# Pantheon Report

Generated at 2018-02-28 08:06:46 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

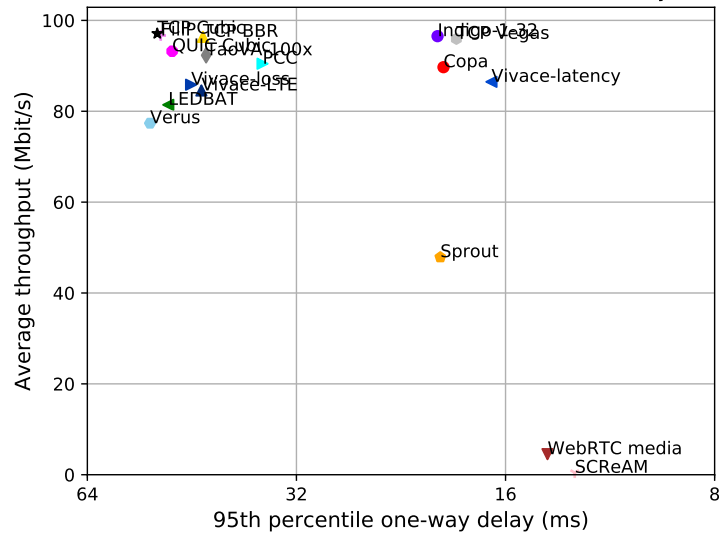Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
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/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```
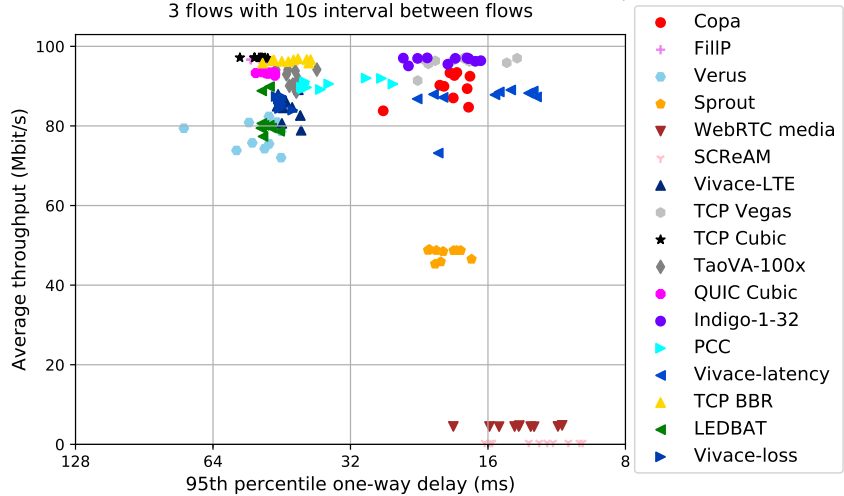
## test from AWS India 1 Ethernet to India Ethernet, 10 runs of 30s each per scheme
### 3 flows with 10s interval between flows (mean of all runs by scheme)



## test from AWS India 1 Ethernet to India Ethernet, 10 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 | 10 | 54.79 | 43.16 | 38.75 | 41.91 | 44.61 | 43.14 | 1.49 | 2.71 | 3.20 |
| TCP Cubic | 10 | 71.22 | 28.69 | 20.52 | 50.68 | 50.74 | 51.26 | 0.88 | 0.88 | 0.64 |
| LEDBAT | 10 | 49.81 | 35.50 | 24.88 | 48.63 | 49.26 | 49.18 | 0.39 | 0.46 | 0.59 |
| PCC | 10 | 77.33 | 15.51 | 8.59 | 34.95 | 38.57 | 35.58 | 1.19 | 1.18 | 0.67 |
| QUIC Cubic | 10 | 68.22 | 28.04 | 19.58 | 48.26 | 48.44 | 48.34 | 1.67 | 2.02 | 2.41 |
| SCReAM | 10 | 0.21 | 0.21 | 0.22 | 12.66 | 12.34 | 13.18 | 0.00 | 0.00 | 0.00 |
| WebRTC media | 10 | 2.39 | 1.50 | 0.64 | 13.98 | 13.60 | 14.14 | 0.01 | 0.00 | 0.00 |
| Sprout | 10 | 24.22 | 23.86 | 23.62 | 19.30 | 20.09 | 20.31 | 0.00 | 0.01 | 0.00 |
| TaoVA-100x | 10 | 56.79 | 38.45 | 29.92 | 40.14 | 44.38 | 46.12 | 7.36 | 13.79 | 17.64 |
| TCP Vegas | 10 | 56.94 | 37.32 | 42.61 | 19.67 | 16.72 | 14.50 | 0.18 | 0.00 | 0.00 |
| Verus | 10 | 49.61 | 35.83 | 13.25 | 52.68 | 52.10 | 46.43 | 29.52 | 46.33 | 27.85 |
| Copa | 10 | 55.54 | 36.38 | 29.92 | 18.62 | 20.25 | 21.64 | 0.00 | 0.00 | 0.00 |
| FillP | 10 | 52.47 | 41.27 | 50.91 | 50.00 | 50.23 | 50.71 | 26.81 | 31.80 | 35.92 |
| Indigo-1-32 | 10 | 53.98 | 40.31 | 48.36 | 19.87 | 20.30 | 21.28 | 0.00 | 0.00 | 0.00 |
| Vivace-latency | 10 | 61.52 | 27.96 | 19.37 | 15.47 | 18.54 | 20.02 | 0.01 | 0.03 | 0.04 |
| Vivace-loss | 10 | 56.97 | 32.90 | 21.49 | 45.24 | 45.39 | 45.36 | 10.95 | 12.82 | 13.00 |
| Vivace-LTE | 10 | 55.88 | 31.48 | 23.62 | 41.80 | 45.48 | 46.21 | 1.75 | 2.24 | 3.24 |

```
Run 1: Statistics of TCP BBR

Start at: 2018-02-28 03:44:31
End at: 2018-02-28 03:45:01
Local clock offset: 4.025 ms
Remote clock offset: 0.841 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.68 Mbit/s
95th percentile per-packet one-way delay: 39.137 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 52.04 Mbit/s
95th percentile per-packet one-way delay: 37.280 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 44.15 Mbit/s
95th percentile per-packet one-way delay: 41.520 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 41.170 ms
Loss rate: 2.22%
```
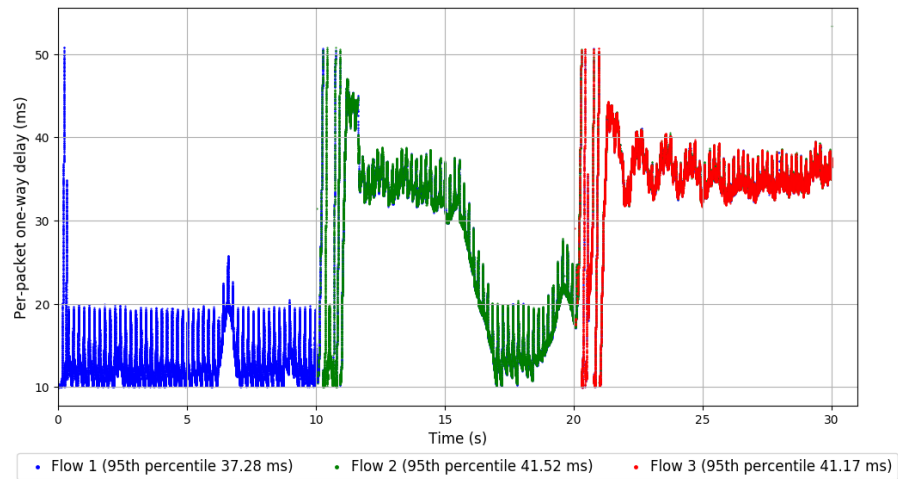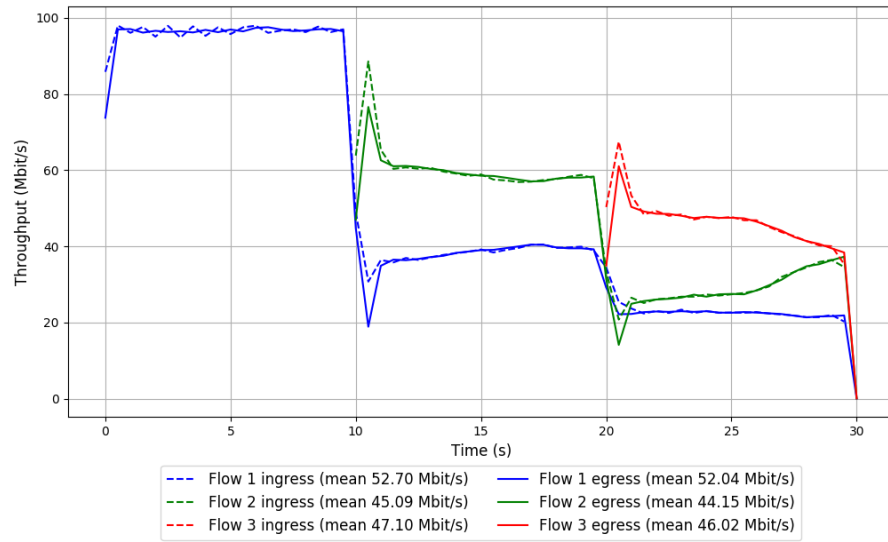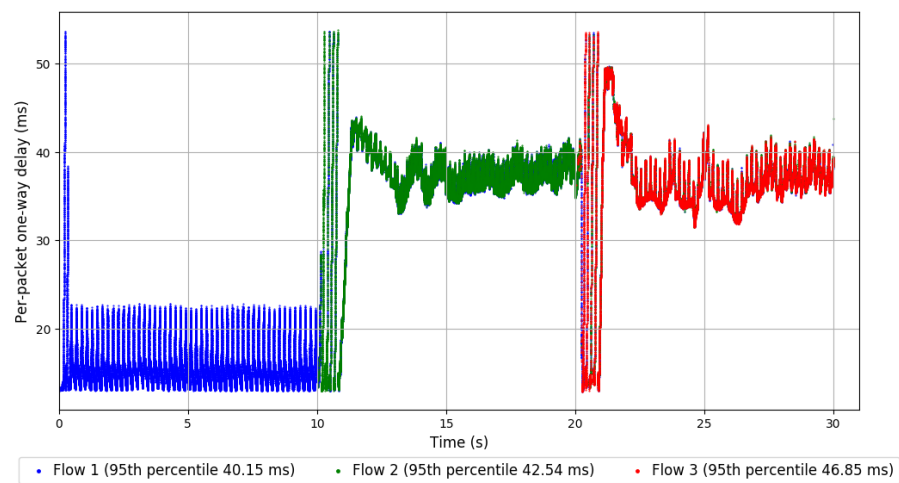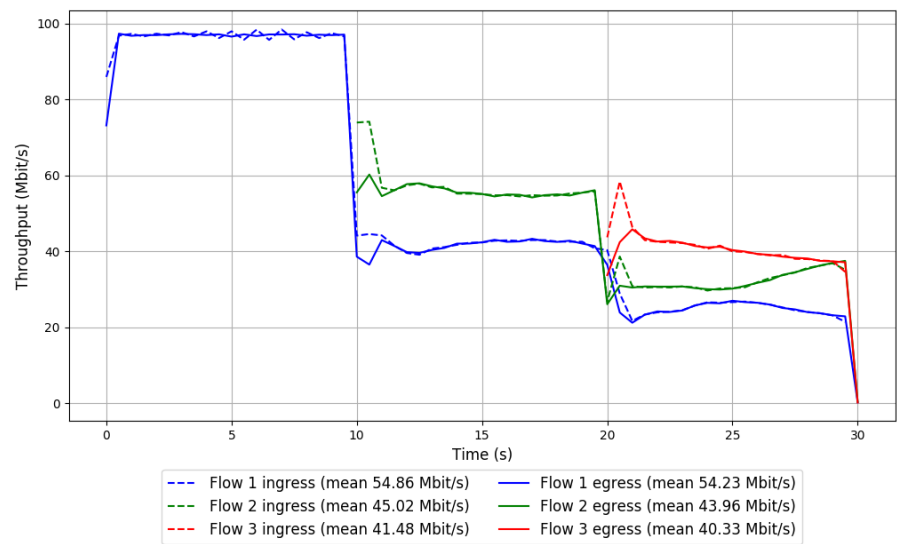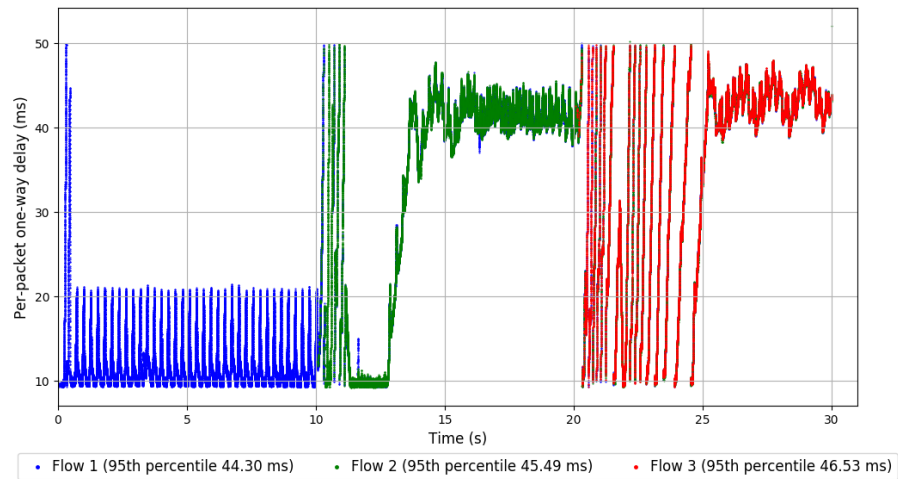
Run 1: Report of TCP BBR — Data Link



Flow 1 ingress (mean 52.70 Mbit/s)  Flow 1 egress (mean 52.04 Mbit/s)
Flow 2 ingress (mean 45.09 Mbit/s)  Flow 2 egress (mean 44.15 Mbit/s)
Flow 3 ingress (mean 47.10 Mbit/s)  Flow 3 egress (mean 46.02 Mbit/s)



Flow 1 (95th percentile 37.28 ms)   Flow 2 (95th percentile 41.52 ms)   Flow 3 (95th percentile 41.17 ms)

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Run 2: Statistics of TCP BBR

Start at: 2018-02-28 04:06:02
End at: 2018-02-28 04:06:32
Local clock offset: 2.163 ms
Remote clock offset: 12.059 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.90 Mbit/s
95th percentile per-packet one-way delay: 41.692 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 54.23 Mbit/s
95th percentile per-packet one-way delay: 40.152 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 43.96 Mbit/s
95th percentile per-packet one-way delay: 42.536 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 40.33 Mbit/s
95th percentile per-packet one-way delay: 46.846 ms
Loss rate: 2.74%
```
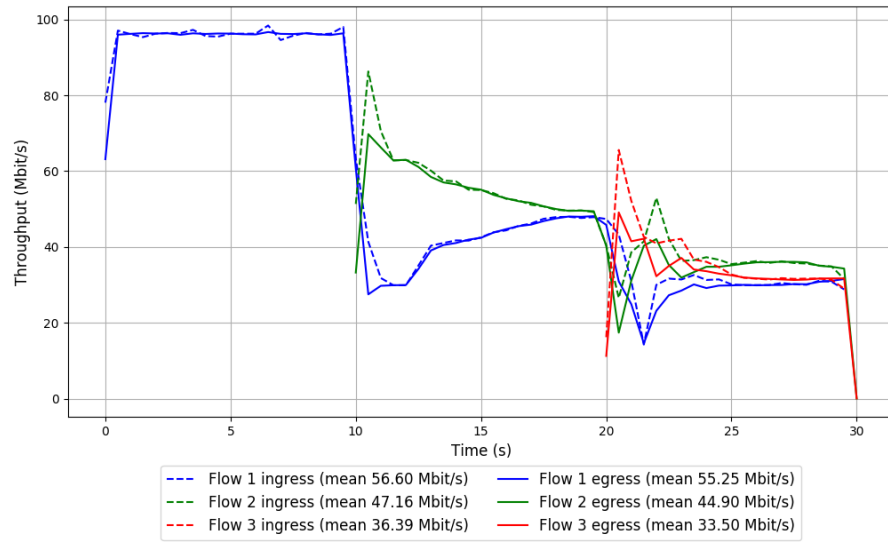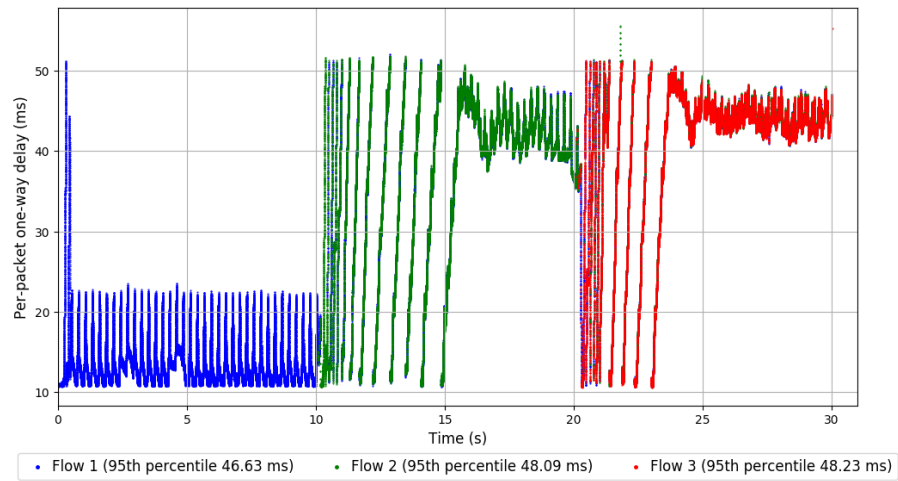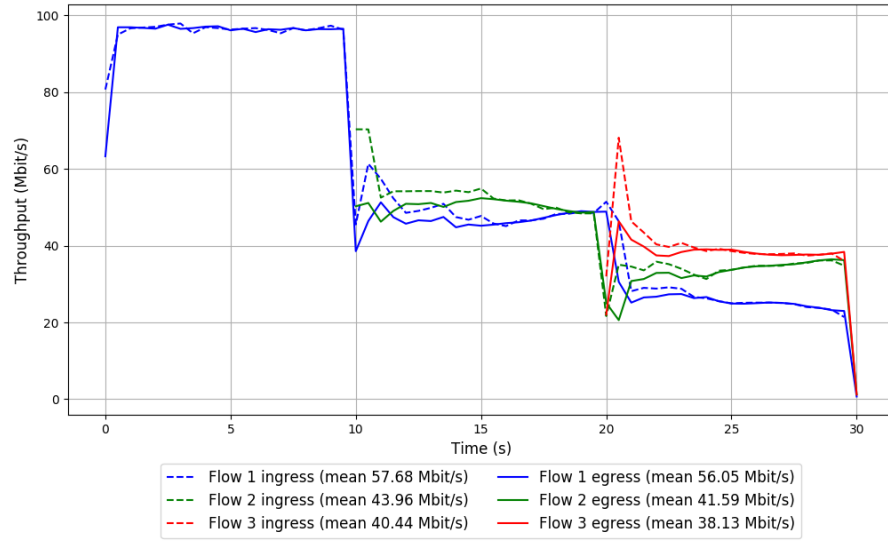
Run 2: Report of TCP BBR — Data Link



Flow 1 ingress (mean 54.86 Mbit/s) --- Flow 1 egress (mean 54.23 Mbit/s)
Flow 2 ingress (mean 45.02 Mbit/s) --- Flow 2 egress (mean 43.96 Mbit/s)
Flow 3 ingress (mean 41.48 Mbit/s) --- Flow 3 egress (mean 40.33 Mbit/s)



Flow 1 (95th percentile 40.15 ms)  Flow 2 (95th percentile 42.54 ms)  Flow 3 (95th percentile 46.85 ms)

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Run 3: Statistics of TCP BBR

Start at: 2018-02-28 04:27:39
End at: 2018-02-28 04:28:09
Local clock offset: 5.088 ms
Remote clock offset: 15.801 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 45.225 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 55.25 Mbit/s
95th percentile per-packet one-way delay: 44.302 ms
Loss rate: 2.27%
-- Flow 2:
Average throughput: 44.90 Mbit/s
95th percentile per-packet one-way delay: 45.491 ms
Loss rate: 4.63%
-- Flow 3:
Average throughput: 33.50 Mbit/s
95th percentile per-packet one-way delay: 46.527 ms
Loss rate: 7.94%
```
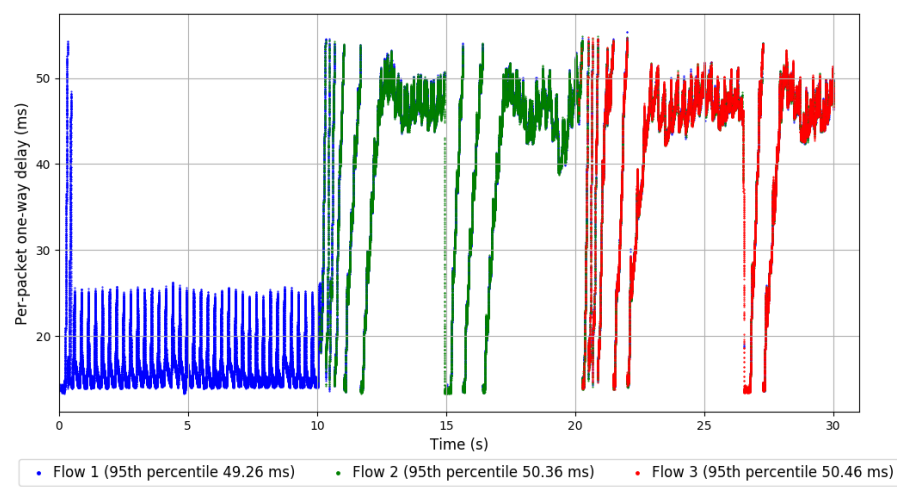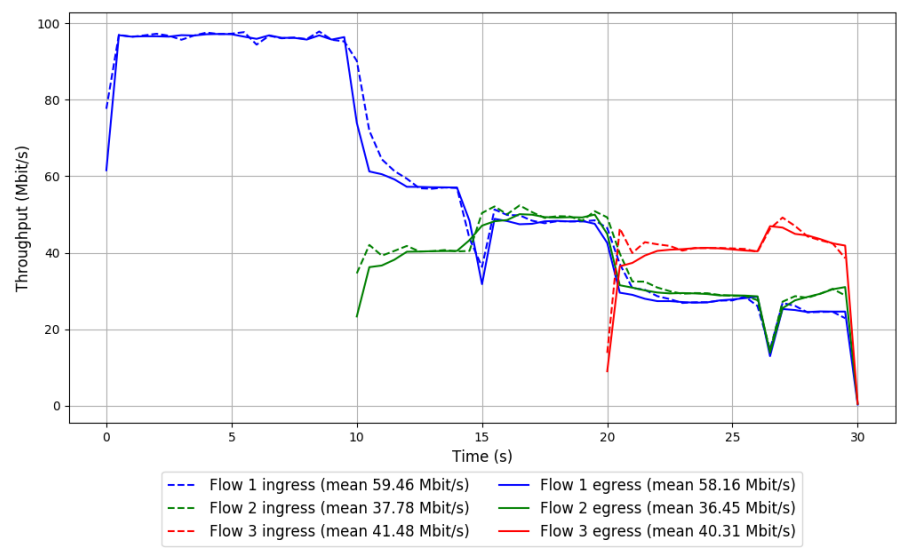
Run 3: Report of TCP BBR — Data Link

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Run 4: Statistics of TCP BBR

Start at: 2018-02-28 04:49:02
End at: 2018-02-28 04:49:32
Local clock offset: 3.805 ms
Remote clock offset: 20.372 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 47.498 ms
Loss rate: 3.84%
-- Flow 1:
Average throughput: 56.05 Mbit/s
95th percentile per-packet one-way delay: 46.627 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 48.090 ms
Loss rate: 5.27%
-- Flow 3:
Average throughput: 38.13 Mbit/s
95th percentile per-packet one-way delay: 48.233 ms
Loss rate: 5.53%
```
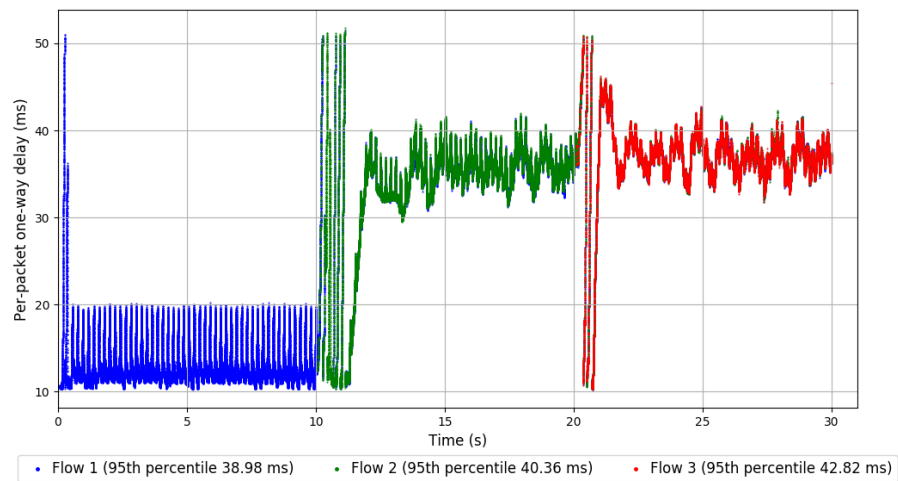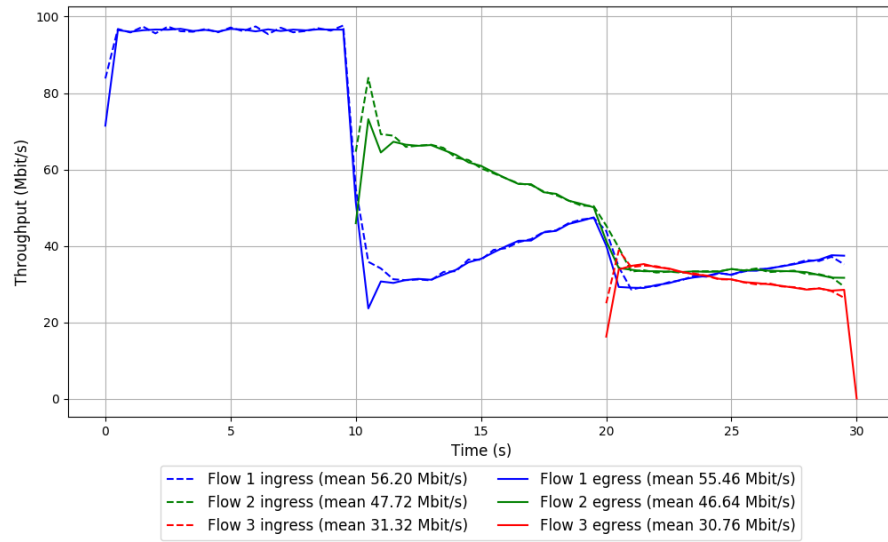
Run 4: Report of TCP BBR — Data Link



Flow 1 ingress (mean 57.68 Mbit/s) --- Flow 1 egress (mean 56.05 Mbit/s)
Flow 2 ingress (mean 43.96 Mbit/s) --- Flow 2 egress (mean 41.59 Mbit/s)
Flow 3 ingress (mean 40.44 Mbit/s) --- Flow 3 egress (mean 38.13 Mbit/s)



Flow 1 (95th percentile 46.63 ms) • Flow 2 (95th percentile 48.09 ms) • Flow 3 (95th percentile 48.23 ms)

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Run 5: Statistics of TCP BBR

Start at: 2018-02-28 05:10:27
End at: 2018-02-28 05:10:57
Local clock offset: 1.876 ms
Remote clock offset: -0.281 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 49.840 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 58.16 Mbit/s
95th percentile per-packet one-way delay: 49.259 ms
Loss rate: 2.09%
-- Flow 2:
Average throughput: 36.45 Mbit/s
95th percentile per-packet one-way delay: 50.364 ms
Loss rate: 3.36%
-- Flow 3:
Average throughput: 40.31 Mbit/s
95th percentile per-packet one-way delay: 50.462 ms
Loss rate: 2.83%
```
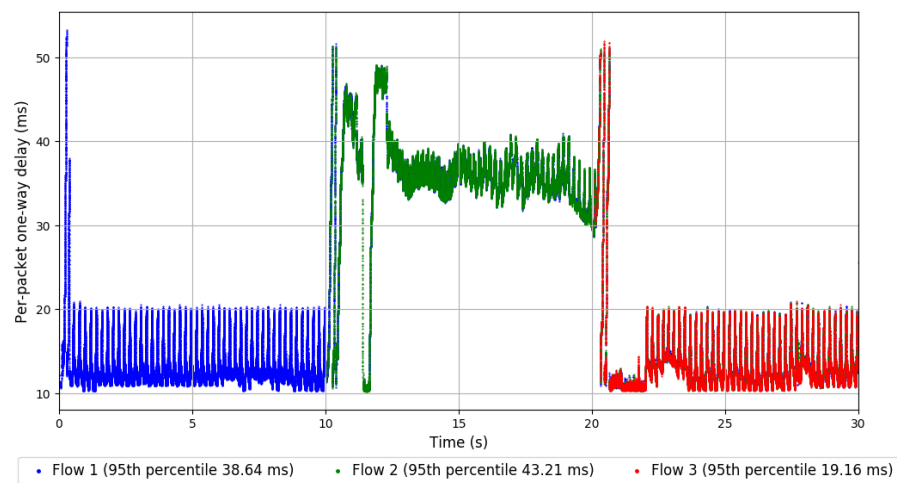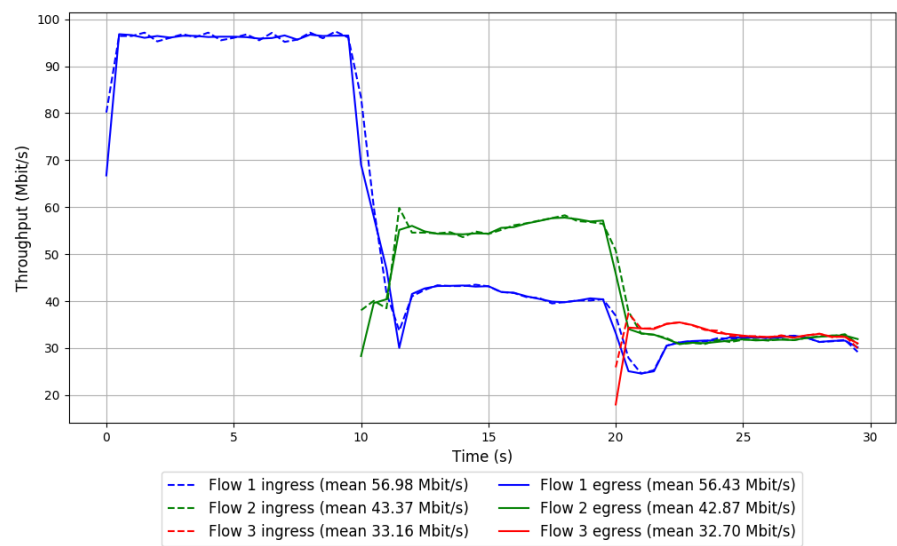
Run 5: Report of TCP BBR — Data Link



Flow 1 ingress (mean 59.46 Mbit/s) --- Flow 1 egress (mean 58.16 Mbit/s)
Flow 2 ingress (mean 37.78 Mbit/s) --- Flow 2 egress (mean 36.45 Mbit/s)
Flow 3 ingress (mean 41.48 Mbit/s) --- Flow 3 egress (mean 40.31 Mbit/s)



Flow 1 (95th percentile 49.26 ms)    Flow 2 (95th percentile 50.36 ms)    Flow 3 (95th percentile 50.46 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-02-28 05:31:44
End at: 2018-02-28 05:32:14
Local clock offset: 3.458 ms
Remote clock offset: -4.847 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.71 Mbit/s
95th percentile per-packet one-way delay: 39.892 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 55.46 Mbit/s
95th percentile per-packet one-way delay: 38.978 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 46.64 Mbit/s
95th percentile per-packet one-way delay: 40.360 ms
Loss rate: 2.16%
-- Flow 3:
Average throughput: 30.76 Mbit/s
95th percentile per-packet one-way delay: 42.822 ms
Loss rate: 1.72%
```
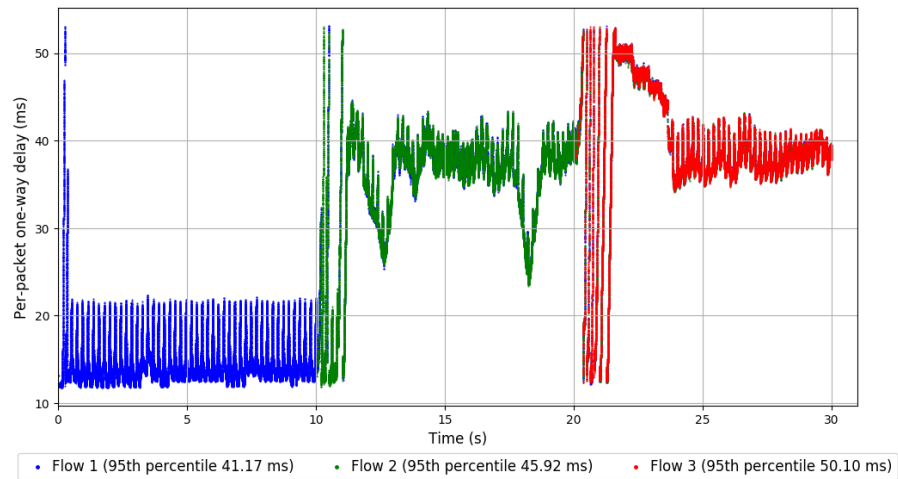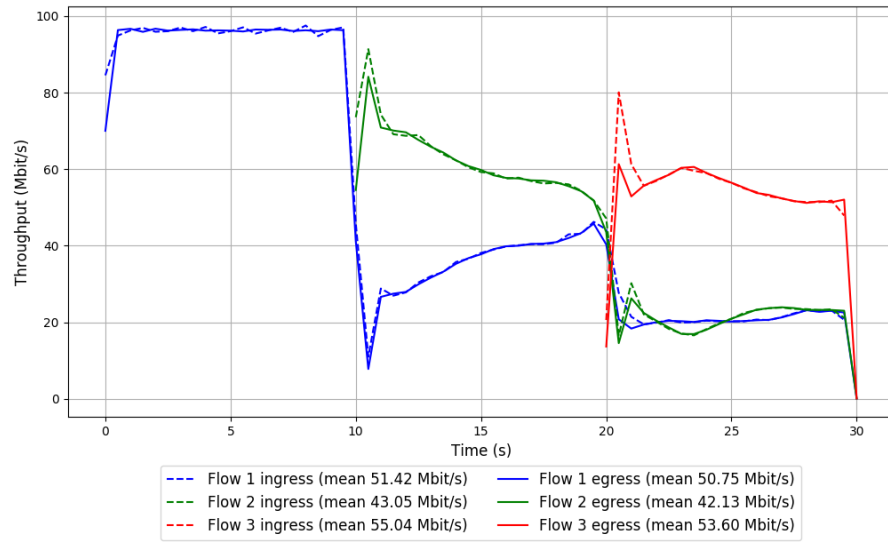
Run 6: Report of TCP BBR — Data Link

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Run 7: Statistics of TCP BBR

Start at: 2018-02-28 05:53:13
End at: 2018-02-28 05:53:43
Local clock offset: 2.788 ms
Remote clock offset: -4.276 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 39.483 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 56.43 Mbit/s
95th percentile per-packet one-way delay: 38.642 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 42.87 Mbit/s
95th percentile per-packet one-way delay: 43.212 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 19.164 ms
Loss rate: 1.54%
```
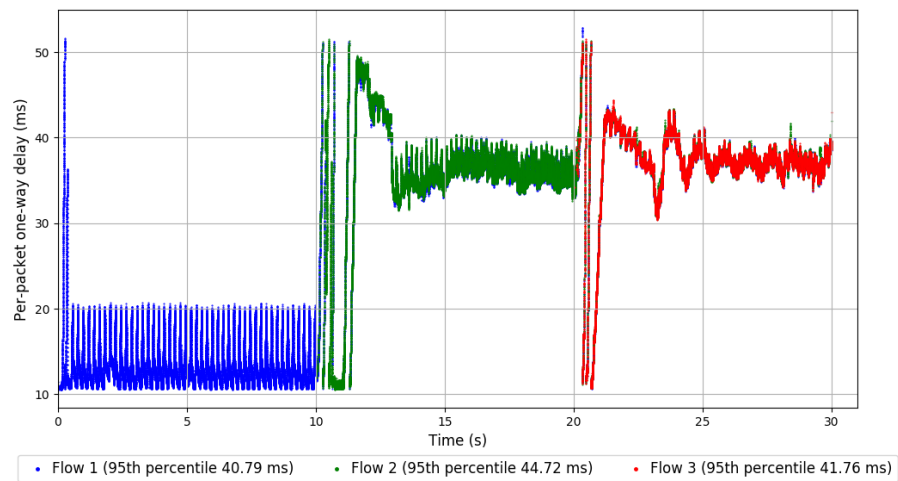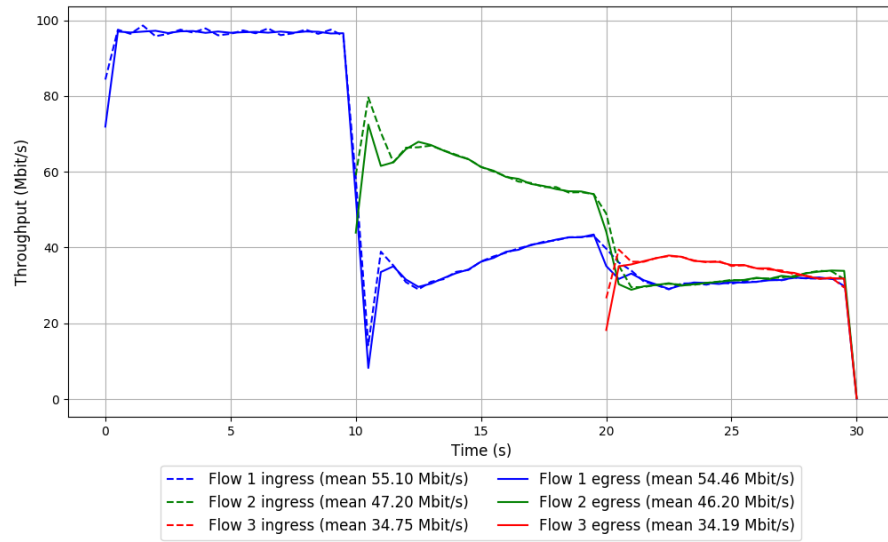
Run 7: Report of TCP BBR — Data Link



- - - - Flow 1 ingress (mean 56.98 Mbit/s)      —— Flow 1 egress (mean 56.43 Mbit/s)
- - - - Flow 2 ingress (mean 43.37 Mbit/s)      —— Flow 2 egress (mean 42.87 Mbit/s)
- - - - Flow 3 ingress (mean 33.16 Mbit/s)      —— Flow 3 egress (mean 32.70 Mbit/s)



• Flow 1 (95th percentile 38.64 ms)      • Flow 2 (95th percentile 43.21 ms)      • Flow 3 (95th percentile 19.16 ms)

```
Run 8: Statistics of TCP BBR

Start at: 2018-02-28 06:14:28
End at: 2018-02-28 06:14:58
Local clock offset: 0.868 ms
Remote clock offset: -5.914 ms


# Below is generated by plot.py at 2018-02-28 07:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.58 Mbit/s
95th percentile per-packet one-way delay: 47.102 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 50.75 Mbit/s
95th percentile per-packet one-way delay: 41.168 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 42.13 Mbit/s
95th percentile per-packet one-way delay: 45.919 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 53.60 Mbit/s
95th percentile per-packet one-way delay: 50.100 ms
Loss rate: 2.61%
```
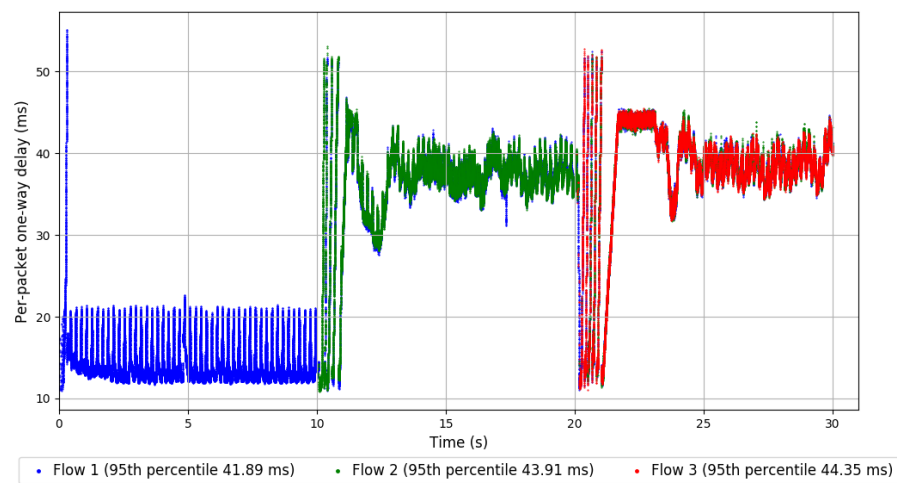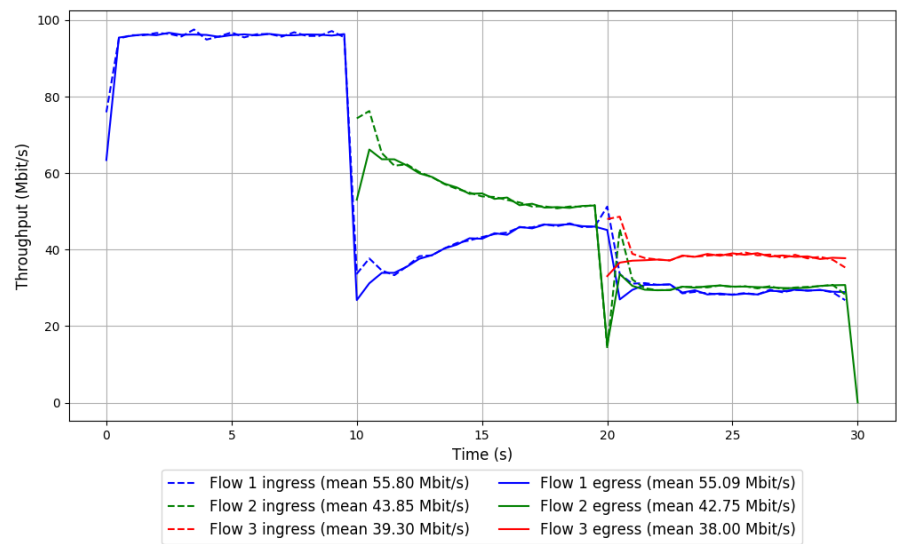
Run 8: Report of TCP BBR — Data Link



Flow 1 ingress (mean 51.42 Mbit/s) ----   Flow 1 egress (mean 50.75 Mbit/s)
Flow 2 ingress (mean 43.05 Mbit/s) ----   Flow 2 egress (mean 42.13 Mbit/s)
Flow 3 ingress (mean 55.04 Mbit/s) ----   Flow 3 egress (mean 53.60 Mbit/s)



Flow 1 (95th percentile 41.17 ms)   Flow 2 (95th percentile 45.92 ms)   Flow 3 (95th percentile 50.10 ms)

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```
Run 9: Statistics of TCP BBR

Start at: 2018-02-28 06:35:48
End at: 2018-02-28 06:36:18
Local clock offset: 2.461 ms
Remote clock offset: -8.021 ms


