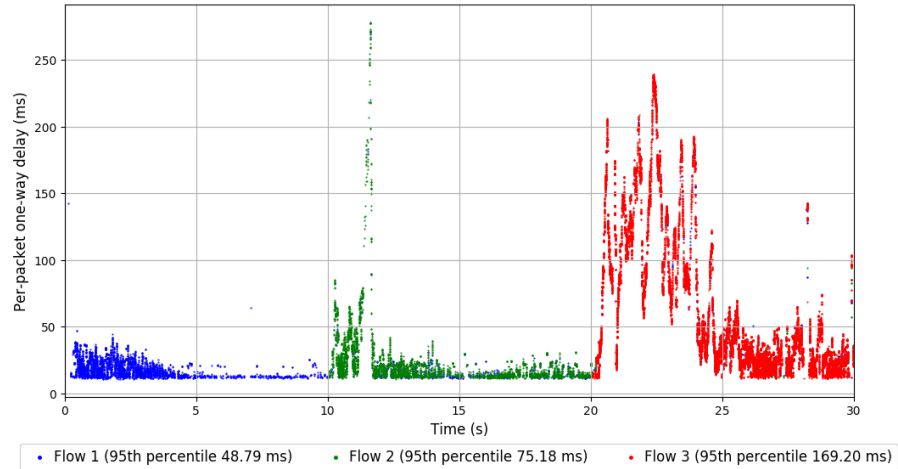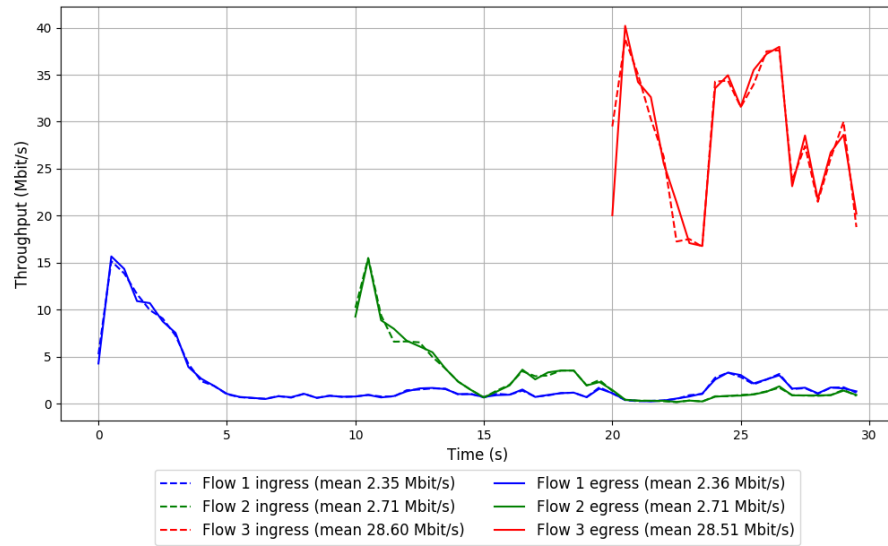Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-01-10 15:58:27
End at: 2018-01-10 15:58:57
Local clock offset: -1.282 ms
Remote clock offset: -4.675 ms


# Below is generated by plot.py at 2018-01-10 16:39:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.68 Mbit/s
95th percentile per-packet one-way delay: 163.596 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 48.788 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.71 Mbit/s
95th percentile per-packet one-way delay: 75.178 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 28.51 Mbit/s
95th percentile per-packet one-way delay: 169.199 ms
Loss rate: 0.09%
```
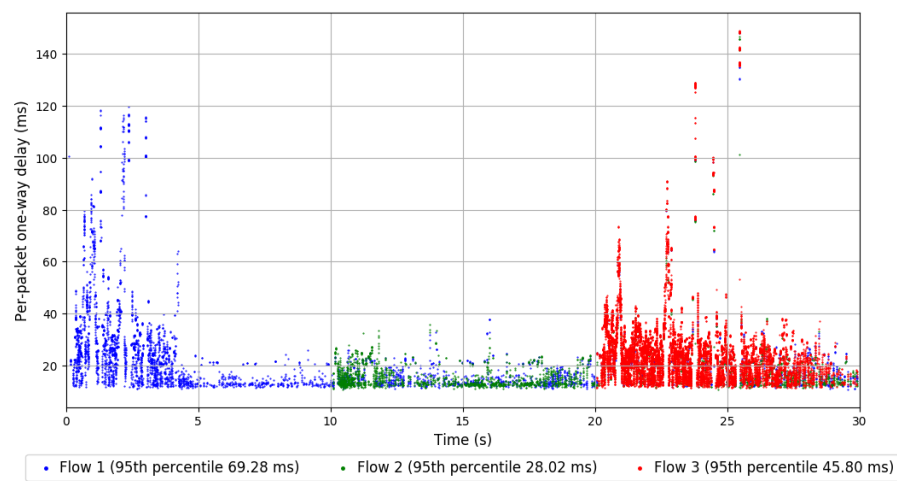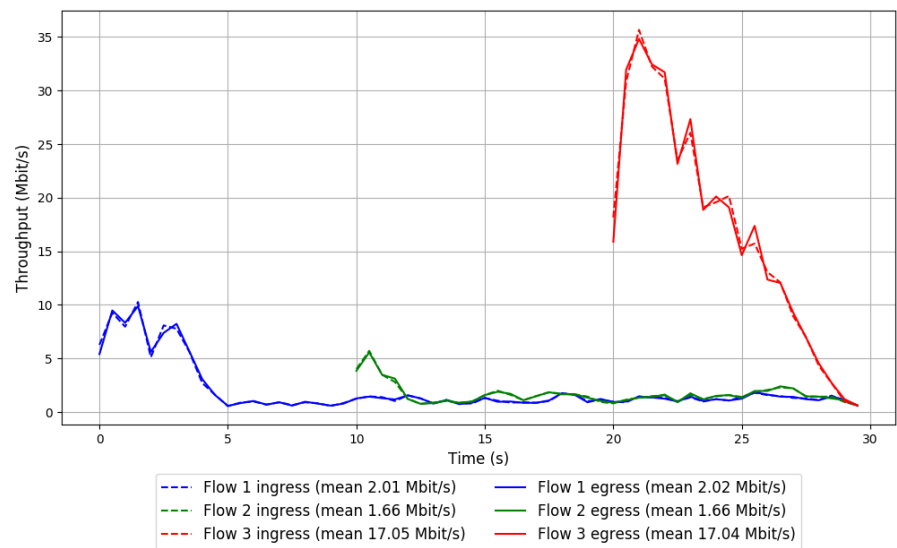
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-01-10 16:16:26
End at: 2018-01-10 16:16:56
Local clock offset: -1.5 ms
Remote clock offset: -4.774 ms


# Below is generated by plot.py at 2018-01-10 16:39:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.78 Mbit/s
95th percentile per-packet one-way delay: 47.557 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 69.280 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 28.021 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.04 Mbit/s