# Below is generated by plot.py at 2018-02-28 07:41:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.60 Mbit/s
95th percentile per-packet one-way delay: 42.651 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 54.46 Mbit/s
95th percentile per-packet one-way delay: 40.794 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 46.20 Mbit/s
95th percentile per-packet one-way delay: 44.723 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 34.19 Mbit/s
95th percentile per-packet one-way delay: 41.764 ms
Loss rate: 1.52%
```
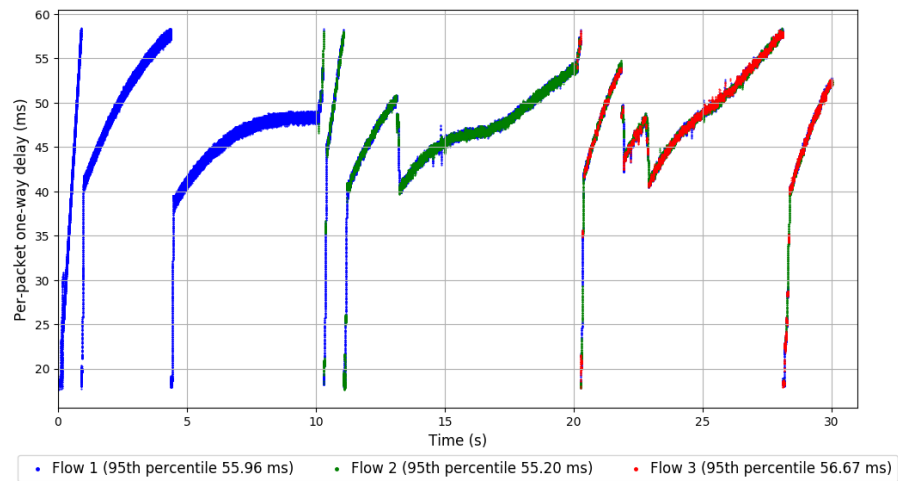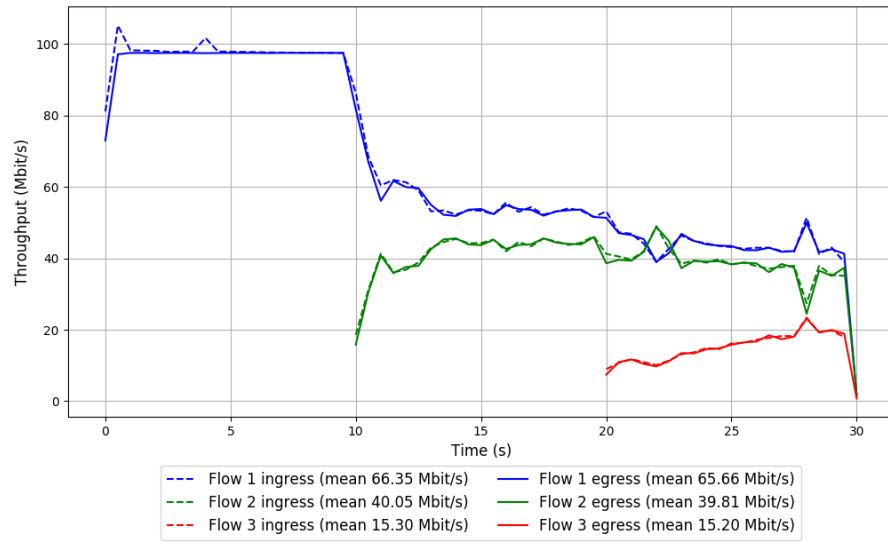
Run 9: Report of TCP BBR — Data Link



Flow 1 ingress (mean 55.10 Mbit/s) --- Flow 1 egress (mean 54.46 Mbit/s)
Flow 2 ingress (mean 47.20 Mbit/s) --- Flow 2 egress (mean 46.20 Mbit/s)
Flow 3 ingress (mean 34.75 Mbit/s) --- Flow 3 egress (mean 34.19 Mbit/s)



Flow 1 (95th percentile 40.79 ms)    Flow 2 (95th percentile 44.72 ms)    Flow 3 (95th percentile 41.76 ms)

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```
Run 10: Statistics of TCP BBR

Start at: 2018-02-28 06:57:09
End at: 2018-02-28 06:57:39
Local clock offset: 4.451 ms
Remote clock offset: -2.991 ms


# Below is generated by plot.py at 2018-02-28 07:41:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.16 Mbit/s
95th percentile per-packet one-way delay: 43.770 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 55.09 Mbit/s
95th percentile per-packet one-way delay: 41.889 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 42.75 Mbit/s
95th percentile per-packet one-way delay: 43.906 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 38.00 Mbit/s
95th percentile per-packet one-way delay: 44.355 ms
Loss rate: 3.34%
```
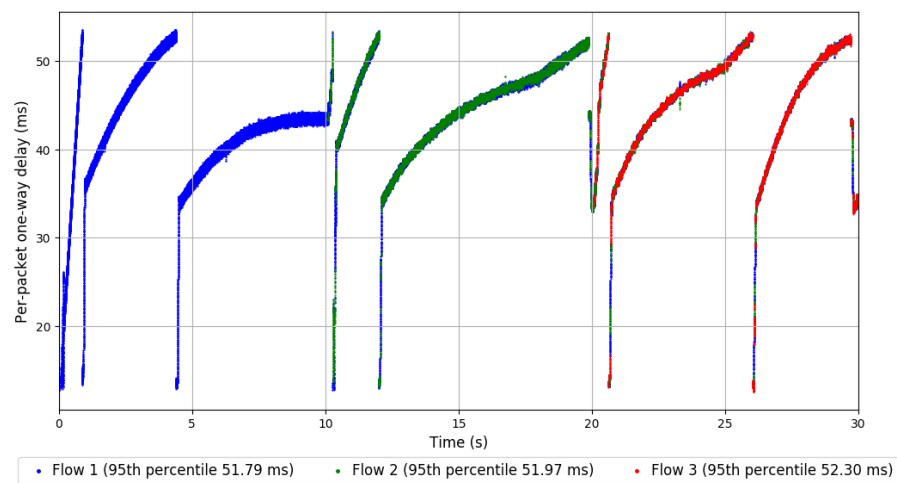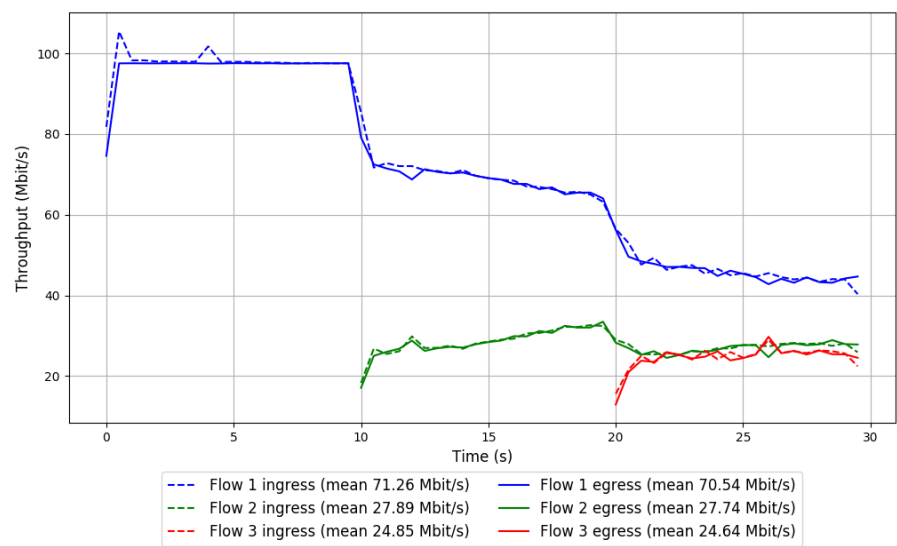
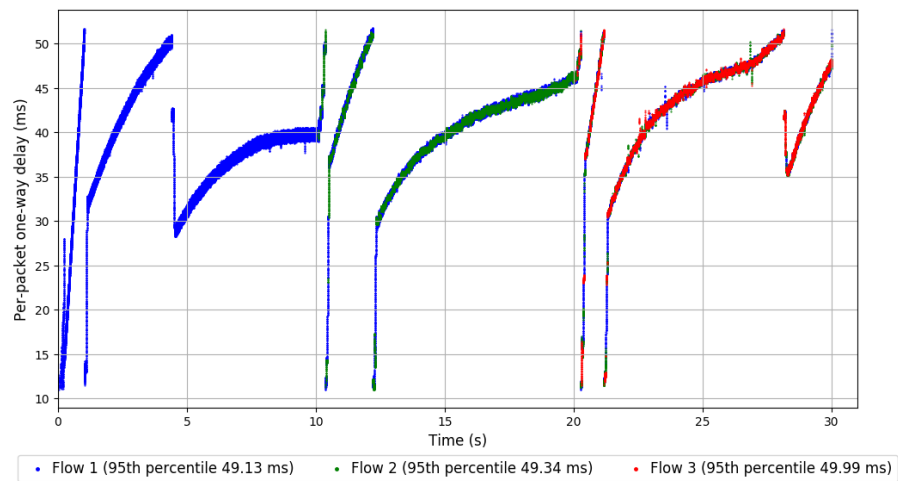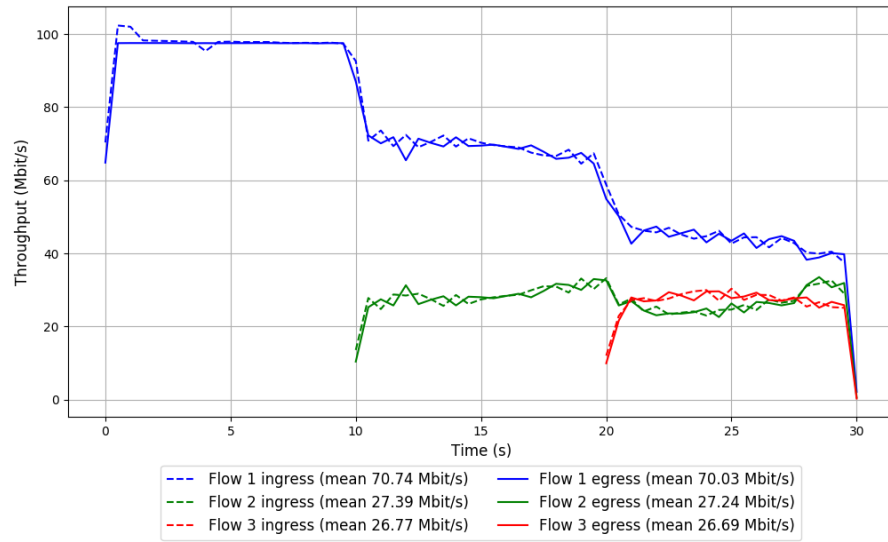Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-02-28 03:31:23
End at: 2018-02-28 03:31:53
Local clock offset: -4.279 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-02-28 07:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 55.881 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 65.66 Mbit/s
95th percentile per-packet one-way delay: 55.958 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 55.204 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 15.20 Mbit/s
95th percentile per-packet one-way delay: 56.673 ms
Loss rate: 0.66%
```
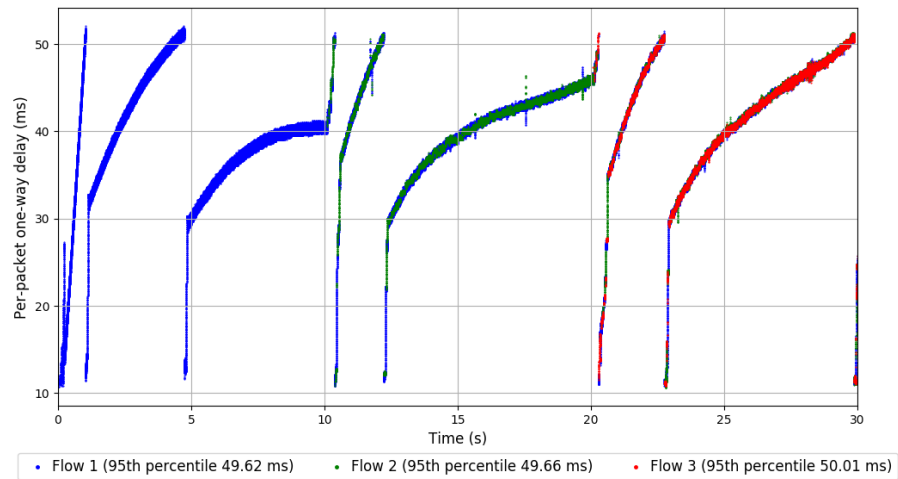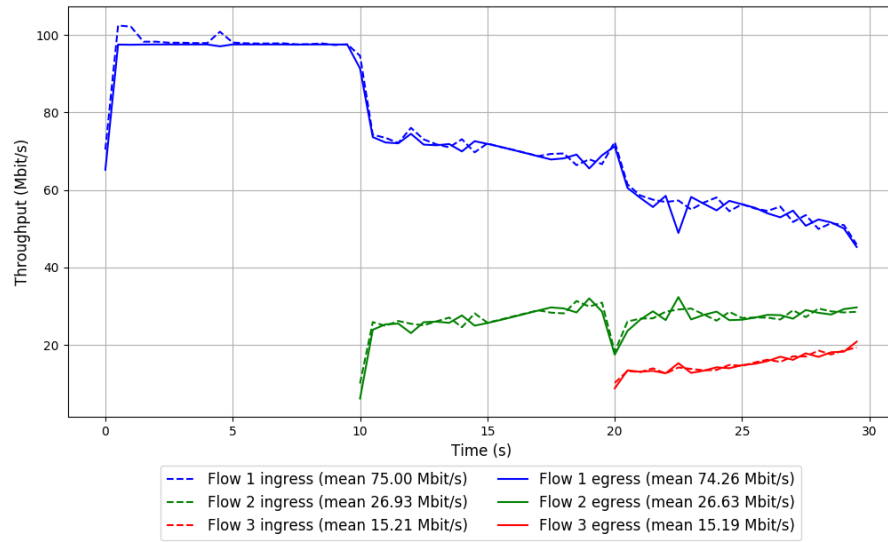
Run 1: Report of TCP Cubic — Data Link



- - - Flow 1 ingress (mean 66.35 Mbit/s) — Flow 1 egress (mean 65.66 Mbit/s)
- - - Flow 2 ingress (mean 40.05 Mbit/s) — Flow 2 egress (mean 39.81 Mbit/s)
- - - Flow 3 ingress (mean 15.30 Mbit/s) — Flow 3 egress (mean 15.20 Mbit/s)



• Flow 1 (95th percentile 55.96 ms)    • Flow 2 (95th percentile 55.20 ms)    • Flow 3 (95th percentile 56.67 ms)

25

```
Run 2: Statistics of TCP Cubic

Start at: 2018-02-28 03:52:44
End at: 2018-02-28 03:53:14
Local clock offset: 2.422 ms
Remote clock offset: 7.057 ms


# Below is generated by plot.py at 2018-02-28 07:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 51.846 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 70.54 Mbit/s
95th percentile per-packet one-way delay: 51.790 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 27.74 Mbit/s
95th percentile per-packet one-way delay: 51.969 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 24.64 Mbit/s
95th percentile per-packet one-way delay: 52.304 ms
Loss rate: 0.83%
```
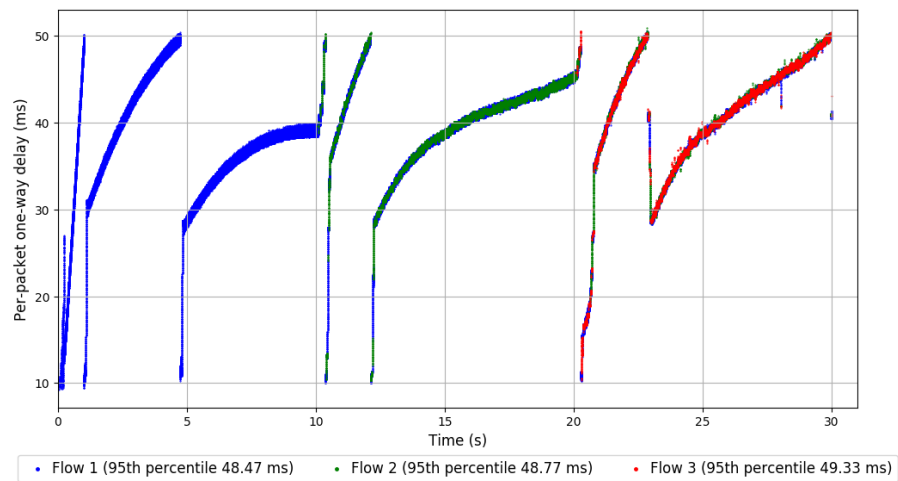
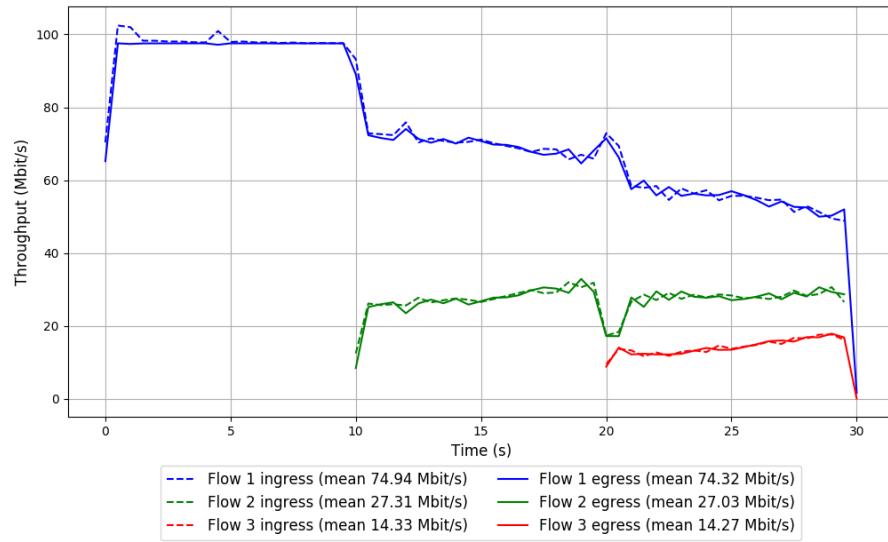Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-02-28 04:14:23
End at: 2018-02-28 04:14:53
Local clock offset: 4.384 ms
Remote clock offset: 14.198 ms


# Below is generated by plot.py at 2018-02-28 07:41:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.99 Mbit/s
95th percentile per-packet one-way delay: 49.305 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 70.03 Mbit/s
95th percentile per-packet one-way delay: 49.133 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 27.24 Mbit/s
95th percentile per-packet one-way delay: 49.337 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 26.69 Mbit/s
95th percentile per-packet one-way delay: 49.986 ms
Loss rate: 0.31%
```
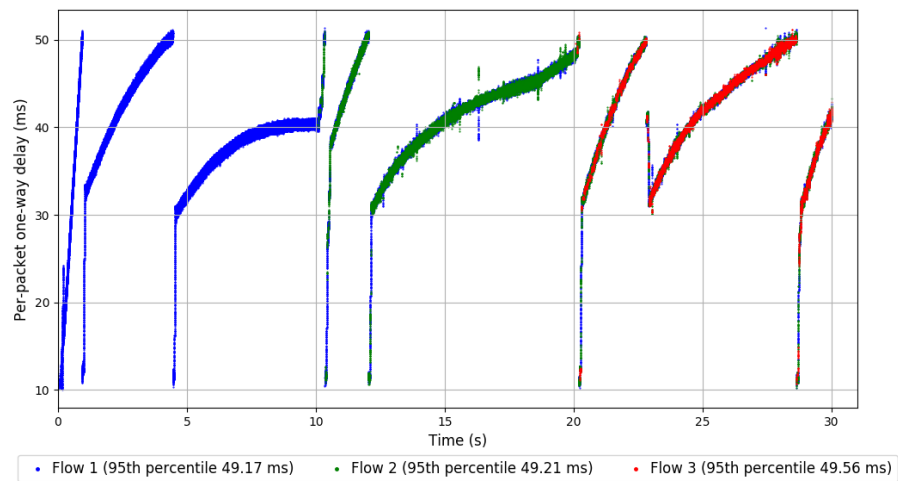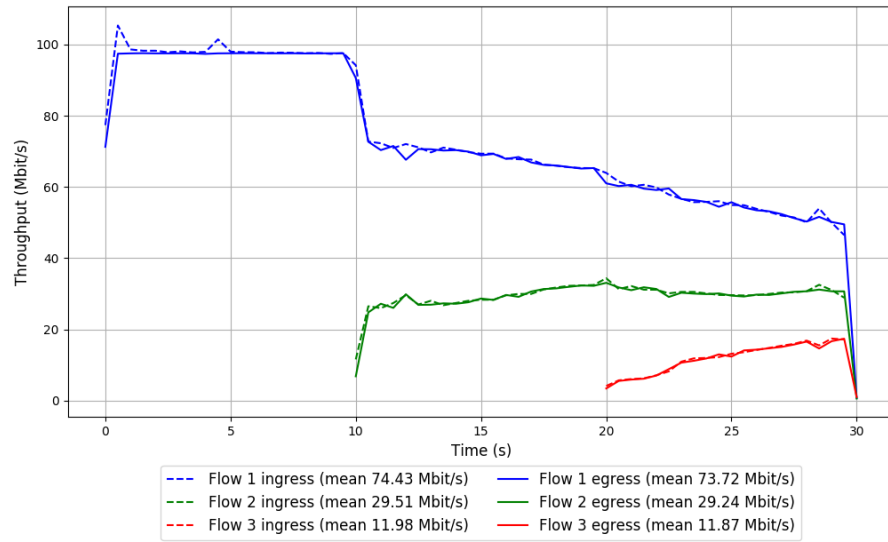
Run 3: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 70.74 Mbit/s) --- Flow 1 egress (mean 70.03 Mbit/s)
Flow 2 ingress (mean 27.39 Mbit/s) --- Flow 2 egress (mean 27.24 Mbit/s)
Flow 3 ingress (mean 26.77 Mbit/s) --- Flow 3 egress (mean 26.69 Mbit/s)



Flow 1 (95th percentile 49.13 ms)  Flow 2 (95th percentile 49.34 ms)  Flow 3 (95th percentile 49.99 ms)

29

```
Run 4: Statistics of TCP Cubic

Start at: 2018-02-28 04:35:55
End at: 2018-02-28 04:36:25
Local clock offset: 3.806 ms
Remote clock offset: 17.334 ms


# Below is generated by plot.py at 2018-02-28 07:41:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.00 Mbit/s
95th percentile per-packet one-way delay: 49.682 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 74.26 Mbit/s
95th percentile per-packet one-way delay: 49.619 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 26.63 Mbit/s
95th percentile per-packet one-way delay: 49.656 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 15.19 Mbit/s
95th percentile per-packet one-way delay: 50.009 ms
Loss rate: 0.36%
```
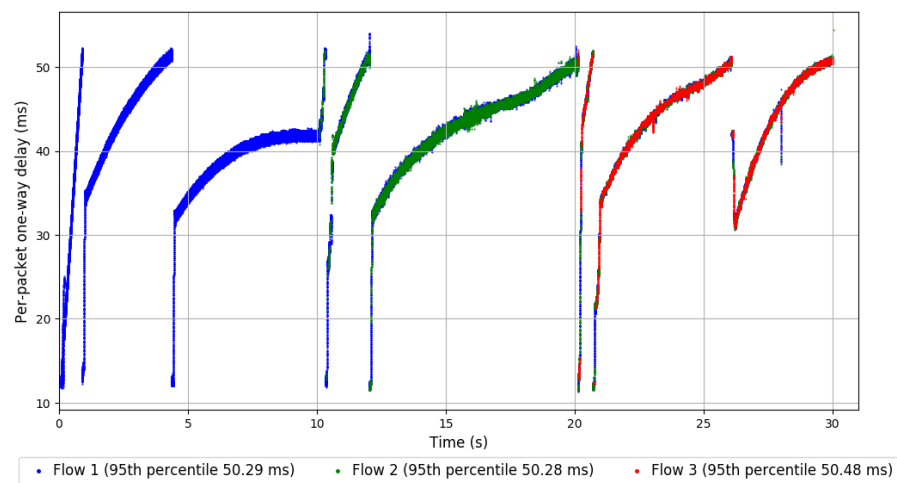
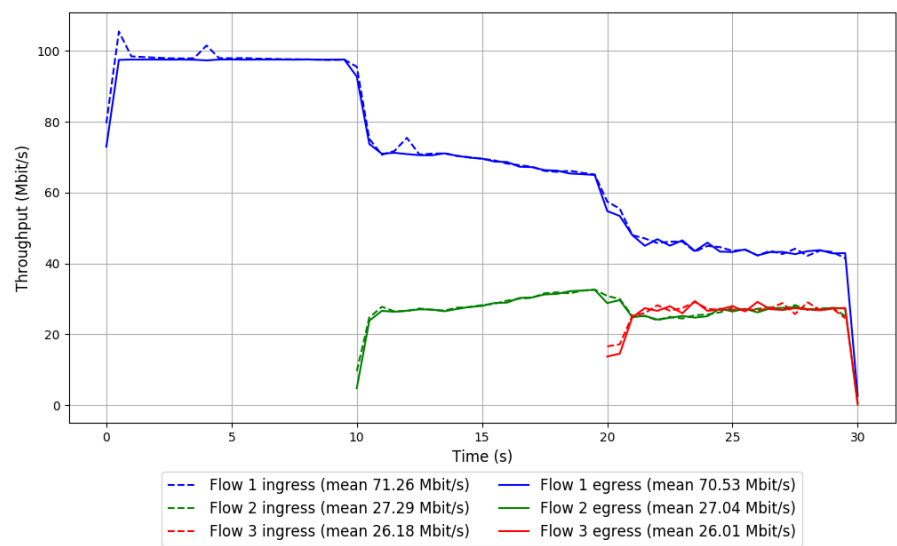Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2018-02-28 04:57:20
End at: 2018-02-28 04:57:50
Local clock offset: 4.629 ms
Remote clock offset: 13.478 ms

# Below is generated by plot.py at 2018-02-28 07:41:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.01 Mbit/s
95th percentile per-packet one-way delay: 48.585 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 74.32 Mbit/s
95th percentile per-packet one-way delay: 48.466 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 27.03 Mbit/s
95th percentile per-packet one-way delay: 48.775 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 14.27 Mbit/s
95th percentile per-packet one-way delay: 49.332 ms
Loss rate: 0.41%
```
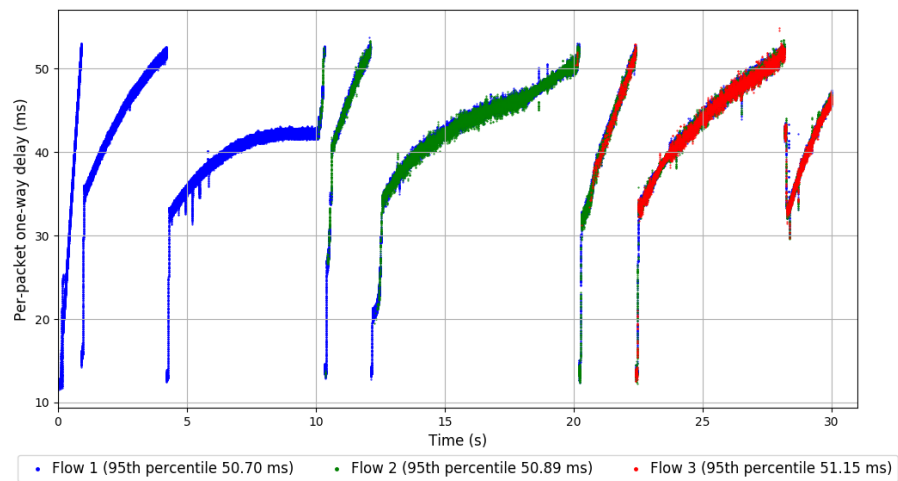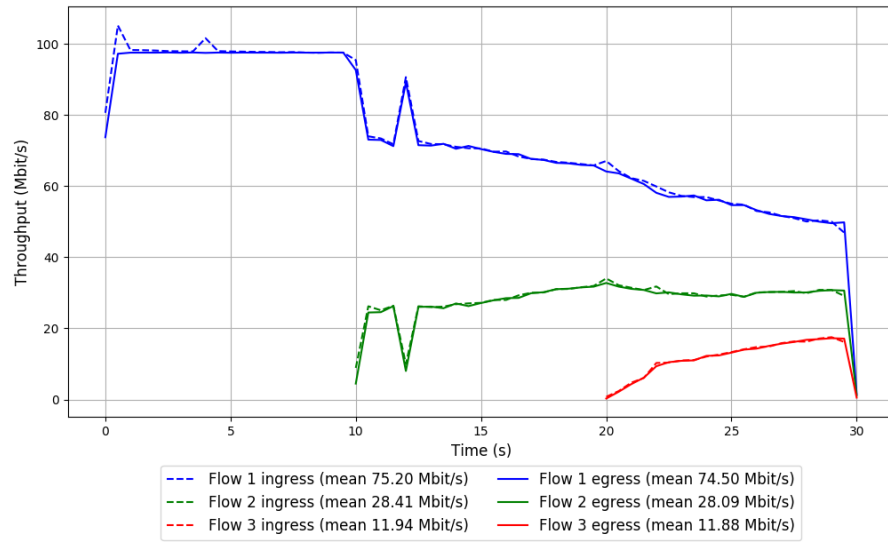
Run 5: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 74.94 Mbit/s)        Flow 1 egress (mean 74.32 Mbit/s)
Flow 2 ingress (mean 27.31 Mbit/s)        Flow 2 egress (mean 27.03 Mbit/s)
Flow 3 ingress (mean 14.33 Mbit/s)        Flow 3 egress (mean 14.27 Mbit/s)



Flow 1 (95th percentile 48.47 ms)    Flow 2 (95th percentile 48.77 ms)    Flow 3 (95th percentile 49.33 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-02-28 05:18:44
End at: 2018-02-28 05:19:14
Local clock offset: 4.307 ms
Remote clock offset: -4.273 ms


# Below is generated by plot.py at 2018-02-28 07:41:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.11 Mbit/s
95th percentile per-packet one-way delay: 49.213 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 73.72 Mbit/s
95th percentile per-packet one-way delay: 49.173 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 29.24 Mbit/s
95th percentile per-packet one-way delay: 49.206 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 49.561 ms
Loss rate: 1.01%
```
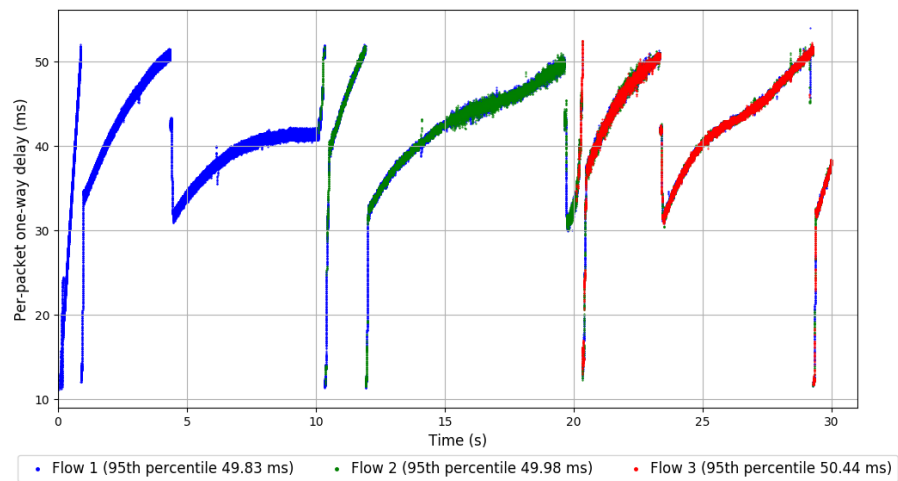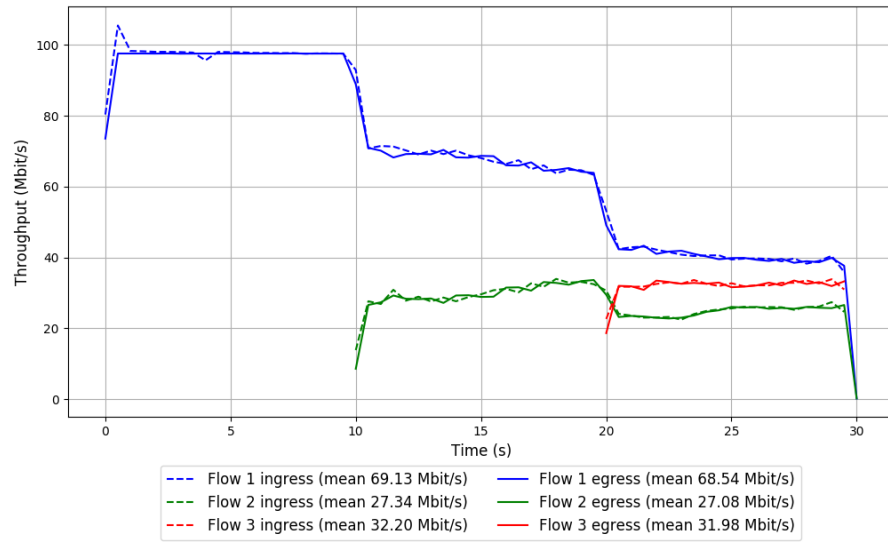
Run 6: Report of TCP Cubic — Data Link



- - - Flow 1 ingress (mean 74.43 Mbit/s) — Flow 1 egress (mean 73.72 Mbit/s)
- - - Flow 2 ingress (mean 29.51 Mbit/s) — Flow 2 egress (mean 29.24 Mbit/s)
- - - Flow 3 ingress (mean 11.98 Mbit/s) — Flow 3 egress (mean 11.87 Mbit/s)



• Flow 1 (95th percentile 49.17 ms)   • Flow 2 (95th percentile 49.21 ms)   • Flow 3 (95th percentile 49.56 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2018-02-28 05:40:02
End at: 2018-02-28 05:40:32
Local clock offset: 1.364 ms
Remote clock offset: -4.234 ms


# Below is generated by plot.py at 2018-02-28 07:42:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 50.356 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 70.53 Mbit/s
95th percentile per-packet one-way delay: 50.290 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 27.04 Mbit/s
95th percentile per-packet one-way delay: 50.276 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 26.01 Mbit/s
95th percentile per-packet one-way delay: 50.481 ms
Loss rate: 0.64%
```
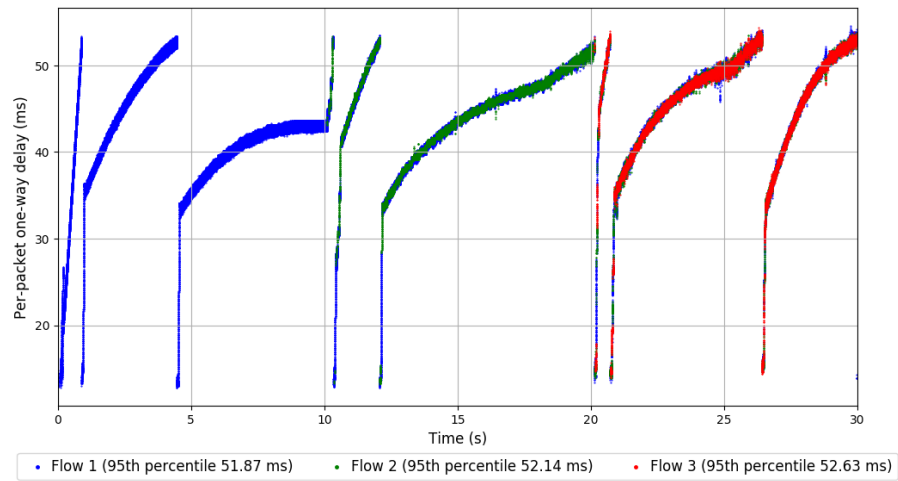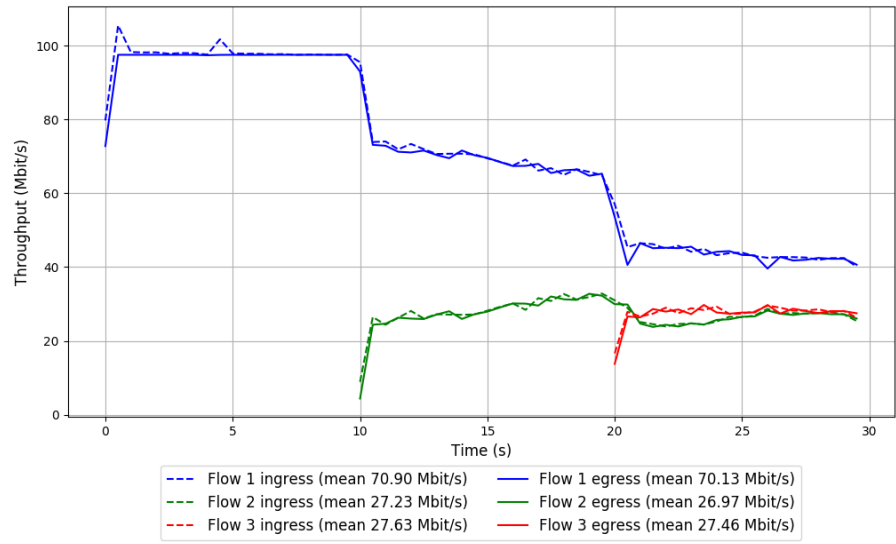
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2018-02-28 06:01:21
End at: 2018-02-28 06:01:51
Local clock offset: 0.747 ms
Remote clock offset: -5.656 ms


# Below is generated by plot.py at 2018-02-28 07:42:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 50.766 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 74.50 Mbit/s
95th percentile per-packet one-way delay: 50.696 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 28.09 Mbit/s
95th percentile per-packet one-way delay: 50.890 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 51.148 ms
Loss rate: 0.55%
```
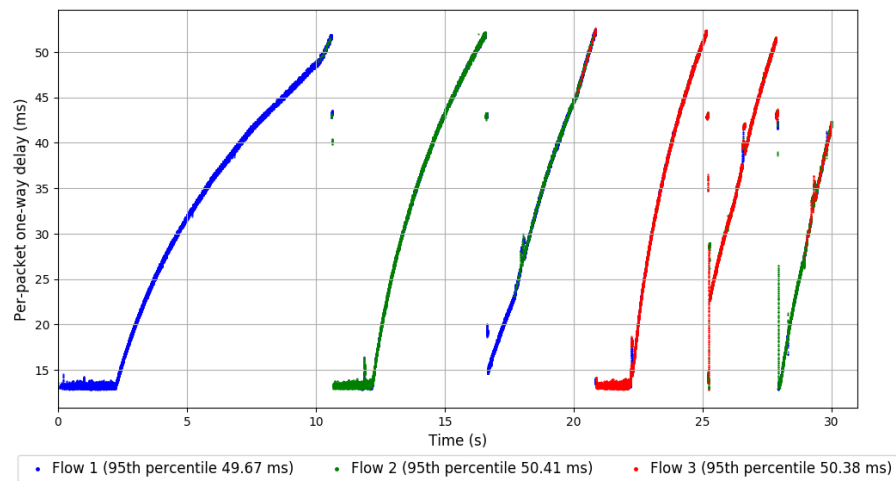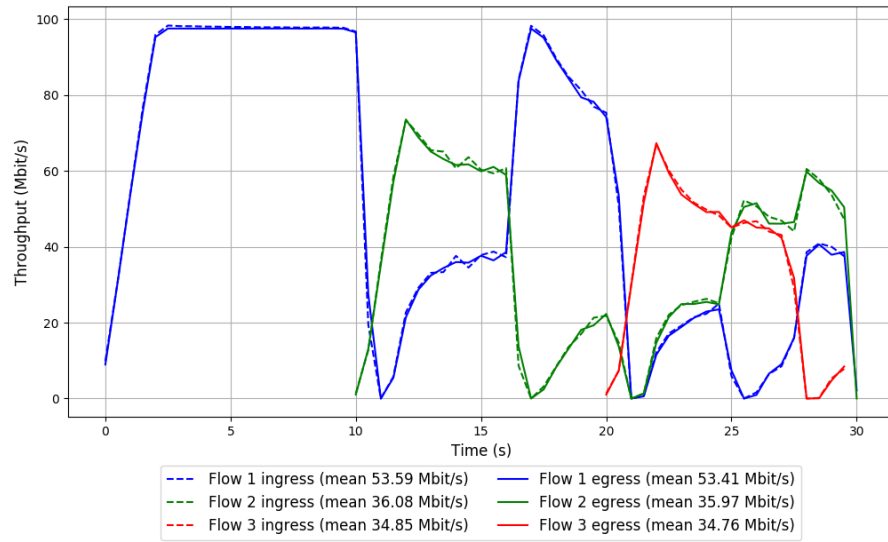
Run 8: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 75.20 Mbit/s) --- Flow 1 egress (mean 74.50 Mbit/s)
Flow 2 ingress (mean 28.41 Mbit/s) --- Flow 2 egress (mean 28.09 Mbit/s)
Flow 3 ingress (mean 11.94 Mbit/s) --- Flow 3 egress (mean 11.88 Mbit/s)



Flow 1 (95th percentile 50.70 ms)    Flow 2 (95th percentile 50.89 ms)    Flow 3 (95th percentile 51.15 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-02-28 06:22:36
End at: 2018-02-28 06:23:06
Local clock offset: 2.672 ms
Remote clock offset: -5.474 ms


# Below is generated by plot.py at 2018-02-28 07:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 49.986 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 68.54 Mbit/s
95th percentile per-packet one-way delay: 49.825 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 27.08 Mbit/s
95th percentile per-packet one-way delay: 49.981 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 50.437 ms
Loss rate: 0.66%
```
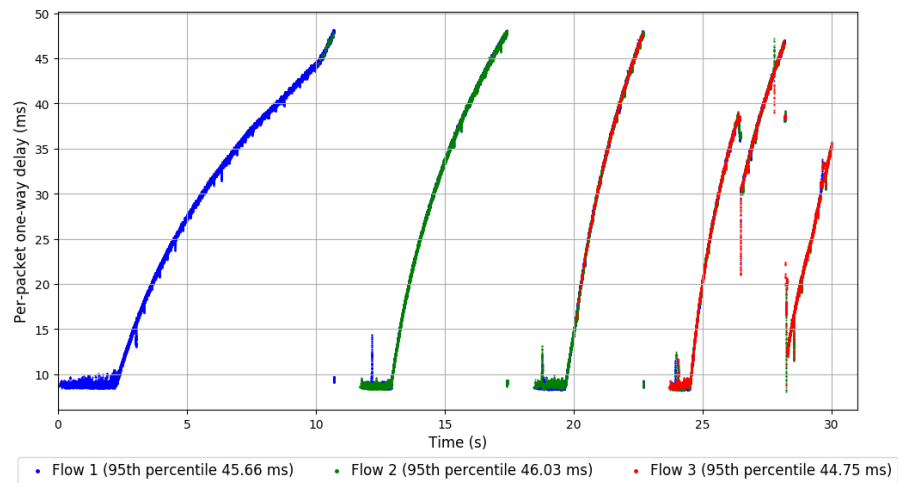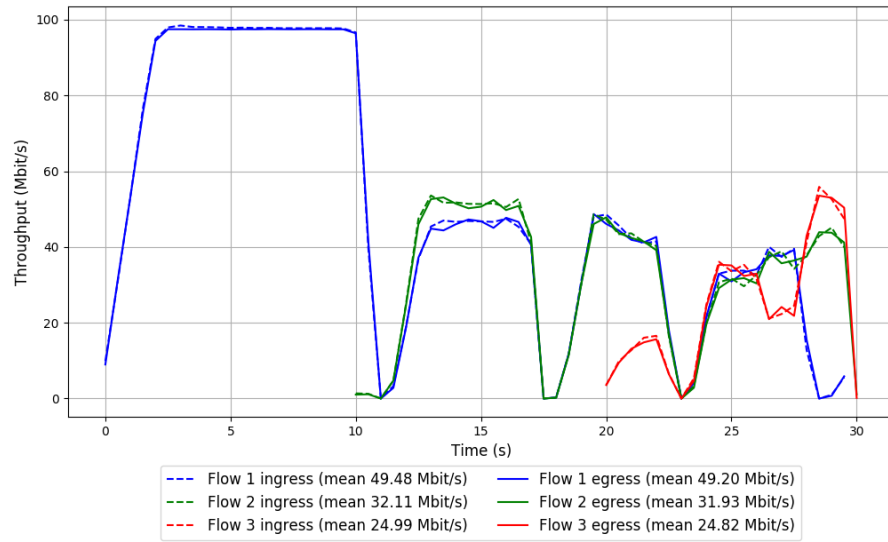
Run 9: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 69.13 Mbit/s) --- Flow 1 egress (mean 68.54 Mbit/s)
Flow 2 ingress (mean 27.34 Mbit/s) --- Flow 2 egress (mean 27.08 Mbit/s)
Flow 3 ingress (mean 32.20 Mbit/s) --- Flow 3 egress (mean 31.98 Mbit/s)



Flow 1 (95th percentile 49.83 ms)    Flow 2 (95th percentile 49.98 ms)    Flow 3 (95th percentile 50.44 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-02-28 06:43:57
End at: 2018-02-28 06:44:27
Local clock offset: 1.314 ms
Remote clock offset: -4.699 ms


# Below is generated by plot.py at 2018-02-28 07:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.14 Mbit/s
95th percentile per-packet one-way delay: 51.981 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 70.13 Mbit/s
95th percentile per-packet one-way delay: 51.871 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 26.97 Mbit/s
95th percentile per-packet one-way delay: 52.137 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 52.631 ms
Loss rate: 1.00%
```
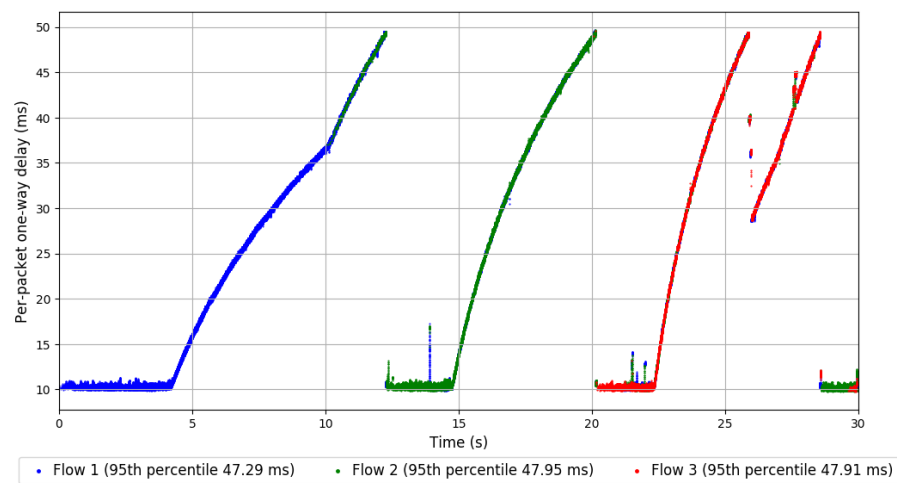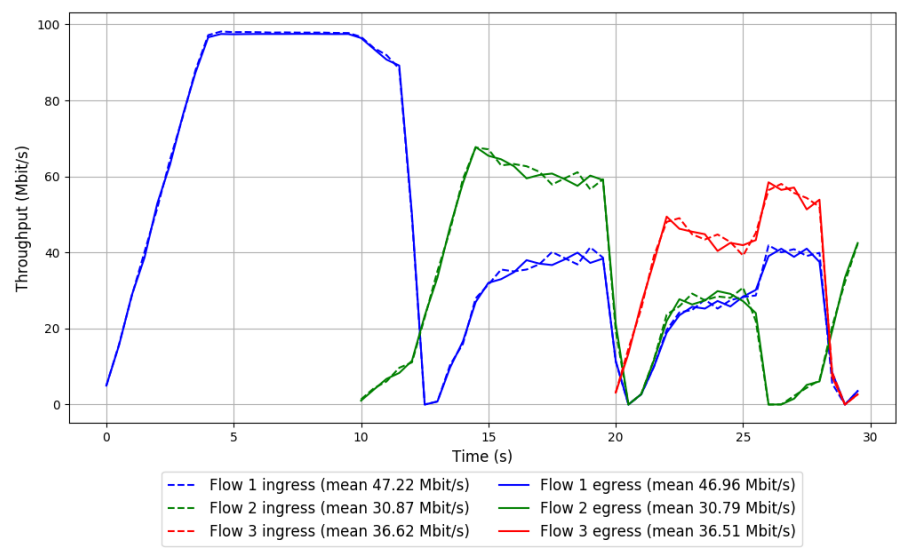
Run 10: Report of TCP Cubic — Data Link



- - - Flow 1 ingress (mean 70.90 Mbit/s)    —— Flow 1 egress (mean 70.13 Mbit/s)
- - - Flow 2 ingress (mean 27.23 Mbit/s)    —— Flow 2 egress (mean 26.97 Mbit/s)
- - - Flow 3 ingress (mean 27.63 Mbit/s)    —— Flow 3 egress (mean 27.46 Mbit/s)



- Flow 1 (95th percentile 51.87 ms)     • Flow 2 (95th percentile 52.14 ms)     • Flow 3 (95th percentile 52.63 ms)
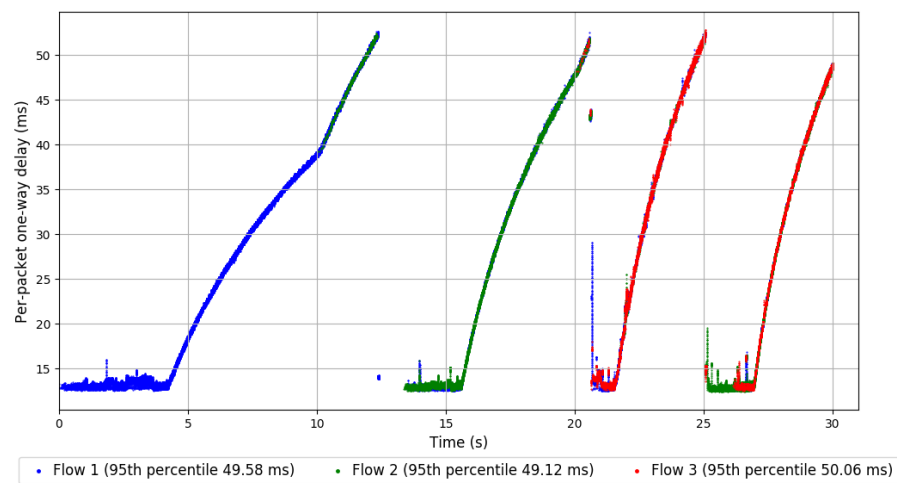
```
Run 1: Statistics of LEDBAT

Start at: 2018-02-28 03:32:34
End at: 2018-02-28 03:33:04
Local clock offset: 0.635 ms
Remote clock offset: 0.141 ms

# Below is generated by plot.py at 2018-02-28 07:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.82 Mbit/s
95th percentile per-packet one-way delay: 50.070 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 53.41 Mbit/s
95th percentile per-packet one-way delay: 49.666 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 35.97 Mbit/s
95th percentile per-packet one-way delay: 50.415 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 34.76 Mbit/s
95th percentile per-packet one-way delay: 50.383 ms
Loss rate: 0.29%
```
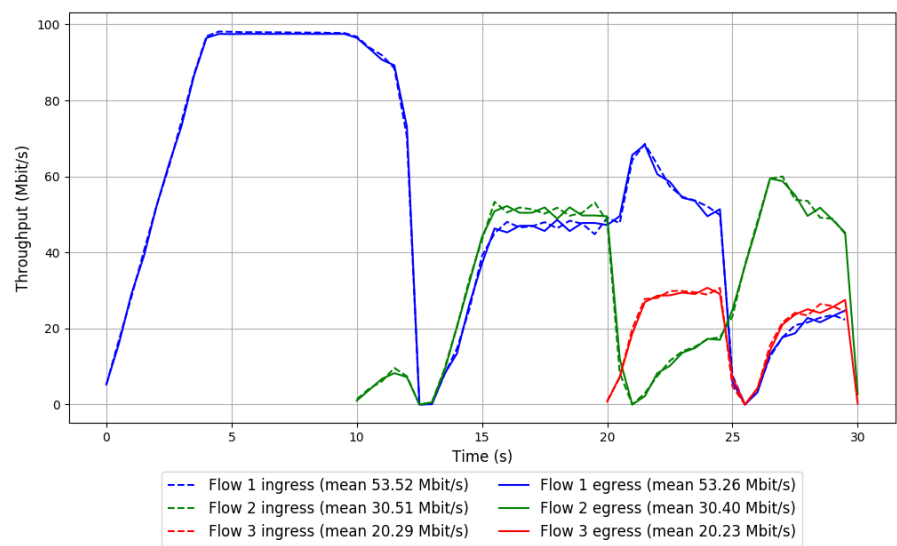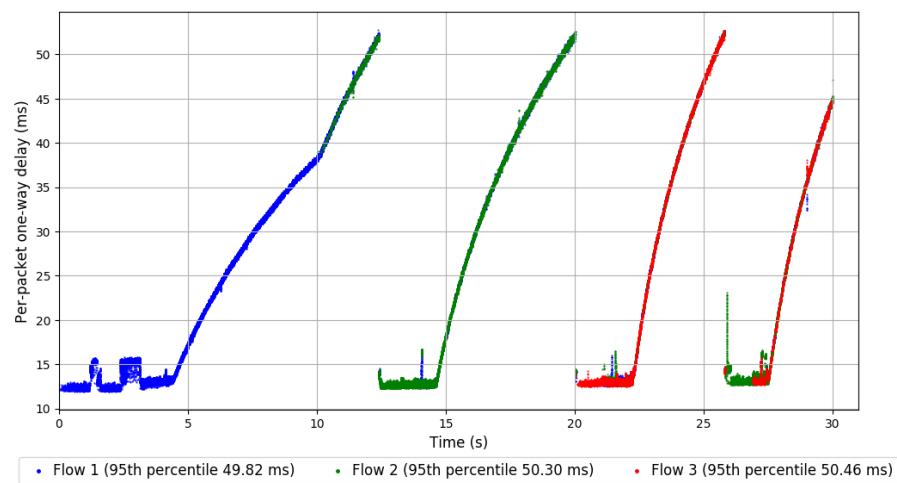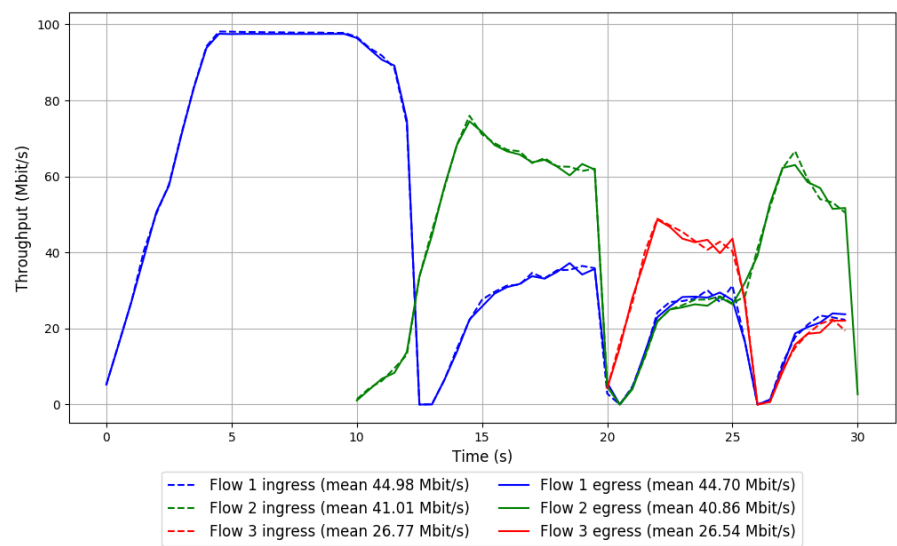
Run 1: Report of LEDBAT — Data Link



Flow 1 ingress (mean 53.59 Mbit/s)  Flow 1 egress (mean 53.41 Mbit/s)
Flow 2 ingress (mean 36.08 Mbit/s)  Flow 2 egress (mean 35.97 Mbit/s)
Flow 3 ingress (mean 34.85 Mbit/s)  Flow 3 egress (mean 34.76 Mbit/s)