95th percentile per-packet one-way delay: 45.799 ms
Loss rate: 0.00%
```

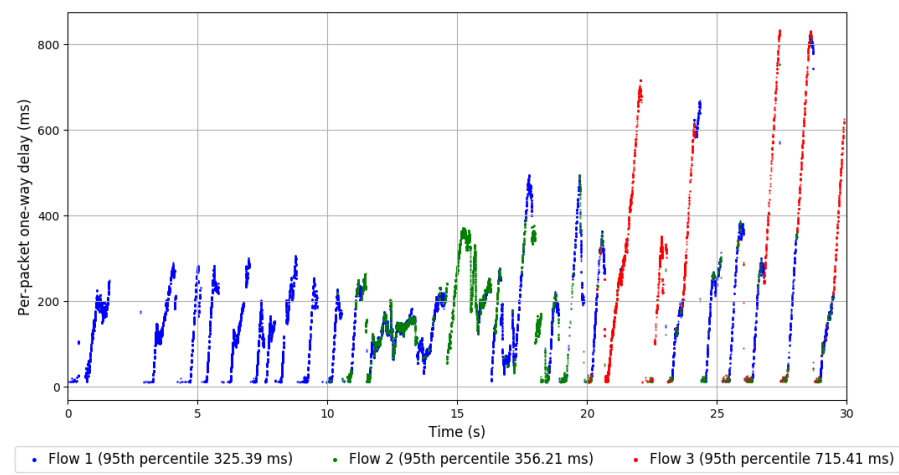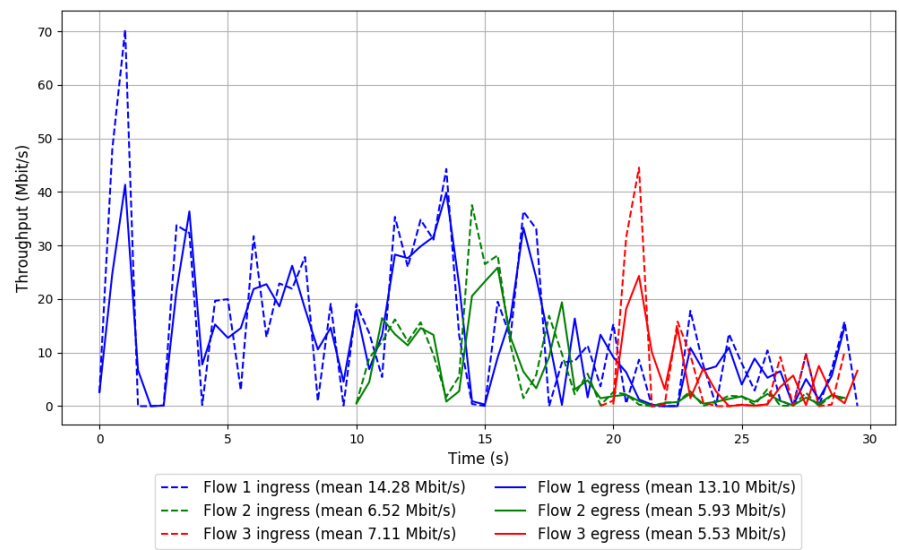Run 3: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-01-10 15:56:03
End at: 2018-01-10 15:56:33
Local clock offset: -1.272 ms
Remote clock offset: -4.653 ms


# Below is generated by plot.py at 2018-01-10 16:39:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.61 Mbit/s
95th percentile per-packet one-way delay: 420.068 ms
Loss rate: 9.44%
-- Flow 1:
Average throughput: 13.10 Mbit/s
95th percentile per-packet one-way delay: 325.391 ms
Loss rate: 8.37%
-- Flow 2:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 356.206 ms
Loss rate: 8.27%
-- Flow 3:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 715.410 ms
Loss rate: 18.36%
```

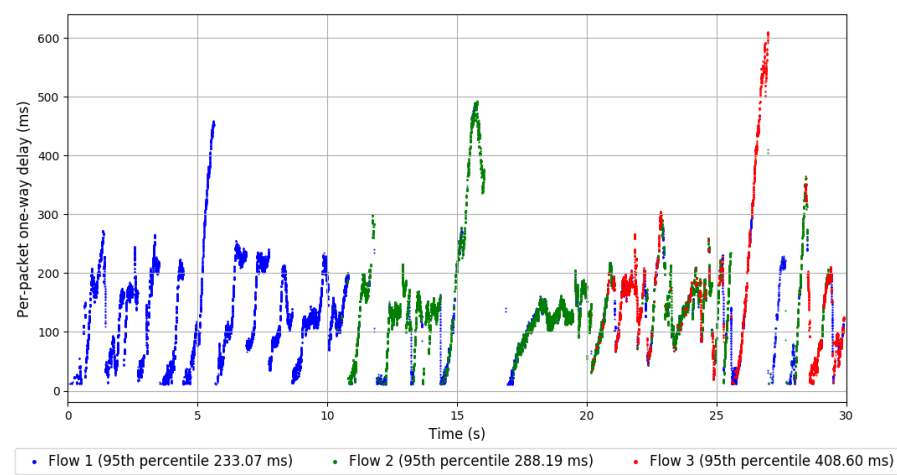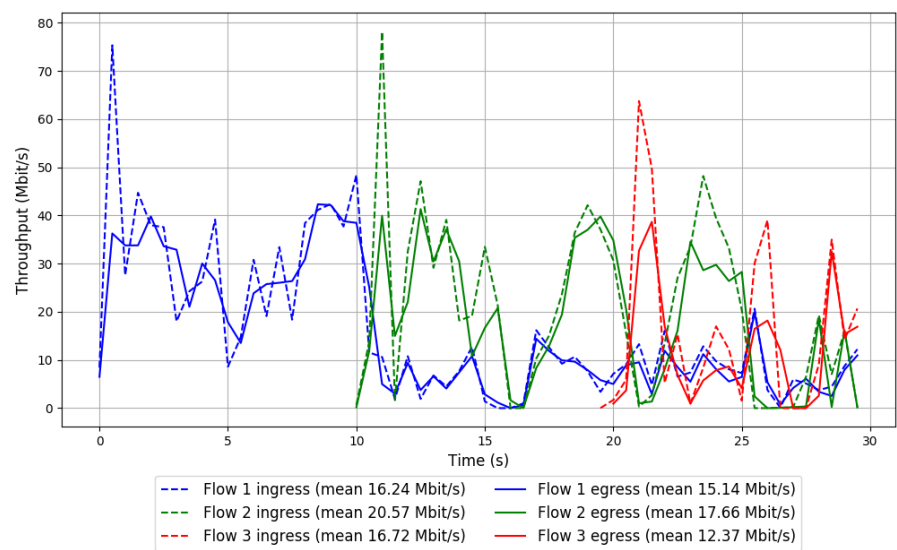Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-01-10 16:14:01
End at: 2018-01-10 16:14:31
Local clock offset: -1.373 ms
Remote clock offset: -4.753 ms


# Below is generated by plot.py at 2018-01-10 16:40:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.87 Mbit/s
95th percentile per-packet one-way delay: 258.855 ms
Loss rate: 12.70%
-- Flow 1:
Average throughput: 15.14 Mbit/s