Flow 1 (95th percentile 49.67 ms)  Flow 2 (95th percentile 50.41 ms)  Flow 3 (95th percentile 50.38 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2018-02-28 03:53:55
End at: 2018-02-28 03:54:25
Local clock offset: 6.283 ms
Remote clock offset: 7.202 ms


# Below is generated by plot.py at 2018-02-28 07:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.66 Mbit/s
95th percentile per-packet one-way delay: 45.722 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 45.663 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 31.93 Mbit/s
95th percentile per-packet one-way delay: 46.034 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 24.82 Mbit/s
95th percentile per-packet one-way delay: 44.748 ms
Loss rate: 0.48%
```
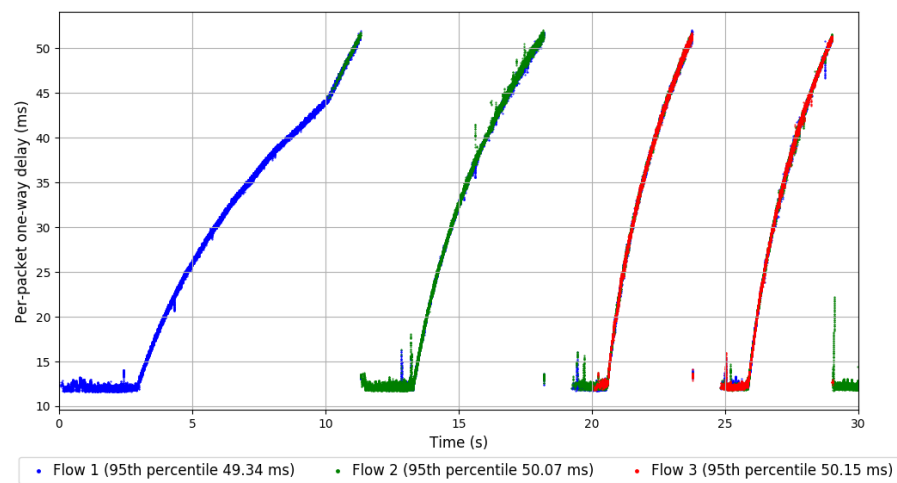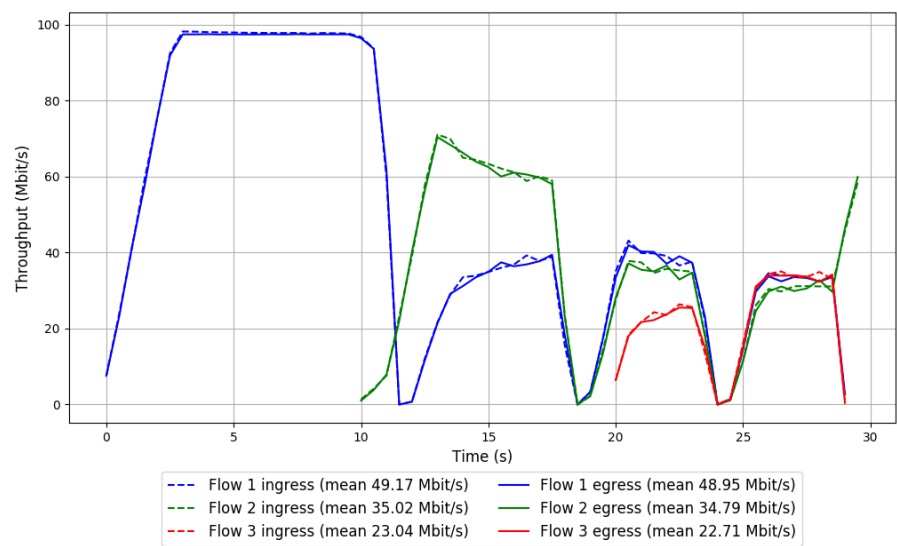
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-02-28 04:15:34
End at: 2018-02-28 04:16:04
Local clock offset: 5.239 ms
Remote clock offset: 14.27 ms

# Below is generated by plot.py at 2018-02-28 07:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.47 Mbit/s
95th percentile per-packet one-way delay: 47.639 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 46.96 Mbit/s
95th percentile per-packet one-way delay: 47.291 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 30.79 Mbit/s
95th percentile per-packet one-way delay: 47.953 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 36.51 Mbit/s
95th percentile per-packet one-way delay: 47.907 ms
Loss rate: 0.68%
```
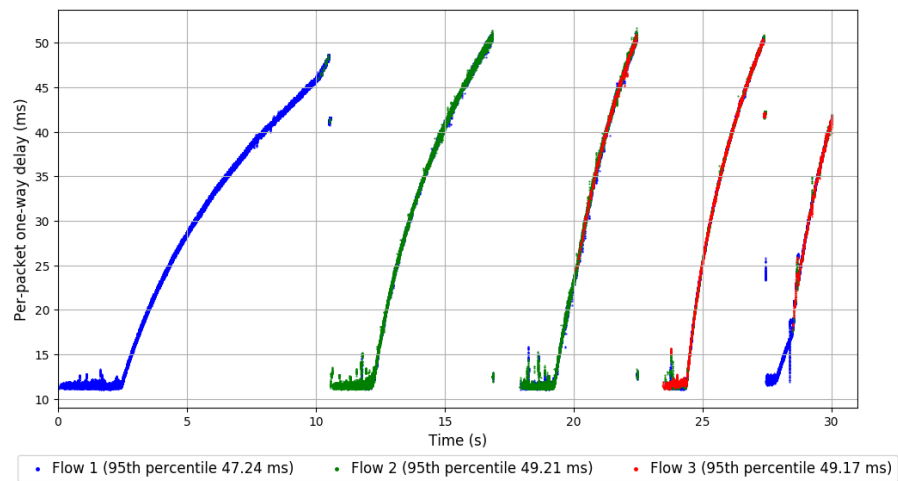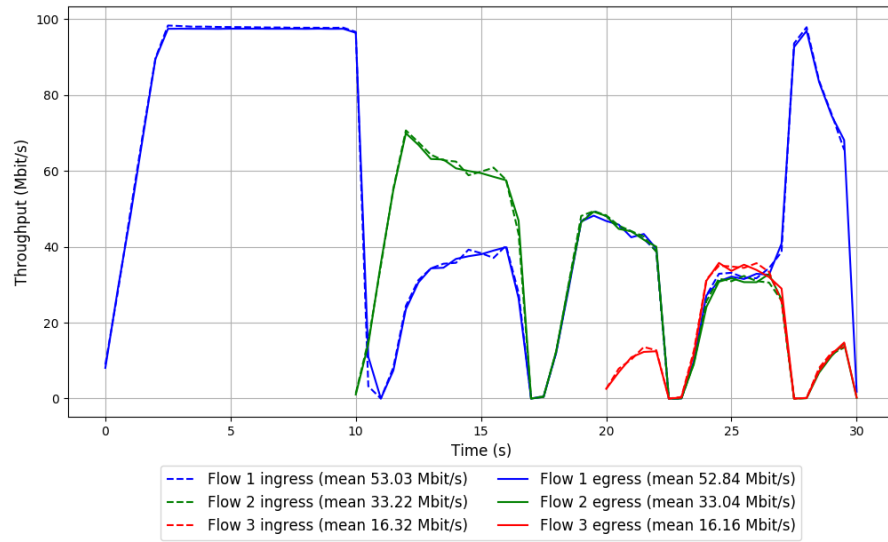
Run 3: Report of LEDBAT — Data Link



Flow 1 ingress (mean 47.22 Mbit/s)    Flow 1 egress (mean 46.96 Mbit/s)
Flow 2 ingress (mean 30.87 Mbit/s)    Flow 2 egress (mean 30.79 Mbit/s)
Flow 3 ingress (mean 36.62 Mbit/s)    Flow 3 egress (mean 36.51 Mbit/s)



Flow 1 (95th percentile 47.29 ms)    Flow 2 (95th percentile 47.95 ms)    Flow 3 (95th percentile 47.91 ms)

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```
Run 4: Statistics of LEDBAT

Start at: 2018-02-28 04:37:05
End at: 2018-02-28 04:37:35
Local clock offset: 2.408 ms
Remote clock offset: 18.019 ms


# Below is generated by plot.py at 2018-02-28 07:42:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.14 Mbit/s
95th percentile per-packet one-way delay: 49.467 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 53.26 Mbit/s
95th percentile per-packet one-way delay: 49.583 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 49.116 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 20.23 Mbit/s
95th percentile per-packet one-way delay: 50.062 ms
Loss rate: 0.27%
```
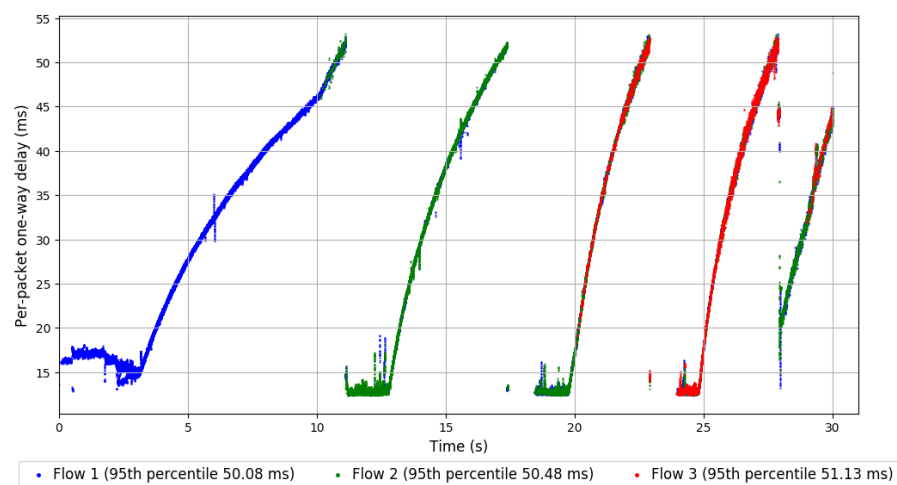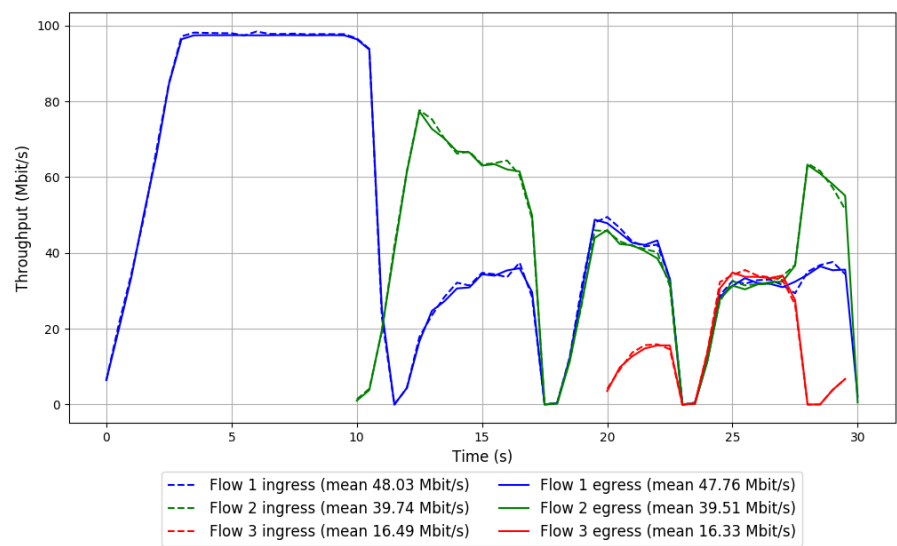
Run 4: Report of LEDBAT — Data Link



Flow 1 ingress (mean 53.52 Mbit/s) --- Flow 1 egress (mean 53.26 Mbit/s)
Flow 2 ingress (mean 30.51 Mbit/s) --- Flow 2 egress (mean 30.40 Mbit/s)
Flow 3 ingress (mean 20.29 Mbit/s) --- Flow 3 egress (mean 20.23 Mbit/s)



Flow 1 (95th percentile 49.58 ms) • Flow 2 (95th percentile 49.12 ms) • Flow 3 (95th percentile 50.06 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-02-28 04:58:31
End at: 2018-02-28 04:59:01
Local clock offset: 3.333 ms
Remote clock offset: 12.526 ms


# Below is generated by plot.py at 2018-02-28 07:43:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.63 Mbit/s
95th percentile per-packet one-way delay: 50.061 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 44.70 Mbit/s
95th percentile per-packet one-way delay: 49.824 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 40.86 Mbit/s
95th percentile per-packet one-way delay: 50.303 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 26.54 Mbit/s
95th percentile per-packet one-way delay: 50.463 ms
Loss rate: 0.57%
```
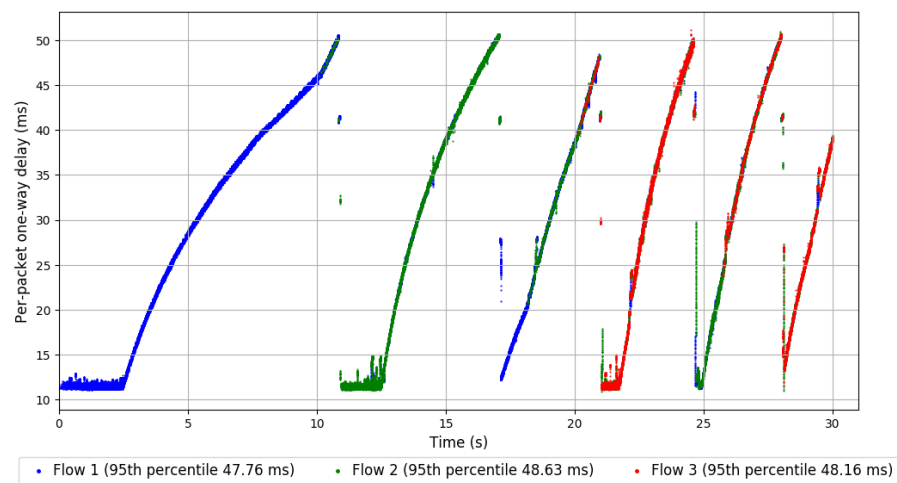
Run 5: Report of LEDBAT — Data Link



Flow 1 ingress (mean 44.98 Mbit/s) --- Flow 1 egress (mean 44.70 Mbit/s)
Flow 2 ingress (mean 41.01 Mbit/s) --- Flow 2 egress (mean 40.86 Mbit/s)
Flow 3 ingress (mean 26.77 Mbit/s) --- Flow 3 egress (mean 26.54 Mbit/s)



Flow 1 (95th percentile 49.82 ms) • Flow 2 (95th percentile 50.30 ms) • Flow 3 (95th percentile 50.46 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-02-28 05:19:54
End at: 2018-02-28 05:20:24
Local clock offset: 1.914 ms
Remote clock offset: -5.378 ms


# Below is generated by plot.py at 2018-02-28 07:43:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.35 Mbit/s
95th percentile per-packet one-way delay: 49.741 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 48.95 Mbit/s
95th percentile per-packet one-way delay: 49.336 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 50.071 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 22.71 Mbit/s
95th percentile per-packet one-way delay: 50.145 ms
Loss rate: 1.40%
```
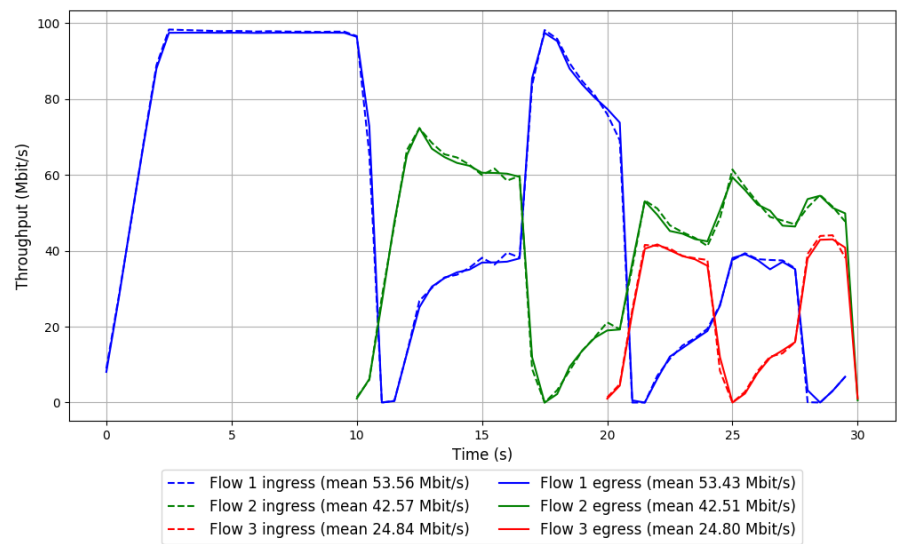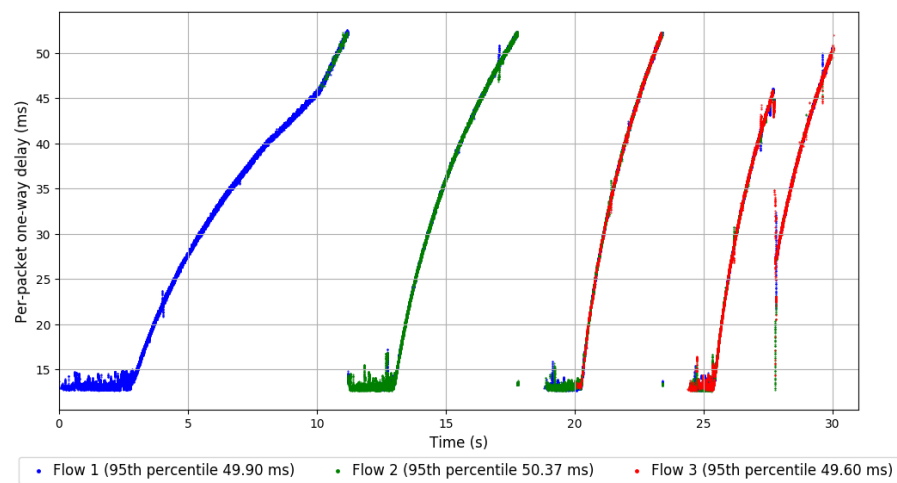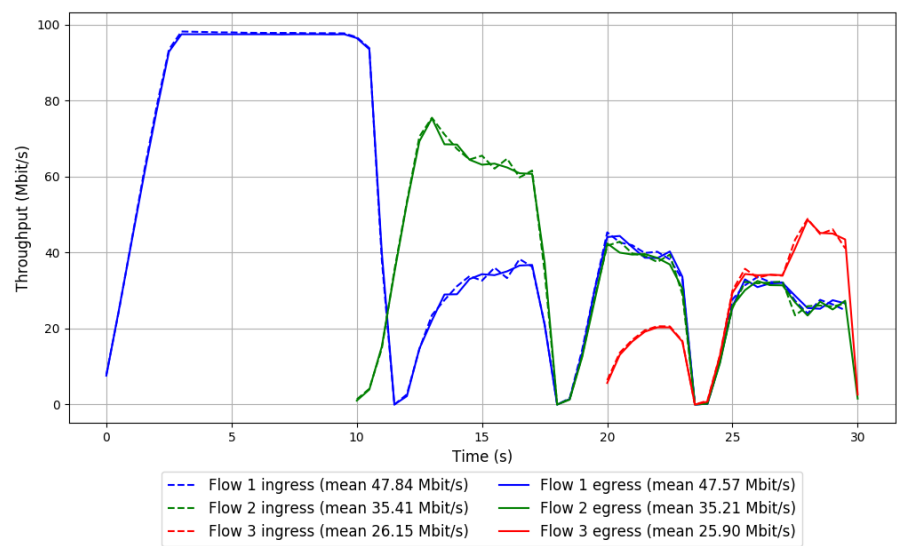
Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2018-02-28 05:41:13
End at: 2018-02-28 05:41:43
Local clock offset: 1.637 ms
Remote clock offset: -3.913 ms


# Below is generated by plot.py at 2018-02-28 07:43:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.17 Mbit/s
95th percentile per-packet one-way delay: 48.205 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 52.84 Mbit/s
95th percentile per-packet one-way delay: 47.236 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 33.04 Mbit/s
95th percentile per-packet one-way delay: 49.213 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 16.16 Mbit/s
95th percentile per-packet one-way delay: 49.168 ms
Loss rate: 0.80%
```
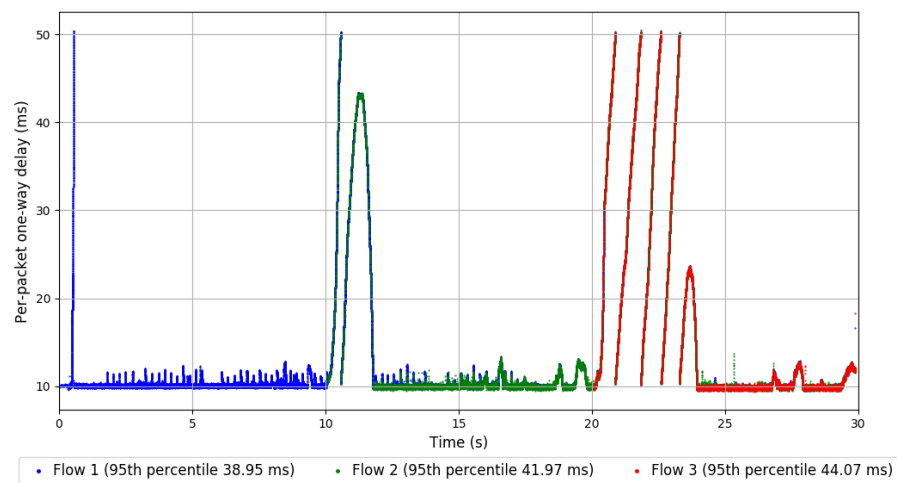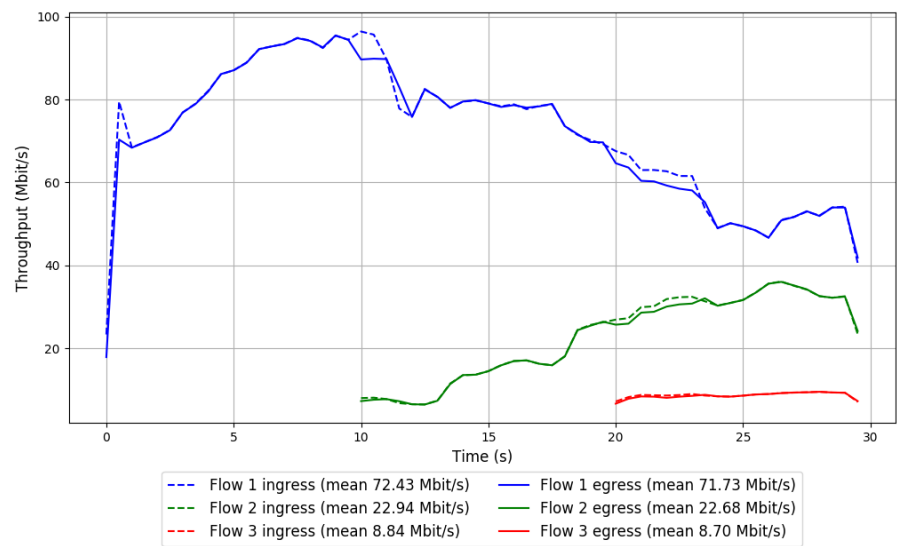
Run 7: Report of LEDBAT — Data Link



Flow 1 ingress (mean 53.03 Mbit/s) — Flow 1 egress (mean 52.84 Mbit/s)
Flow 2 ingress (mean 33.22 Mbit/s) — Flow 2 egress (mean 33.04 Mbit/s)
Flow 3 ingress (mean 16.32 Mbit/s) — Flow 3 egress (mean 16.16 Mbit/s)



Flow 1 (95th percentile 47.24 ms)    Flow 2 (95th percentile 49.21 ms)    Flow 3 (95th percentile 49.17 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-02-28 06:02:32
End at: 2018-02-28 06:03:02
Local clock offset: 0.528 ms
Remote clock offset: -5.082 ms


# Below is generated by plot.py at 2018-02-28 07:43:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.44 Mbit/s
95th percentile per-packet one-way delay: 50.298 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 47.76 Mbit/s
95th percentile per-packet one-way delay: 50.082 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 50.484 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 51.135 ms
Loss rate: 0.72%
```
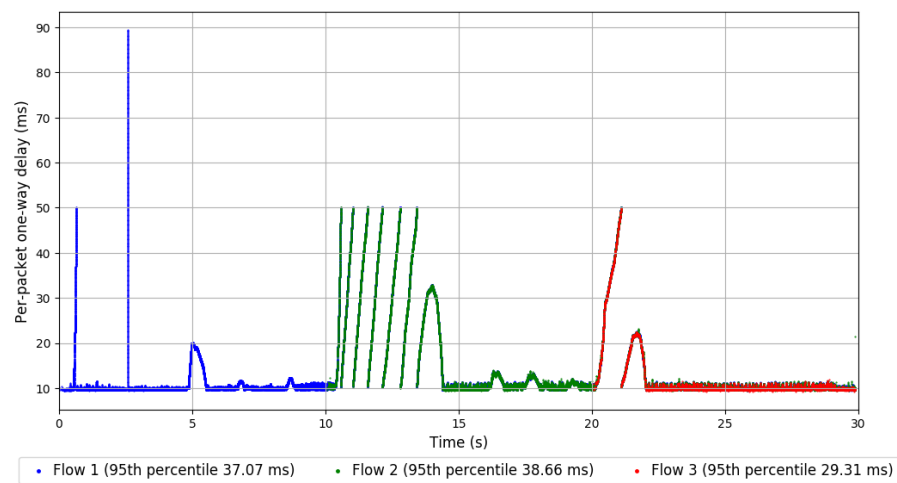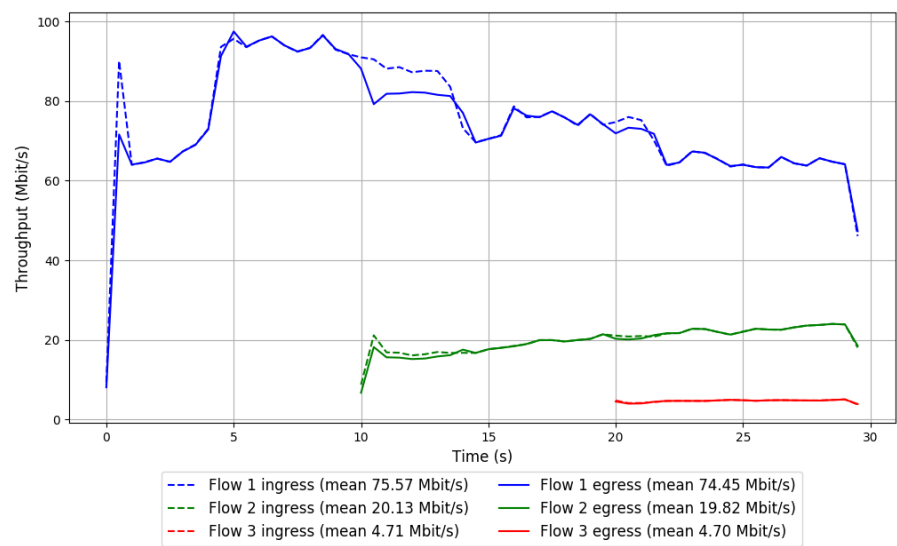
Run 8: Report of LEDBAT — Data Link



Flow 1 ingress (mean 48.03 Mbit/s) — Flow 1 egress (mean 47.76 Mbit/s)
Flow 2 ingress (mean 39.74 Mbit/s) — Flow 2 egress (mean 39.51 Mbit/s)
Flow 3 ingress (mean 16.49 Mbit/s) — Flow 3 egress (mean 16.33 Mbit/s)



Flow 1 (95th percentile 50.08 ms) · Flow 2 (95th percentile 50.48 ms) · Flow 3 (95th percentile 51.13 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-02-28 06:23:46
End at: 2018-02-28 06:24:16
Local clock offset: 1.727 ms
Remote clock offset: -6.62 ms

# Below is generated by plot.py at 2018-02-28 07:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.88 Mbit/s
95th percentile per-packet one-way delay: 48.138 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 53.43 Mbit/s
95th percentile per-packet one-way delay: 47.762 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 42.51 Mbit/s
95th percentile per-packet one-way delay: 48.626 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 48.163 ms
Loss rate: 0.17%
```
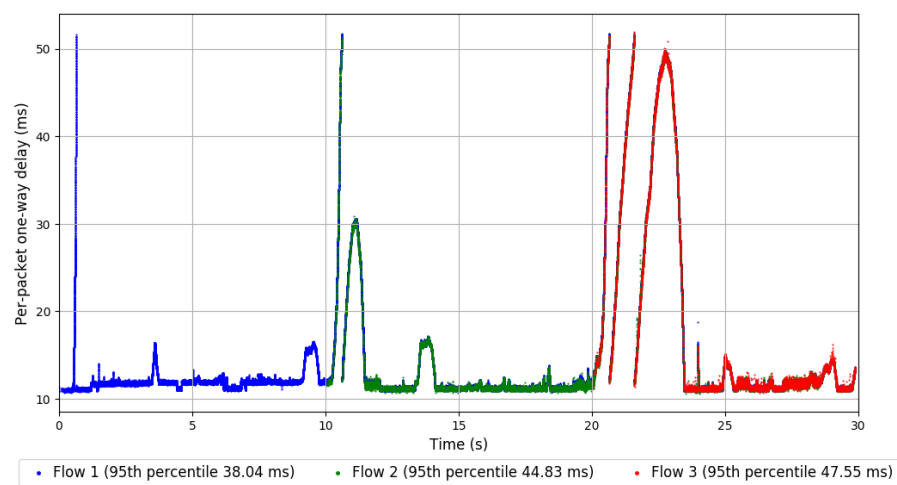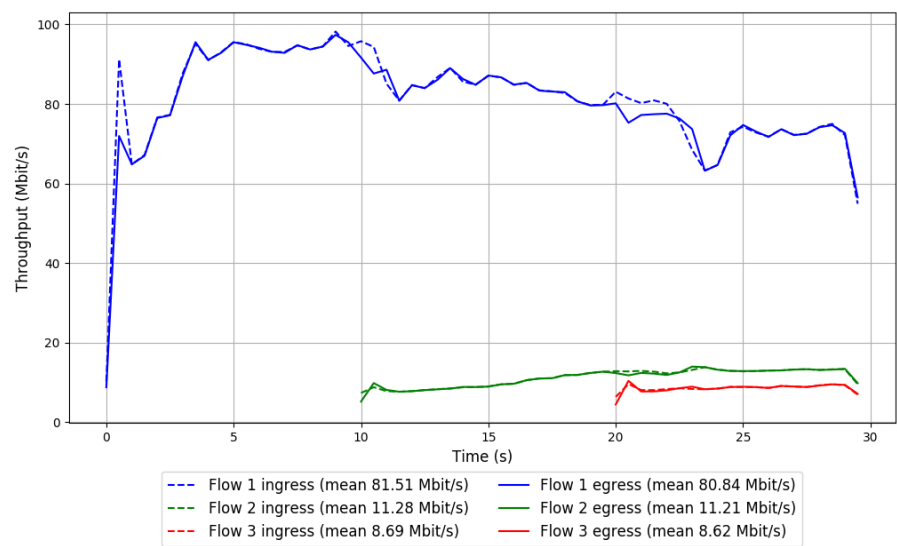
Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2018-02-28 06:45:07
End at: 2018-02-28 06:45:37
Local clock offset: 0.729 ms
Remote clock offset: -5.094 ms


# Below is generated by plot.py at 2018-02-28 07:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.55 Mbit/s
95th percentile per-packet one-way delay: 50.093 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 47.57 Mbit/s
95th percentile per-packet one-way delay: 49.901 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 35.21 Mbit/s
95th percentile per-packet one-way delay: 50.371 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 25.90 Mbit/s
95th percentile per-packet one-way delay: 49.596 ms
Loss rate: 0.55%
```

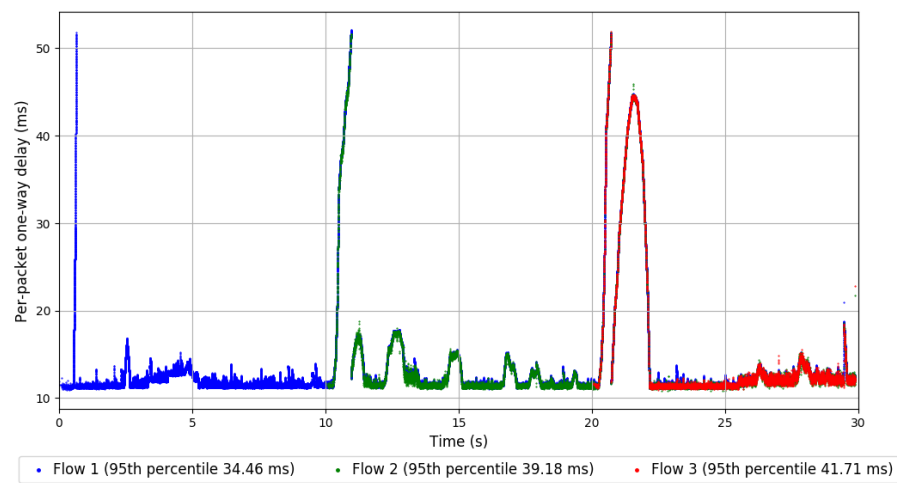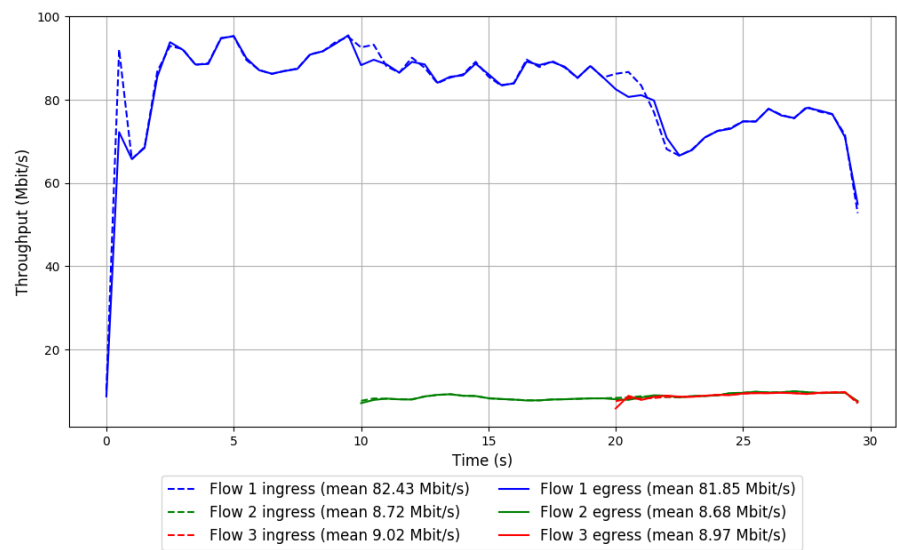Run 10: Report of LEDBAT — Data Link





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```
Run 1: Statistics of PCC

Start at: 2018-02-28 03:49:17
End at: 2018-02-28 03:49:47
Local clock offset: 4.847 ms
Remote clock offset: 4.273 ms


# Below is generated by plot.py at 2018-02-28 07:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 39.931 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 71.73 Mbit/s
95th percentile per-packet one-way delay: 38.953 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 22.68 Mbit/s
95th percentile per-packet one-way delay: 41.973 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 8.70 Mbit/s
95th percentile per-packet one-way delay: 44.072 ms
Loss rate: 1.54%
```
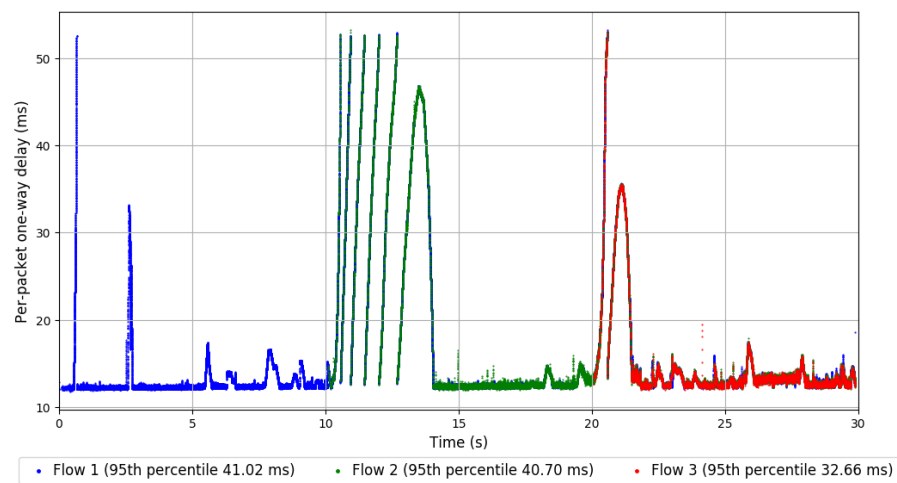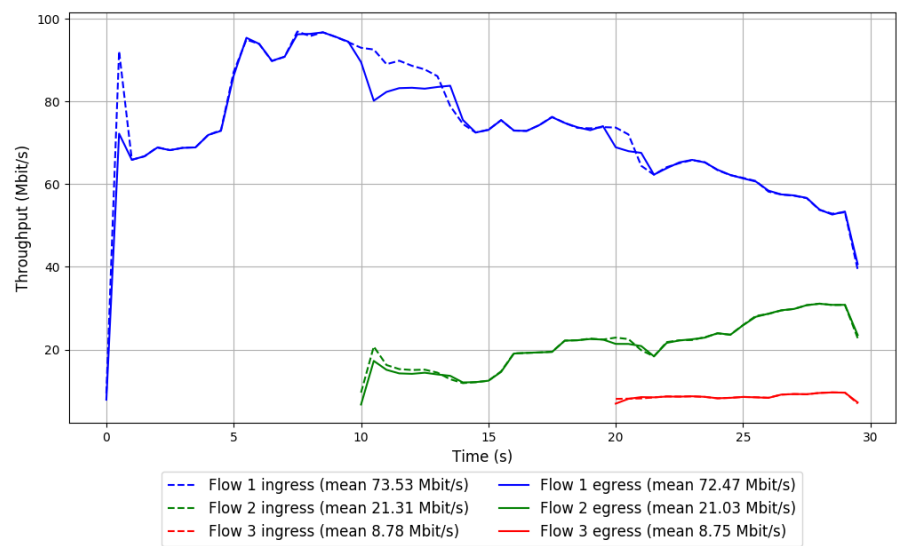
Run 1: Report of PCC — Data Link



- - - Flow 1 ingress (mean 72.43 Mbit/s) ——— Flow 1 egress (mean 71.73 Mbit/s)
- - - Flow 2 ingress (mean 22.94 Mbit/s) ——— Flow 2 egress (mean 22.68 Mbit/s)
- - - Flow 3 ingress (mean 8.84 Mbit/s) ——— Flow 3 egress (mean 8.70 Mbit/s)



• Flow 1 (95th percentile 38.95 ms)    • Flow 2 (95th percentile 41.97 ms)    • Flow 3 (95th percentile 44.07 ms)

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```
Run 2: Statistics of PCC

Start at: 2018-02-28 04:10:52
End at: 2018-02-28 04:11:22
Local clock offset: 6.151 ms
Remote clock offset: 13.86 ms


# Below is generated by plot.py at 2018-02-28 07:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.15 Mbit/s
95th percentile per-packet one-way delay: 37.235 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 74.45 Mbit/s
95th percentile per-packet one-way delay: 37.070 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 19.82 Mbit/s
95th percentile per-packet one-way delay: 38.663 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 4.70 Mbit/s
95th percentile per-packet one-way delay: 29.312 ms
Loss rate: 0.34%
```
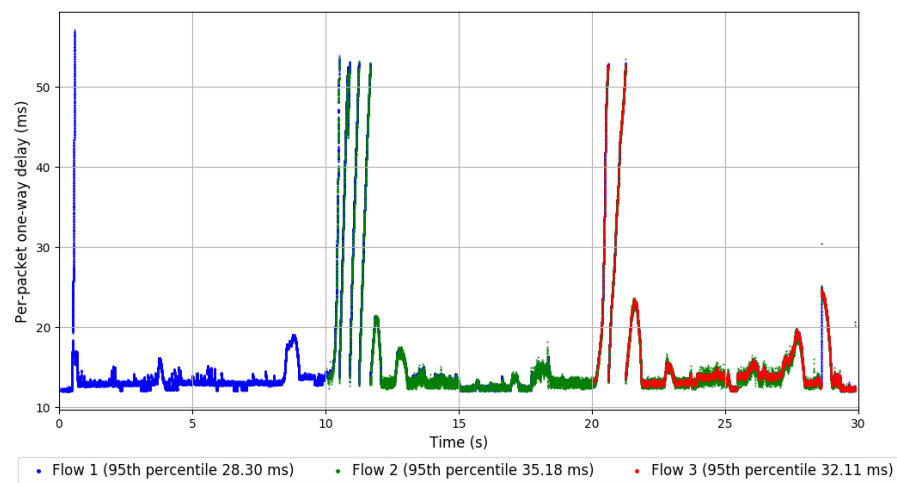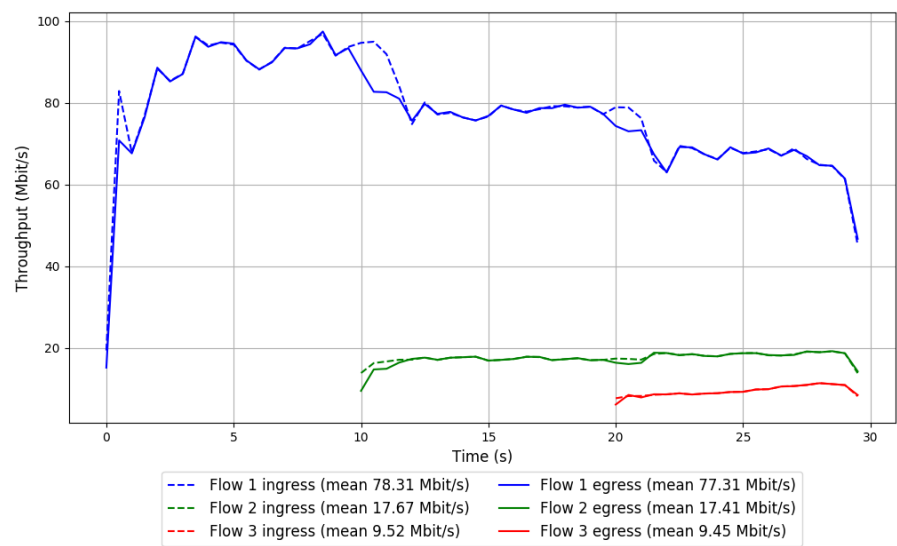
Run 2: Report of PCC — Data Link

```
Run 3: Statistics of PCC

Start at: 2018-02-28 04:32:27
End at: 2018-02-28 04:32:57
Local clock offset: 5.269 ms
Remote clock offset: 18.352 ms


# Below is generated by plot.py at 2018-02-28 07:44:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.14 Mbit/s
95th percentile per-packet one-way delay: 40.285 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 80.84 Mbit/s
95th percentile per-packet one-way delay: 38.036 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 44.834 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 47.552 ms
Loss rate: 0.76%
```
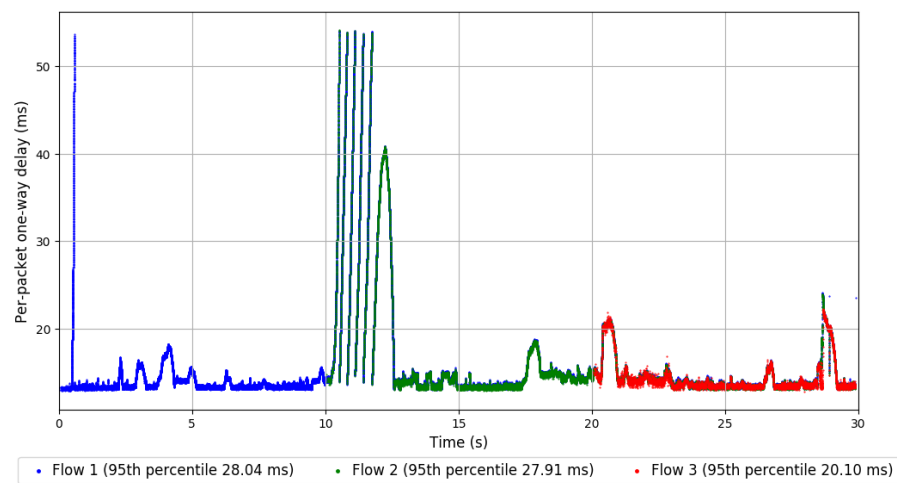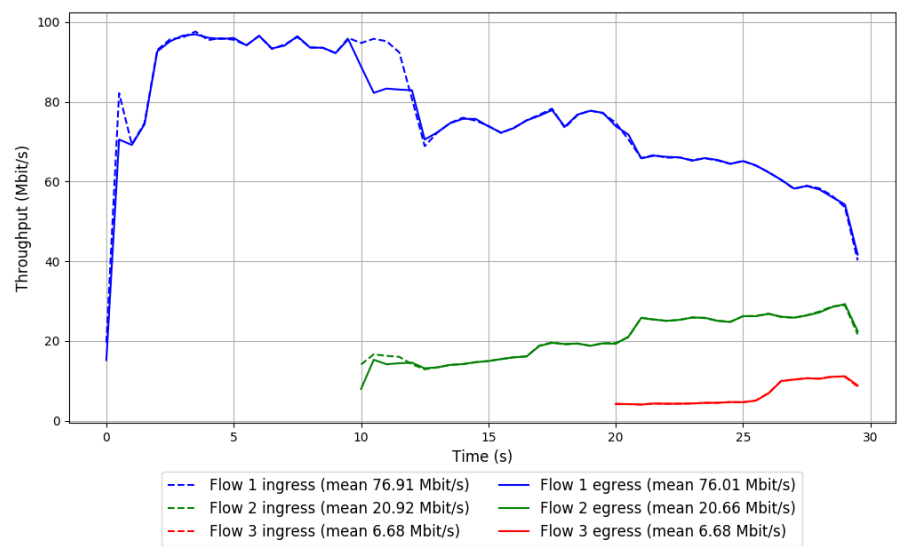
Run 3: Report of PCC — Data Link



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```
Run 4: Statistics of PCC

Start at: 2018-02-28 04:53:51
End at: 2018-02-28 04:54:21
Local clock offset: 2.356 ms
Remote clock offset: 20.274 ms


# Below is generated by plot.py at 2018-02-28 07:44:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.56 Mbit/s
95th percentile per-packet one-way delay: 35.716 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 81.85 Mbit/s
95th percentile per-packet one-way delay: 34.463 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 39.177 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 8.97 Mbit/s
95th percentile per-packet one-way delay: 41.707 ms
Loss rate: 0.38%
```
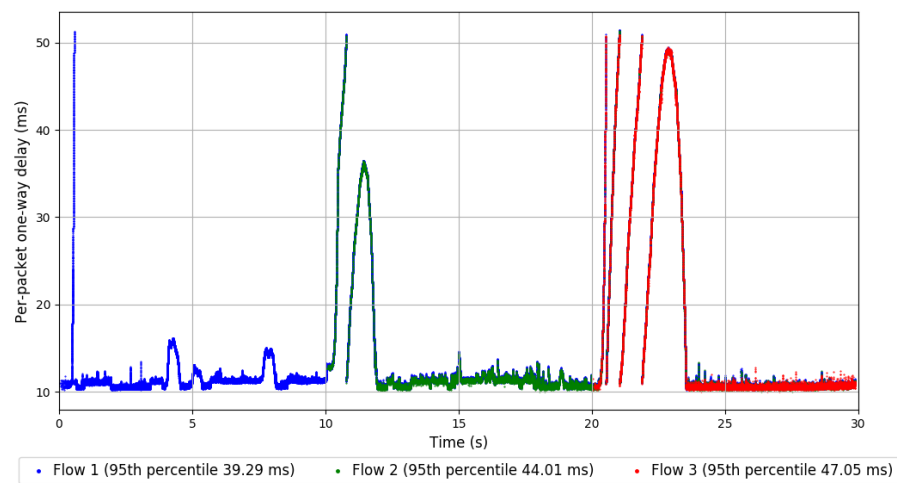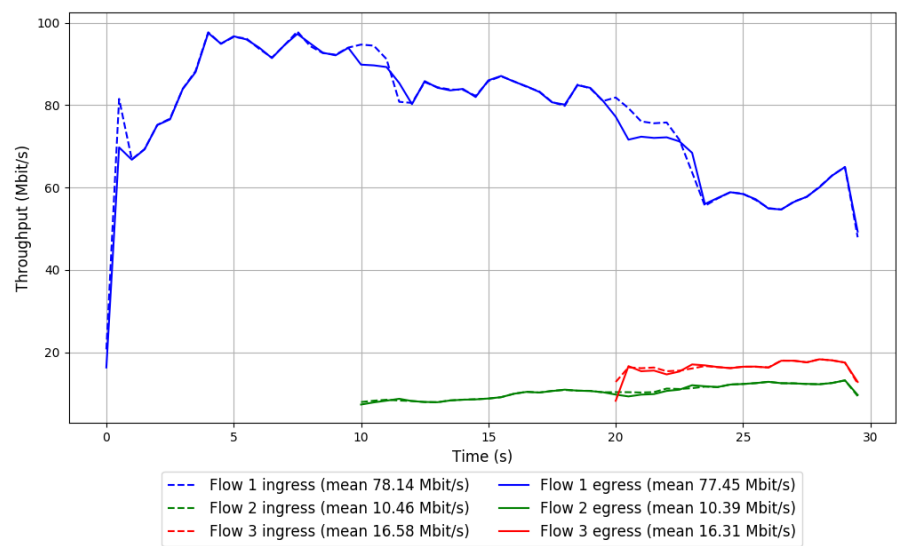
Run 4: Report of PCC — Data Link



Flow 1 ingress (mean 82.43 Mbit/s) --- Flow 1 egress (mean 81.85 Mbit/s) ——
Flow 2 ingress (mean 8.72 Mbit/s) --- Flow 2 egress (mean 8.68 Mbit/s) ——
Flow 3 ingress (mean 9.02 Mbit/s) --- Flow 3 egress (mean 8.97 Mbit/s) ——



Flow 1 (95th percentile 34.46 ms) • Flow 2 (95th percentile 39.18 ms) • Flow 3 (95th percentile 41.71 ms) •

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```
Run 5: Statistics of PCC

Start at: 2018-02-28 05:15:16
End at: 2018-02-28 05:15:46
Local clock offset: 2.175 ms
Remote clock offset: -3.048 ms


# Below is generated by plot.py at 2018-02-28 07:44:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.34 Mbit/s
95th percentile per-packet one-way delay: 40.691 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 72.47 Mbit/s
95th percentile per-packet one-way delay: 41.019 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 21.03 Mbit/s
95th percentile per-packet one-way delay: 40.701 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 32.660 ms
Loss rate: 0.37%
```
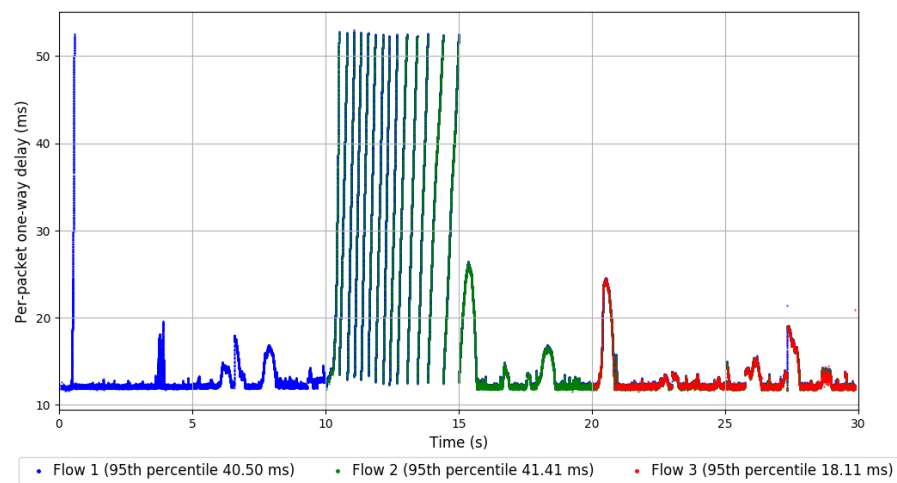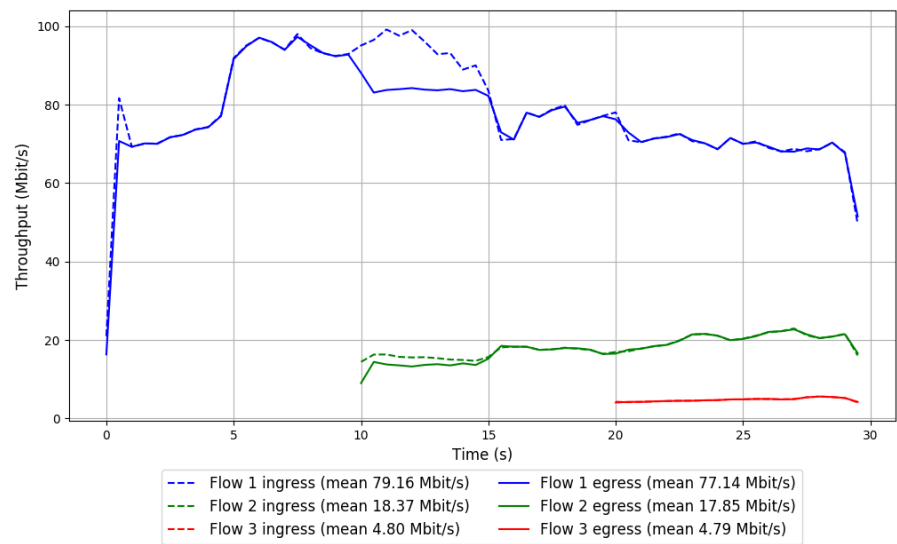
Run 5: Report of PCC — Data Link



Flow 1 ingress (mean 73.53 Mbit/s) --- Flow 1 egress (mean 72.47 Mbit/s) ---
Flow 2 ingress (mean 21.31 Mbit/s) --- Flow 2 egress (mean 21.03 Mbit/s) ---
Flow 3 ingress (mean 8.78 Mbit/s) --- Flow 3 egress (mean 8.75 Mbit/s) ---



Flow 1 (95th percentile 41.02 ms)    Flow 2 (95th percentile 40.70 ms)    Flow 3 (95th percentile 32.66 ms)

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```
Run 6: Statistics of PCC

Start at: 2018-02-28 05:36:35
End at: 2018-02-28 05:37:05
Local clock offset: 0.701 ms
Remote clock offset: -4.585 ms

# Below is generated by plot.py at 2018-02-28 07:45:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.00 Mbit/s
95th percentile per-packet one-way delay: 29.568 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 77.31 Mbit/s
95th percentile per-packet one-way delay: 28.299 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 17.41 Mbit/s
95th percentile per-packet one-way delay: 35.182 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 32.107 ms
Loss rate: 0.68%
```
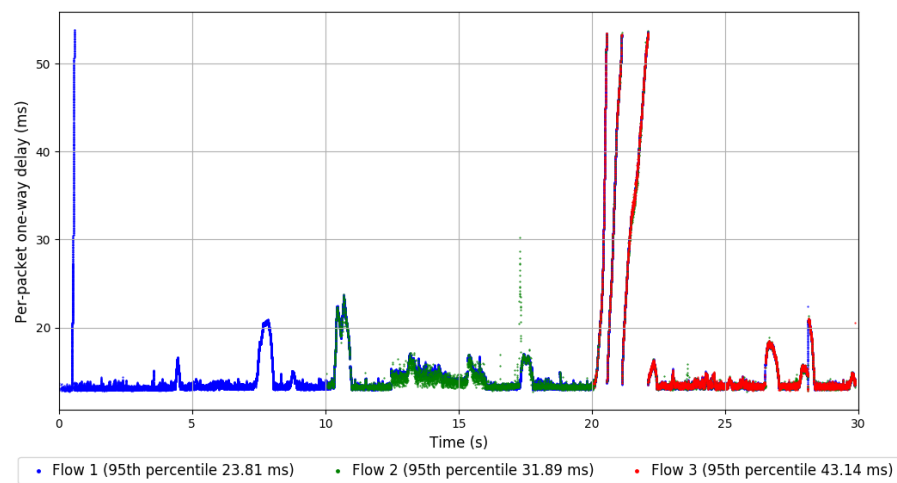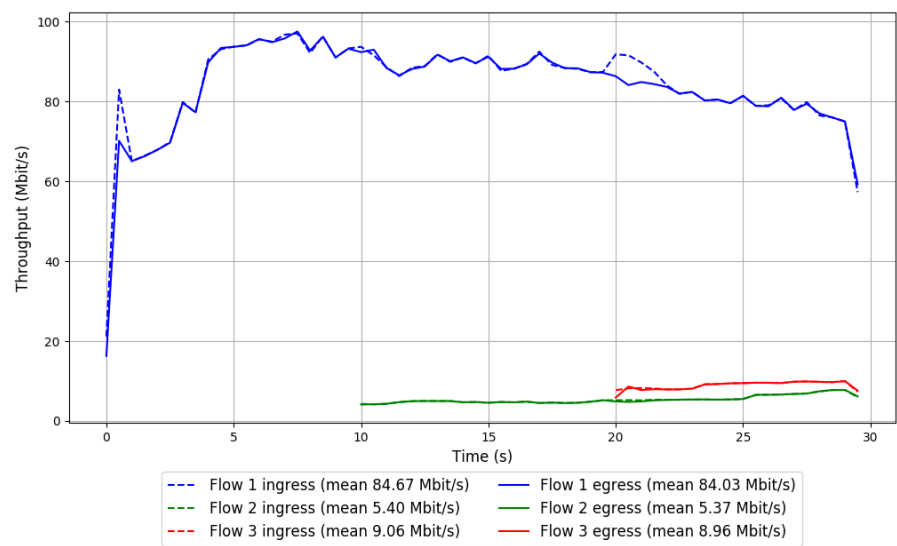
Run 6: Report of PCC — Data Link



Flow 1 ingress (mean 78.31 Mbit/s) — Flow 1 egress (mean 77.31 Mbit/s)
Flow 2 ingress (mean 17.67 Mbit/s) — Flow 2 egress (mean 17.41 Mbit/s)
Flow 3 ingress (mean 9.52 Mbit/s) — Flow 3 egress (mean 9.45 Mbit/s)



Flow 1 (95th percentile 28.30 ms)    Flow 2 (95th percentile 35.18 ms)    Flow 3 (95th percentile 32.11 ms)

```
Run 7: Statistics of PCC

Start at: 2018-02-28 05:57:56
End at: 2018-02-28 05:58:26
Local clock offset: 0.059 ms
Remote clock offset: -4.735 ms


# Below is generated by plot.py at 2018-02-28 07:45:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.94 Mbit/s
95th percentile per-packet one-way delay: 27.375 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 76.01 Mbit/s
95th percentile per-packet one-way delay: 28.042 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 20.66 Mbit/s
95th percentile per-packet one-way delay: 27.905 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 20.102 ms
Loss rate: 0.00%
```
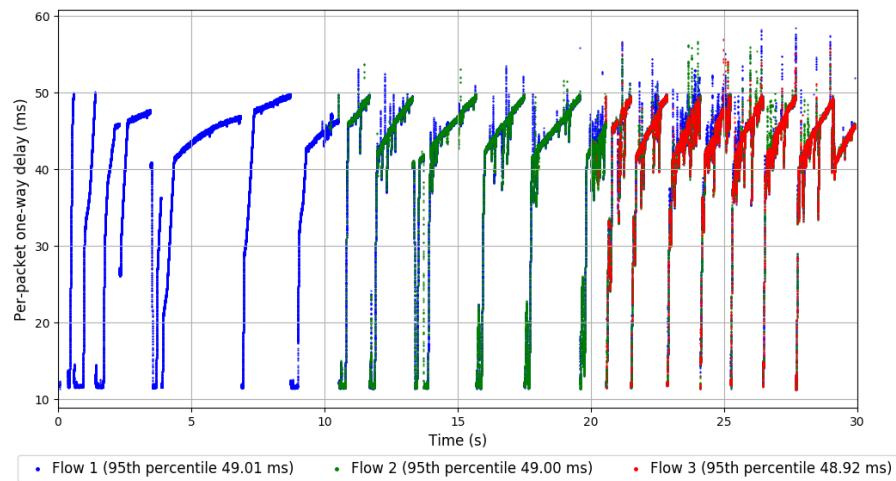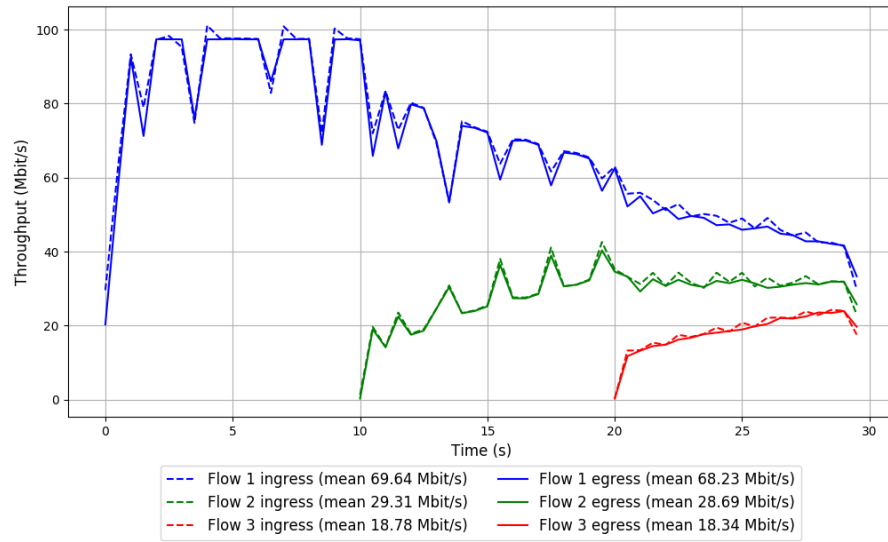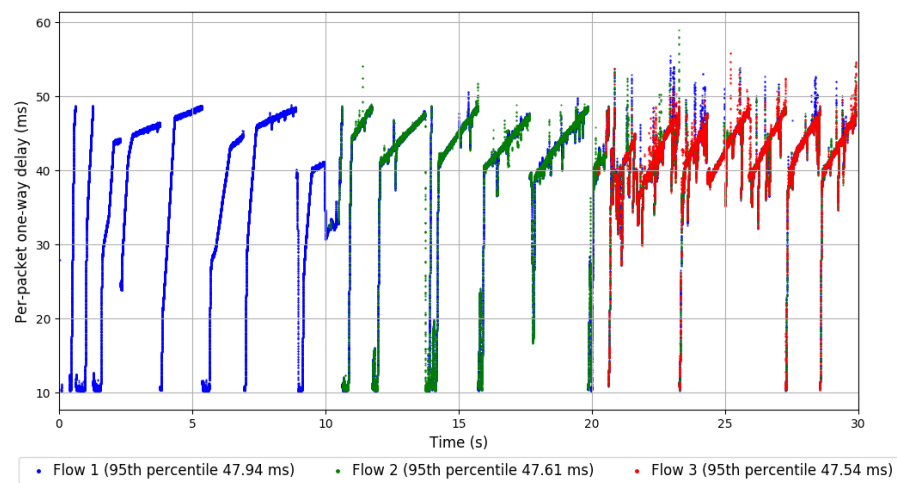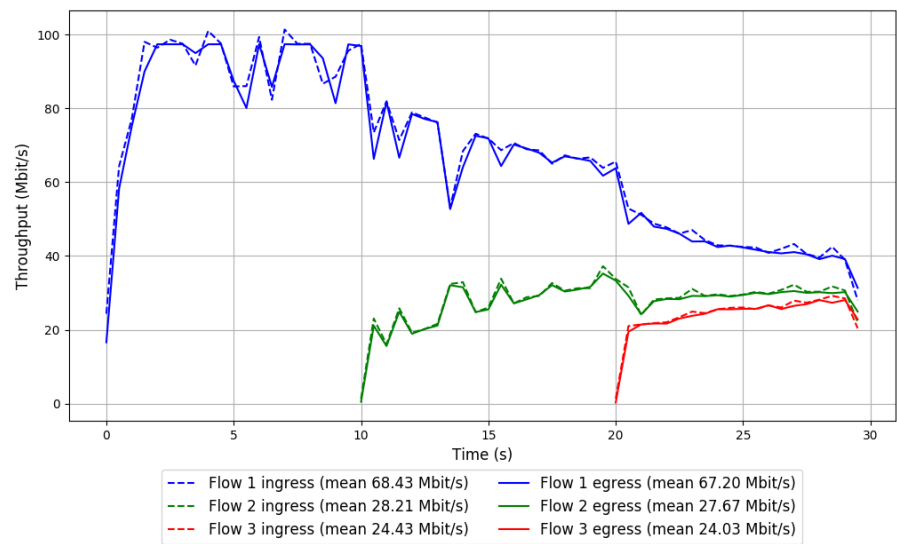
Run 7: Report of PCC — Data Link



Flow 1 ingress (mean 76.91 Mbit/s) — Flow 1 egress (mean 76.01 Mbit/s)
Flow 2 ingress (mean 20.92 Mbit/s) — Flow 2 egress (mean 20.66 Mbit/s)
Flow 3 ingress (mean 6.68 Mbit/s) — Flow 3 egress (mean 6.68 Mbit/s)



Flow 1 (95th percentile 28.04 ms)   Flow 2 (95th percentile 27.91 ms)   Flow 3 (95th percentile 20.10 ms)

```
Run 8: Statistics of PCC

Start at: 2018-02-28 06:19:10
End at: 2018-02-28 06:19:40
Local clock offset: 2.274 ms
Remote clock offset: -6.556 ms


# Below is generated by plot.py at 2018-02-28 07:45:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.74 Mbit/s
95th percentile per-packet one-way delay: 40.974 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 77.45 Mbit/s
95th percentile per-packet one-way delay: 39.293 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 10.39 Mbit/s
95th percentile per-packet one-way delay: 44.007 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 16.31 Mbit/s
95th percentile per-packet one-way delay: 47.051 ms
Loss rate: 1.60%
```
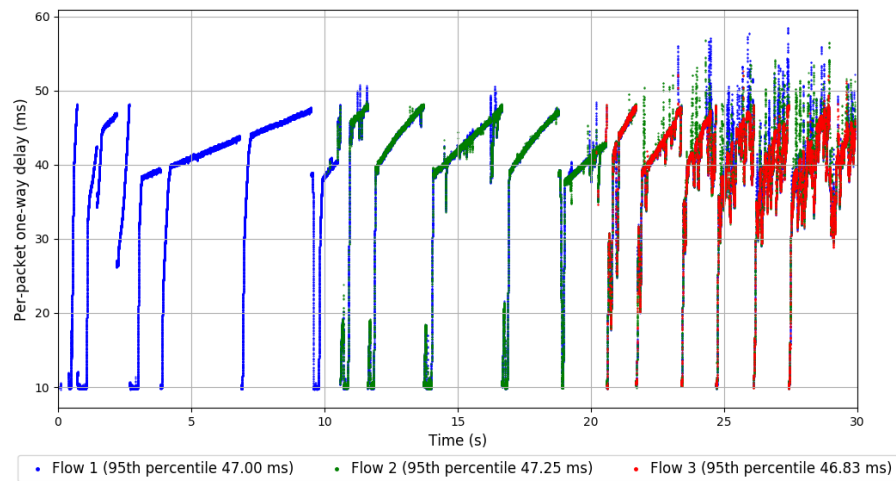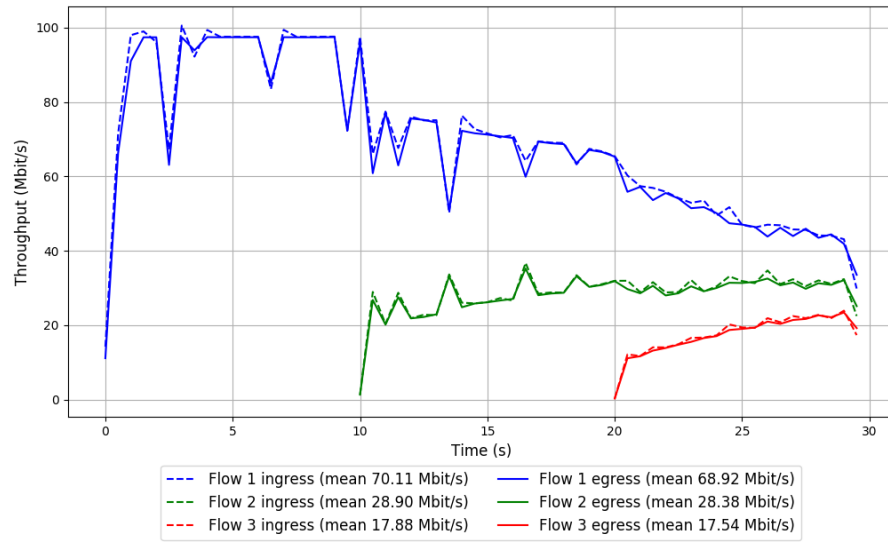
Run 8: Report of PCC — Data Link





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```
Run 9: Statistics of PCC

Start at: 2018-02-28 06:40:31
End at: 2018-02-28 06:41:01
Local clock offset: 1.142 ms
Remote clock offset: -6.439 ms


# Below is generated by plot.py at 2018-02-28 07:45:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.56 Mbit/s
95th percentile per-packet one-way delay: 40.419 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 77.14 Mbit/s
95th percentile per-packet one-way delay: 40.497 ms
Loss rate: 2.55%
-- Flow 2:
Average throughput: 17.85 Mbit/s
95th percentile per-packet one-way delay: 41.405 ms
Loss rate: 2.86%
-- Flow 3:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 18.115 ms
Loss rate: 0.00%
```
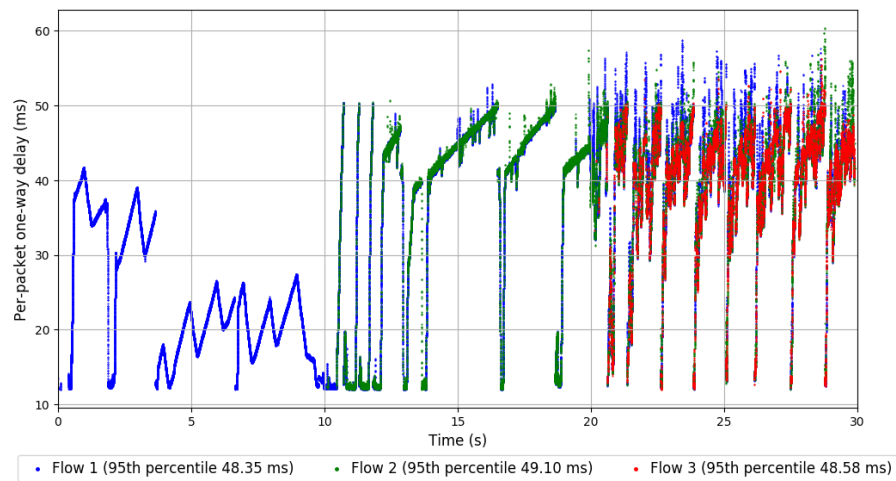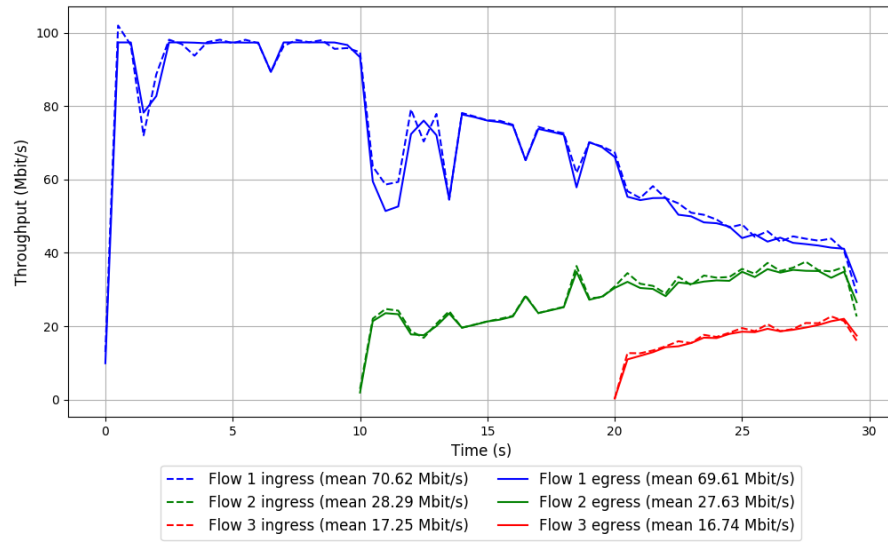
## Run 9: Report of PCC — Data Link



--- Flow 1 ingress (mean 79.16 Mbit/s)    —— Flow 1 egress (mean 77.14 Mbit/s)
--- Flow 2 ingress (mean 18.37 Mbit/s)    —— Flow 2 egress (mean 17.85 Mbit/s)
--- Flow 3 ingress (mean 4.80 Mbit/s)    —— Flow 3 egress (mean 4.79 Mbit/s)



• Flow 1 (95th percentile 40.50 ms)    • Flow 2 (95th percentile 41.41 ms)    • Flow 3 (95th percentile 18.11 ms)

```
Run 10: Statistics of PCC

Start at: 2018-02-28 07:02:06
End at: 2018-02-28 07:02:36
Local clock offset: 1.583 ms
Remote clock offset: -3.567 ms


# Below is generated by plot.py at 2018-02-28 07:45:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.54 Mbit/s
95th percentile per-packet one-way delay: 25.836 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 84.03 Mbit/s
95th percentile per-packet one-way delay: 23.811 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 31.891 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 43.143 ms
Loss rate: 1.07%
```
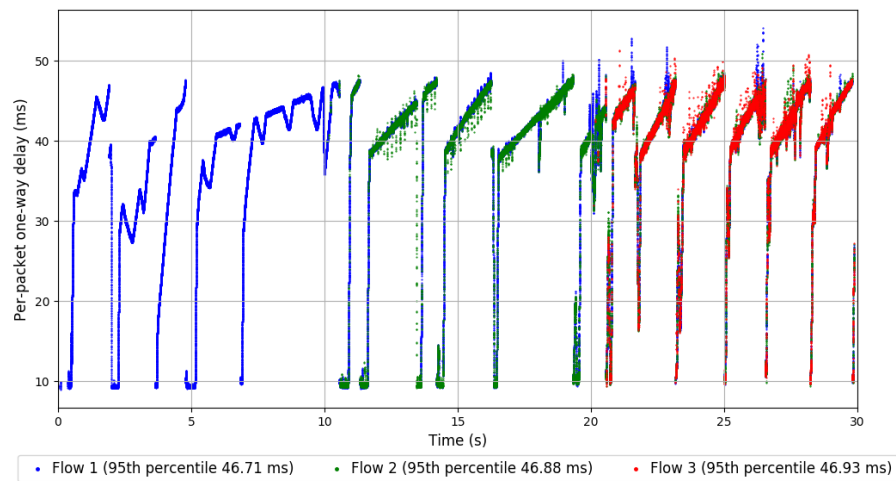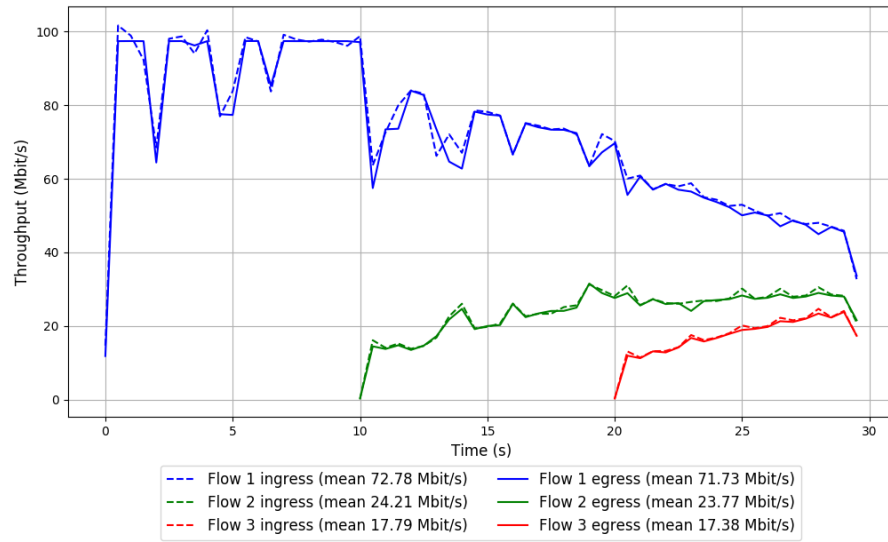
Run 10: Report of PCC — Data Link



Flow 1 ingress (mean 84.67 Mbit/s) ---- Flow 1 egress (mean 84.03 Mbit/s)
Flow 2 ingress (mean 5.40 Mbit/s) ---- Flow 2 egress (mean 5.37 Mbit/s)
Flow 3 ingress (mean 9.06 Mbit/s) ---- Flow 3 egress (mean 8.96 Mbit/s)



Flow 1 (95th percentile 23.81 ms)    Flow 2 (95th percentile 31.89 ms)    Flow 3 (95th percentile 43.14 ms)

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```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-28 03:46:56
End at: 2018-02-28 03:47:26
Local clock offset: 2.856 ms
Remote clock offset: 2.292 ms


# Below is generated by plot.py at 2018-02-28 07:46:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 49.003 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 68.23 Mbit/s
95th percentile per-packet one-way delay: 49.009 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 48.998 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 18.34 Mbit/s
95th percentile per-packet one-way delay: 48.917 ms
Loss rate: 2.33%
```
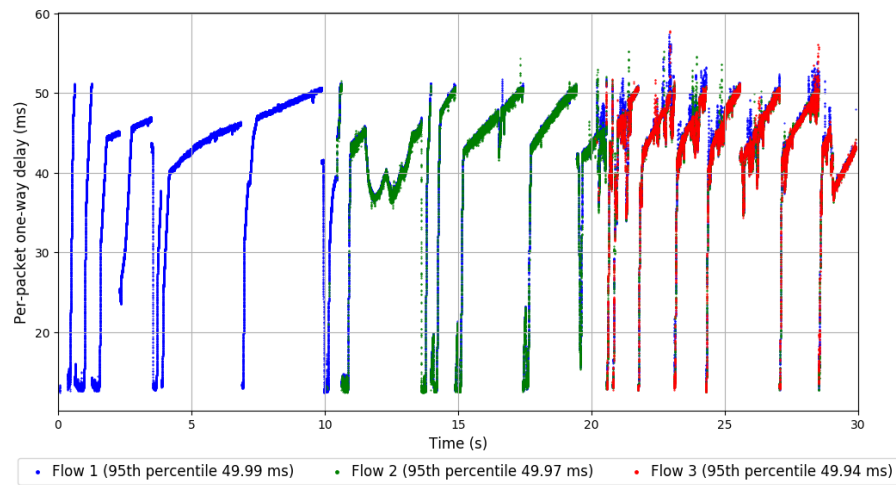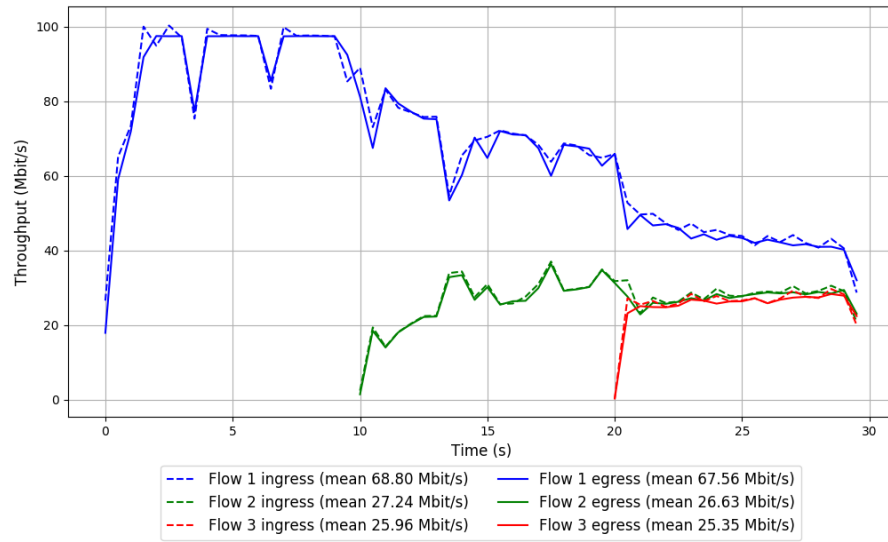
Run 1: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 69.64 Mbit/s) --- Flow 1 egress (mean 68.23 Mbit/s)
Flow 2 ingress (mean 29.31 Mbit/s) --- Flow 2 egress (mean 28.69 Mbit/s)
Flow 3 ingress (mean 18.78 Mbit/s) --- Flow 3 egress (mean 18.34 Mbit/s)



Flow 1 (95th percentile 49.01 ms)   Flow 2 (95th percentile 49.00 ms)   Flow 3 (95th percentile 48.92 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-28 04:08:27
End at: 2018-02-28 04:08:57
Local clock offset: 4.583 ms
Remote clock offset: 12.583 ms


# Below is generated by plot.py at 2018-02-28 07:46:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.41 Mbit/s
95th percentile per-packet one-way delay: 47.865 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 67.20 Mbit/s
95th percentile per-packet one-way delay: 47.942 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 27.67 Mbit/s
95th percentile per-packet one-way delay: 47.607 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 24.03 Mbit/s
95th percentile per-packet one-way delay: 47.540 ms
Loss rate: 1.57%
```
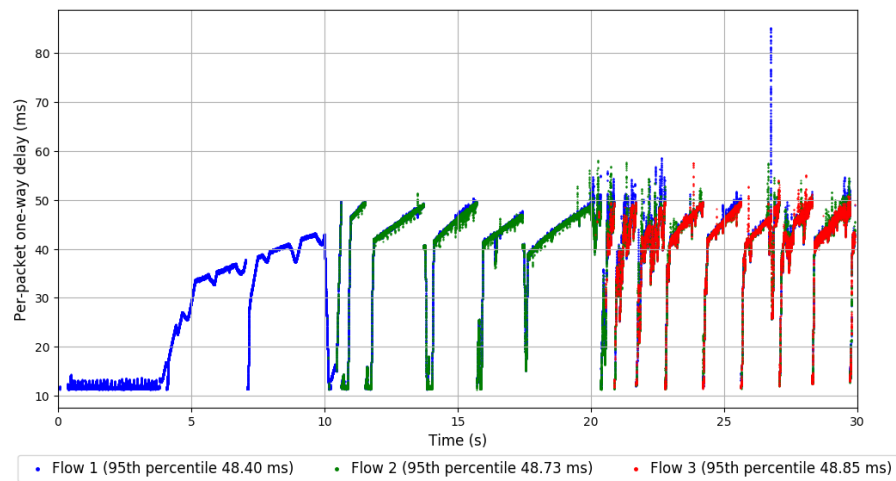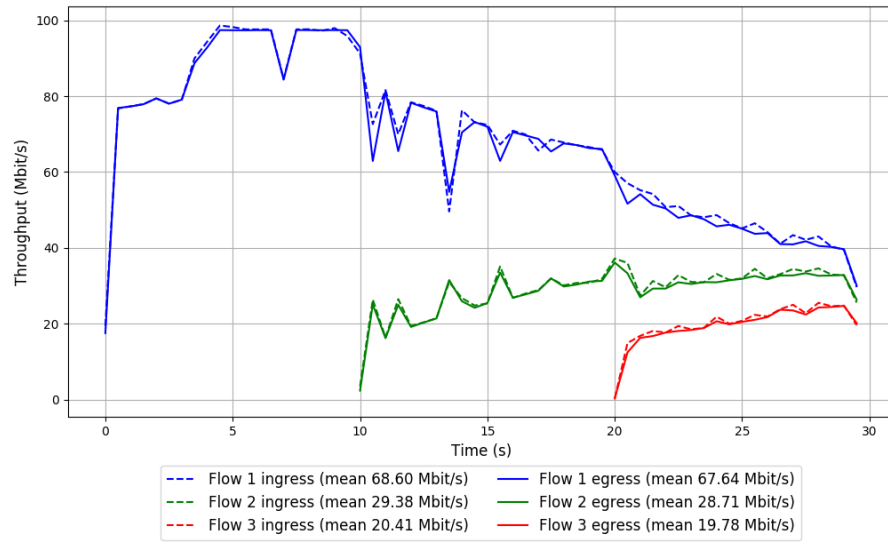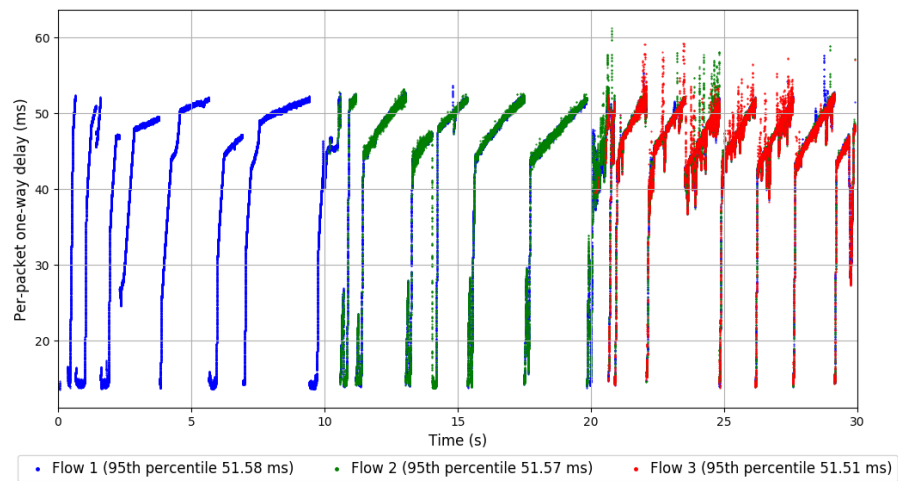
Run 2: Report of QUIC Cubic — Data Link



- - - Flow 1 ingress (mean 68.43 Mbit/s) ——— Flow 1 egress (mean 67.20 Mbit/s)
- - - Flow 2 ingress (mean 28.21 Mbit/s) ——— Flow 2 egress (mean 27.67 Mbit/s)
- - - Flow 3 ingress (mean 24.43 Mbit/s) ——— Flow 3 egress (mean 24.03 Mbit/s)



• Flow 1 (95th percentile 47.94 ms)    • Flow 2 (95th percentile 47.61 ms)    • Flow 3 (95th percentile 47.54 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-28 04:30:02
End at: 2018-02-28 04:30:32
Local clock offset: 4.505 ms
Remote clock offset: 16.208 ms


# Below is generated by plot.py at 2018-02-28 07:46:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.48 Mbit/s
95th percentile per-packet one-way delay: 47.036 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 68.92 Mbit/s
95th percentile per-packet one-way delay: 47.002 ms
Loss rate: 1.57%
-- Flow 2:
Average throughput: 28.38 Mbit/s
95th percentile per-packet one-way delay: 47.248 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 17.54 Mbit/s
95th percentile per-packet one-way delay: 46.826 ms
Loss rate: 1.88%
```
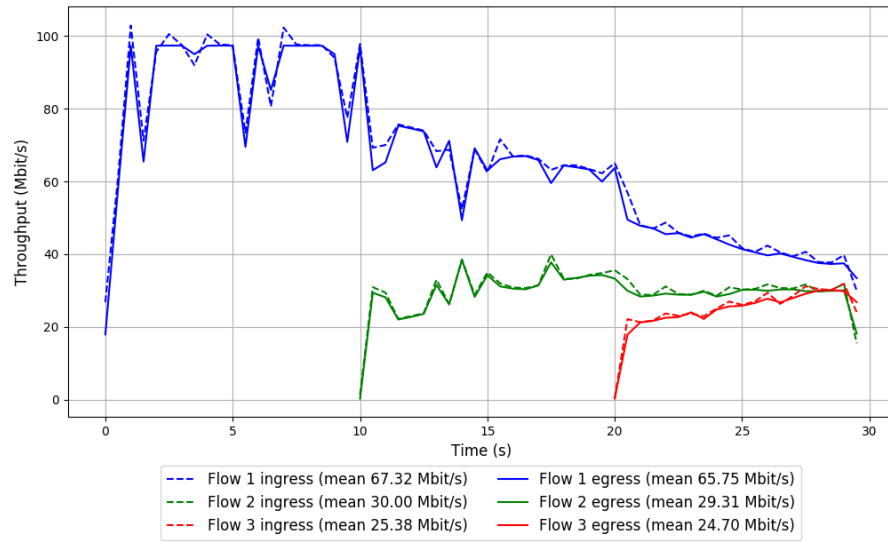
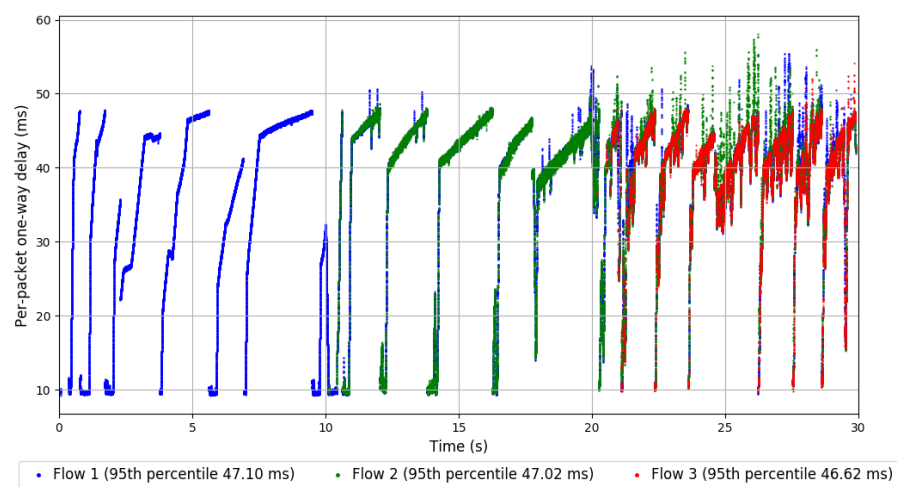Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-28 04:51:28
End at: 2018-02-28 04:51:58
Local clock offset: 2.498 ms
Remote clock offset: 21.019 ms


# Below is generated by plot.py at 2018-02-28 07:46:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.41 Mbit/s
95th percentile per-packet one-way delay: 48.540 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 69.61 Mbit/s
95th percentile per-packet one-way delay: 48.348 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 27.63 Mbit/s
95th percentile per-packet one-way delay: 49.097 ms
Loss rate: 2.17%
-- Flow 3:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: 48.580 ms
Loss rate: 2.89%
```
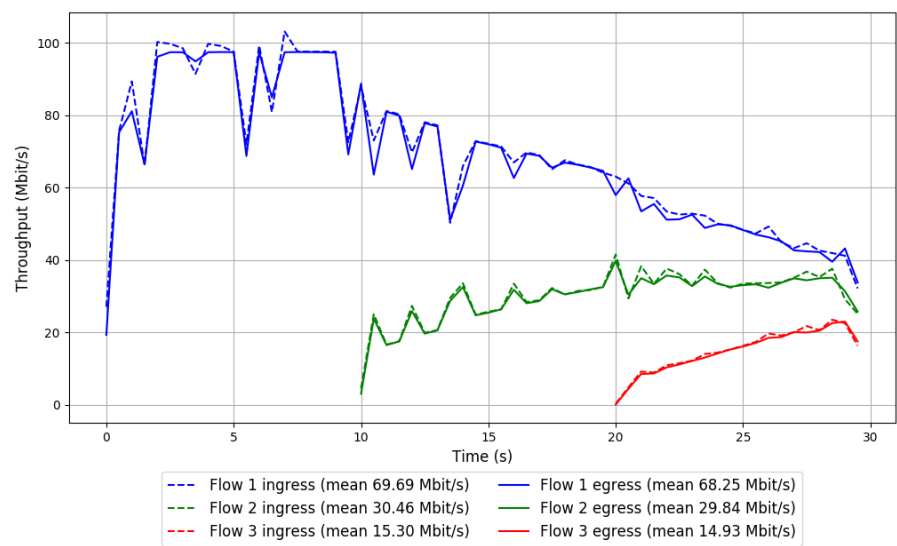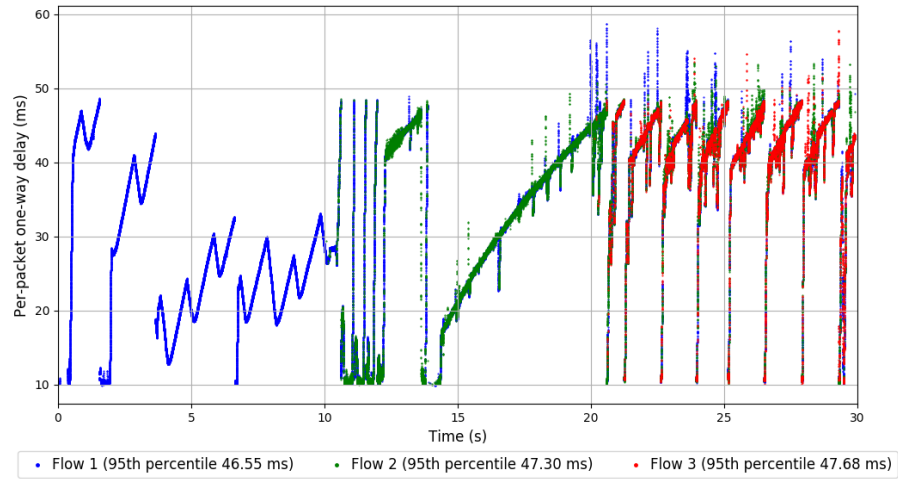
Run 4: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 70.62 Mbit/s) --- Flow 1 egress (mean 69.61 Mbit/s)
Flow 2 ingress (mean 28.29 Mbit/s) --- Flow 2 egress (mean 27.63 Mbit/s)
Flow 3 ingress (mean 17.25 Mbit/s) --- Flow 3 egress (mean 16.74 Mbit/s)



Flow 1 (95th percentile 48.35 ms)   Flow 2 (95th percentile 49.10 ms)   Flow 3 (95th percentile 48.58 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-28 05:12:50
End at: 2018-02-28 05:13:20
Local clock offset: 4.236 ms
Remote clock offset: -3.015 ms


# Below is generated by plot.py at 2018-02-28 07:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.16 Mbit/s
95th percentile per-packet one-way delay: 46.776 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 71.73 Mbit/s
95th percentile per-packet one-way delay: 46.706 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 23.77 Mbit/s
95th percentile per-packet one-way delay: 46.881 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 17.38 Mbit/s
95th percentile per-packet one-way delay: 46.933 ms
Loss rate: 2.32%
```
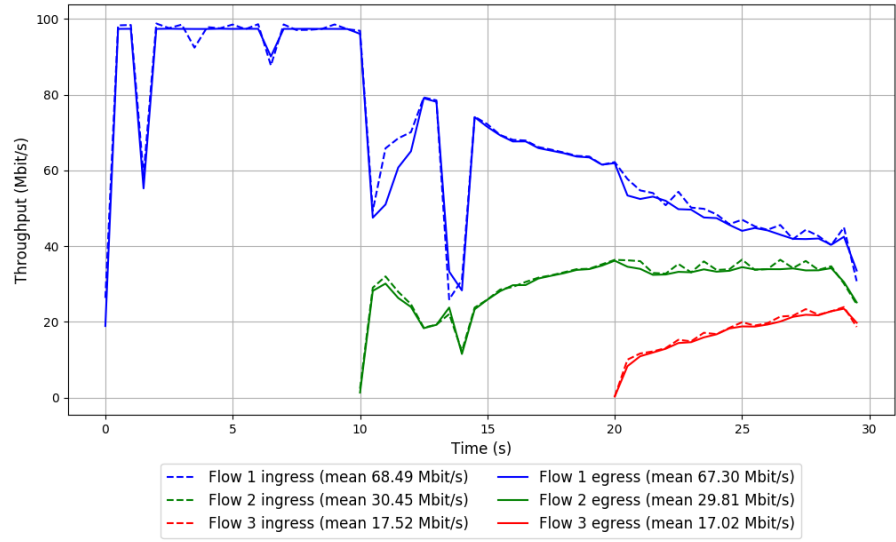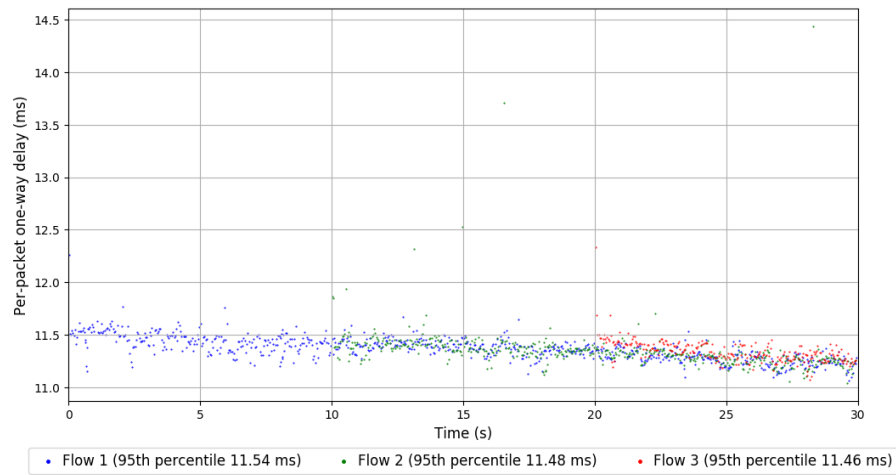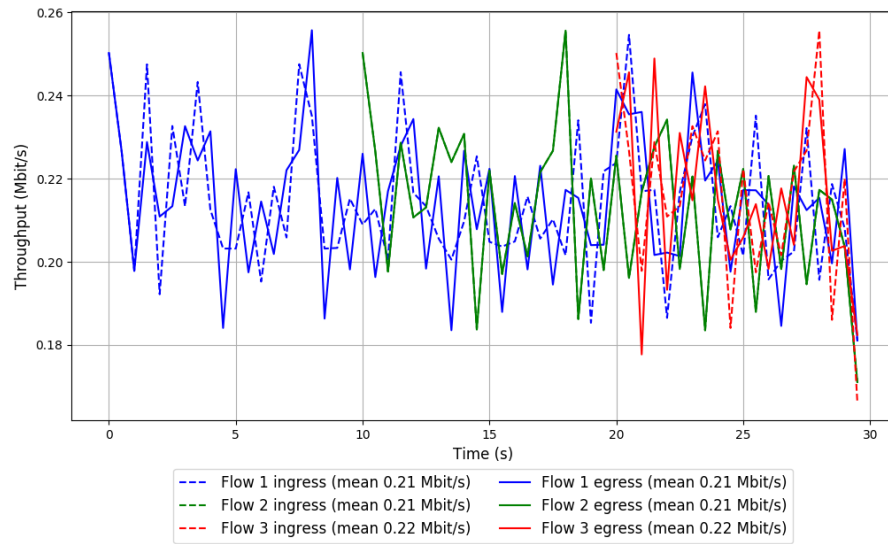
Run 5: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 72.78 Mbit/s) --- Flow 1 egress (mean 71.73 Mbit/s)
Flow 2 ingress (mean 24.21 Mbit/s) --- Flow 2 egress (mean 23.77 Mbit/s)
Flow 3 ingress (mean 17.79 Mbit/s) --- Flow 3 egress (mean 17.38 Mbit/s)



Flow 1 (95th percentile 46.71 ms)    Flow 2 (95th percentile 46.88 ms)    Flow 3 (95th percentile 46.93 ms)

93

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-28 05:34:07
End at: 2018-02-28 05:34:37
Local clock offset: 0.499 ms
Remote clock offset: -4.774 ms