95th percentile per-packet one-way delay: 233.073 ms
Loss rate: 6.76%
-- Flow 2:
Average throughput: 17.66 Mbit/s
95th percentile per-packet one-way delay: 288.189 ms
Loss rate: 14.05%
-- Flow 3:
Average throughput: 12.37 Mbit/s
95th percentile per-packet one-way delay: 408.603 ms
Loss rate: 26.82%
```

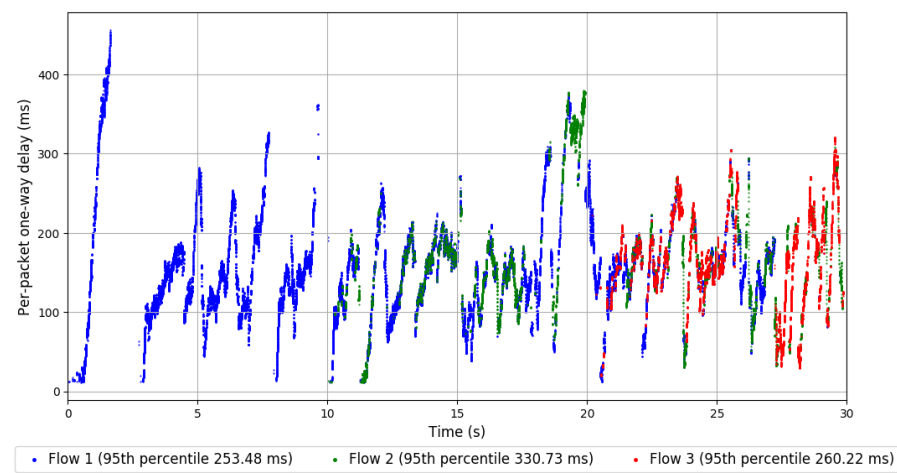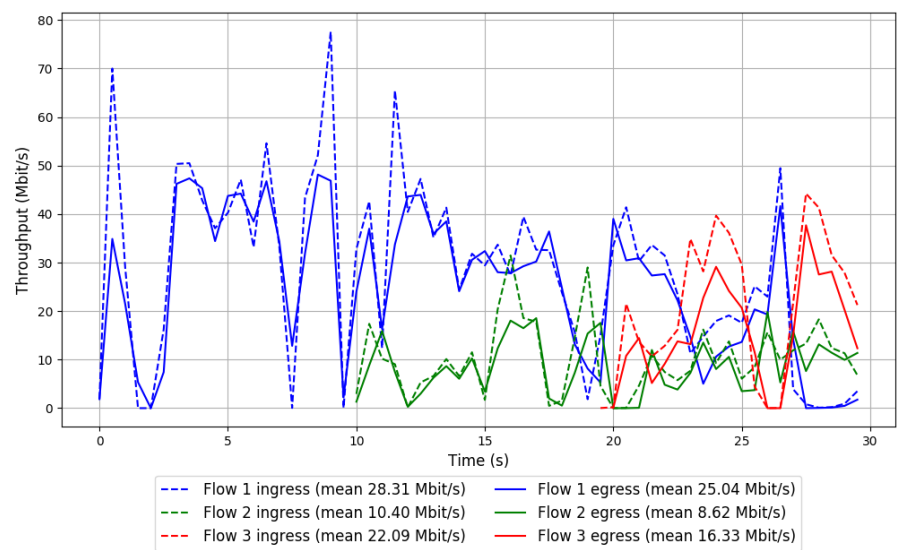Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-01-10 16:32:04
End at: 2018-01-10 16:32:34
Local clock offset: -1.538 ms
Remote clock offset: -4.292 ms


# Below is generated by plot.py at 2018-01-10 16:40:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.97 Mbit/s
95th percentile per-packet one-way delay: 269.590 ms
Loss rate: 15.23%
-- Flow 1:
Average throughput: 25.04 Mbit/s
95th percentile per-packet one-way delay: 253.481 ms
Loss rate: 11.69%
-- Flow 2:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 330.730 ms
Loss rate: 16.72%
-- Flow 3:
Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 260.224 ms
Loss rate: 27.56%
```
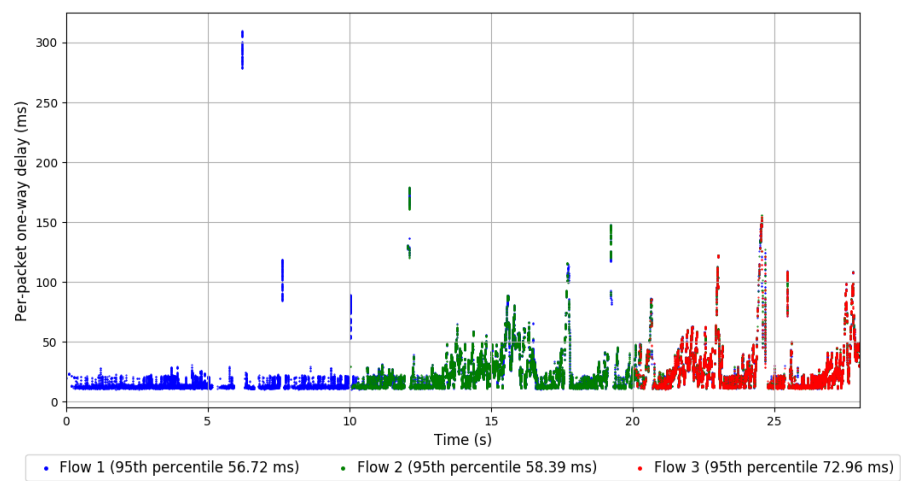
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 28.31 Mbit/s)   Flow 1 egress (mean 25.04 Mbit/s)
Flow 2 ingress (mean 10.40 Mbit/s)   Flow 2 egress (mean 8.62 Mbit/s)
Flow 3 ingress (mean 22.09 Mbit/s)   Flow 3 egress (mean 16.33 Mbit/s)

Flow 1 (95th percentile 253.48 ms)   Flow 2 (95th percentile 330.73 ms)   Flow 3 (95th percentile 260.22 ms)
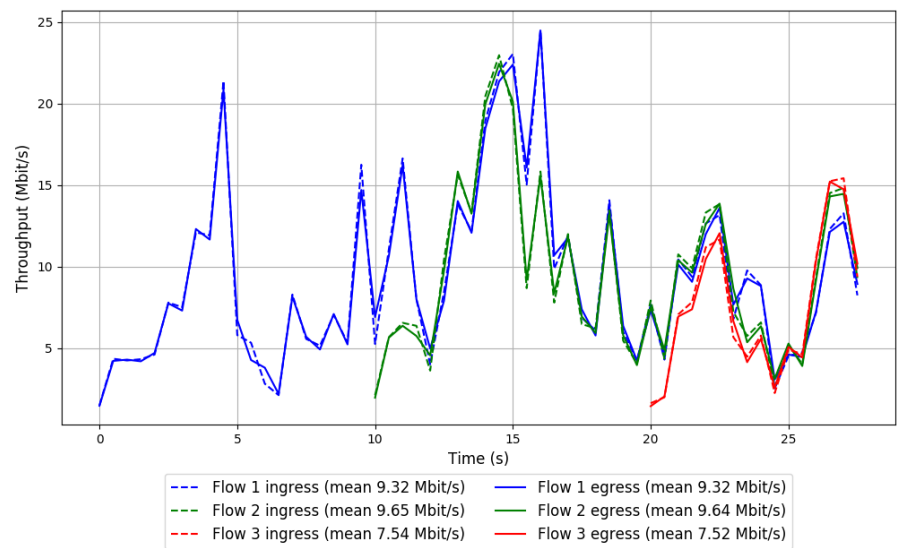
```
Run 1: Statistics of Copa

Start at: 2018-01-10 15:48:53
End at: 2018-01-10 15:49:23
Local clock offset: -1.291 ms
Remote clock offset: -4.429 ms


# Below is generated by plot.py at 2018-01-10 16:40:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.64 Mbit/s
95th percentile per-packet one-way delay: 58.432 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 56.720 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 9.64 Mbit/s
95th percentile per-packet one-way delay: 58.386 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 72.960 ms
Loss rate: 0.30%
```
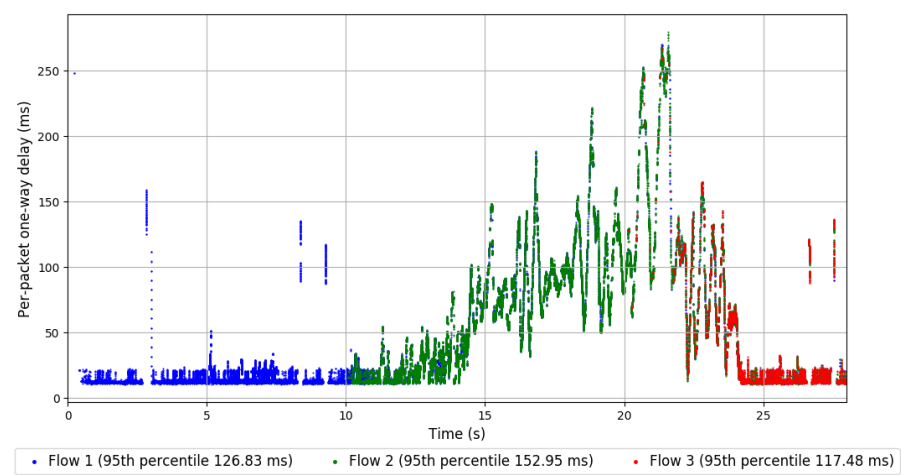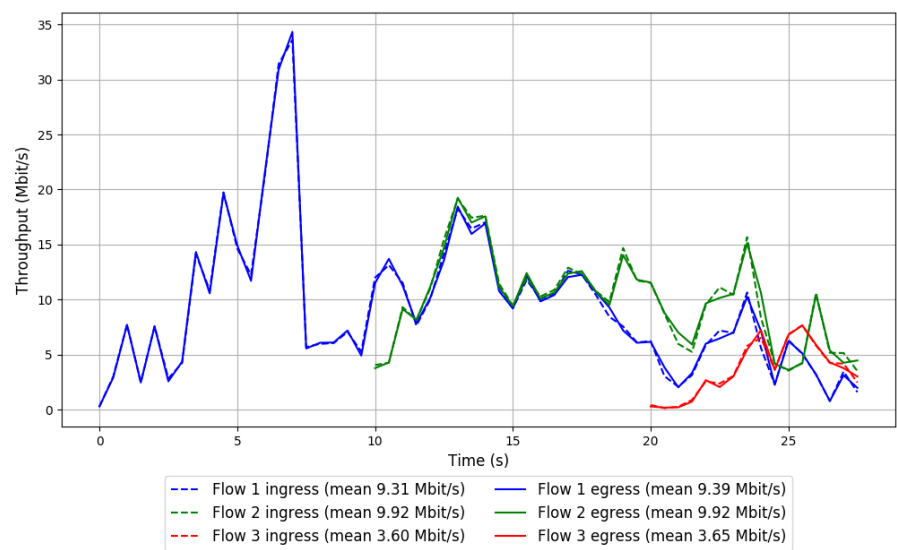
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-01-10 16:06:52
End at: 2018-01-10 16:07:22
Local clock offset: -1.305 ms
Remote clock offset: -4.984 ms


# Below is generated by plot.py at 2018-01-10 16:40:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.84 Mbit/s
95th percentile per-packet one-way delay: 136.464 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 126.835 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 9.92 Mbit/s