# Below is generated by plot.py at 2018-02-28 07:46:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.51 Mbit/s
95th percentile per-packet one-way delay: 49.980 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 67.56 Mbit/s
95th percentile per-packet one-way delay: 49.987 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 26.63 Mbit/s
95th percentile per-packet one-way delay: 49.972 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 49.943 ms
Loss rate: 2.34%
```
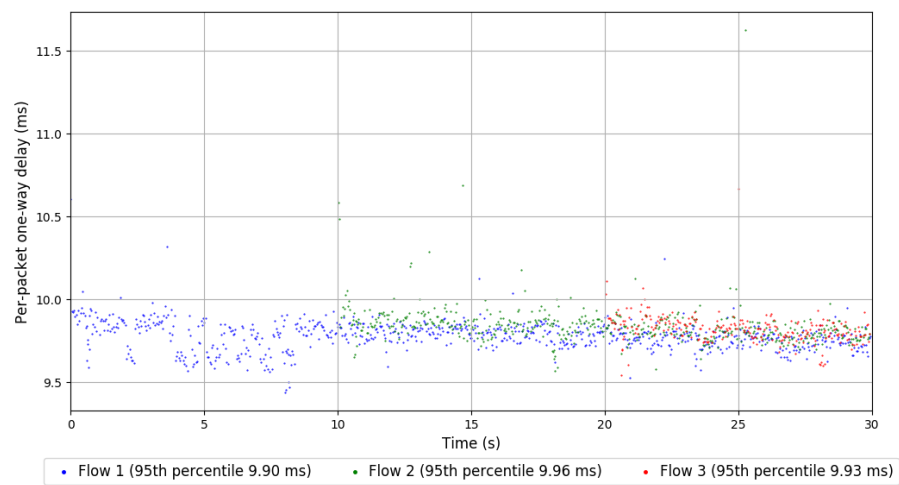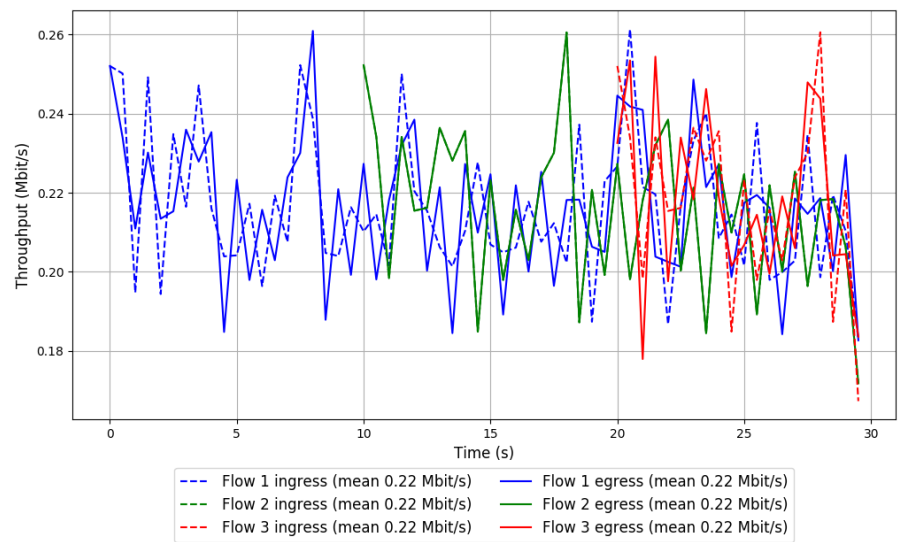
Run 6: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 68.80 Mbit/s) --- Flow 1 egress (mean 67.56 Mbit/s) ---
Flow 2 ingress (mean 27.24 Mbit/s) --- Flow 2 egress (mean 26.63 Mbit/s) ---
Flow 3 ingress (mean 25.96 Mbit/s) --- Flow 3 egress (mean 25.35 Mbit/s) ---



• Flow 1 (95th percentile 49.99 ms)  • Flow 2 (95th percentile 49.97 ms)  • Flow 3 (95th percentile 49.94 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-28 05:55:36
End at: 2018-02-28 05:56:06
Local clock offset: 1.701 ms
Remote clock offset: -4.551 ms


# Below is generated by plot.py at 2018-02-28 07:46:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.11 Mbit/s
95th percentile per-packet one-way delay: 48.502 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 67.64 Mbit/s
95th percentile per-packet one-way delay: 48.398 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 28.71 Mbit/s
95th percentile per-packet one-way delay: 48.732 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 19.78 Mbit/s
95th percentile per-packet one-way delay: 48.848 ms
Loss rate: 3.01%
```

Run 7: Report of QUIC Cubic — Data Link



- - - Flow 1 ingress (mean 68.60 Mbit/s) —— Flow 1 egress (mean 67.64 Mbit/s)
- - - Flow 2 ingress (mean 29.38 Mbit/s) —— Flow 2 egress (mean 28.71 Mbit/s)
- - - Flow 3 ingress (mean 20.41 Mbit/s) —— Flow 3 egress (mean 19.78 Mbit/s)



• Flow 1 (95th percentile 48.40 ms)    • Flow 2 (95th percentile 48.73 ms)    • Flow 3 (95th percentile 48.85 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-28 06:16:50
End at: 2018-02-28 06:17:20
Local clock offset: -0.567 ms
Remote clock offset: -5.691 ms


# Below is generated by plot.py at 2018-02-28 07:46:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 51.577 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 65.75 Mbit/s
95th percentile per-packet one-way delay: 51.584 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 29.31 Mbit/s
95th percentile per-packet one-way delay: 51.569 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 51.513 ms
Loss rate: 2.47%
```
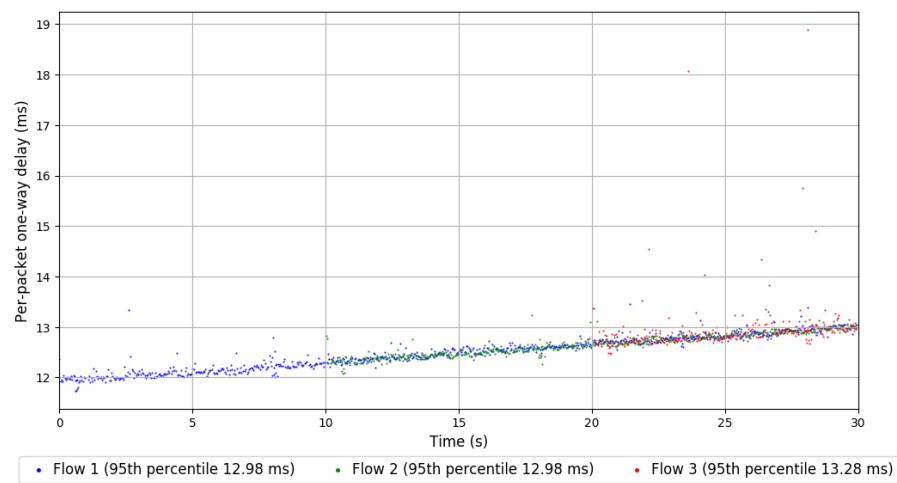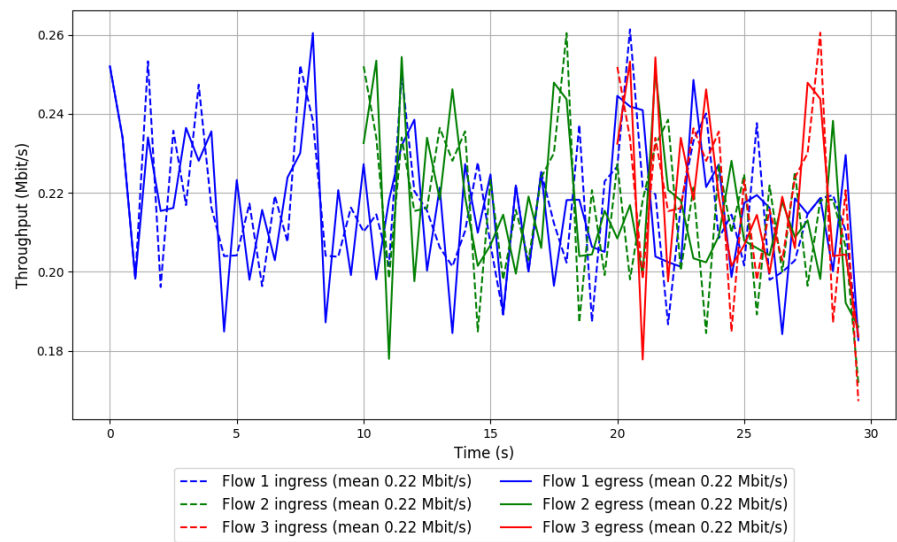
Run 8: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 67.32 Mbit/s) — — — Flow 1 egress (mean 65.75 Mbit/s)
Flow 2 ingress (mean 30.00 Mbit/s) — — — Flow 2 egress (mean 29.31 Mbit/s)
Flow 3 ingress (mean 25.38 Mbit/s) — — — Flow 3 egress (mean 24.70 Mbit/s)



Flow 1 (95th percentile 51.58 ms)    Flow 2 (95th percentile 51.57 ms)    Flow 3 (95th percentile 51.51 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-28 06:38:11
End at: 2018-02-28 06:38:41
Local clock offset: 4.201 ms
Remote clock offset: -6.756 ms


# Below is generated by plot.py at 2018-02-28 07:47:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.90 Mbit/s
95th percentile per-packet one-way delay: 47.068 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 68.25 Mbit/s
95th percentile per-packet one-way delay: 47.099 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 29.84 Mbit/s
95th percentile per-packet one-way delay: 47.018 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 46.620 ms
Loss rate: 2.39%
```

Run 9: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 69.69 Mbit/s) --- Flow 1 egress (mean 68.25 Mbit/s)
Flow 2 ingress (mean 30.46 Mbit/s) --- Flow 2 egress (mean 29.84 Mbit/s)
Flow 3 ingress (mean 15.30 Mbit/s) --- Flow 3 egress (mean 14.93 Mbit/s)



Flow 1 (95th percentile 47.10 ms)    Flow 2 (95th percentile 47.02 ms)    Flow 3 (95th percentile 46.62 ms)

101

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-28 06:59:38
End at: 2018-02-28 07:00:08
Local clock offset: 4.649 ms
Remote clock offset: -3.291 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 46.851 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 67.30 Mbit/s
95th percentile per-packet one-way delay: 46.547 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 47.298 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 17.02 Mbit/s
95th percentile per-packet one-way delay: 47.683 ms
Loss rate: 2.85%
```

Run 10: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 68.49 Mbit/s) --- Flow 1 egress (mean 67.30 Mbit/s)
Flow 2 ingress (mean 30.45 Mbit/s) --- Flow 2 egress (mean 29.81 Mbit/s)
Flow 3 ingress (mean 17.52 Mbit/s) --- Flow 3 egress (mean 17.02 Mbit/s)



Flow 1 (95th percentile 46.55 ms)     Flow 2 (95th percentile 47.30 ms)     Flow 3 (95th percentile 47.68 ms)
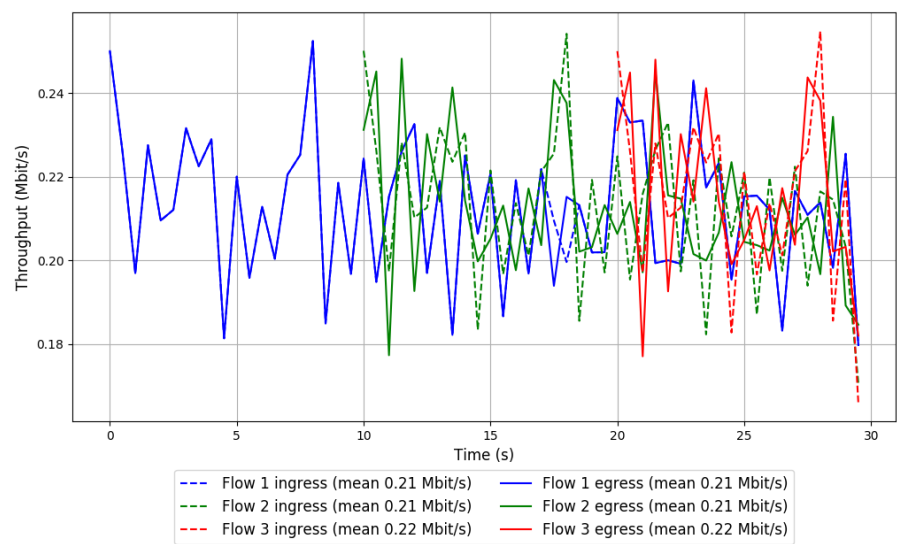
```
Run 1: Statistics of SCReAM

Start at: 2018-02-28 03:51:38
End at: 2018-02-28 03:52:08
Local clock offset: 3.709 ms
Remote clock offset: 6.273 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 11.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.544 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.481 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.465 ms
Loss rate: 0.00%
```

# Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-02-28 04:13:15
End at: 2018-02-28 04:13:45
Local clock offset: 5.189 ms
Remote clock offset: 13.497 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 9.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 9.902 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 9.960 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 9.926 ms
Loss rate: 0.00%
```
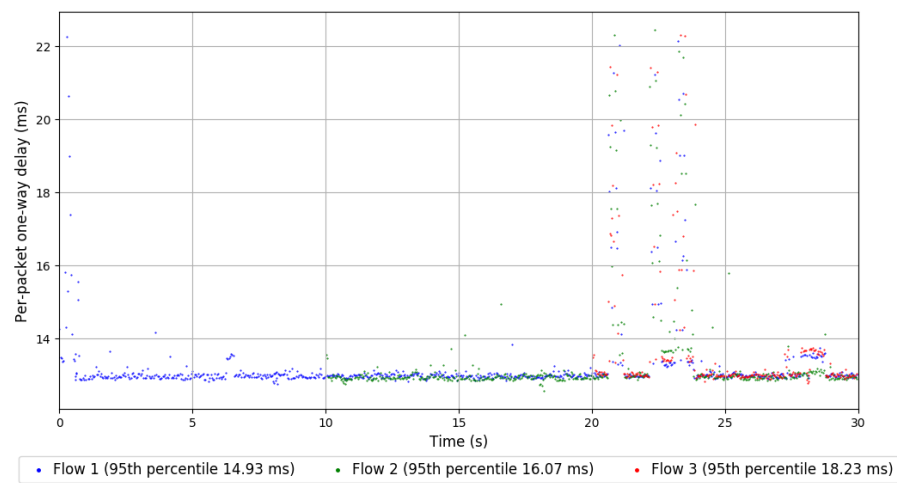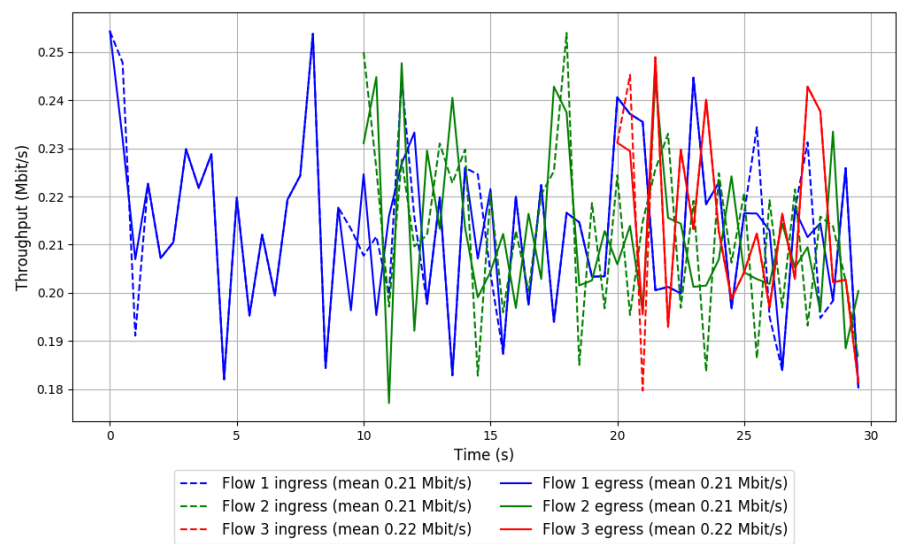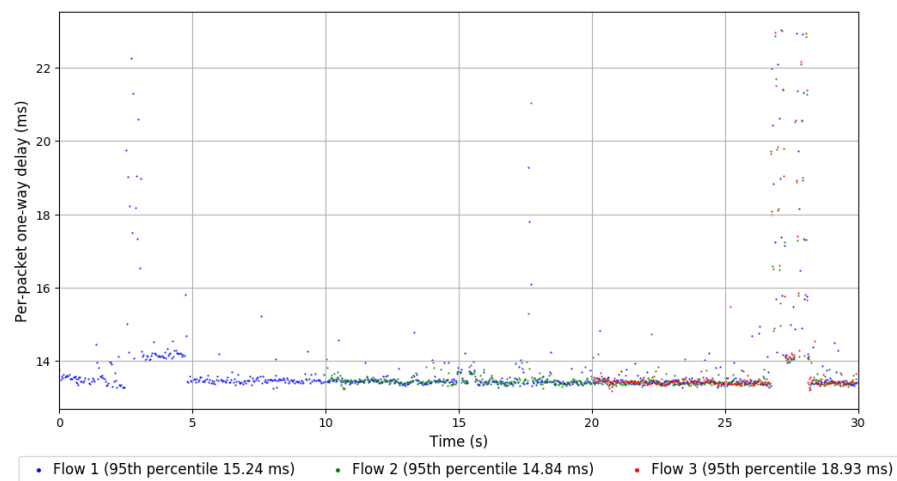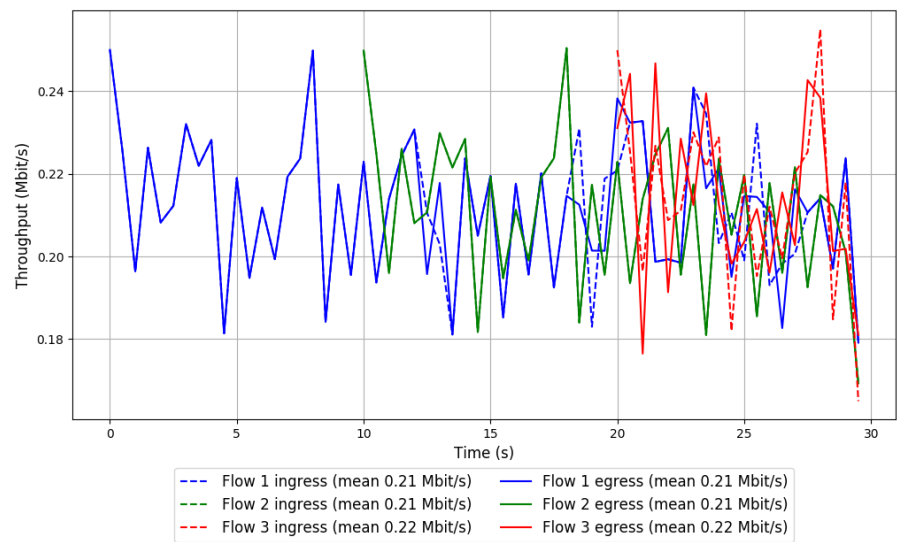
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-02-28 04:34:49
End at: 2018-02-28 04:35:19
Local clock offset: 2.65 ms
Remote clock offset: 17.364 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 12.356 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.379 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.303 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.313 ms
Loss rate: 0.00%
```
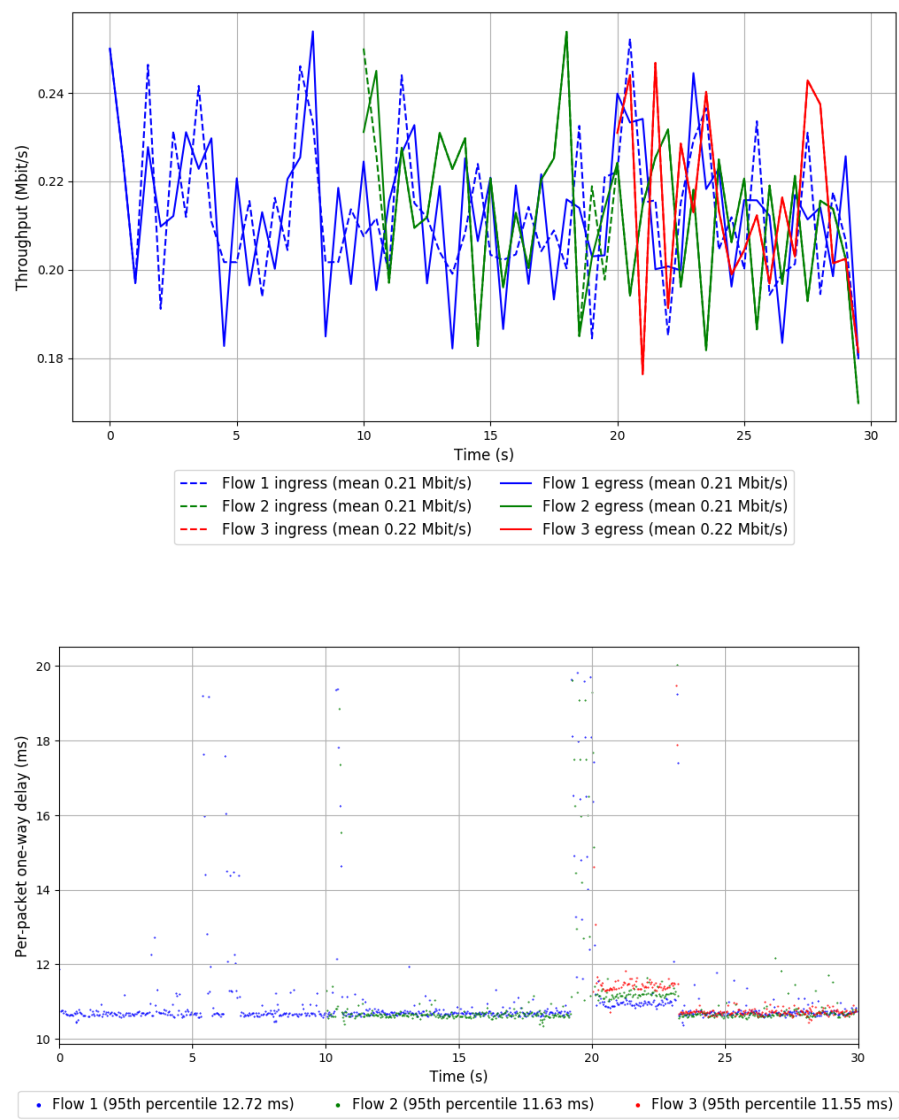
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-02-28 04:56:14
End at: 2018-02-28 04:56:44
Local clock offset: 3.512 ms
Remote clock offset: 17.163 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 13.027 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.980 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.977 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 13.278 ms
Loss rate: 0.00%
```

# Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-02-28 05:17:38
End at: 2018-02-28 05:18:08
Local clock offset: 3.946 ms
Remote clock offset: -4.956 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 10.089 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.045 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 9.944 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 10.358 ms
Loss rate: 0.00%
```
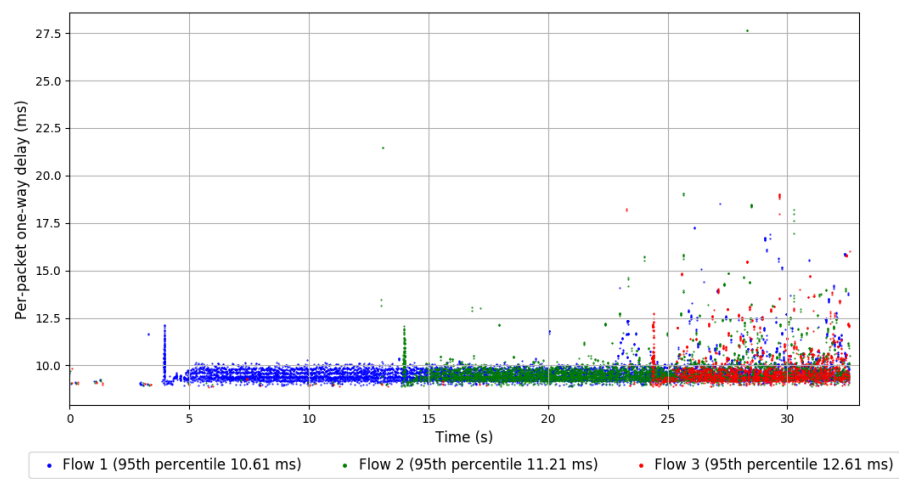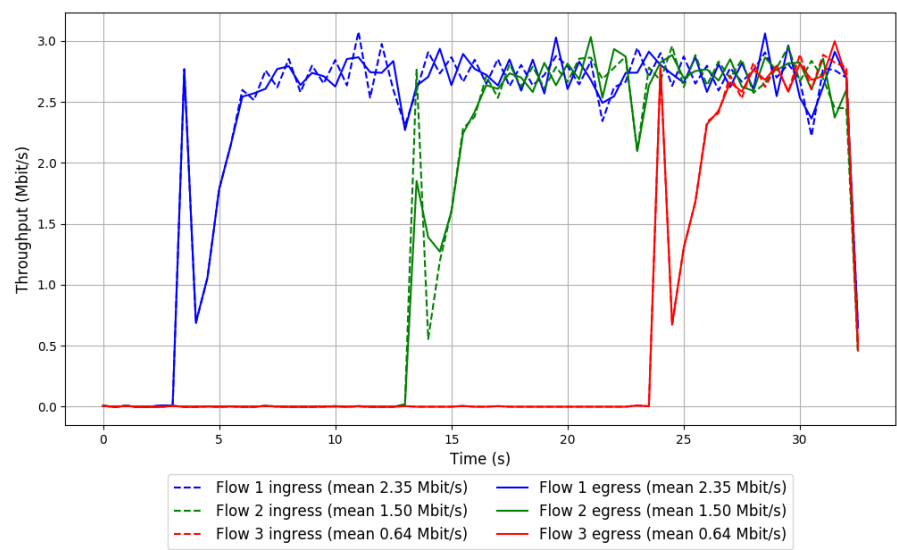
## Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-02-28 05:38:57
End at: 2018-02-28 05:39:27
Local clock offset: 3.209 ms
Remote clock offset: -3.738 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 10.671 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.443 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.863 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 10.233 ms
Loss rate: 0.00%
```
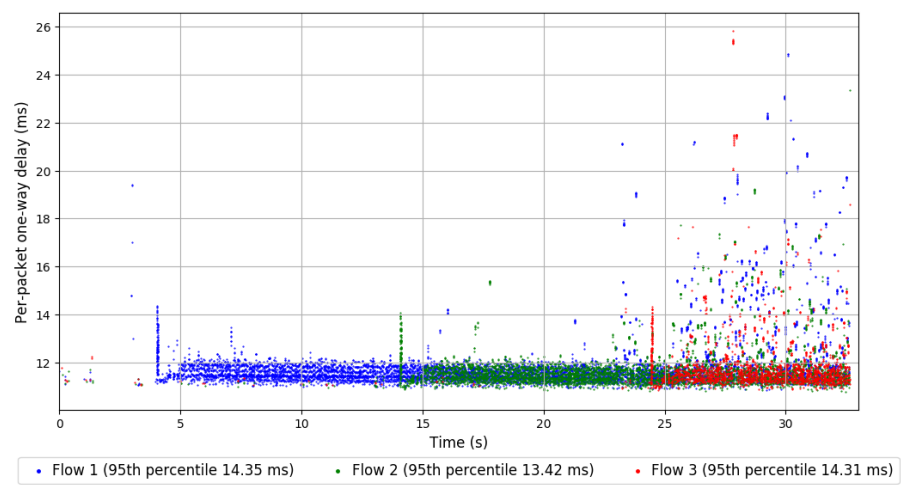
Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2018-02-28 06:00:16
End at: 2018-02-28 06:00:46
Local clock offset: 0.223 ms
Remote clock offset: -4.948 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 15.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 16.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 13.388 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 15.548 ms
Loss rate: 0.00%
```
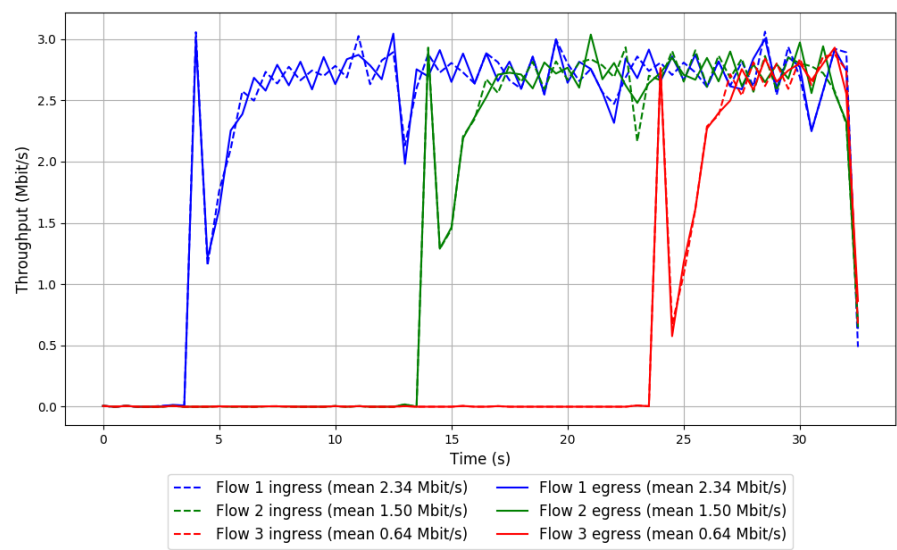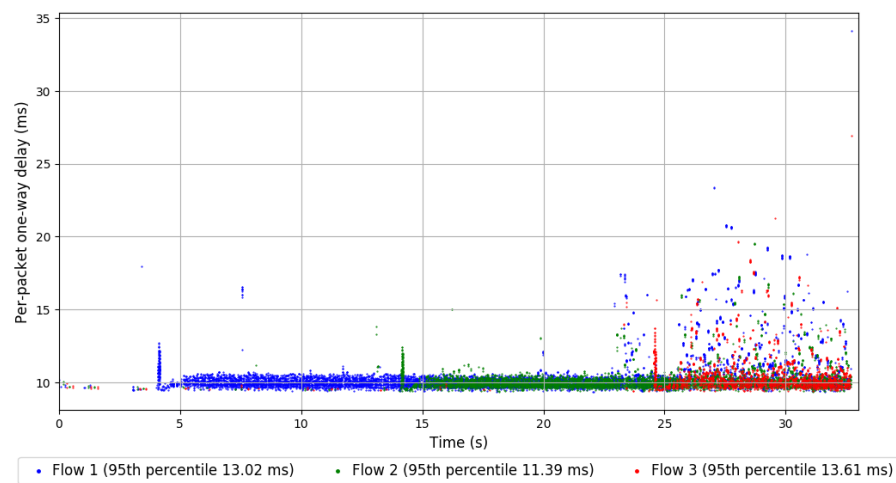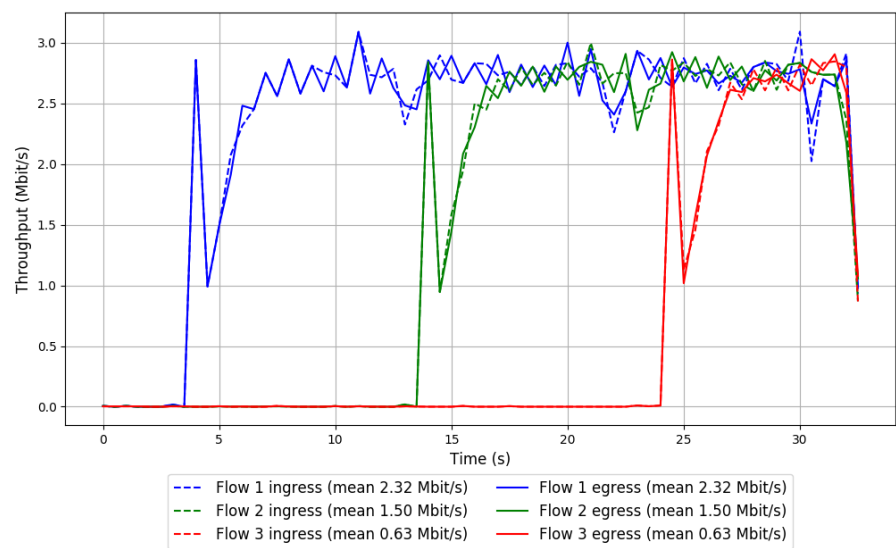
Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2018-02-28 06:21:31
End at: 2018-02-28 06:22:01
Local clock offset: 0.478 ms
Remote clock offset: -6.03 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 16.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 14.934 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 16.065 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 18.230 ms
Loss rate: 0.00%
```
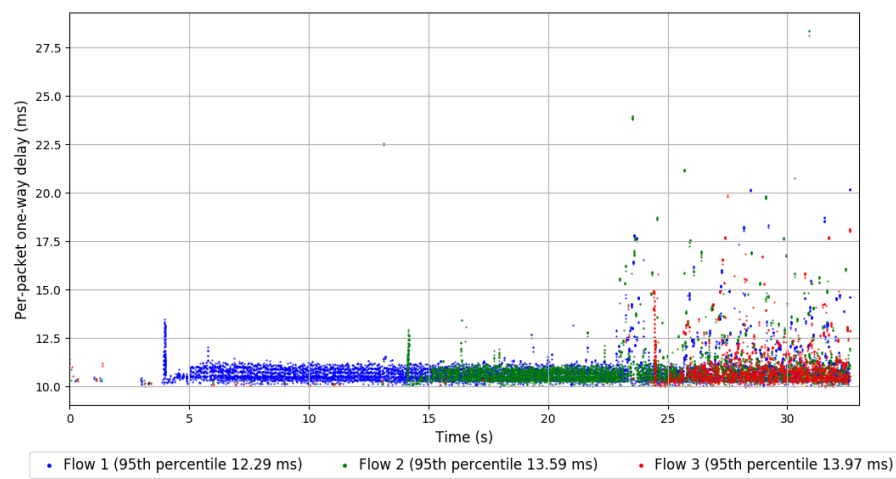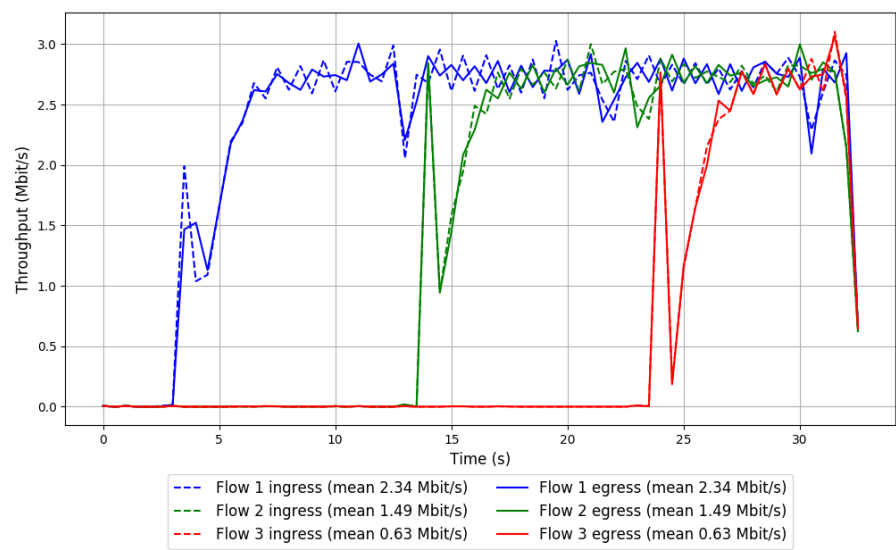
Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2018-02-28 06:42:52
End at: 2018-02-28 06:43:22
Local clock offset: -0.585 ms
Remote clock offset: -6.147 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 15.814 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 15.240 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 14.835 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 18.934 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-02-28 07:04:29
End at: 2018-02-28 07:04:59
Local clock offset: 4.798 ms
Remote clock offset: -2.956 ms

# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 11.871 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.725 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.630 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.555 ms
Loss rate: 0.00%
```
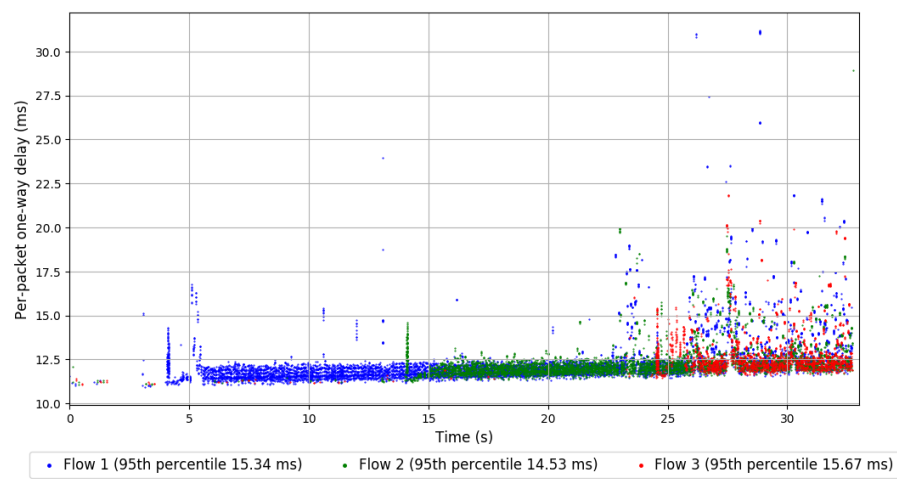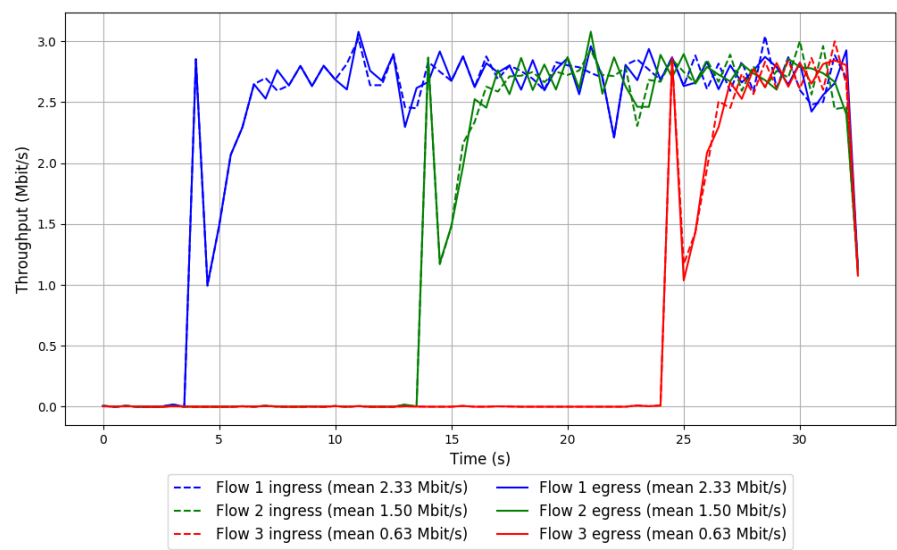
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-02-28 03:34:59
End at: 2018-02-28 03:35:29
Local clock offset: 4.39 ms
Remote clock offset: 0.125 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 11.244 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 10.609 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 11.214 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 12.612 ms
Loss rate: 0.00%
```
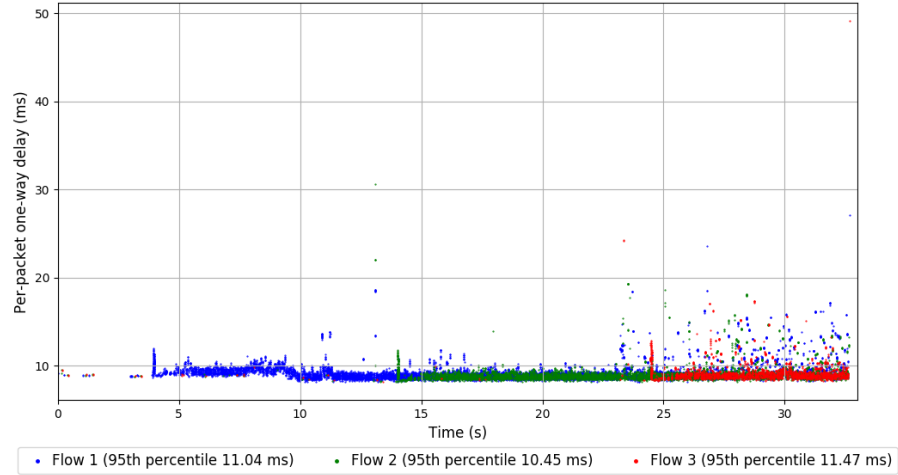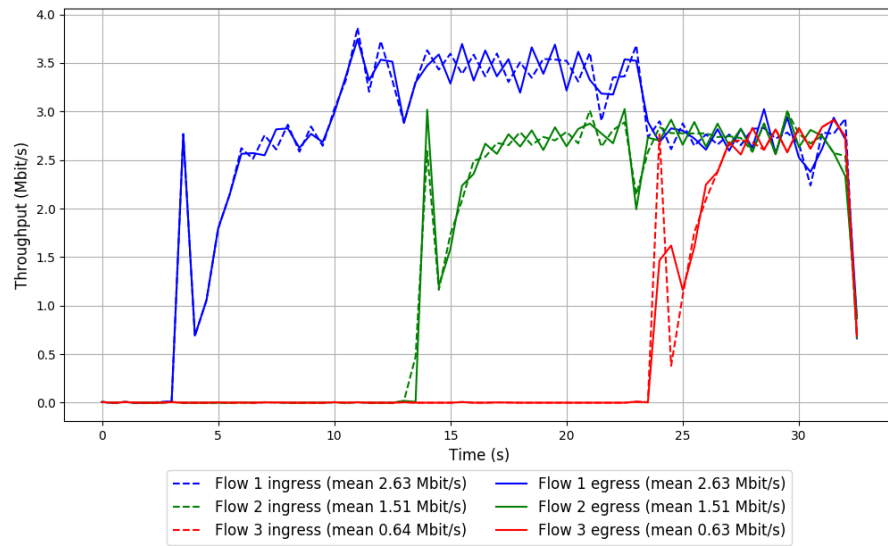
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-02-28 03:56:30
End at: 2018-02-28 03:57:00
Local clock offset: 4.522 ms
Remote clock offset: 9.59 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 13.990 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 14.351 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 13.418 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 14.313 ms
Loss rate: 0.00%
```
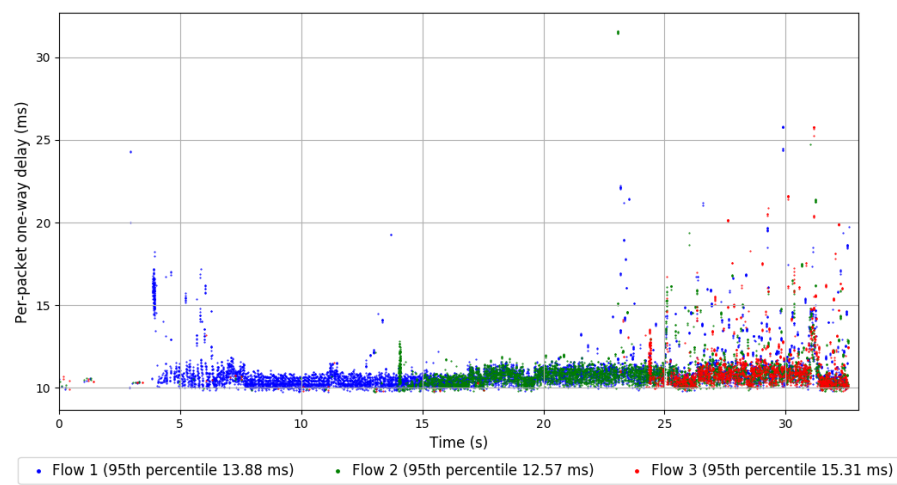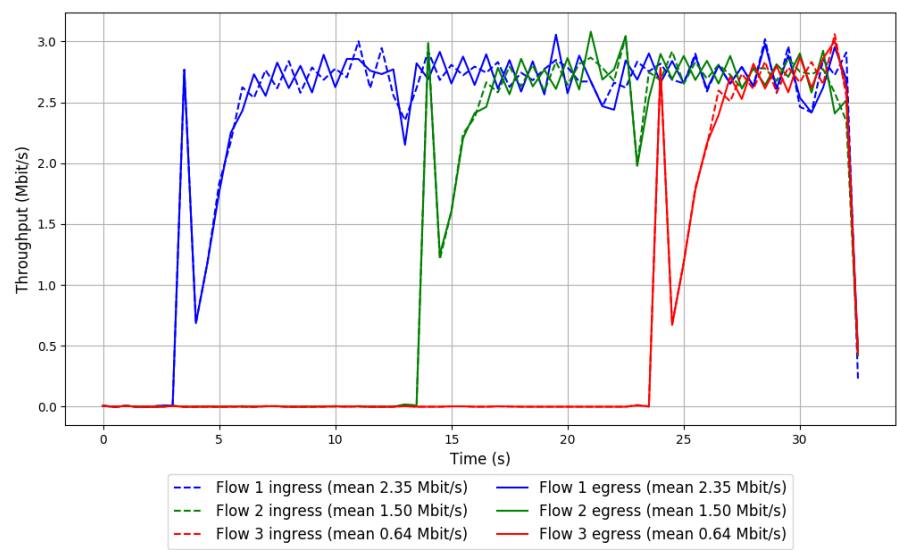
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-02-28 04:18:01
End at: 2018-02-28 04:18:31
Local clock offset: 5.81 ms
Remote clock offset: 15.205 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.43 Mbit/s
95th percentile per-packet one-way delay: 12.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 13.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 11.387 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 13.614 ms
Loss rate: 0.00%
```
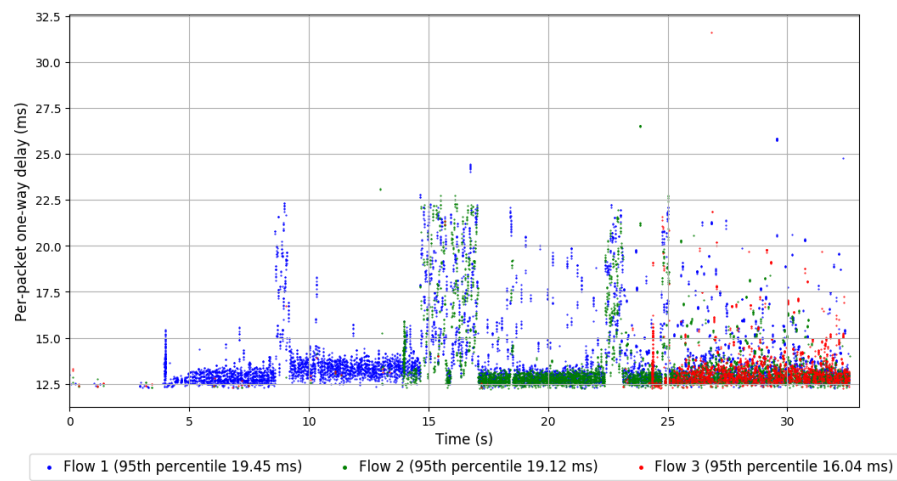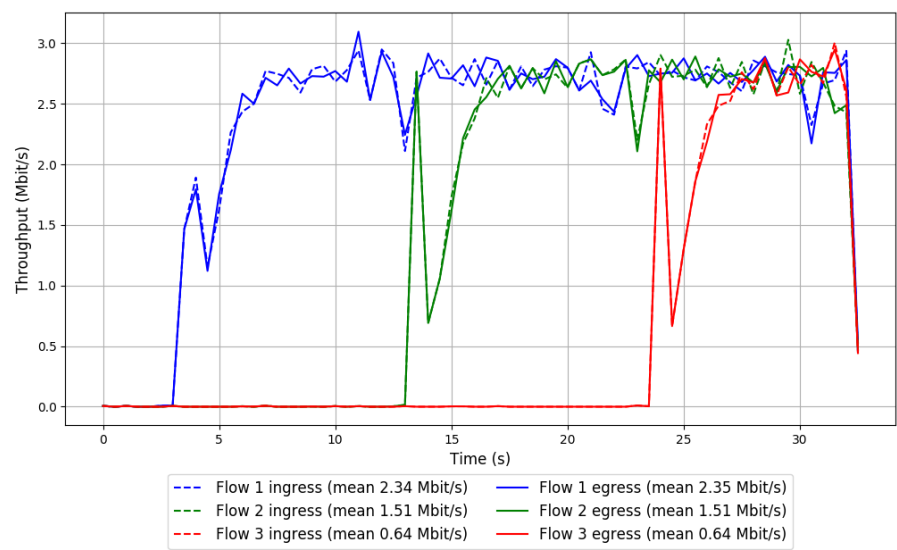
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-02-28 04:39:28
End at: 2018-02-28 04:39:58
Local clock offset: 4.496 ms
Remote clock offset: 18.485 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 12.898 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 12.287 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 13.585 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 13.967 ms
Loss rate: 0.00%
```
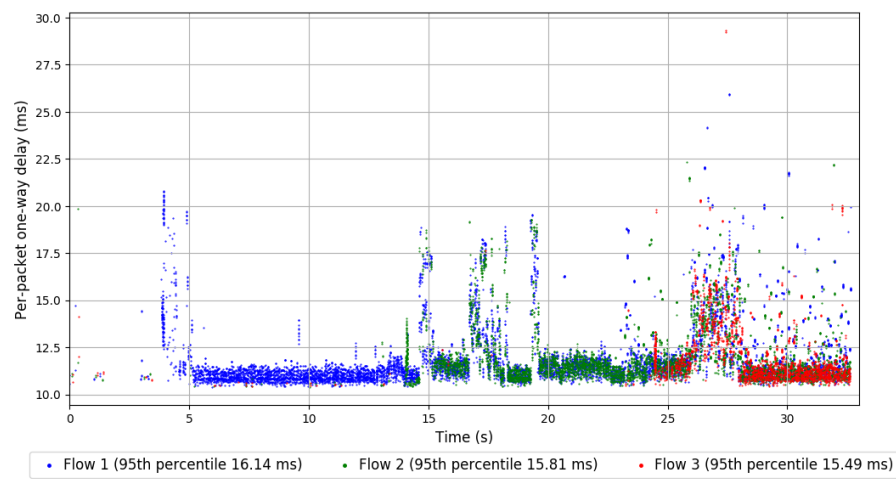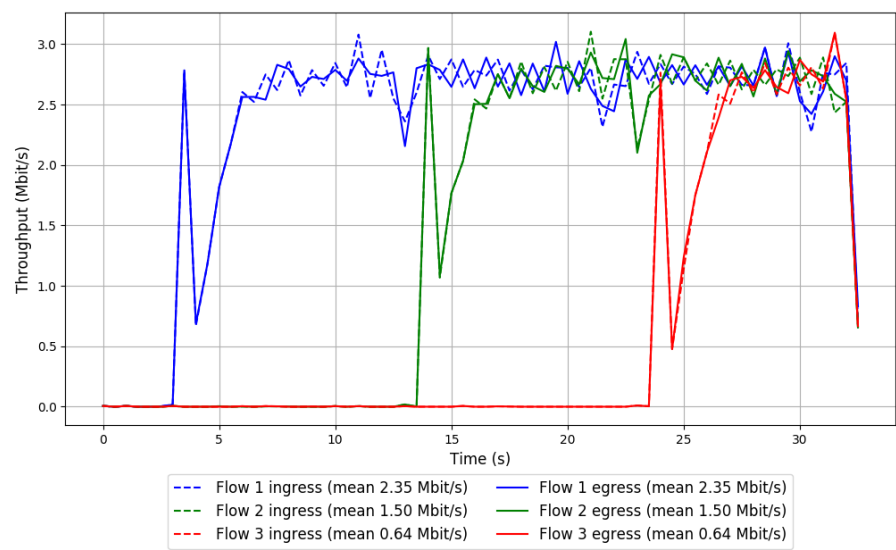
## Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-02-28 05:00:55
End at: 2018-02-28 05:01:25
Local clock offset: 3.89 ms
Remote clock offset: 8.711 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 15.126 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 15.341 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 14.529 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 15.669 ms
Loss rate: 0.00%
```
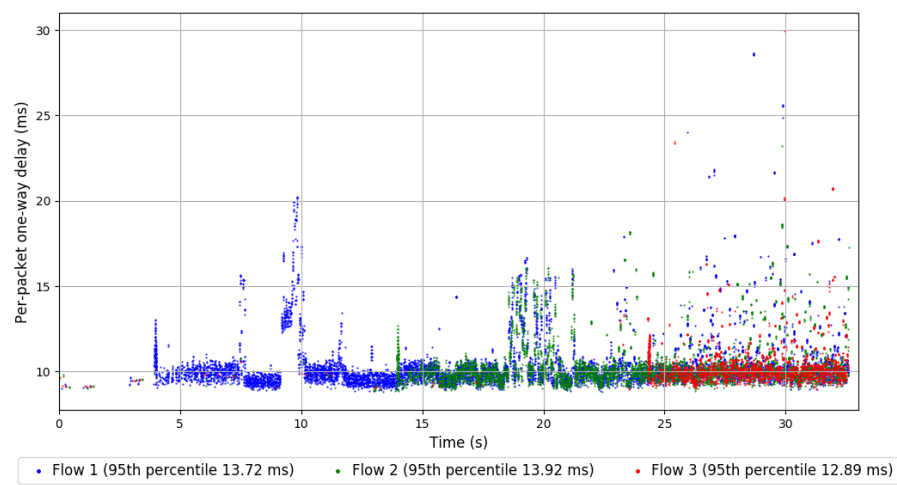
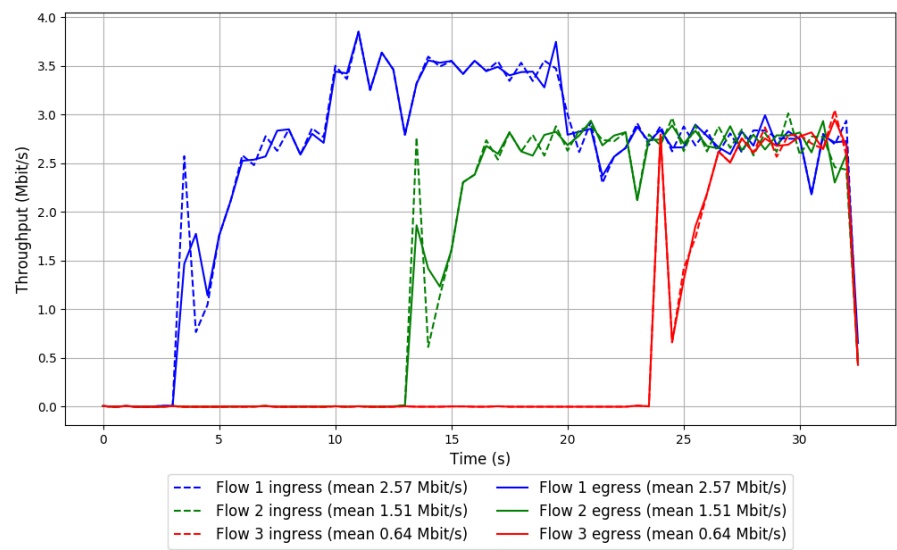Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-02-28 05:22:16
End at: 2018-02-28 05:22:46
Local clock offset: 3.795 ms
Remote clock offset: -6.847 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 11.009 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 11.043 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 10.452 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 11.469 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-02-28 05:43:41
End at: 2018-02-28 05:44:11
Local clock offset: 2.716 ms
Remote clock offset: -3.847 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 13.698 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 13.881 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 12.570 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 15.314 ms
Loss rate: 0.00%
```
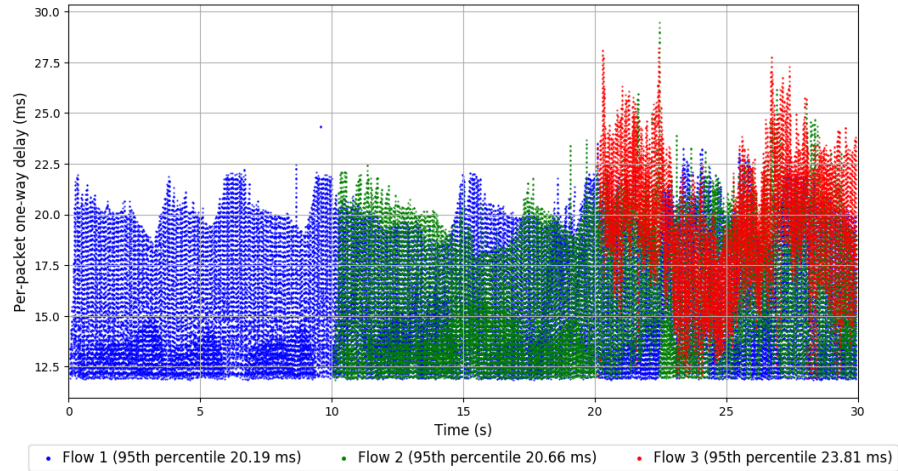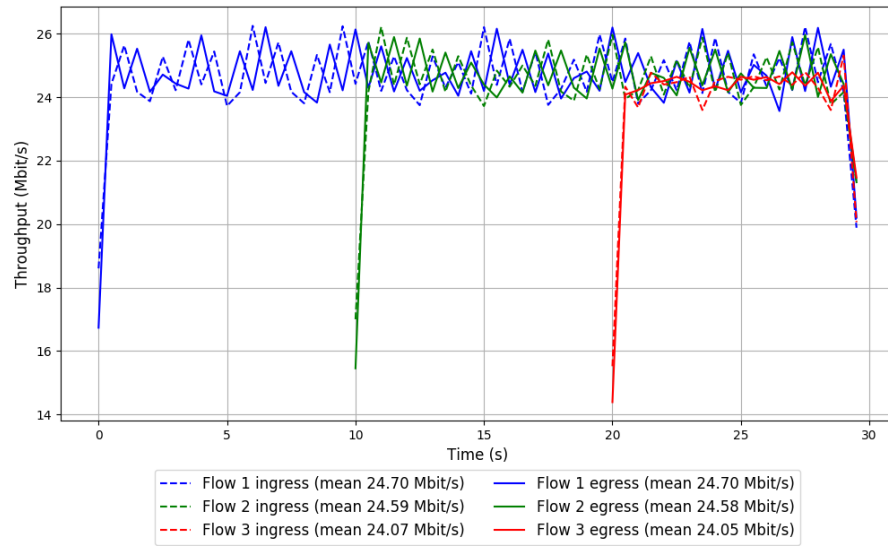
Run 7: Report of WebRTC media — Data Link



Flow 1 ingress (mean 2.35 Mbit/s) --- Flow 1 egress (mean 2.35 Mbit/s)
Flow 2 ingress (mean 1.50 Mbit/s) --- Flow 2 egress (mean 1.50 Mbit/s)
Flow 3 ingress (mean 0.64 Mbit/s) --- Flow 3 egress (mean 0.64 Mbit/s)



Flow 1 (95th percentile 13.88 ms)    Flow 2 (95th percentile 12.57 ms)    Flow 3 (95th percentile 15.31 ms)

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```
Run 8: Statistics of WebRTC media

Start at: 2018-02-28 06:04:57
End at: 2018-02-28 06:05:27
Local clock offset: 0.302 ms
Remote clock offset: -5.348 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 19.051 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 19.455 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 19.125 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 16.044 ms
Loss rate: 0.00%
```
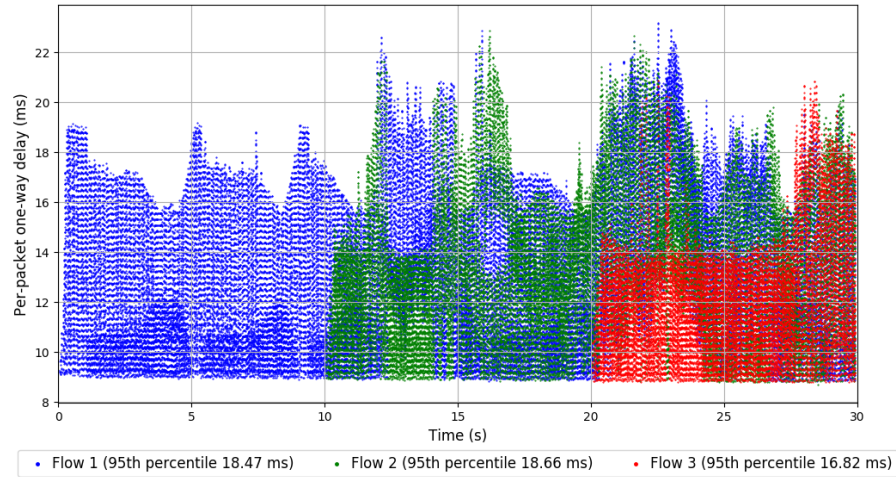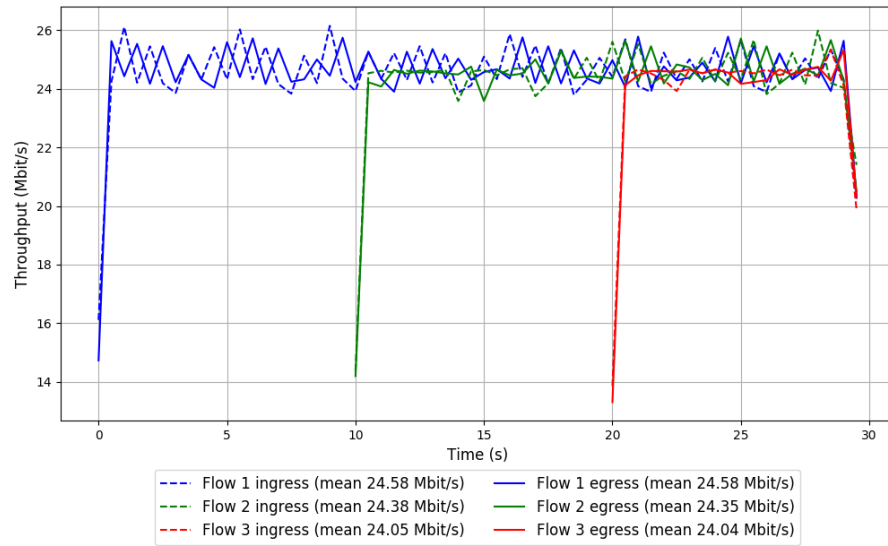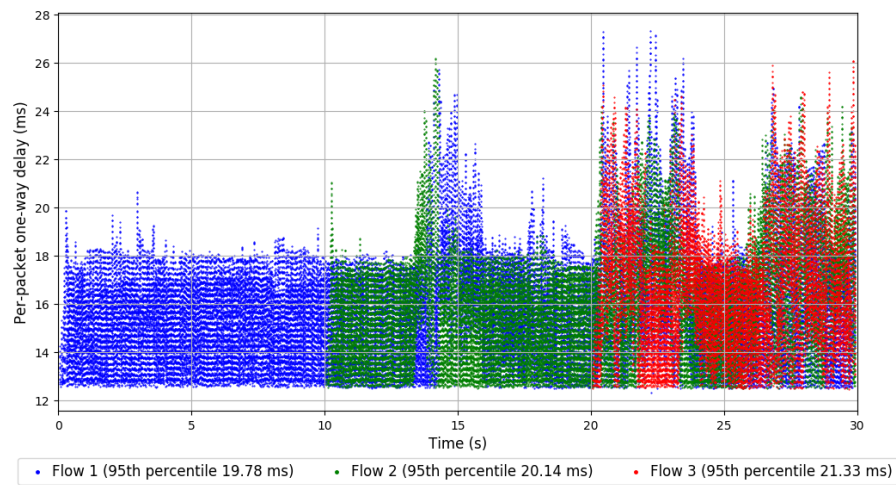
Run 8: Report of WebRTC media — Data Link
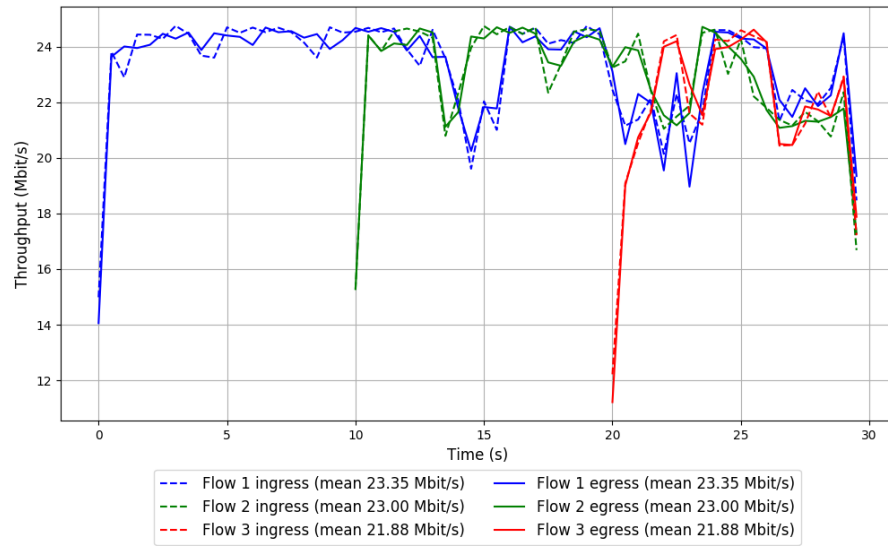
```
Run 9: Statistics of WebRTC media

Start at: 2018-02-28 06:26:12
End at: 2018-02-28 06:26:42
Local clock offset: 1.719 ms
Remote clock offset: -7.403 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 15.879 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 16.137 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 15.813 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 15.495 ms
Loss rate: 0.00%
```

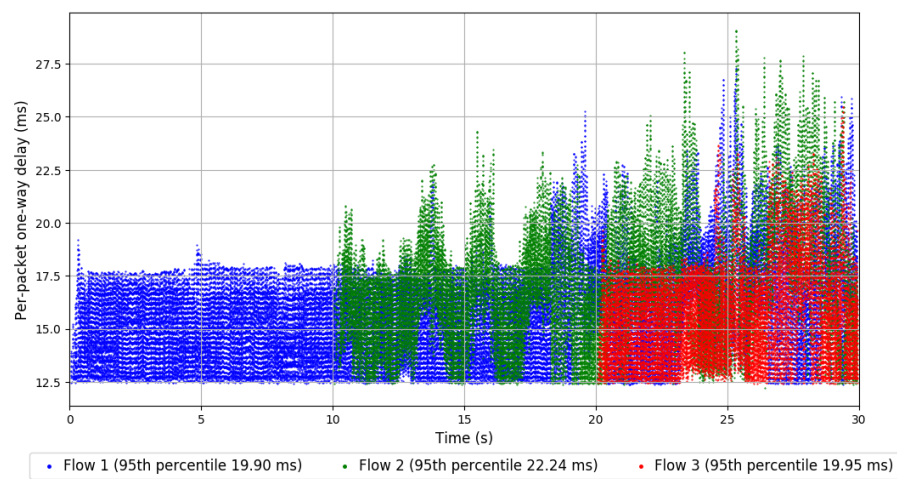Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-02-28 06:47:34
End at: 2018-02-28 06:48:04
Local clock offset: 4.512 ms
Remote clock offset: -4.568 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.71 Mbit/s
95th percentile per-packet one-way delay: 13.659 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 13.724 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 13.921 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 12.890 ms
Loss rate: 0.00%
```
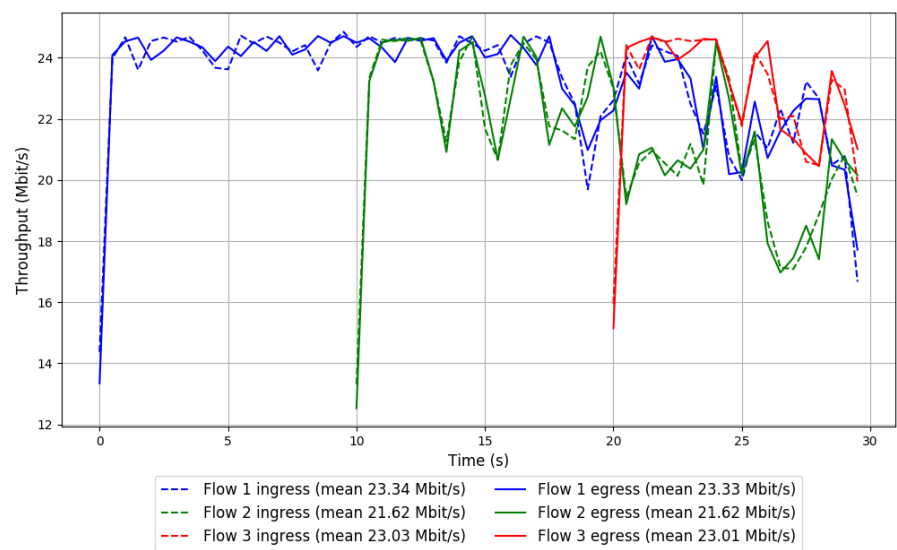
Run 10: Report of WebRTC media — Data Link



Flow 1 ingress (mean 2.57 Mbit/s) — Flow 1 egress (mean 2.57 Mbit/s)
Flow 2 ingress (mean 1.51 Mbit/s) — Flow 2 egress (mean 1.51 Mbit/s)
Flow 3 ingress (mean 0.64 Mbit/s) — Flow 3 egress (mean 0.64 Mbit/s)



Flow 1 (95th percentile 13.72 ms)    Flow 2 (95th percentile 13.92 ms)    Flow 3 (95th percentile 12.89 ms)

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```
Run 1: Statistics of Sprout

Start at: 2018-02-28 03:37:19
End at: 2018-02-28 03:37:49
Local clock offset: 2.138 ms
Remote clock offset: 0.556 ms

# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.98 Mbit/s
95th percentile per-packet one-way delay: 21.496 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 20.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 20.659 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 23.809 ms
Loss rate: 0.00%
```
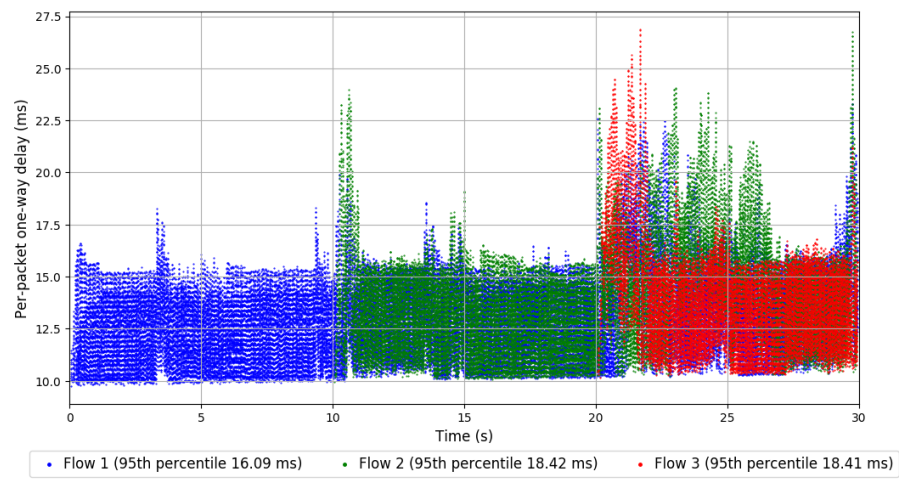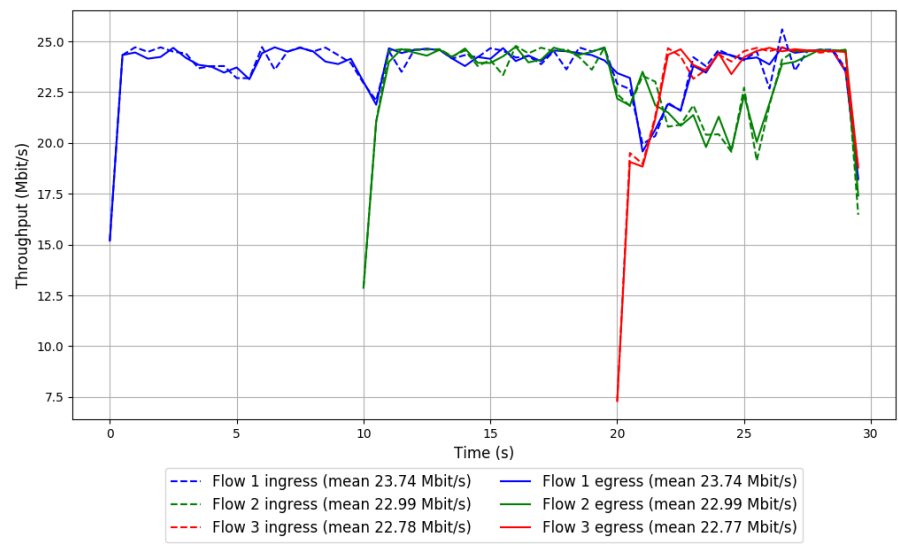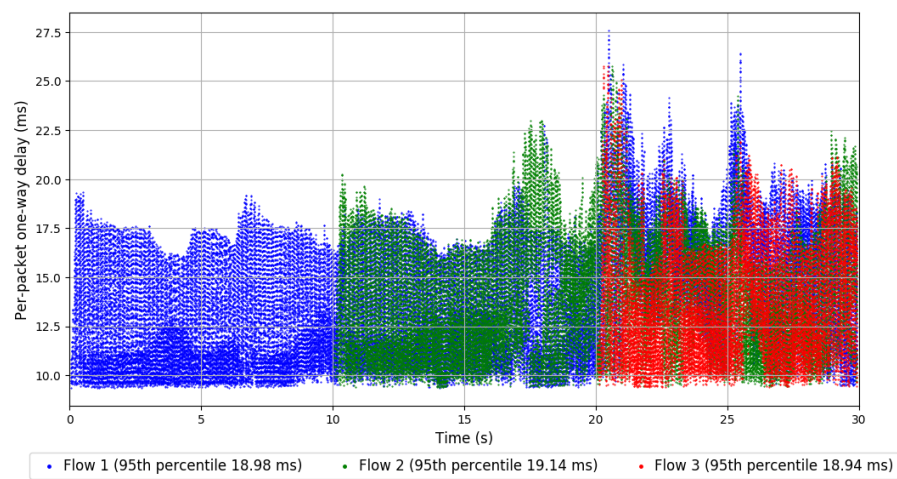
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-02-28 03:58:53
End at: 2018-02-28 03:59:23
Local clock offset: 5.709 ms
Remote clock offset: 9.413 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.72 Mbit/s
95th percentile per-packet one-way delay: 18.357 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 18.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.35 Mbit/s
95th percentile per-packet one-way delay: 18.665 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 24.04 Mbit/s
95th percentile per-packet one-way delay: 16.821 ms
Loss rate: 0.00%
```
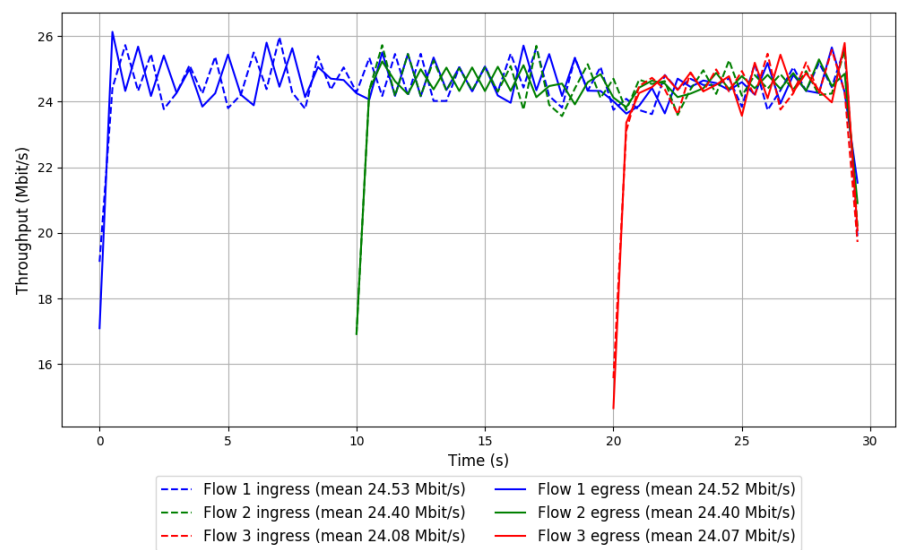
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-02-28 04:20:22
End at: 2018-02-28 04:20:52
Local clock offset: 2.54 ms
Remote clock offset: 15.162 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.88 Mbit/s
95th percentile per-packet one-way delay: 20.302 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.35 Mbit/s
95th percentile per-packet one-way delay: 19.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.00 Mbit/s
95th percentile per-packet one-way delay: 20.135 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.88 Mbit/s
95th percentile per-packet one-way delay: 21.333 ms
Loss rate: 0.00%
```
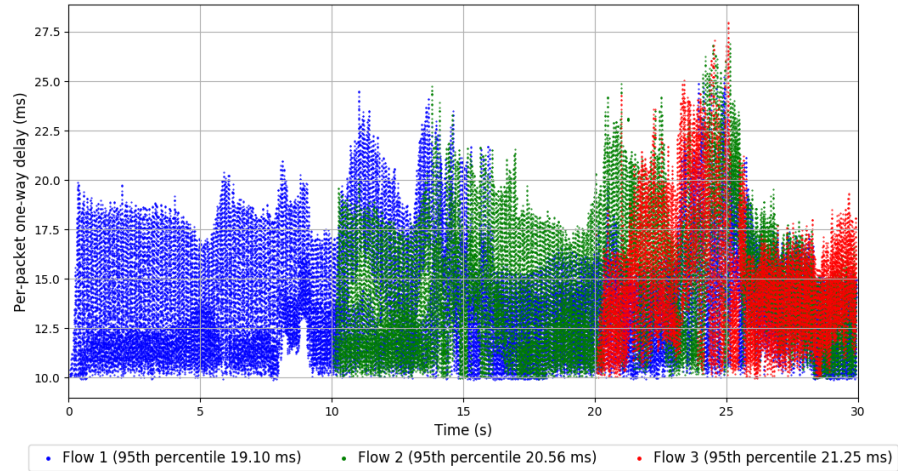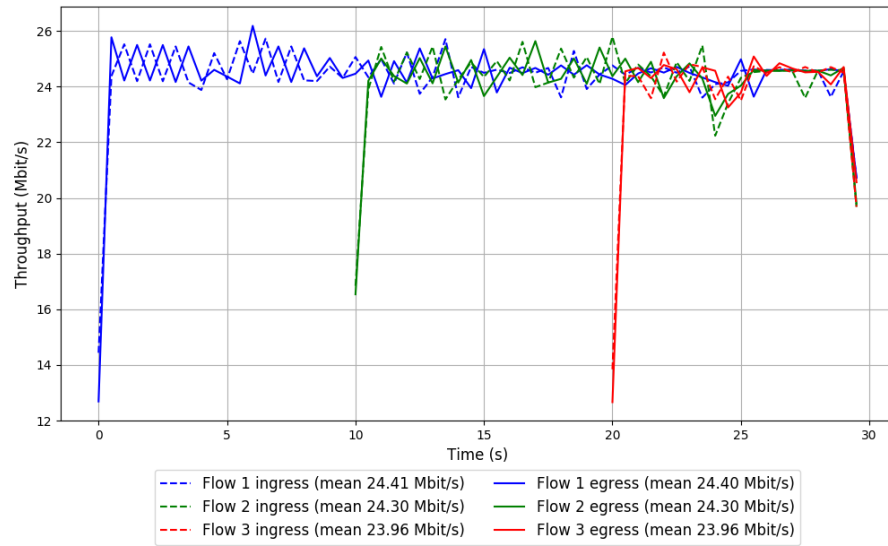
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-02-28 04:41:50
End at: 2018-02-28 04:42:20
Local clock offset: 3.136 ms
Remote clock offset: 19.822 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.31 Mbit/s
95th percentile per-packet one-way delay: 20.889 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.33 Mbit/s
95th percentile per-packet one-way delay: 19.898 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.62 Mbit/s
95th percentile per-packet one-way delay: 22.240 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.01 Mbit/s
95th percentile per-packet one-way delay: 19.947 ms
Loss rate: 0.00%
```
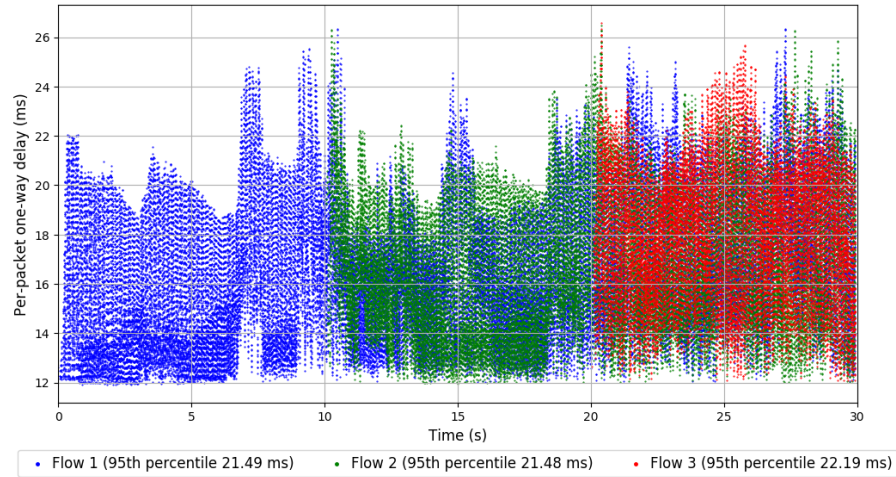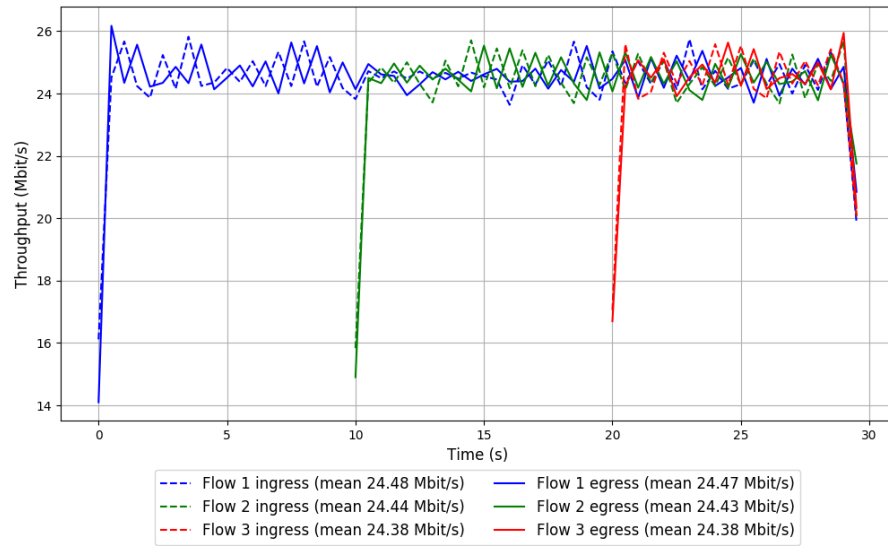
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-02-28 05:03:15
End at: 2018-02-28 05:03:45
Local clock offset: 4.467 ms
Remote clock offset: 4.895 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.53 Mbit/s
95th percentile per-packet one-way delay: 17.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.74 Mbit/s
95th percentile per-packet one-way delay: 16.094 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.99 Mbit/s
95th percentile per-packet one-way delay: 18.421 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.77 Mbit/s
95th percentile per-packet one-way delay: 18.409 ms
Loss rate: 0.00%
```
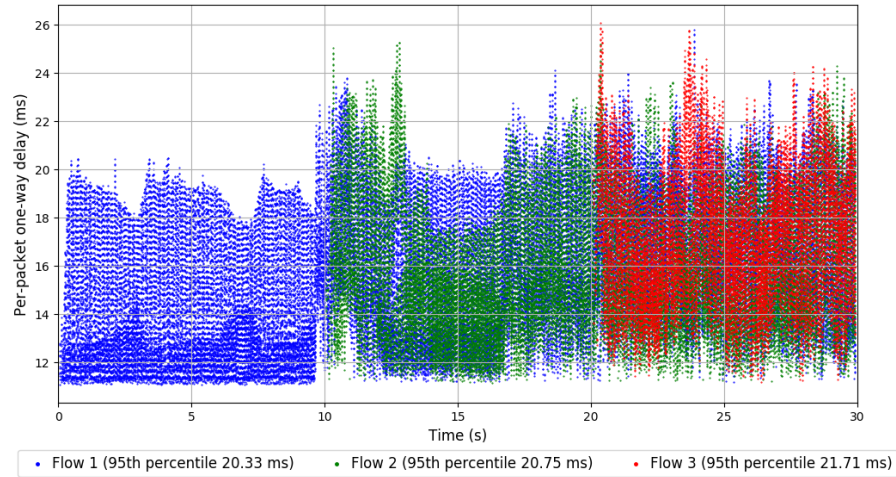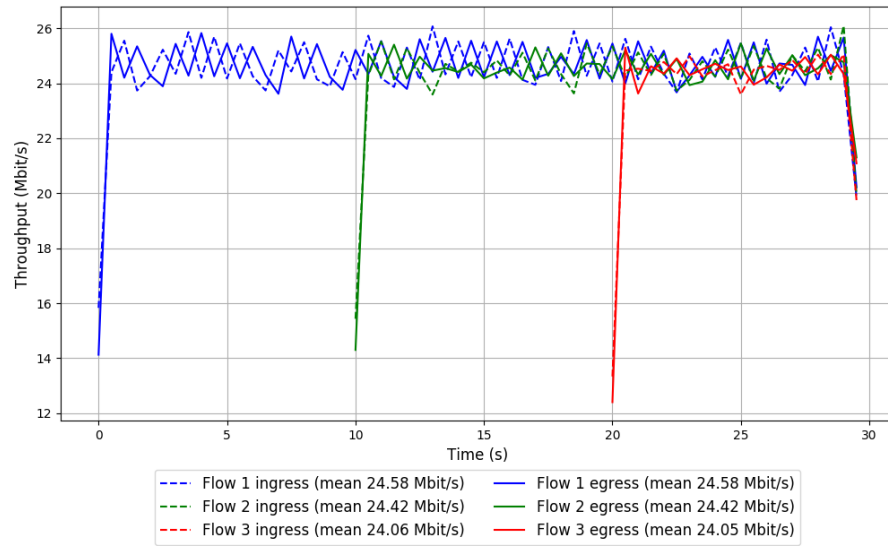
Run 5: Report of Sprout — Data Link



Flow 1 ingress (mean 23.74 Mbit/s) --- Flow 1 egress (mean 23.74 Mbit/s)
Flow 2 ingress (mean 22.99 Mbit/s) --- Flow 2 egress (mean 22.99 Mbit/s)
Flow 3 ingress (mean 22.78 Mbit/s) --- Flow 3 egress (mean 22.77 Mbit/s)



Flow 1 (95th percentile 16.09 ms)   Flow 2 (95th percentile 18.42 ms)   Flow 3 (95th percentile 18.41 ms)

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```
Run 6: Statistics of Sprout

Start at: 2018-02-28 05:24:35
End at: 2018-02-28 05:25:05
Local clock offset: 4.083 ms
Remote clock offset: -6.157 ms


# Below is generated by plot.py at 2018-02-28 07:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.71 Mbit/s
95th percentile per-packet one-way delay: 19.024 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 18.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 19.143 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.07 Mbit/s
95th percentile per-packet one-way delay: 18.937 ms
Loss rate: 0.00%
```
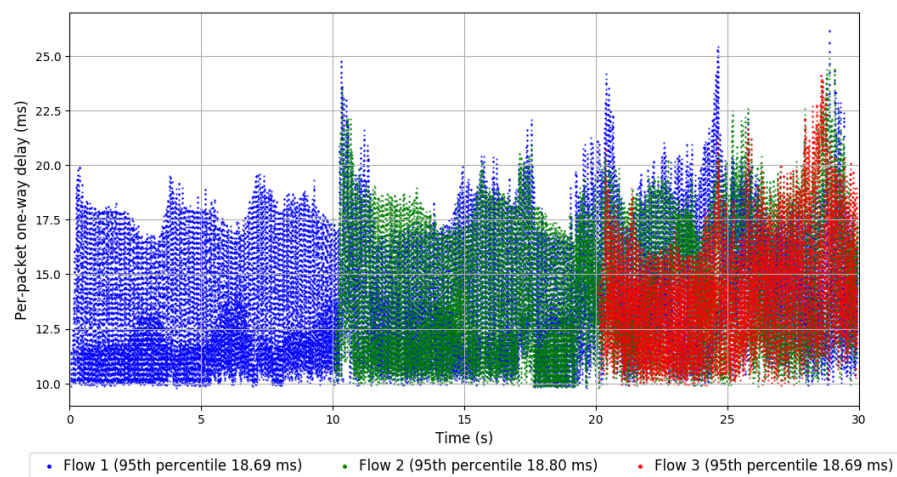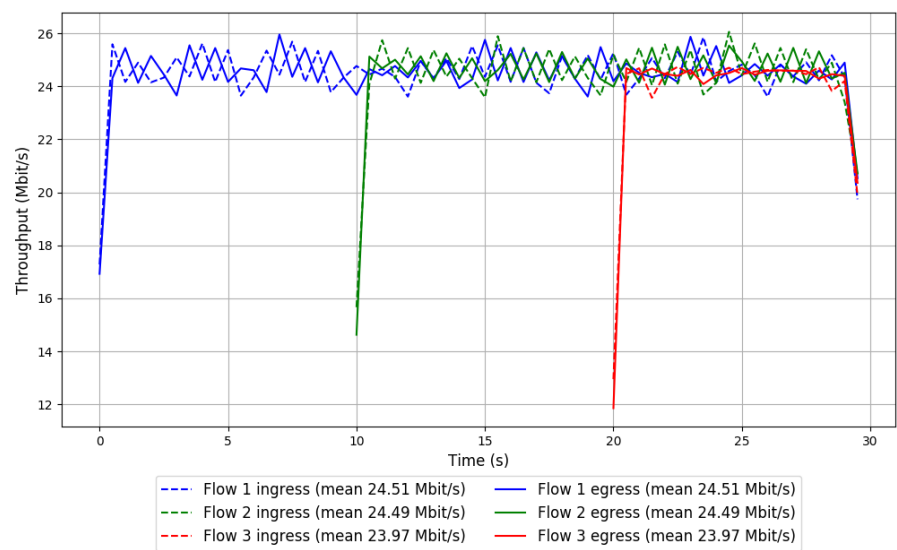
## Run 6: Report of Sprout — Data Link



- - - - Flow 1 ingress (mean 24.53 Mbit/s)     —— Flow 1 egress (mean 24.52 Mbit/s)
- - - - Flow 2 ingress (mean 24.40 Mbit/s)     —— Flow 2 egress (mean 24.40 Mbit/s)
- - - - Flow 3 ingress (mean 24.08 Mbit/s)     —— Flow 3 egress (mean 24.07 Mbit/s)



- Flow 1 (95th percentile 18.98 ms)     • Flow 2 (95th percentile 19.14 ms)     • Flow 3 (95th percentile 18.94 ms)

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```
Run 7: Statistics of Sprout

Start at: 2018-02-28 05:46:02
End at: 2018-02-28 05:46:32
Local clock offset: 2.774 ms
Remote clock offset: -3.754 ms


# Below is generated by plot.py at 2018-02-28 07:48:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.47 Mbit/s
95th percentile per-packet one-way delay: 20.055 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 19.102 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.30 Mbit/s
95th percentile per-packet one-way delay: 20.564 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 21.247 ms
Loss rate: 0.00%
```
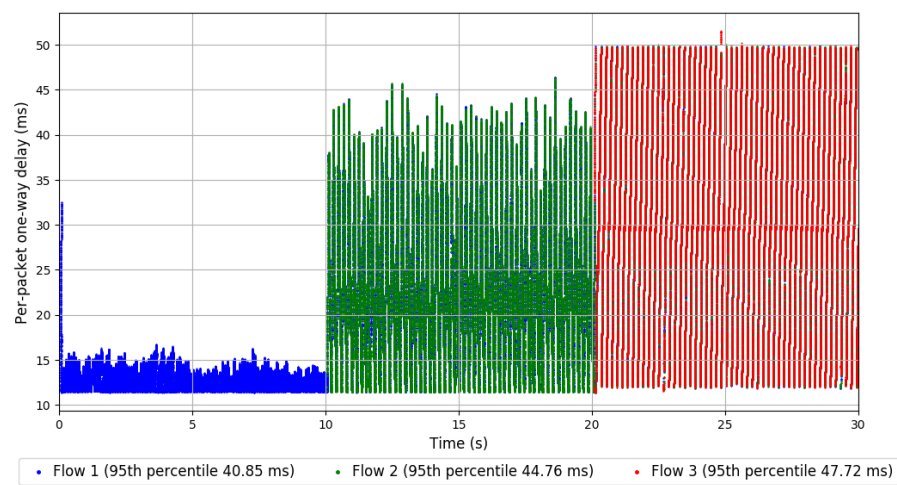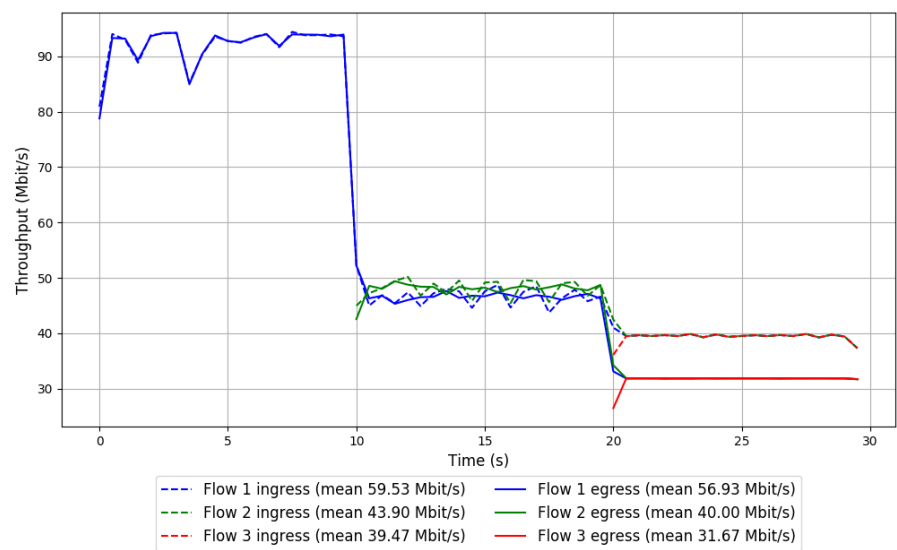
## Run 7: Report of Sprout — Data Link



Flow 1 ingress (mean 24.41 Mbit/s) --- Flow 1 egress (mean 24.40 Mbit/s)
Flow 2 ingress (mean 24.30 Mbit/s) --- Flow 2 egress (mean 24.30 Mbit/s)
Flow 3 ingress (mean 23.96 Mbit/s) --- Flow 3 egress (mean 23.96 Mbit/s)



Flow 1 (95th percentile 19.10 ms)    Flow 2 (95th percentile 20.56 ms)    Flow 3 (95th percentile 21.25 ms)

```
Run 8: Statistics of Sprout

Start at: 2018-02-28 06:07:20
End at: 2018-02-28 06:07:50
Local clock offset: 0.951 ms
Remote clock offset: -5.382 ms


# Below is generated by plot.py at 2018-02-28 07:48:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.77 Mbit/s
95th percentile per-packet one-way delay: 21.634 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 21.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 21.476 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.38 Mbit/s
95th percentile per-packet one-way delay: 22.191 ms
Loss rate: 0.00%
```
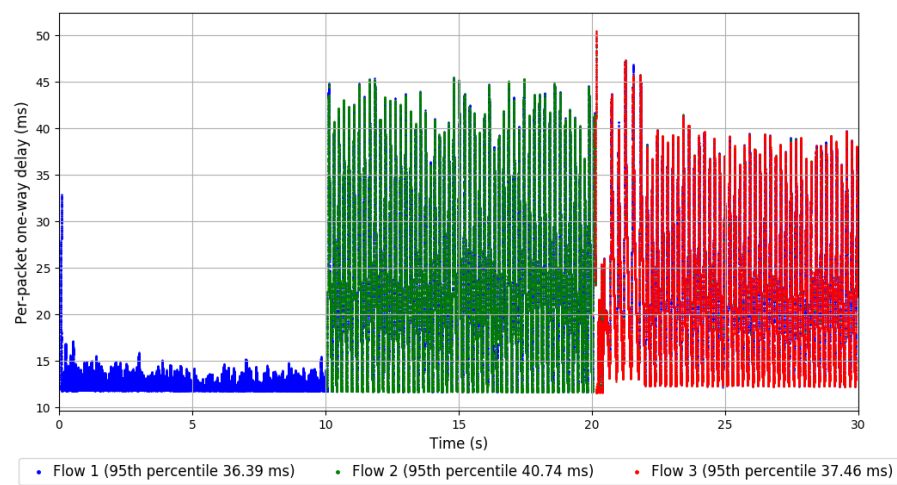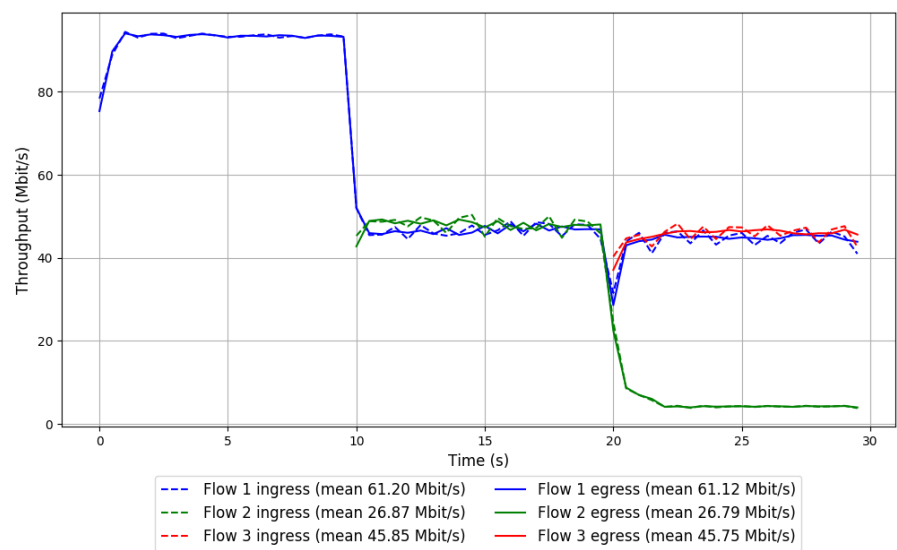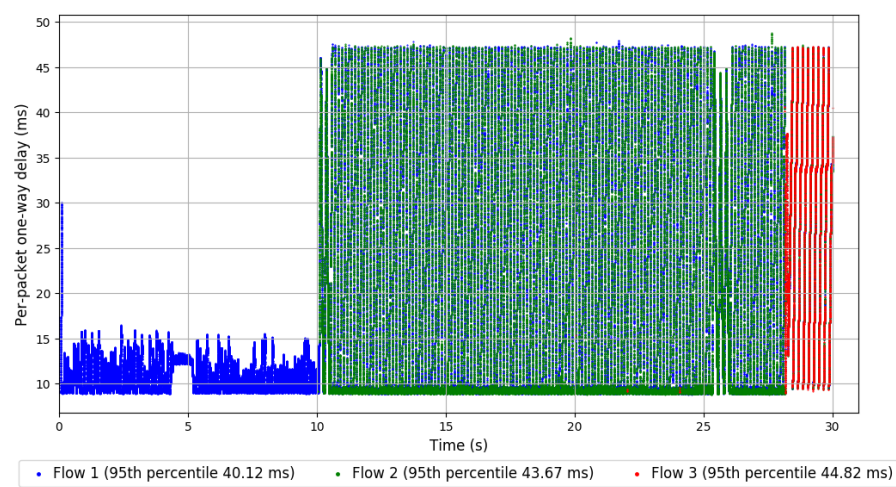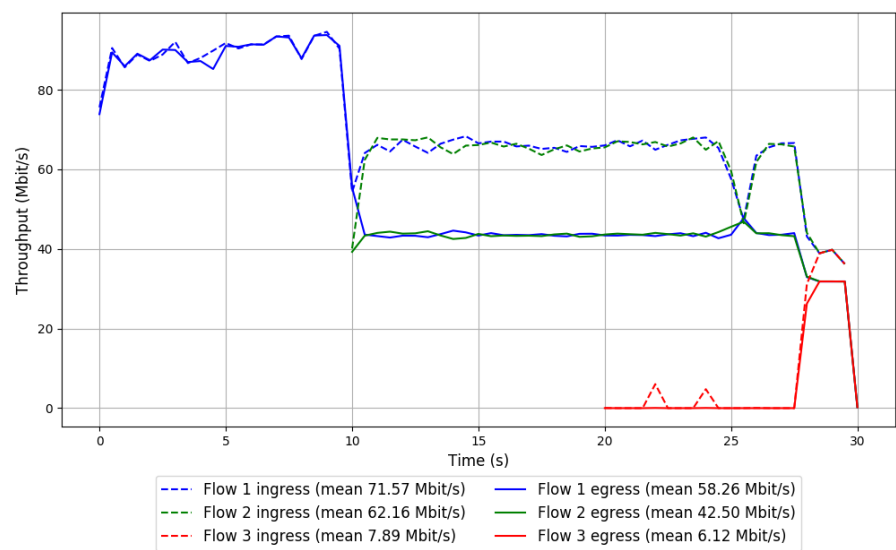
Run 8: Report of Sprout — Data Link