95th percentile per-packet one-way delay: 152.948 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 117.483 ms
Loss rate: 0.00%
```
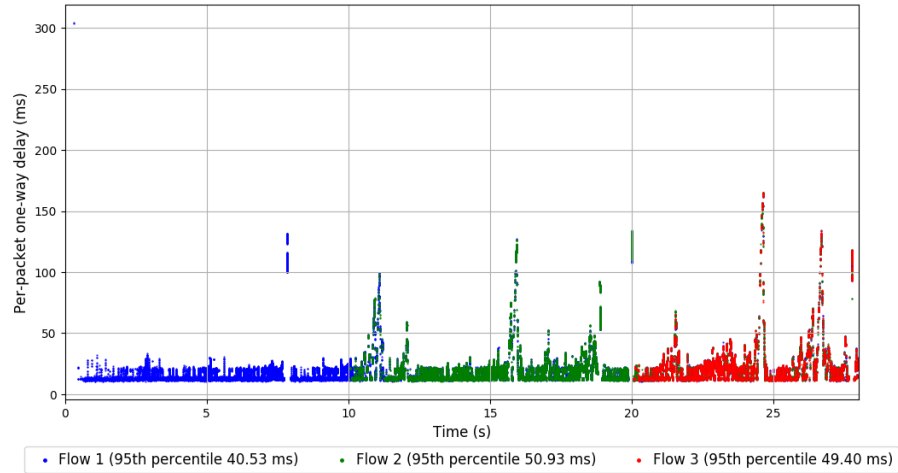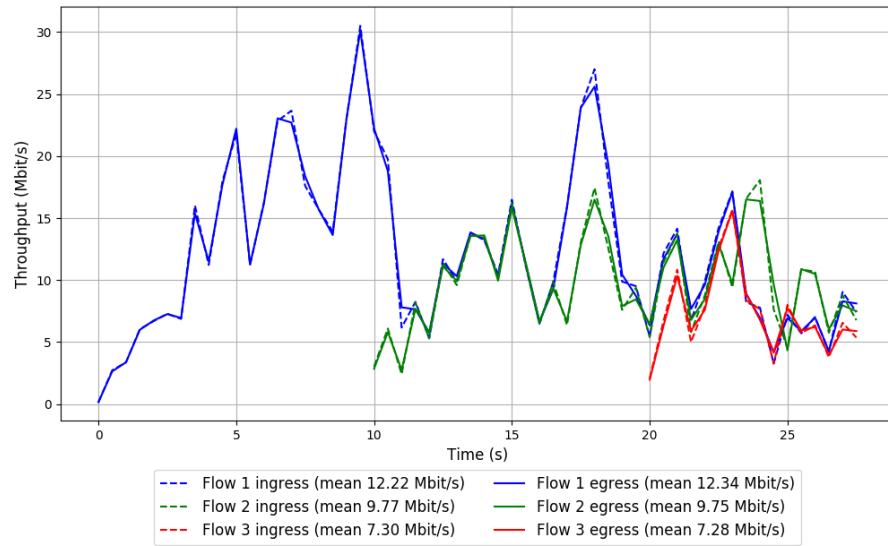
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-01-10 16:24:53
End at: 2018-01-10 16:25:23
Local clock offset: -1.545 ms
Remote clock offset: -4.516 ms


# Below is generated by plot.py at 2018-01-10 16:40:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.75 Mbit/s
95th percentile per-packet one-way delay: 45.092 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 12.34 Mbit/s
95th percentile per-packet one-way delay: 40.531 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 9.75 Mbit/s
95th percentile per-packet one-way delay: 50.931 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 7.28 Mbit/s
95th percentile per-packet one-way delay: 49.398 ms
Loss rate: 0.11%
```
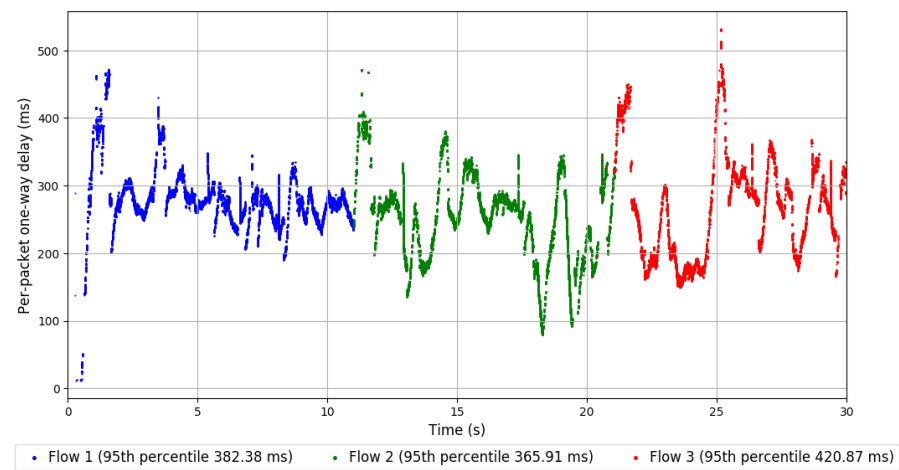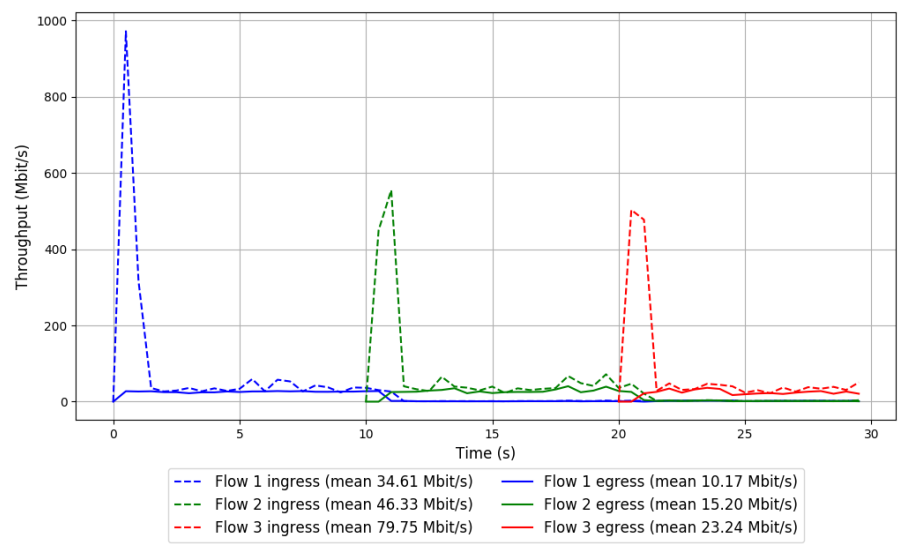
Run 3: Report of Copa — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-01-10 15:44:06
End at: 2018-01-10 15:44:36
Local clock offset: -1.313 ms
Remote clock offset: -4.372 ms


# Below is generated by plot.py at 2018-01-10 16:40:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.90 Mbit/s
95th percentile per-packet one-way delay: 384.576 ms
Loss rate: 69.91%
-- Flow 1:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 382.375 ms
Loss rate: 70.88%
-- Flow 2:
Average throughput: 15.20 Mbit/s
95th percentile per-packet one-way delay: 365.908 ms
Loss rate: 67.62%
-- Flow 3:
Average throughput: 23.24 Mbit/s
95th percentile per-packet one-way delay: 420.869 ms
Loss rate: 71.31%
```
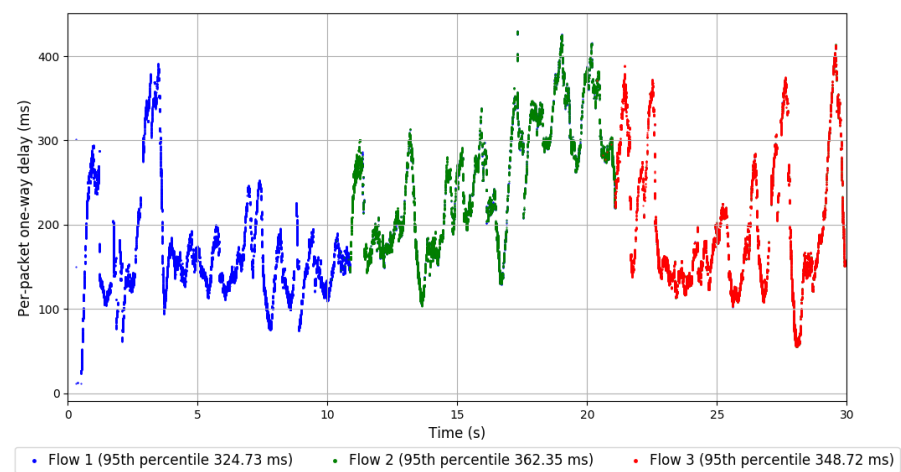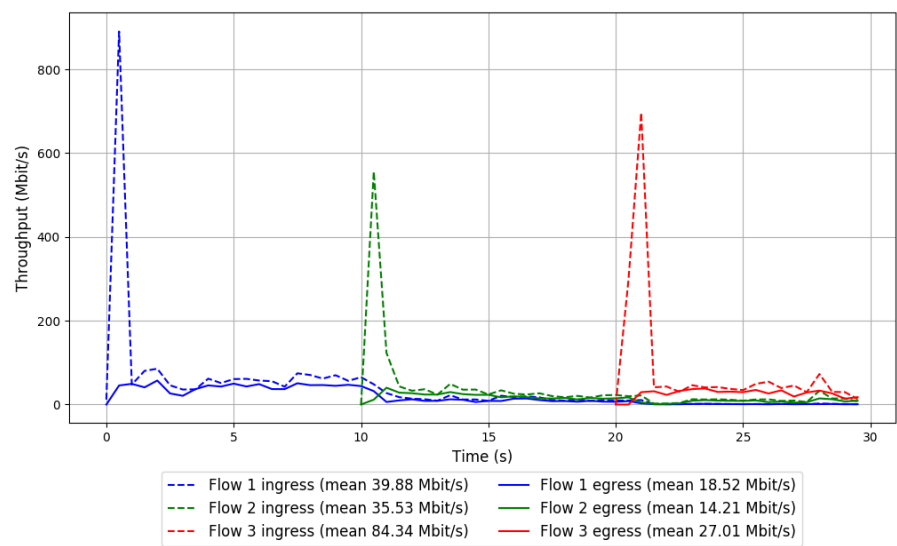
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-01-10 16:02:04
End at: 2018-01-10 16:02:34
Local clock offset: -1.386 ms
Remote clock offset: -4.854 ms


# Below is generated by plot.py at 2018-01-10 16:40:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.72 Mbit/s
95th percentile per-packet one-way delay: 345.058 ms
Loss rate: 60.23%
-- Flow 1:
Average throughput: 18.52 Mbit/s
95th percentile per-packet one-way delay: 324.730 ms
Loss rate: 54.00%
-- Flow 2:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 362.353 ms
Loss rate: 60.24%
-- Flow 3:
Average throughput: 27.01 Mbit/s
95th percentile per-packet one-way delay: 348.724 ms
Loss rate: 69.11%
```
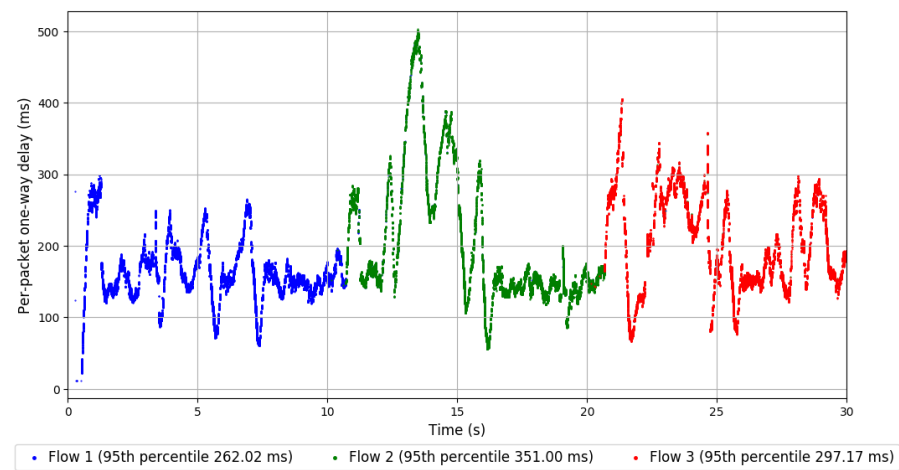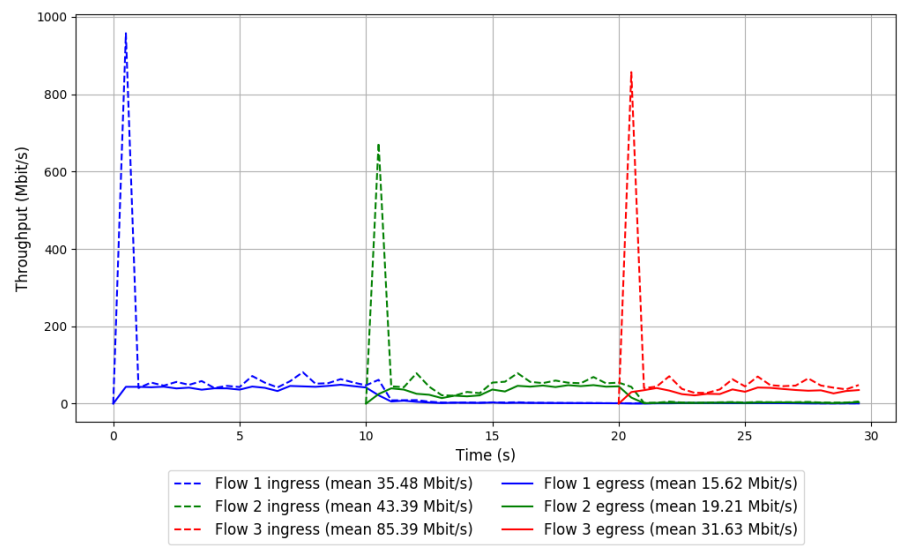
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-01-10 16:20:04