Flow 1 ingress (mean 24.48 Mbit/s)     Flow 1 egress (mean 24.47 Mbit/s)
Flow 2 ingress (mean 24.44 Mbit/s)     Flow 2 egress (mean 24.43 Mbit/s)
Flow 3 ingress (mean 24.38 Mbit/s)     Flow 3 egress (mean 24.38 Mbit/s)



Flow 1 (95th percentile 21.49 ms)     Flow 2 (95th percentile 21.48 ms)     Flow 3 (95th percentile 22.19 ms)

```
Run 9: Statistics of Sprout

Start at: 2018-02-28 06:28:32
End at: 2018-02-28 06:29:02
Local clock offset: 1.767 ms
Remote clock offset: -7.305 ms


# Below is generated by plot.py at 2018-02-28 07:48:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.74 Mbit/s
95th percentile per-packet one-way delay: 20.753 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 20.333 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.42 Mbit/s
95th percentile per-packet one-way delay: 20.754 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 21.714 ms
Loss rate: 0.00%
```

Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-02-28 06:49:56
End at: 2018-02-28 06:50:26
Local clock offset: 4.021 ms
Remote clock offset: -4.002 ms


# Below is generated by plot.py at 2018-02-28 07:48:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.71 Mbit/s
95th percentile per-packet one-way delay: 18.733 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 18.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 18.799 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 18.689 ms
Loss rate: 0.00%
```
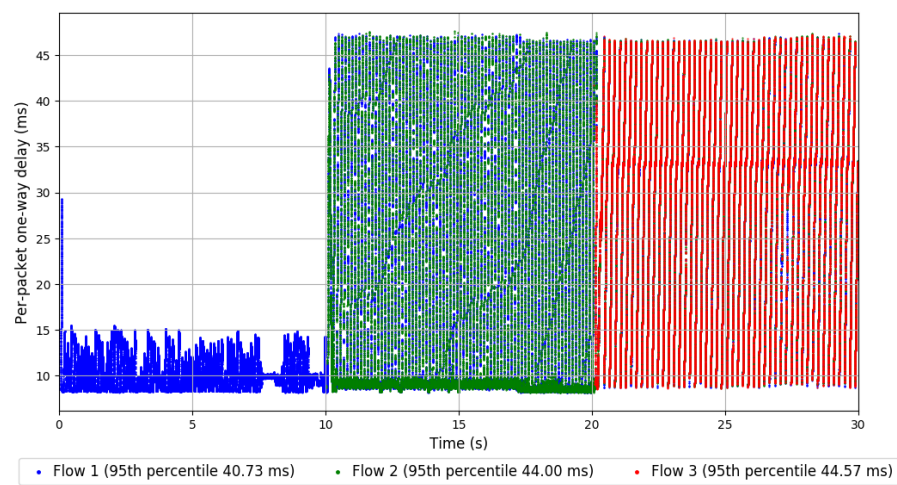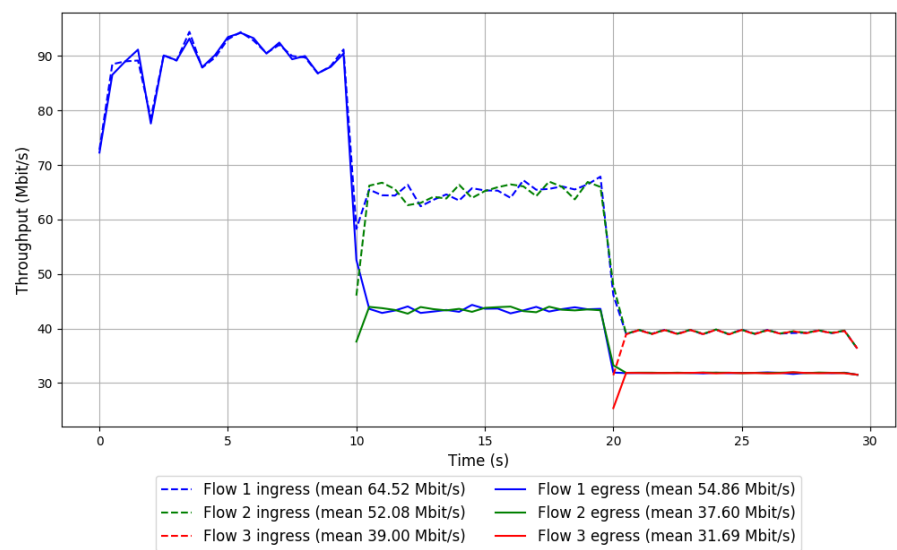
Run 10: Report of Sprout — Data Link





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

Start at: 2018-02-28 03:36:04
End at: 2018-02-28 03:36:34
Local clock offset: 2.423 ms
Remote clock offset: 0.349 ms

# Below is generated by plot.py at 2018-02-28 07:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 43.898 ms
Loss rate: 7.57%
-- Flow 1:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 40.849 ms
Loss rate: 4.31%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 44.759 ms
Loss rate: 8.80%
-- Flow 3:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 47.721 ms
Loss rate: 19.61%
```
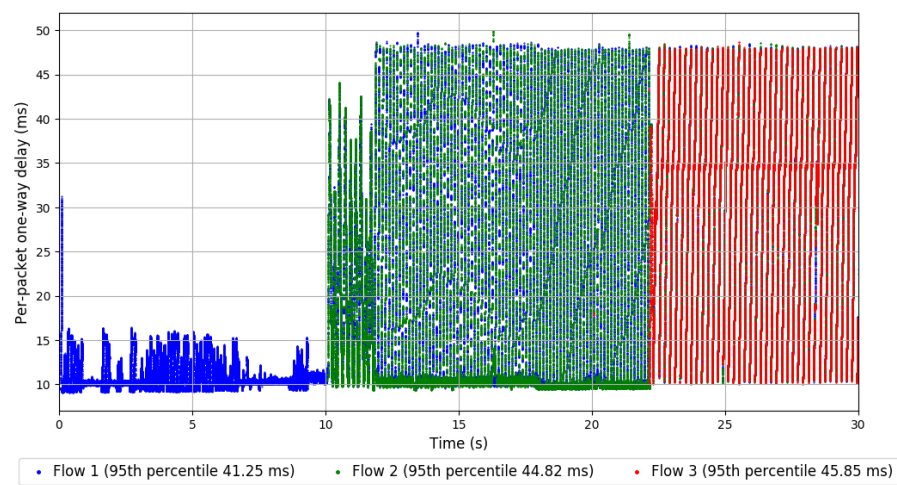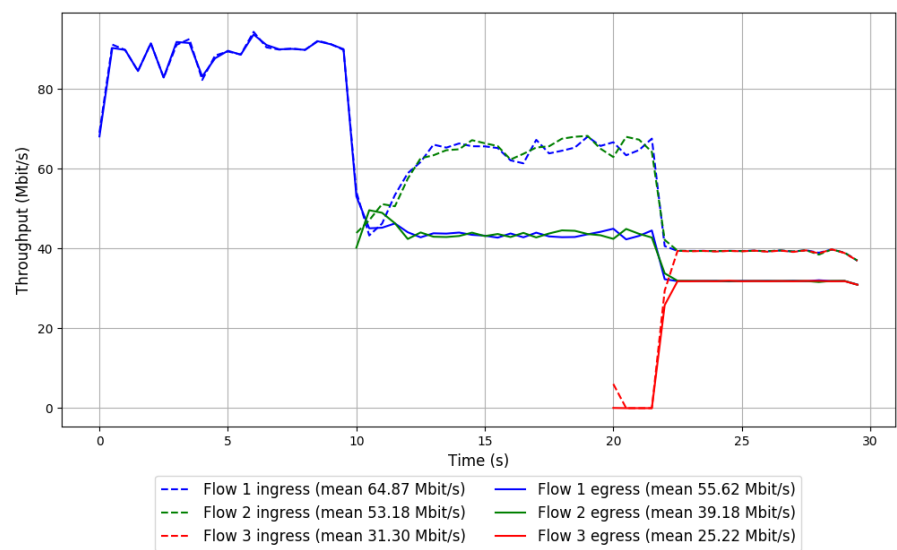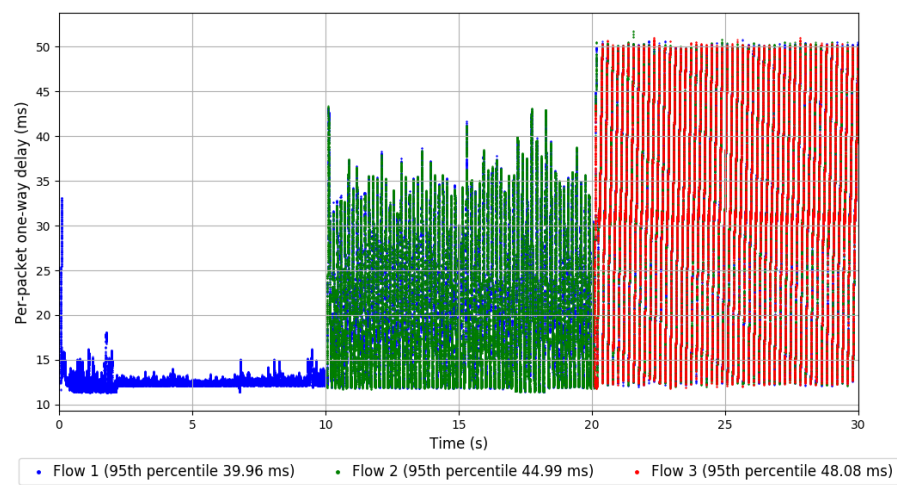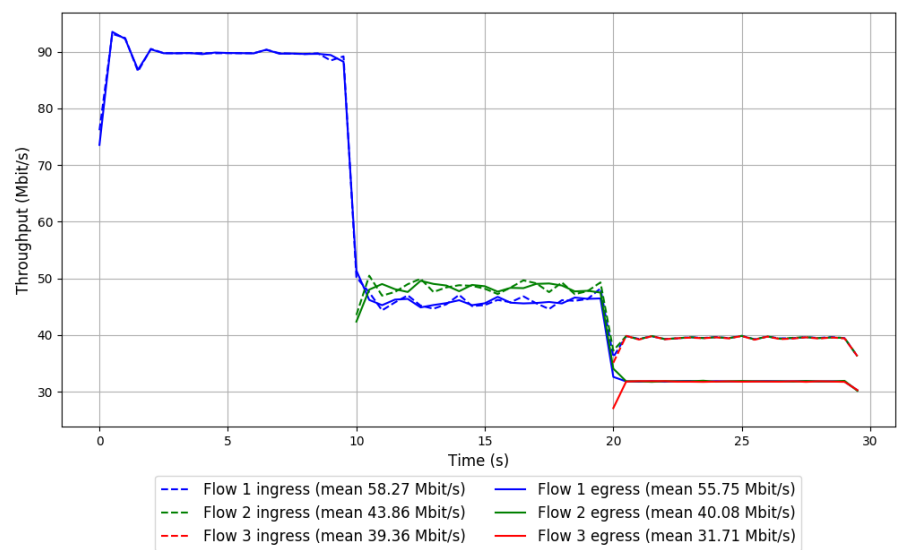
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-28 03:57:37
End at: 2018-02-28 03:58:07
Local clock offset: 3.584 ms
Remote clock offset: 9.585 ms


# Below is generated by plot.py at 2018-02-28 07:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.15 Mbit/s
95th percentile per-packet one-way delay: 37.911 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 61.12 Mbit/s
95th percentile per-packet one-way delay: 36.392 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 26.79 Mbit/s
95th percentile per-packet one-way delay: 40.745 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 45.75 Mbit/s
95th percentile per-packet one-way delay: 37.459 ms
Loss rate: 0.19%
```

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



- --- Flow 1 ingress (mean 61.20 Mbit/s)    — Flow 1 egress (mean 61.12 Mbit/s)
- --- Flow 2 ingress (mean 26.87 Mbit/s)    — Flow 2 egress (mean 26.79 Mbit/s)
- --- Flow 3 ingress (mean 45.85 Mbit/s)    — Flow 3 egress (mean 45.75 Mbit/s)



- Flow 1 (95th percentile 36.39 ms)    • Flow 2 (95th percentile 40.74 ms)    • Flow 3 (95th percentile 37.46 ms)

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

Start at: 2018-02-28 04:19:07
End at: 2018-02-28 04:19:37
Local clock offset: 5.714 ms
Remote clock offset: 14.503 ms


# Below is generated by plot.py at 2018-02-28 07:50:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.61 Mbit/s
95th percentile per-packet one-way delay: 42.045 ms
Loss rate: 23.26%
-- Flow 1:
Average throughput: 58.26 Mbit/s
95th percentile per-packet one-way delay: 40.124 ms
Loss rate: 18.52%
-- Flow 2:
Average throughput: 42.50 Mbit/s
95th percentile per-packet one-way delay: 43.667 ms
Loss rate: 31.53%
-- Flow 3:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 44.824 ms
Loss rate: 22.25%
```
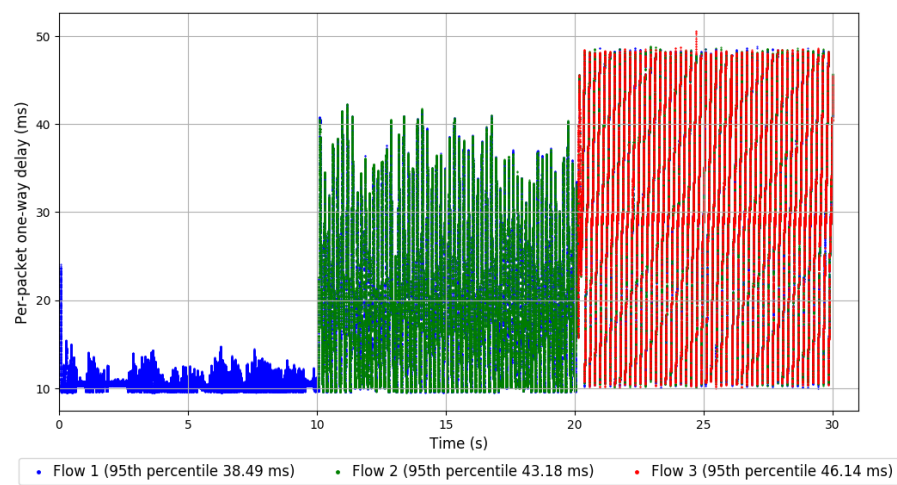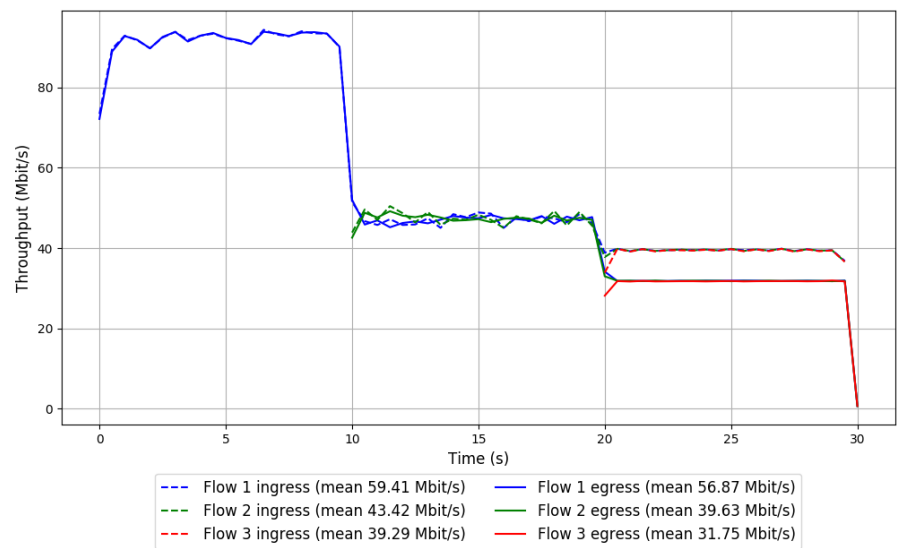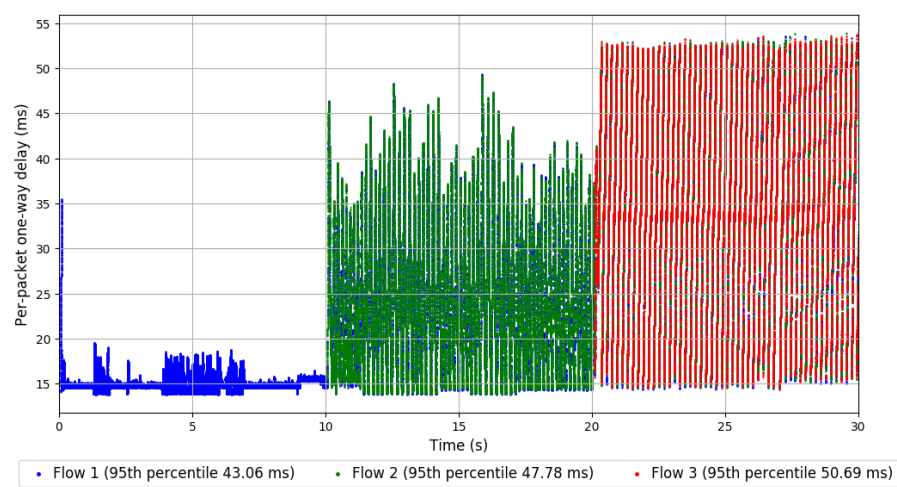
Run 3: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 71.57 Mbit/s) --- Flow 1 egress (mean 58.26 Mbit/s)
Flow 2 ingress (mean 62.16 Mbit/s) --- Flow 2 egress (mean 42.50 Mbit/s)
Flow 3 ingress (mean 7.89 Mbit/s) --- Flow 3 egress (mean 6.12 Mbit/s)



• Flow 1 (95th percentile 40.12 ms)    • Flow 2 (95th percentile 43.67 ms)    • Flow 3 (95th percentile 44.82 ms)

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

Start at: 2018-02-28 04:40:34
End at: 2018-02-28 04:41:04
Local clock offset: 5.902 ms
Remote clock offset: 18.14 ms


# Below is generated by plot.py at 2018-02-28 07:50:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.41 Mbit/s
95th percentile per-packet one-way delay: 42.808 ms
Loss rate: 19.32%
-- Flow 1:
Average throughput: 54.86 Mbit/s
95th percentile per-packet one-way delay: 40.729 ms
Loss rate: 14.90%
-- Flow 2:
Average throughput: 37.60 Mbit/s
95th percentile per-packet one-way delay: 43.996 ms
Loss rate: 27.73%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 44.567 ms
Loss rate: 18.80%
```
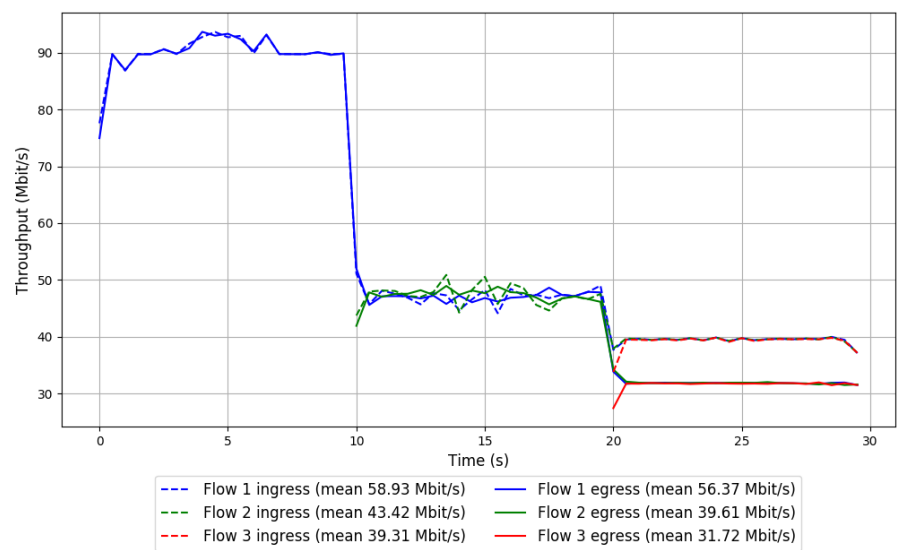
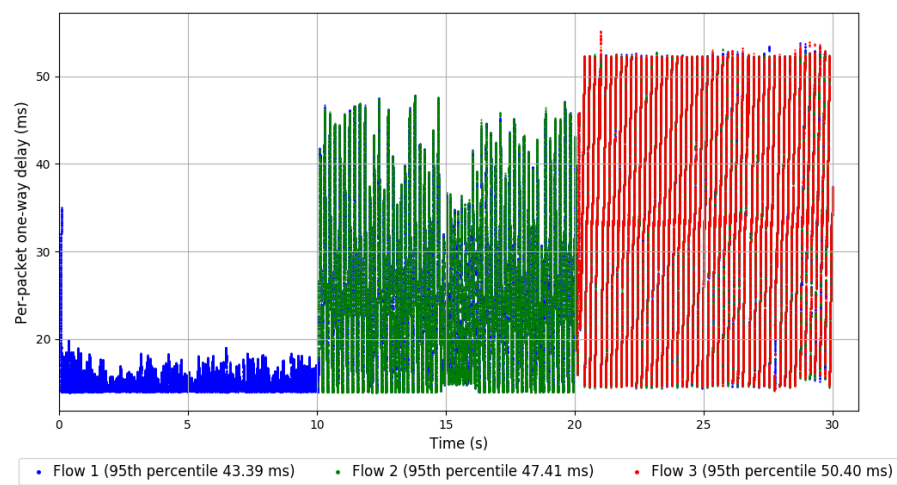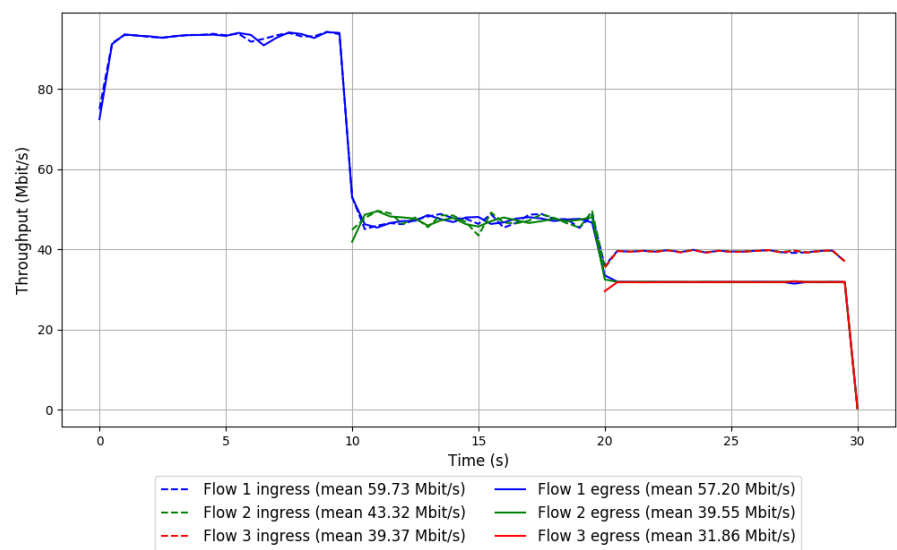Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-28 05:02:01
End at: 2018-02-28 05:02:31
Local clock offset: 5.37 ms
Remote clock offset: 6.616 ms


# Below is generated by plot.py at 2018-02-28 07:50:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.07 Mbit/s
95th percentile per-packet one-way delay: 43.536 ms
Loss rate: 18.57%
-- Flow 1:
Average throughput: 55.62 Mbit/s
95th percentile per-packet one-way delay: 41.248 ms
Loss rate: 14.24%
-- Flow 2:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 44.819 ms
Loss rate: 26.28%
-- Flow 3:
Average throughput: 25.22 Mbit/s
95th percentile per-packet one-way delay: 45.855 ms
Loss rate: 19.34%
```
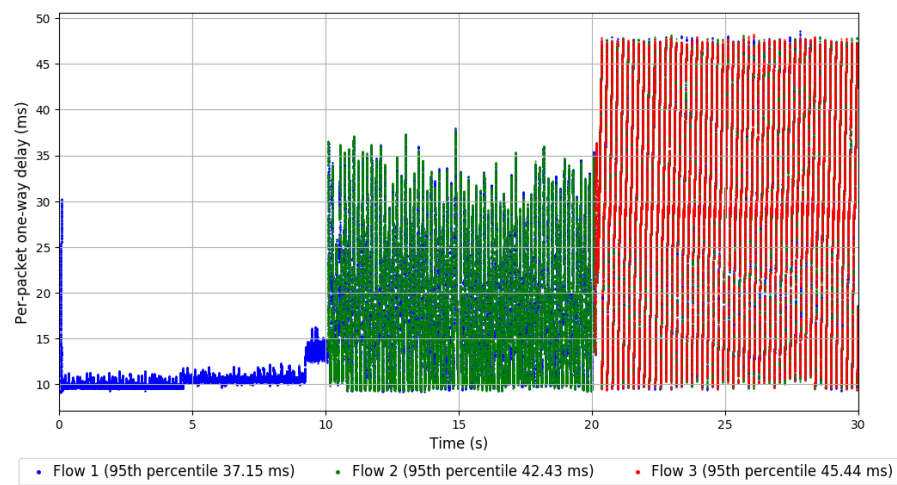
## Run 5: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-28 05:23:22
End at: 2018-02-28 05:23:52
Local clock offset: 1.714 ms
Remote clock offset: -6.248 ms

# Below is generated by plot.py at 2018-02-28 07:50:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 44.180 ms
Loss rate: 7.54%
-- Flow 1:
Average throughput: 55.75 Mbit/s
95th percentile per-packet one-way delay: 39.963 ms
Loss rate: 4.33%
-- Flow 2:
Average throughput: 40.08 Mbit/s
95th percentile per-packet one-way delay: 44.993 ms
Loss rate: 8.60%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 48.081 ms
Loss rate: 19.49%
```
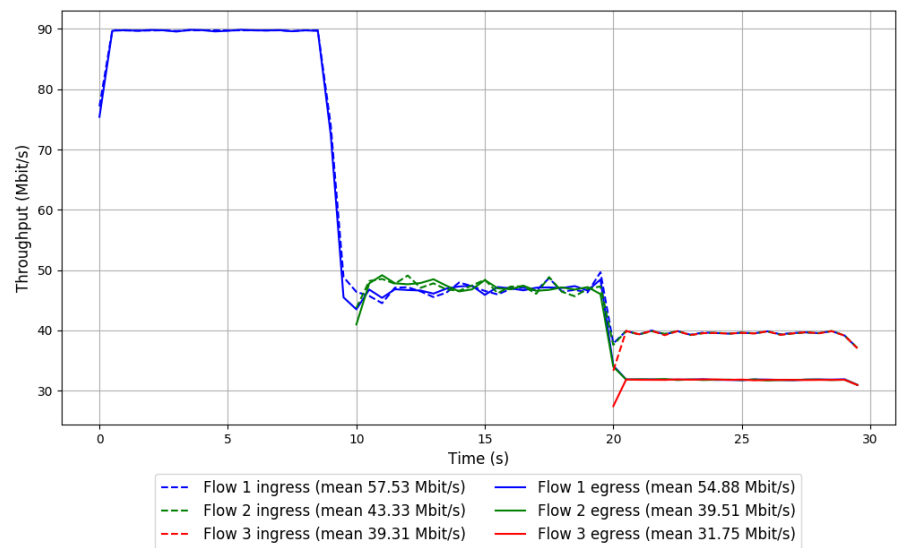
# Run 6: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 58.27 Mbit/s) — Flow 1 egress (mean 55.75 Mbit/s)
Flow 2 ingress (mean 43.86 Mbit/s) — Flow 2 egress (mean 40.08 Mbit/s)
Flow 3 ingress (mean 39.36 Mbit/s) — Flow 3 egress (mean 31.71 Mbit/s)



Flow 1 (95th percentile 39.96 ms) — Flow 2 (95th percentile 44.99 ms) — Flow 3 (95th percentile 48.08 ms)

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

Start at: 2018-02-28 05:44:47
End at: 2018-02-28 05:45:17
Local clock offset: 3.113 ms
Remote clock offset: -3.787 ms


# Below is generated by plot.py at 2018-02-28 07:50:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.82 Mbit/s
95th percentile per-packet one-way delay: 42.271 ms
Loss rate: 7.33%
-- Flow 1:
Average throughput: 56.87 Mbit/s
95th percentile per-packet one-way delay: 38.495 ms
Loss rate: 4.17%
-- Flow 2:
Average throughput: 39.63 Mbit/s
95th percentile per-packet one-way delay: 43.177 ms
Loss rate: 8.56%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 46.141 ms
Loss rate: 19.00%
```
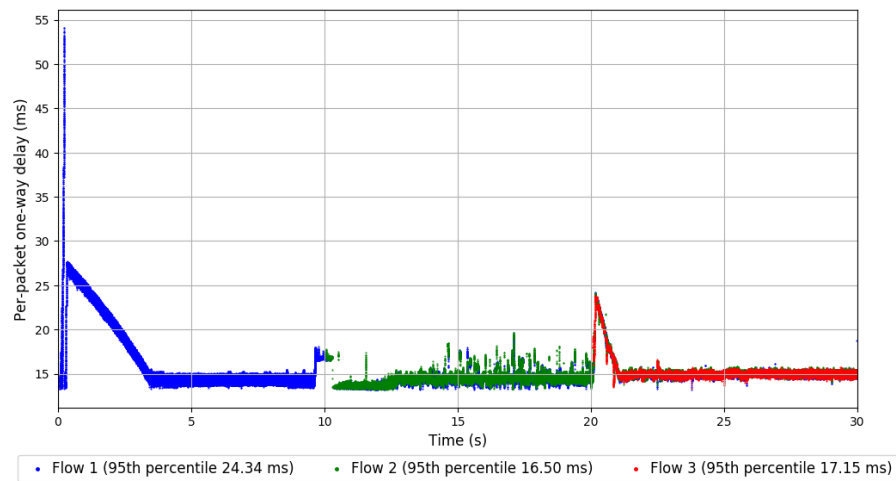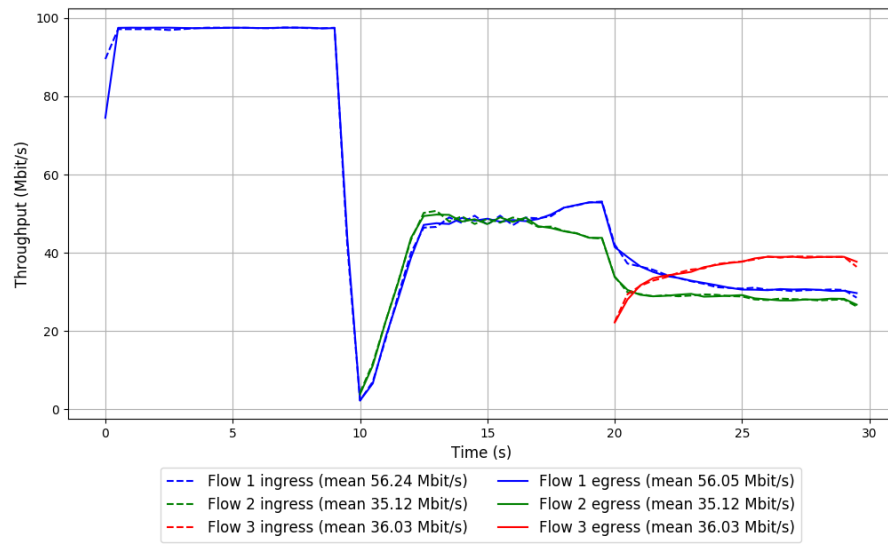
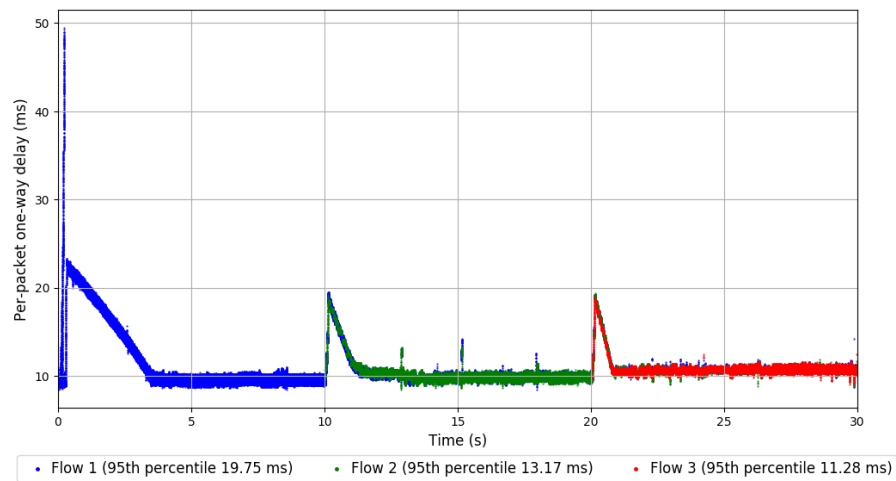Run 7: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-28 06:06:03
End at: 2018-02-28 06:06:33
Local clock offset: -0.613 ms
Remote clock offset: -4.972 ms


# Below is generated by plot.py at 2018-02-28 07:50:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.27 Mbit/s
95th percentile per-packet one-way delay: 46.811 ms
Loss rate: 7.50%
-- Flow 1:
Average throughput: 56.37 Mbit/s
95th percentile per-packet one-way delay: 43.056 ms
Loss rate: 4.28%
-- Flow 2:
Average throughput: 39.61 Mbit/s
95th percentile per-packet one-way delay: 47.779 ms
Loss rate: 8.72%
-- Flow 3:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 50.686 ms
Loss rate: 19.36%
```

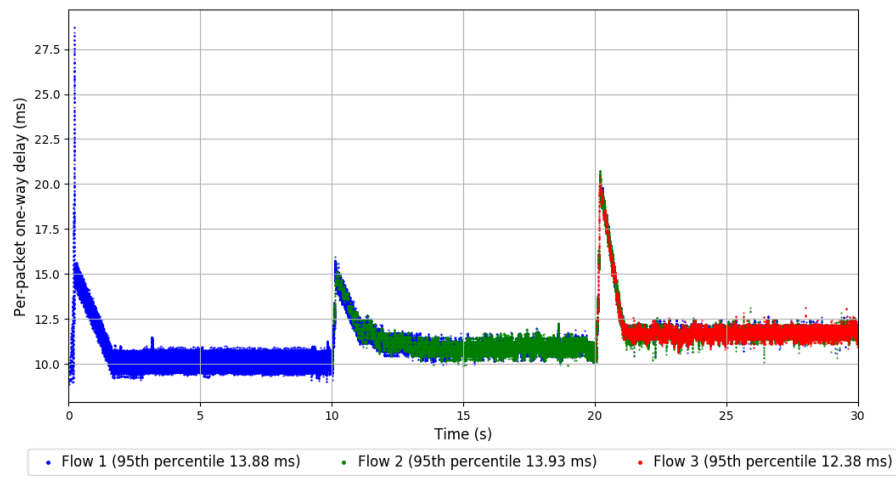# Run 8: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-28 06:27:17
End at: 2018-02-28 06:27:47
Local clock offset: -0.66 ms
Remote clock offset: -6.679 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.13 Mbit/s
95th percentile per-packet one-way delay: 46.581 ms
Loss rate: 7.33%
-- Flow 1:
Average throughput: 57.20 Mbit/s
95th percentile per-packet one-way delay: 43.393 ms
Loss rate: 4.16%
-- Flow 2:
Average throughput: 39.55 Mbit/s
95th percentile per-packet one-way delay: 47.407 ms
Loss rate: 8.60%
-- Flow 3:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 50.399 ms
Loss rate: 19.00%
```
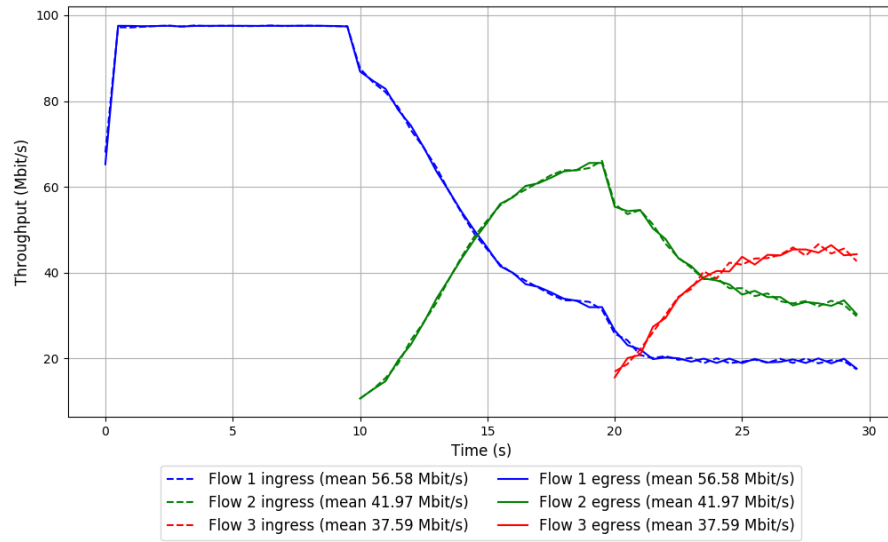
Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-28 06:48:40
End at: 2018-02-28 06:49:10
Local clock offset: 4.191 ms
Remote clock offset: -5.044 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.71 Mbit/s
95th percentile per-packet one-way delay: 41.661 ms
Loss rate: 7.74%
-- Flow 1:
Average throughput: 54.88 Mbit/s
95th percentile per-packet one-way delay: 37.153 ms
Loss rate: 4.57%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 42.426 ms
Loss rate: 8.80%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 45.443 ms
Loss rate: 19.36%
```

Run 10: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2018-02-28 03:42:07
End at: 2018-02-28 03:42:37
Local clock offset: 1.489 ms
Remote clock offset: 1.345 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.39 Mbit/s
95th percentile per-packet one-way delay: 22.810 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 56.05 Mbit/s
95th percentile per-packet one-way delay: 24.337 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 16.499 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 36.03 Mbit/s
95th percentile per-packet one-way delay: 17.148 ms
Loss rate: 0.00%
```
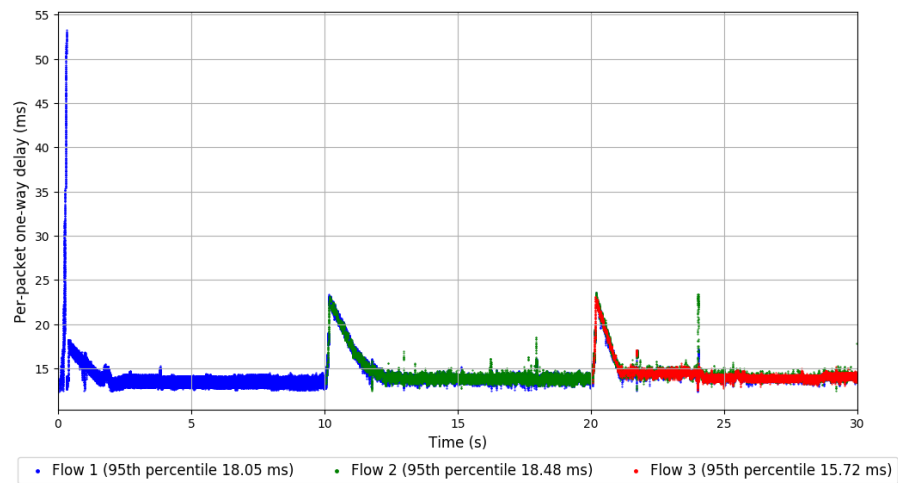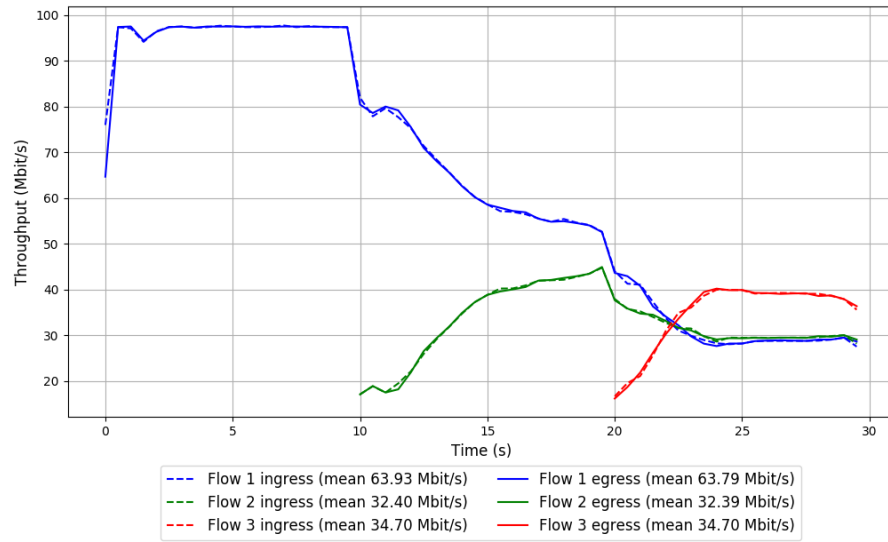
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-02-28 04:03:38
End at: 2018-02-28 04:04:08
Local clock offset: 5.737 ms
Remote clock offset: 10.342 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 18.034 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 19.754 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 37.94 Mbit/s
95th percentile per-packet one-way delay: 13.172 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.28 Mbit/s
95th percentile per-packet one-way delay: 11.280 ms
Loss rate: 0.00%
```
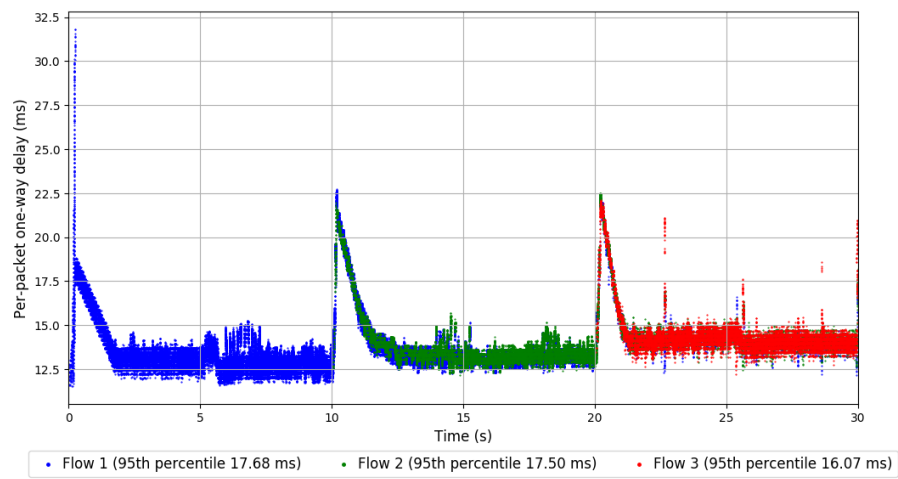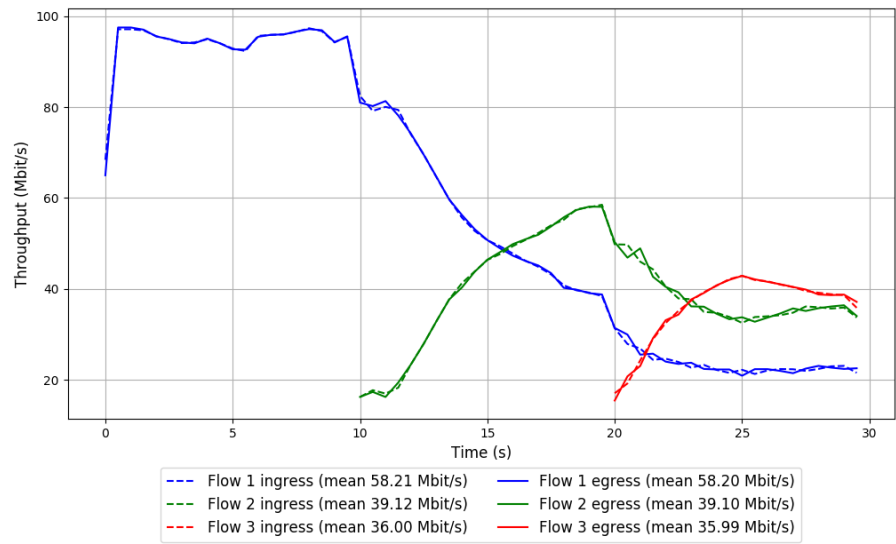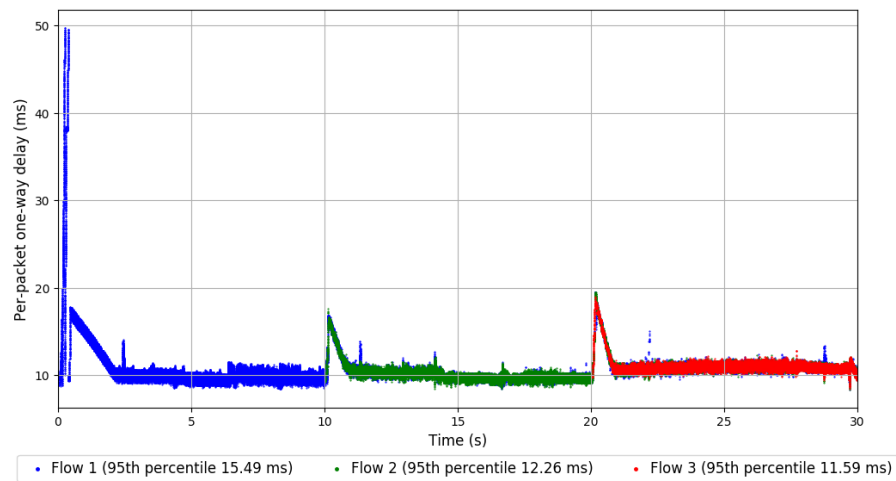
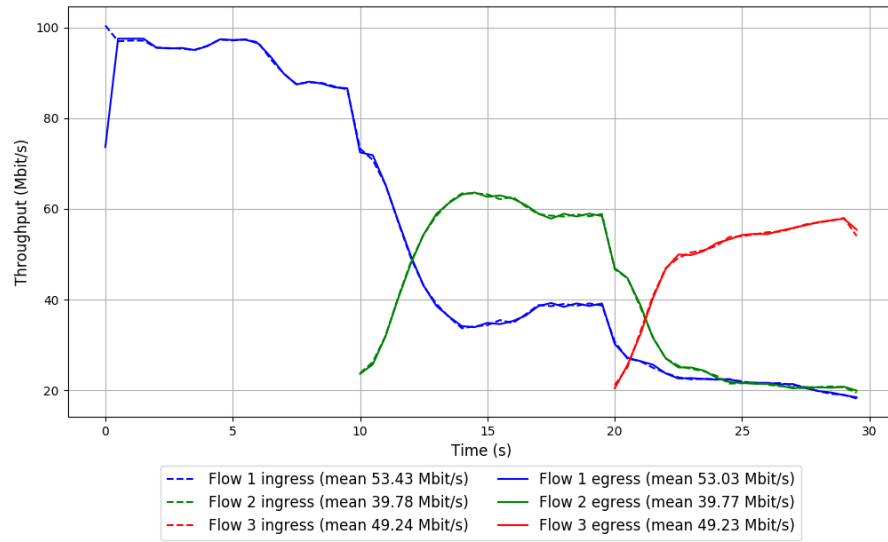Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-02-28 04:25:15
End at: 2018-02-28 04:25:45
Local clock offset: 5.783 ms
Remote clock offset: 15.565 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.01 Mbit/s
95th percentile per-packet one-way delay: 13.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.58 Mbit/s
95th percentile per-packet one-way delay: 13.883 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.97 Mbit/s
95th percentile per-packet one-way delay: 13.930 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.59 Mbit/s
95th percentile per-packet one-way delay: 12.375 ms
Loss rate: 0.00%
```
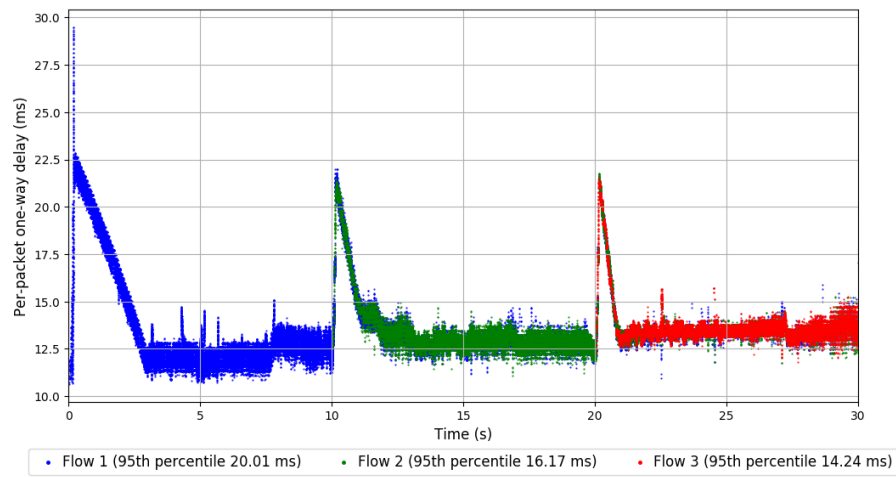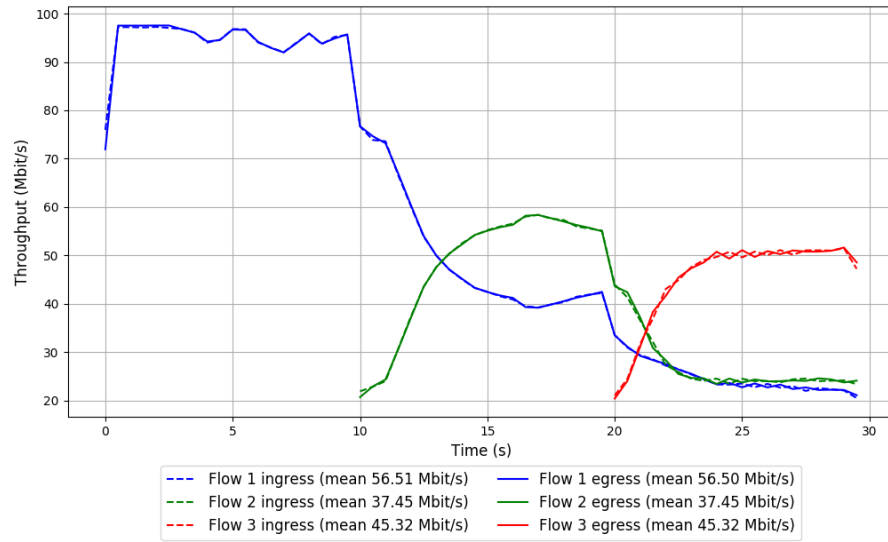
## Run 3: Report of TCP Vegas — Data Link