End at: 2018-01-10 16:20:34
Local clock offset: -1.421 ms
Remote clock offset: -4.672 ms


# Below is generated by plot.py at 2018-01-10 16:40:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.88 Mbit/s
95th percentile per-packet one-way delay: 298.067 ms
Loss rate: 58.44%
-- Flow 1:
Average throughput: 15.62 Mbit/s
95th percentile per-packet one-way delay: 262.019 ms
Loss rate: 56.36%
-- Flow 2:
Average throughput: 19.21 Mbit/s
95th percentile per-packet one-way delay: 351.004 ms
Loss rate: 56.07%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 297.165 ms
Loss rate: 63.45%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 35.48 Mbit/s) --- Flow 1 egress (mean 15.62 Mbit/s)
Flow 2 ingress (mean 43.39 Mbit/s) --- Flow 2 egress (mean 19.21 Mbit/s)
Flow 3 ingress (mean 85.39 Mbit/s) --- Flow 3 egress (mean 31.63 Mbit/s)

Flow 1 (95th percentile 262.02 ms)   Flow 2 (95th percentile 351.00 ms)   Flow 3 (95th percentile 297.17 ms)
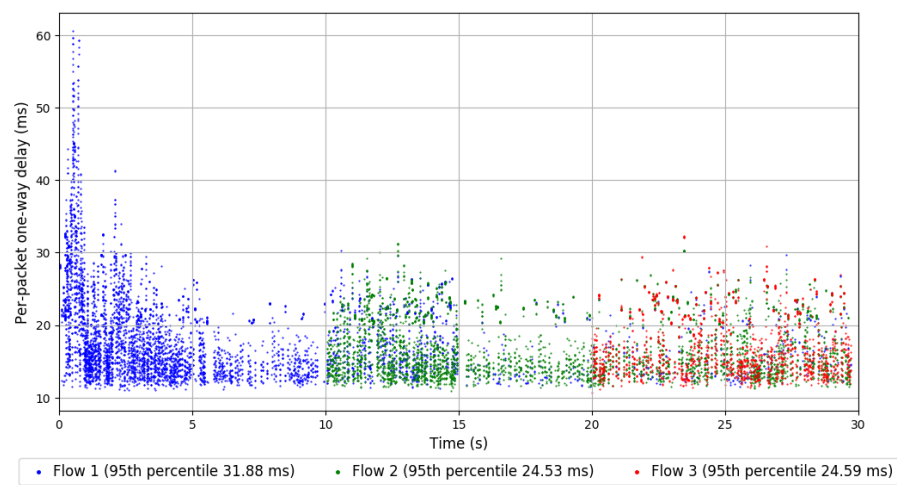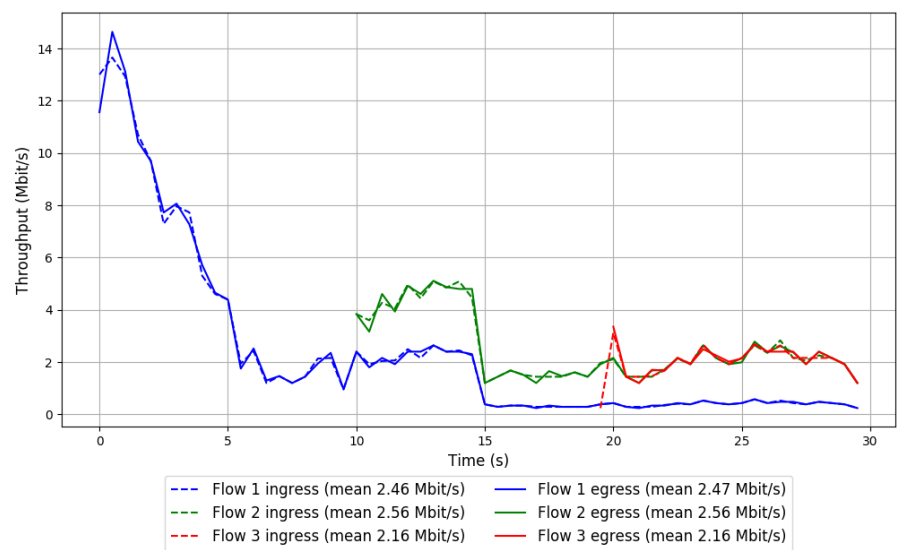
```
Run 1: Statistics of Indigo

Start at: 2018-01-10 15:53:39
End at: 2018-01-10 15:54:09
Local clock offset: -1.37 ms
Remote clock offset: -4.563 ms


# Below is generated by plot.py at 2018-01-10 16:40:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 27.894 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 31.881 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 24.533 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 24.590 ms
Loss rate: 0.00%
```
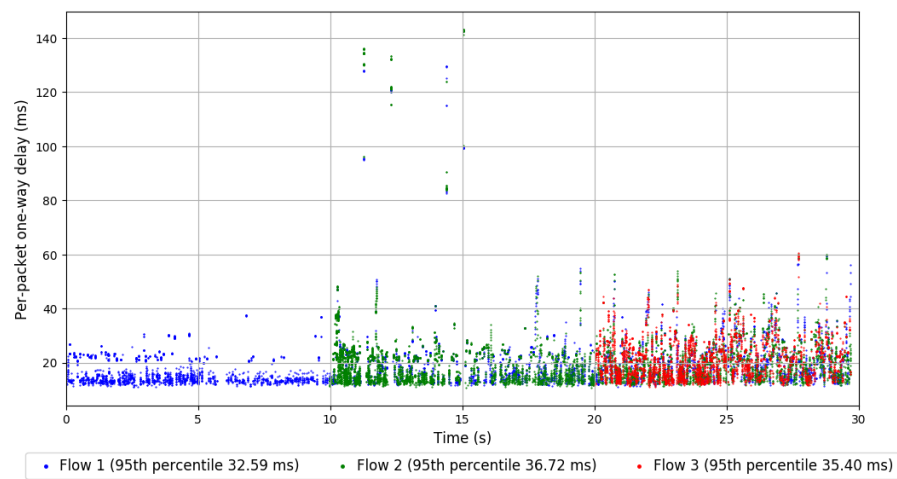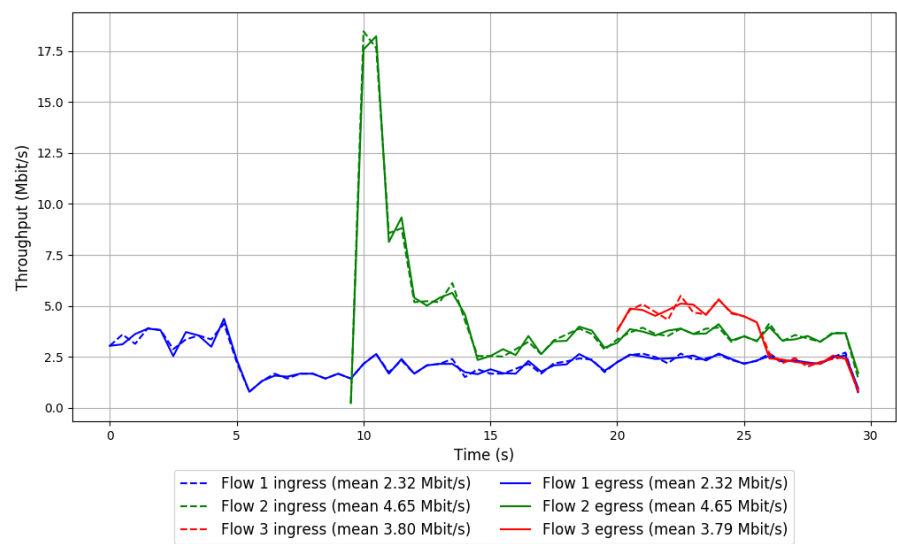
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-01-10 16:11:38
End at: 2018-01-10 16:12:08
Local clock offset: -1.442 ms
Remote clock offset: -4.807 ms


# Below is generated by plot.py at 2018-01-10 16:40:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 35.569 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 32.594 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 36.723 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 35.403 ms
Loss rate: 0.16%
```

Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-01-10 16:29:40
End at: 2018-01-10 16:30:10
Local clock offset: -1.441 ms
Remote clock offset: -4.304 ms


# Below is generated by plot.py at 2018-01-10 16:40:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 24.009 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 23.417 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 24.774 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 24.948 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link