Flow 1 ingress (mean 56.58 Mbit/s)          Flow 1 egress (mean 56.58 Mbit/s)
Flow 2 ingress (mean 41.97 Mbit/s)          Flow 2 egress (mean 41.97 Mbit/s)
Flow 3 ingress (mean 37.59 Mbit/s)          Flow 3 egress (mean 37.59 Mbit/s)



Flow 1 (95th percentile 13.88 ms)     Flow 2 (95th percentile 13.93 ms)     Flow 3 (95th percentile 12.38 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-02-28 04:46:39
End at: 2018-02-28 04:47:09
Local clock offset: 2.346 ms
Remote clock offset: 20.07 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.87 Mbit/s
95th percentile per-packet one-way delay: 18.006 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 63.79 Mbit/s
95th percentile per-packet one-way delay: 18.048 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 32.39 Mbit/s
95th percentile per-packet one-way delay: 18.479 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.70 Mbit/s
95th percentile per-packet one-way delay: 15.717 ms
Loss rate: 0.00%
```
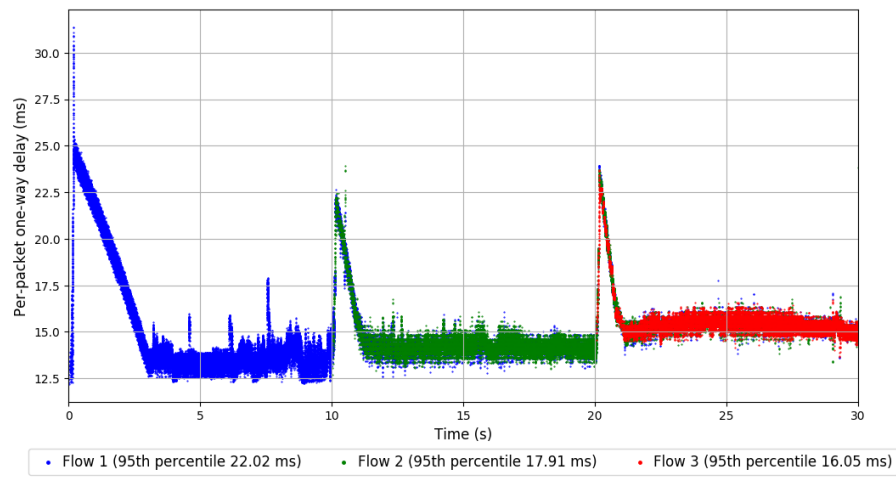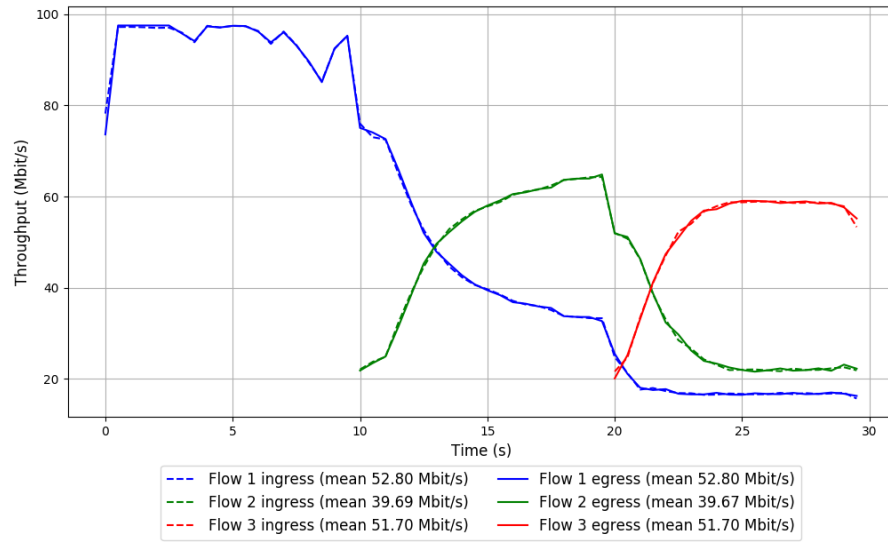
Run 4: Report of TCP Vegas — Data Link



Flow 1 ingress (mean 63.93 Mbit/s)    Flow 1 egress (mean 63.79 Mbit/s)
Flow 2 ingress (mean 32.40 Mbit/s)    Flow 2 egress (mean 32.39 Mbit/s)
Flow 3 ingress (mean 34.70 Mbit/s)    Flow 3 egress (mean 34.70 Mbit/s)



Flow 1 (95th percentile 18.05 ms)    Flow 2 (95th percentile 18.48 ms)    Flow 3 (95th percentile 15.72 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2018-02-28 05:08:04
End at: 2018-02-28 05:08:34
Local clock offset: 4.367 ms
Remote clock offset: 2.044 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.19 Mbit/s
95th percentile per-packet one-way delay: 17.566 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.20 Mbit/s
95th percentile per-packet one-way delay: 17.682 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 17.505 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 35.99 Mbit/s
95th percentile per-packet one-way delay: 16.073 ms
Loss rate: 0.00%
```
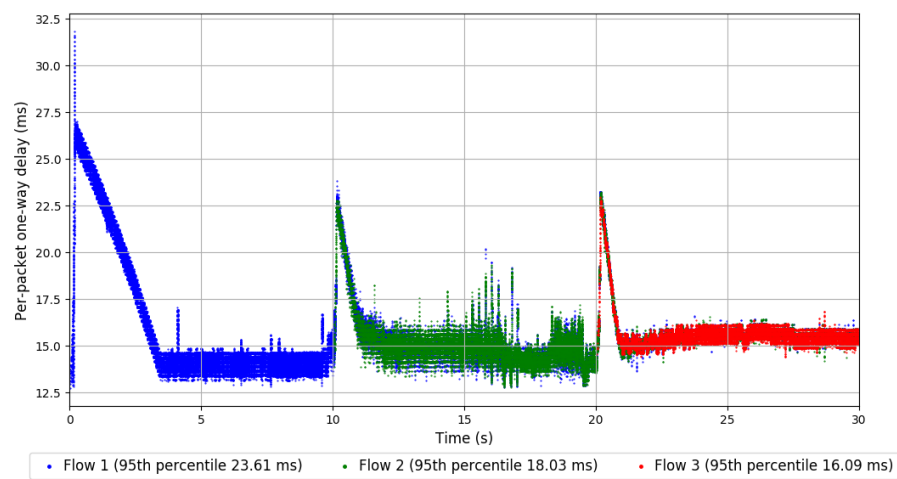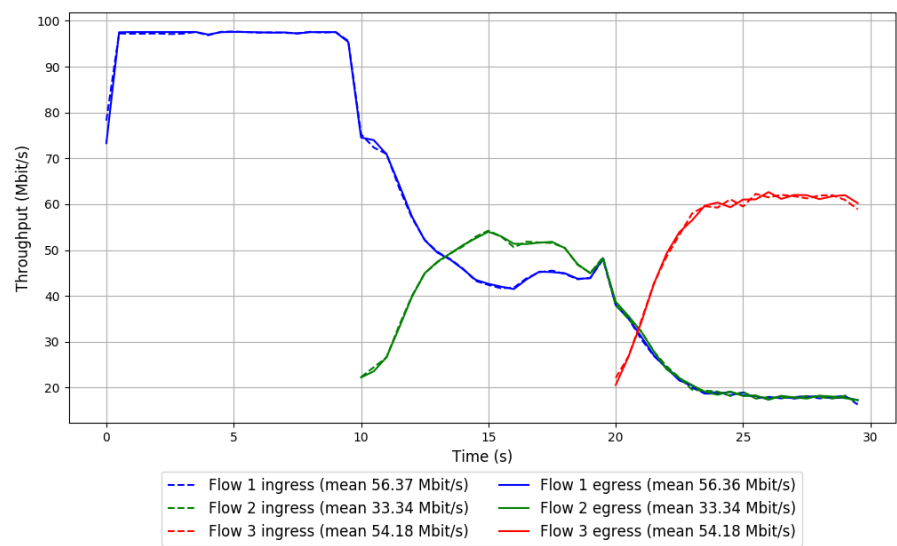
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2018-02-28 05:29:20
End at: 2018-02-28 05:29:50
Local clock offset: 4.208 ms
Remote clock offset: -6.962 ms


# Below is generated by plot.py at 2018-02-28 07:52:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.86 Mbit/s
95th percentile per-packet one-way delay: 14.554 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 53.03 Mbit/s
95th percentile per-packet one-way delay: 15.495 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 39.77 Mbit/s
95th percentile per-packet one-way delay: 12.263 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.23 Mbit/s
95th percentile per-packet one-way delay: 11.592 ms
Loss rate: 0.00%
```
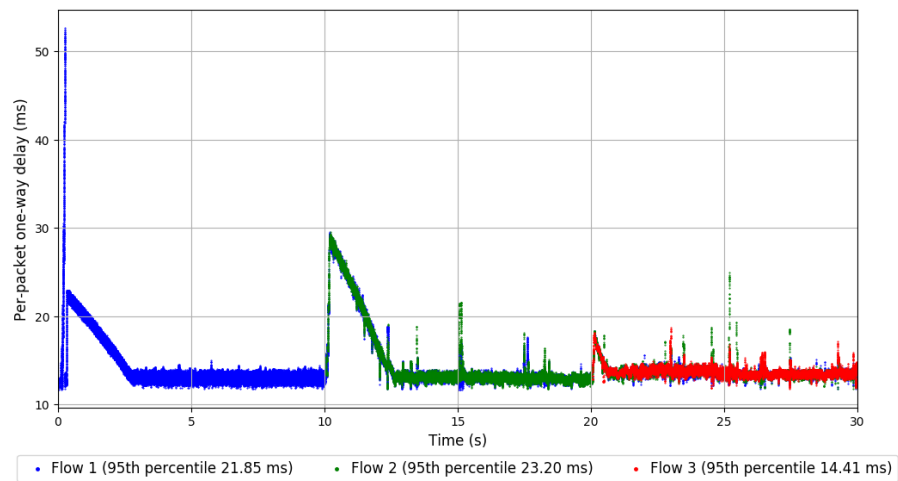
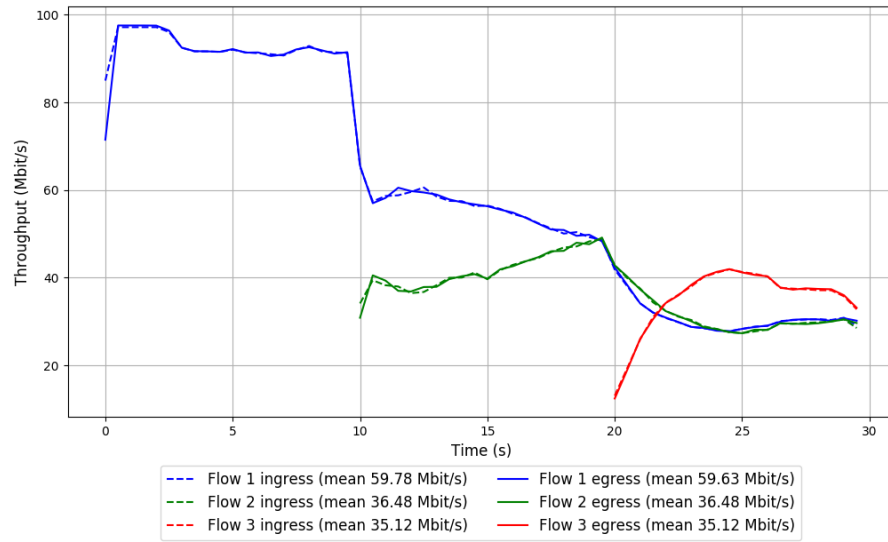Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-02-28 05:50:49
End at: 2018-02-28 05:51:19
Local clock offset: 1.774 ms
Remote clock offset: -4.534 ms


# Below is generated by plot.py at 2018-02-28 07:53:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.49 Mbit/s
95th percentile per-packet one-way delay: 19.056 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 20.014 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.45 Mbit/s
95th percentile per-packet one-way delay: 16.166 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.32 Mbit/s
95th percentile per-packet one-way delay: 14.241 ms
Loss rate: 0.00%
```

# Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-02-28 06:12:05
End at: 2018-02-28 06:12:35
Local clock offset: 0.989 ms
Remote clock offset: -5.084 ms


# Below is generated by plot.py at 2018-02-28 07:53:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 20.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.80 Mbit/s
95th percentile per-packet one-way delay: 22.023 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 17.913 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.70 Mbit/s
95th percentile per-packet one-way delay: 16.047 ms
Loss rate: 0.00%
```
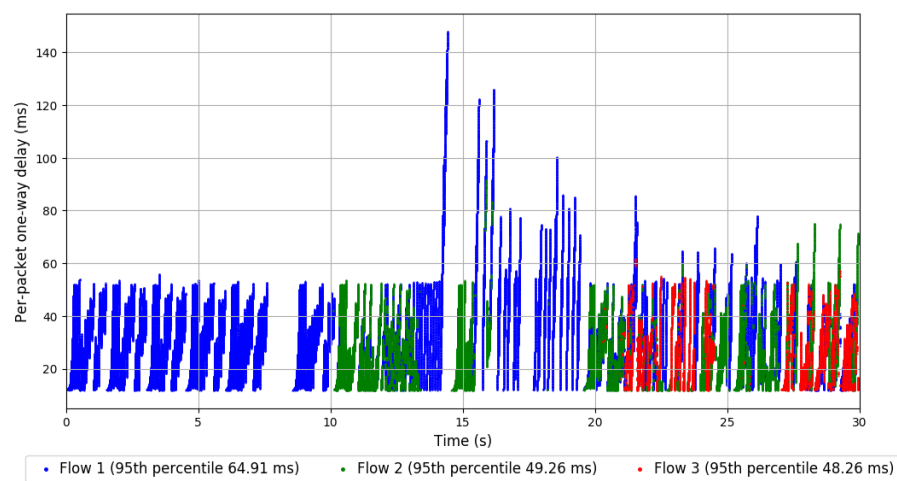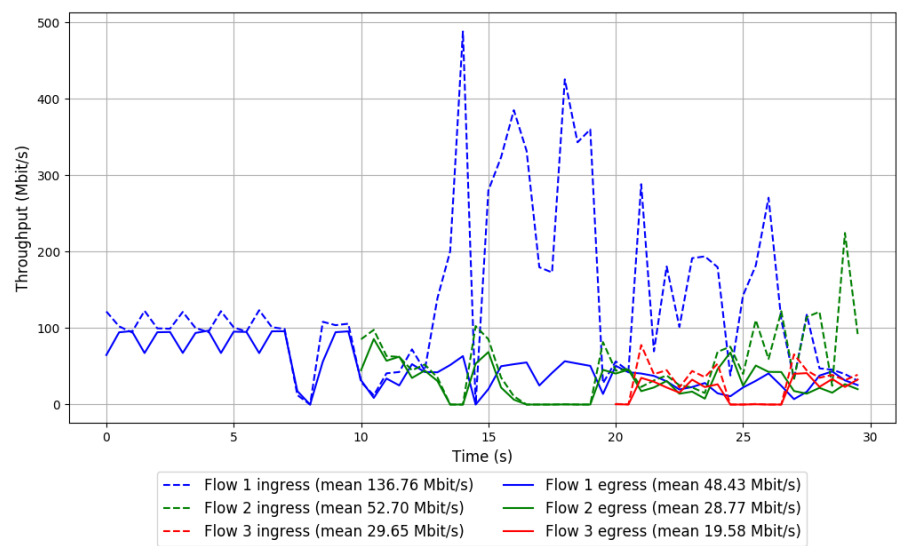
Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-02-28 06:33:23
End at: 2018-02-28 06:33:53
Local clock offset: 2.007 ms
Remote clock offset: -6.035 ms


# Below is generated by plot.py at 2018-02-28 07:53:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.52 Mbit/s
95th percentile per-packet one-way delay: 21.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.36 Mbit/s
95th percentile per-packet one-way delay: 23.612 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.34 Mbit/s
95th percentile per-packet one-way delay: 18.032 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.18 Mbit/s
95th percentile per-packet one-way delay: 16.088 ms
Loss rate: 0.00%
```
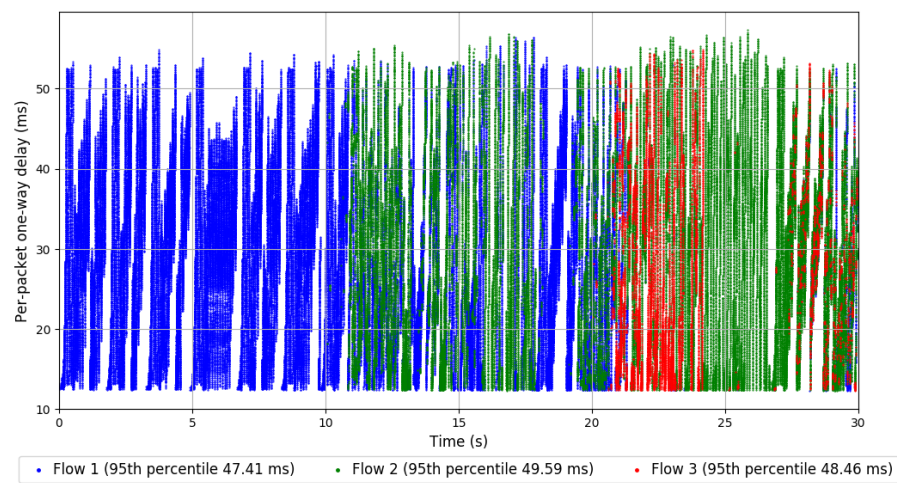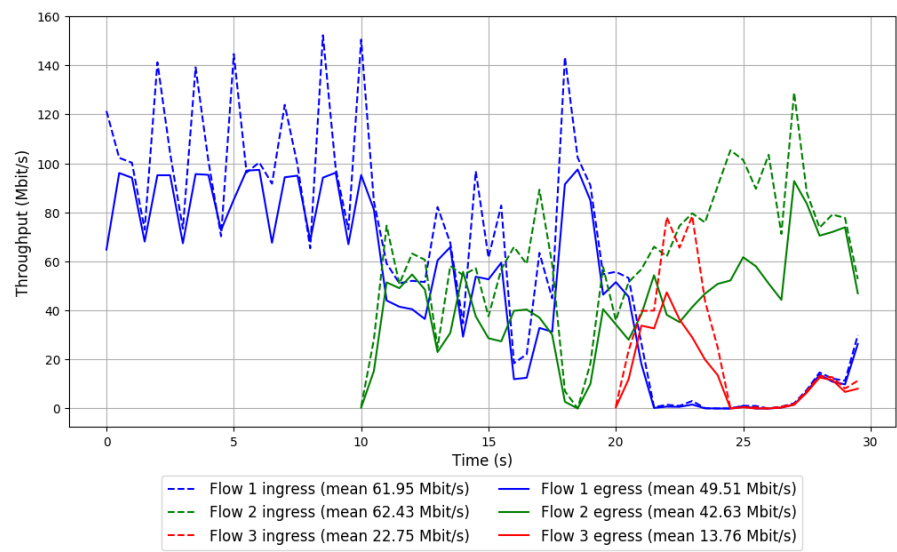
# Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-02-28 06:54:40
End at: 2018-02-28 06:55:10
Local clock offset: 1.339 ms
Remote clock offset: -4.785 ms


# Below is generated by plot.py at 2018-02-28 07:53:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 21.611 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 21.853 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 36.48 Mbit/s
95th percentile per-packet one-way delay: 23.205 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 14.415 ms
Loss rate: 0.00%
```
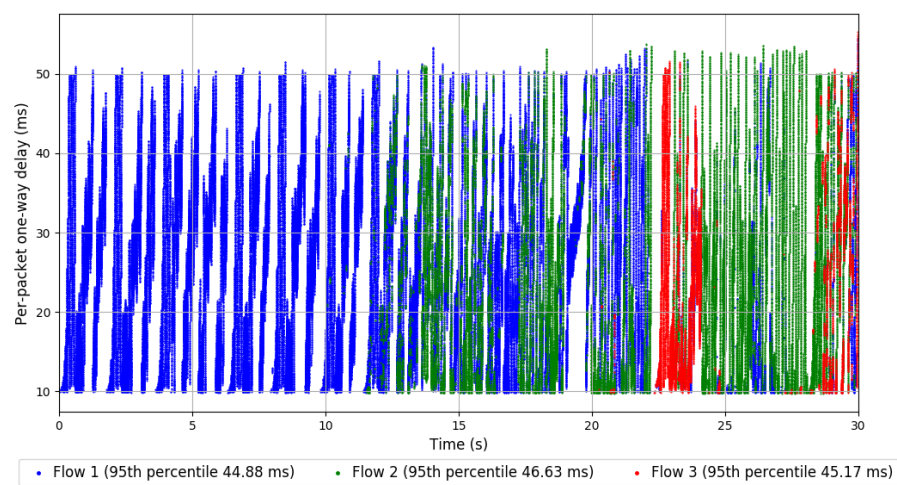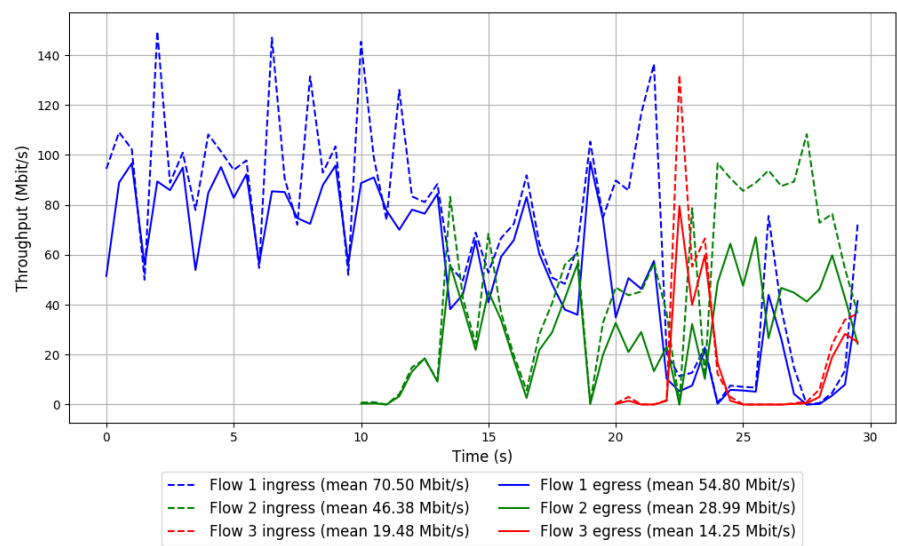
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-02-28 03:38:27
End at: 2018-02-28 03:38:57
Local clock offset: 2.056 ms
Remote clock offset: 0.446 ms


# Below is generated by plot.py at 2018-02-28 07:53:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.84 Mbit/s
95th percentile per-packet one-way delay: 56.845 ms
Loss rate: 59.26%
-- Flow 1:
Average throughput: 48.43 Mbit/s
95th percentile per-packet one-way delay: 64.910 ms
Loss rate: 64.59%
-- Flow 2:
Average throughput: 28.77 Mbit/s
95th percentile per-packet one-way delay: 49.263 ms
Loss rate: 45.32%
-- Flow 3:
Average throughput: 19.58 Mbit/s
95th percentile per-packet one-way delay: 48.260 ms
Loss rate: 34.09%
```
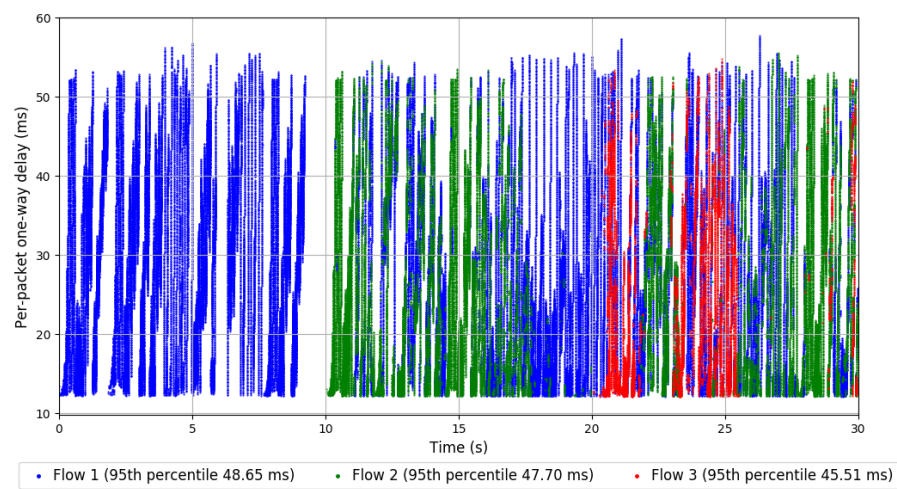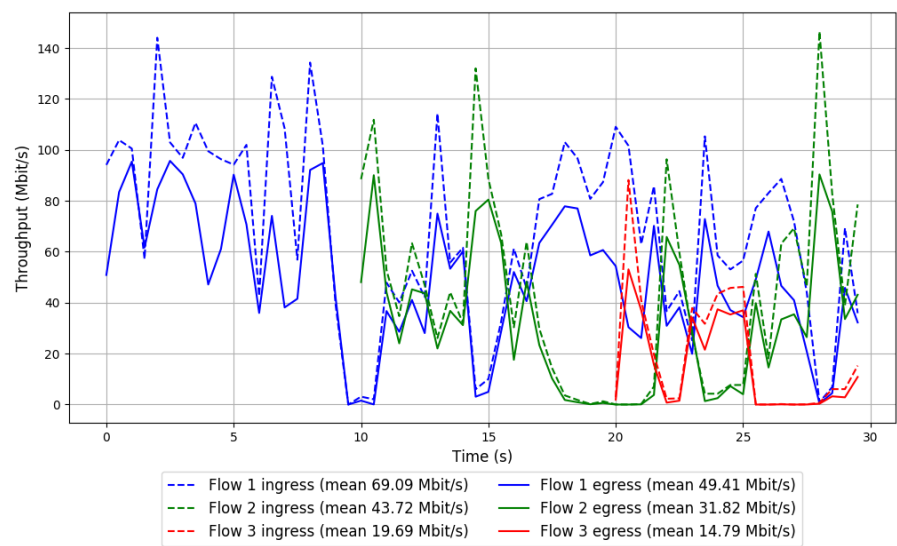
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-02-28 04:00:00
End at: 2018-02-28 04:00:30
Local clock offset: 1.865 ms
Remote clock offset: 9.461 ms


# Below is generated by plot.py at 2018-02-28 07:53:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.40 Mbit/s
95th percentile per-packet one-way delay: 48.280 ms
Loss rate: 25.74%
-- Flow 1:
Average throughput: 49.51 Mbit/s
95th percentile per-packet one-way delay: 47.413 ms
Loss rate: 20.03%
-- Flow 2:
Average throughput: 42.63 Mbit/s
95th percentile per-packet one-way delay: 49.587 ms
Loss rate: 31.76%
-- Flow 3:
Average throughput: 13.76 Mbit/s
95th percentile per-packet one-way delay: 48.459 ms
Loss rate: 39.52%
```

Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-02-28 04:21:30
End at: 2018-02-28 04:22:00
Local clock offset: 5.777 ms
Remote clock offset: 15.853 ms


# Below is generated by plot.py at 2018-02-28 07:54:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.68 Mbit/s
95th percentile per-packet one-way delay: 45.359 ms
Loss rate: 26.84%
-- Flow 1:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 44.880 ms
Loss rate: 22.17%
-- Flow 2:
Average throughput: 28.99 Mbit/s
95th percentile per-packet one-way delay: 46.627 ms
Loss rate: 37.56%
-- Flow 3:
Average throughput: 14.25 Mbit/s
95th percentile per-packet one-way delay: 45.166 ms
Loss rate: 26.53%
```
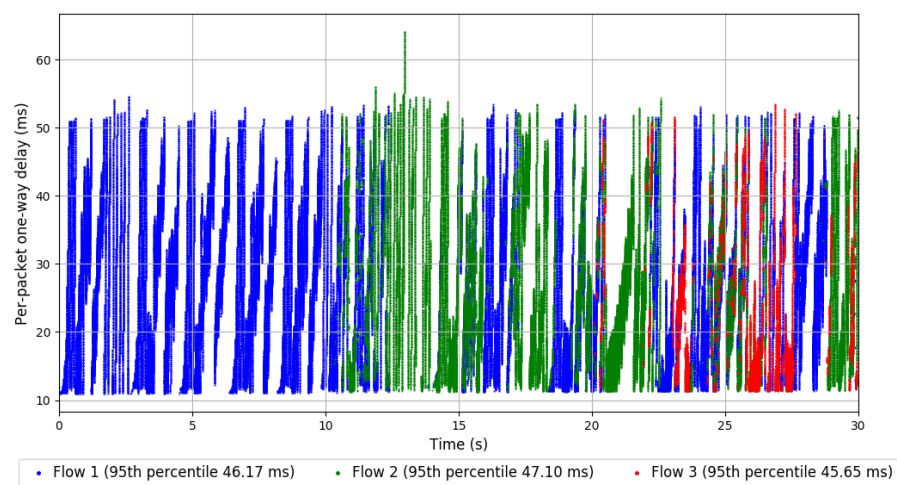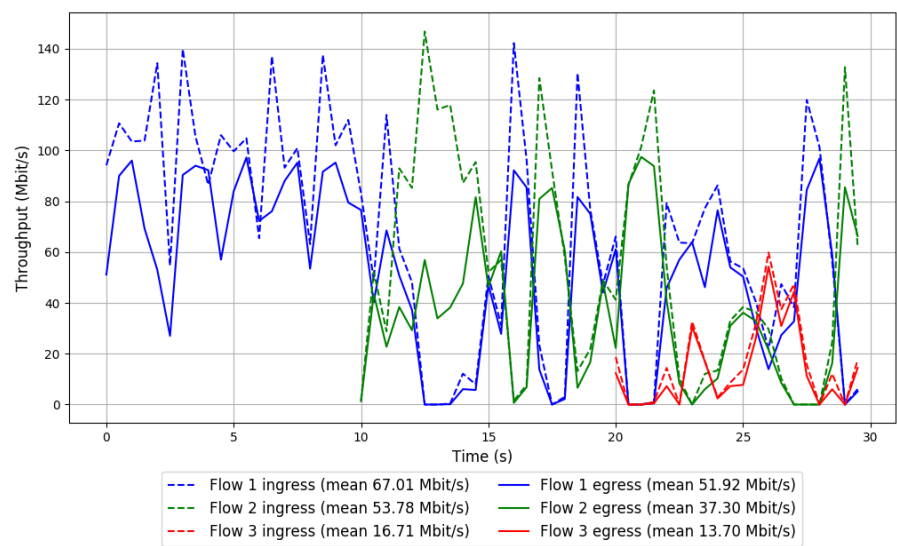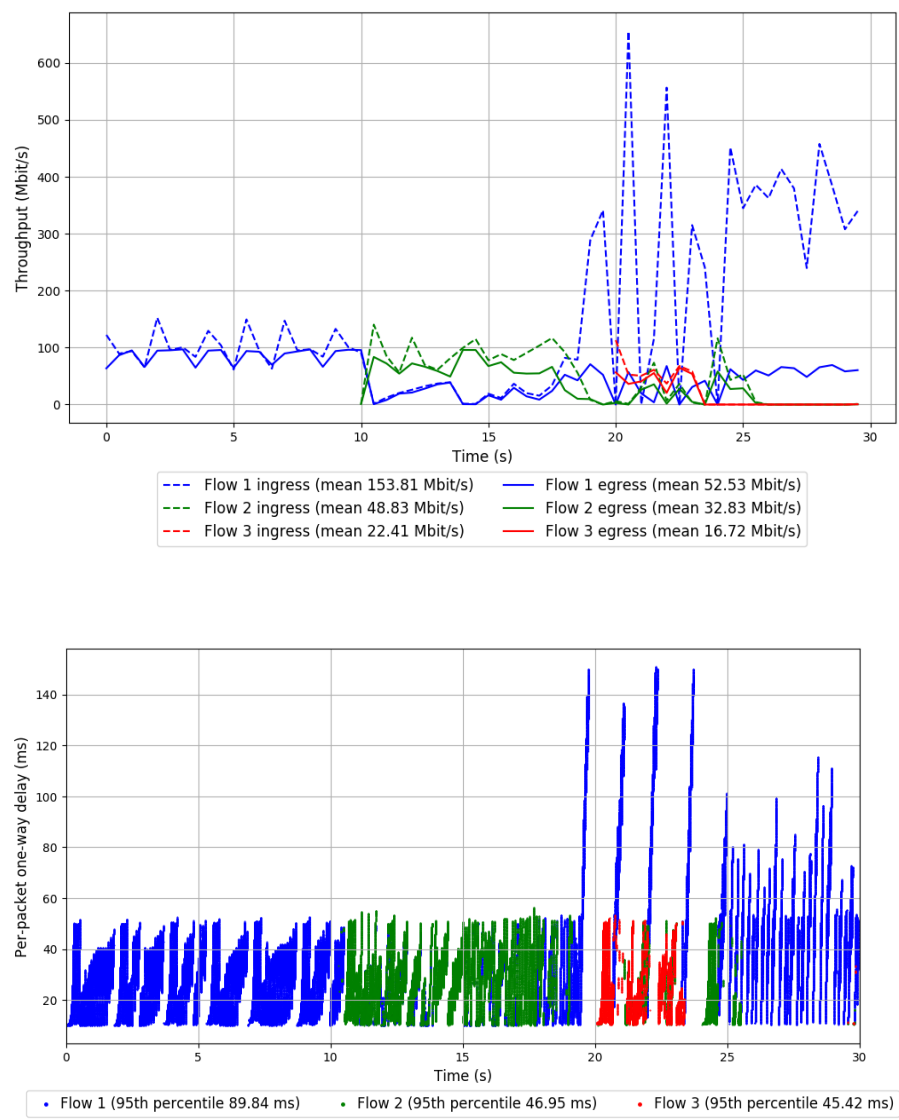
Run 3: Report of Verus — Data Link



Flow 1 ingress (mean 70.50 Mbit/s) --- Flow 1 egress (mean 54.80 Mbit/s)
Flow 2 ingress (mean 46.38 Mbit/s) --- Flow 2 egress (mean 28.99 Mbit/s)
Flow 3 ingress (mean 19.48 Mbit/s) --- Flow 3 egress (mean 14.25 Mbit/s)



Flow 1 (95th percentile 44.88 ms)  Flow 2 (95th percentile 46.63 ms)  Flow 3 (95th percentile 45.17 ms)

```
Run 4: Statistics of Verus

Start at: 2018-02-28 04:42:59
End at: 2018-02-28 04:43:29
Local clock offset: 2.339 ms
Remote clock offset: 18.947 ms


# Below is generated by plot.py at 2018-02-28 07:54:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.49 Mbit/s
95th percentile per-packet one-way delay: 48.232 ms
Loss rate: 27.87%
-- Flow 1:
Average throughput: 49.41 Mbit/s
95th percentile per-packet one-way delay: 48.648 ms
Loss rate: 28.45%
-- Flow 2:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 47.704 ms
Loss rate: 27.18%
-- Flow 3:
Average throughput: 14.79 Mbit/s
95th percentile per-packet one-way delay: 45.507 ms
Loss rate: 24.87%
```
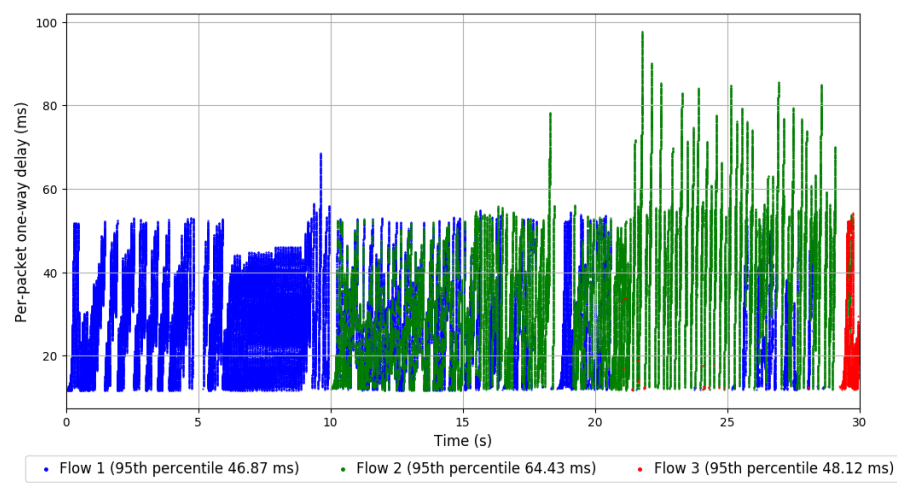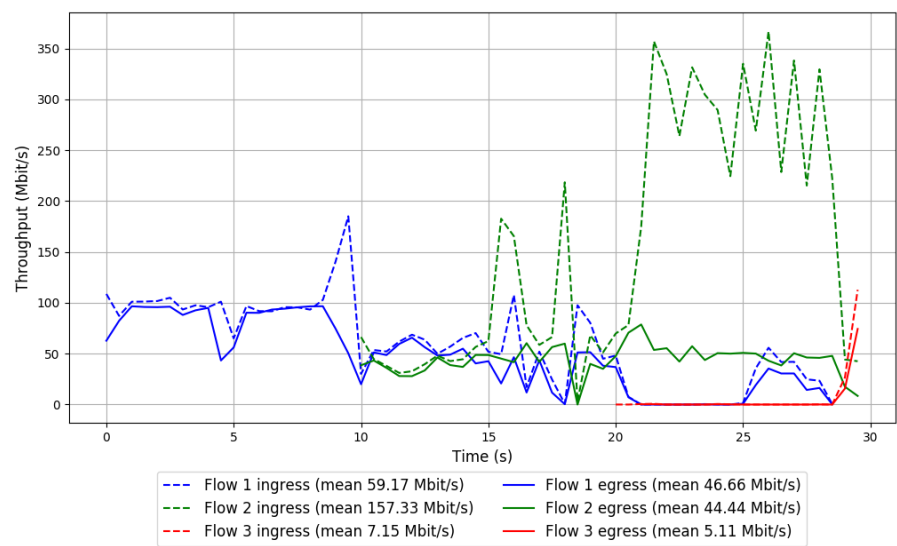
# Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-02-28 05:04:23
End at: 2018-02-28 05:04:53
Local clock offset: 3.632 ms
Remote clock offset: 3.962 ms

# Below is generated by plot.py at 2018-02-28 07:54:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.98 Mbit/s
95th percentile per-packet one-way delay: 46.433 ms
Loss rate: 24.83%
-- Flow 1:
Average throughput: 51.92 Mbit/s
95th percentile per-packet one-way delay: 46.169 ms
Loss rate: 22.41%
-- Flow 2:
Average throughput: 37.30 Mbit/s
95th percentile per-packet one-way delay: 47.098 ms
Loss rate: 30.53%
-- Flow 3:
Average throughput: 13.70 Mbit/s
95th percentile per-packet one-way delay: 45.650 ms
Loss rate: 17.77%
```
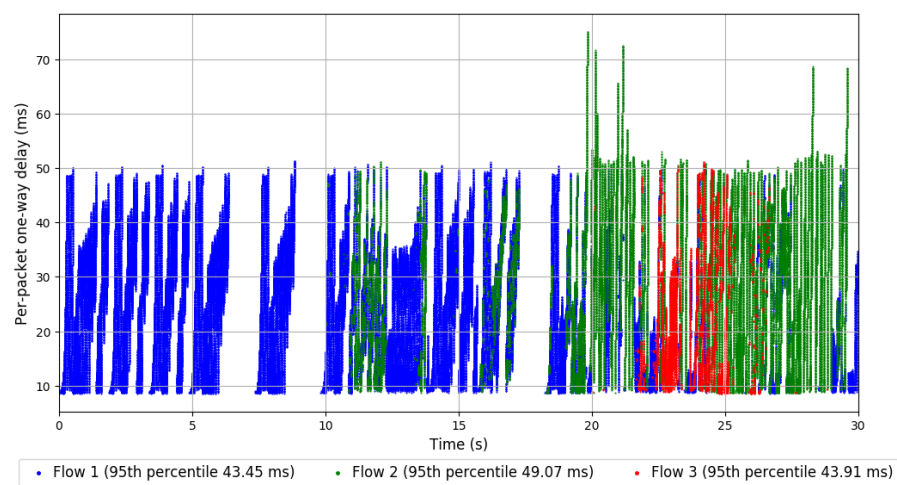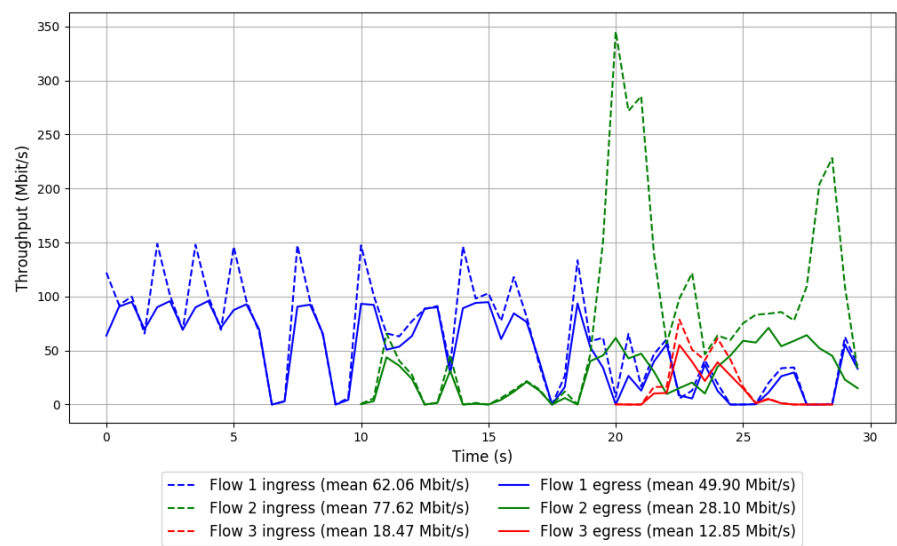
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-02-28 05:25:42
End at: 2018-02-28 05:26:12
Local clock offset: 1.89 ms
Remote clock offset: -7.821 ms


# Below is generated by plot.py at 2018-02-28 07:54:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.42 Mbit/s
95th percentile per-packet one-way delay: 74.120 ms
Loss rate: 58.84%
-- Flow 1:
Average throughput: 52.53 Mbit/s
95th percentile per-packet one-way delay: 89.842 ms
Loss rate: 65.81%
-- Flow 2:
Average throughput: 32.83 Mbit/s
95th percentile per-packet one-way delay: 46.954 ms
Loss rate: 32.94%
-- Flow 3:
Average throughput: 16.72 Mbit/s
95th percentile per-packet one-way delay: 45.422 ms
Loss rate: 25.59%
```
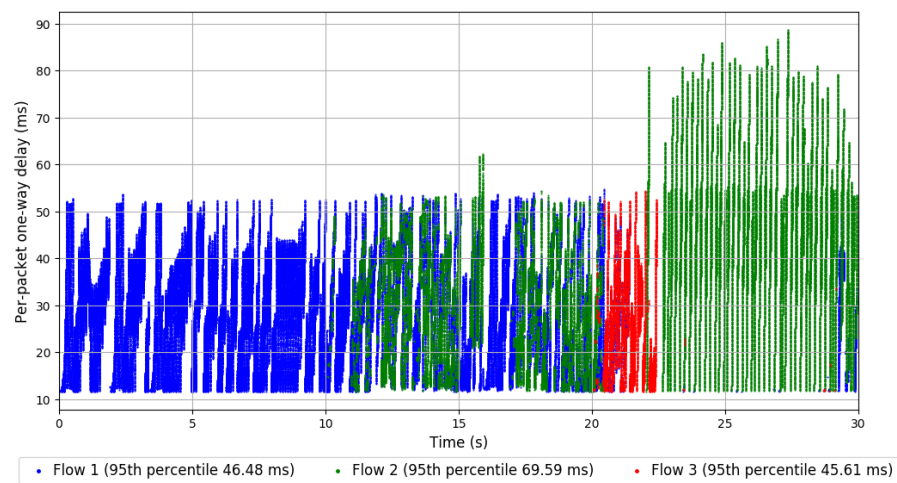
## Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-02-28 05:47:11
End at: 2018-02-28 05:47:41
Local clock offset: 1.315 ms
Remote clock offset: -3.43 ms


# Below is generated by plot.py at 2018-02-28 07:55:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.74 Mbit/s
95th percentile per-packet one-way delay: 52.500 ms
Loss rate: 53.62%
-- Flow 1:
Average throughput: 46.66 Mbit/s
95th percentile per-packet one-way delay: 46.872 ms
Loss rate: 21.62%
-- Flow 2:
Average throughput: 44.44 Mbit/s
95th percentile per-packet one-way delay: 64.433 ms
Loss rate: 71.72%
-- Flow 3:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 48.115 ms
Loss rate: 35.78%
```
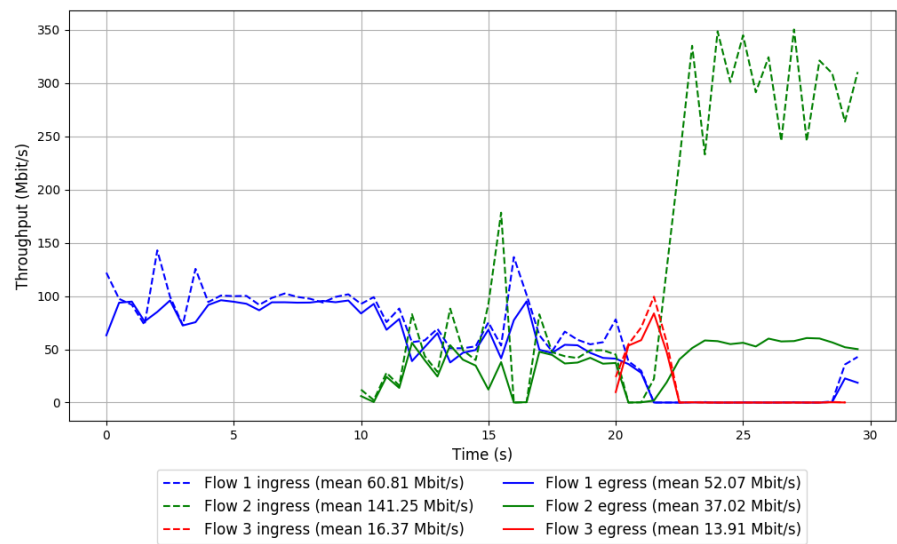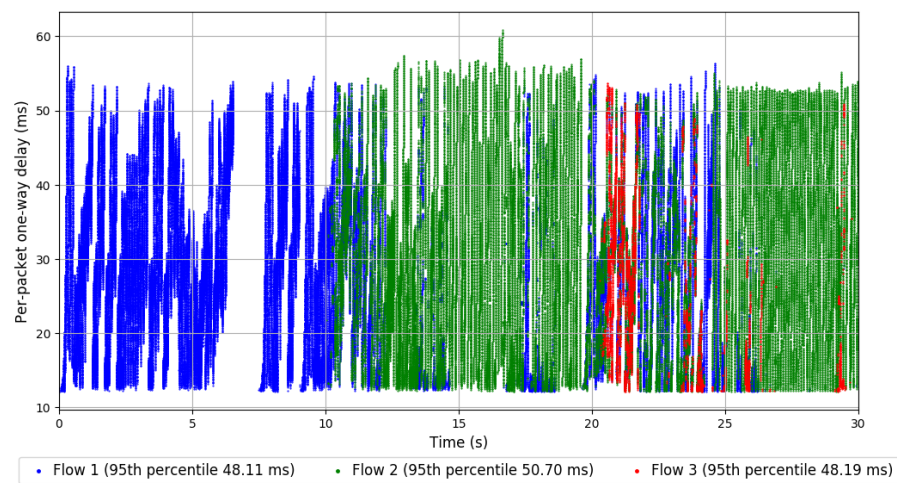
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-02-28 06:08:27
End at: 2018-02-28 06:08:57
Local clock offset: 4.389 ms
Remote clock offset: -5.276 ms


# Below is generated by plot.py at 2018-02-28 07:55:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.03 Mbit/s
95th percentile per-packet one-way delay: 45.400 ms
Loss rate: 39.01%
-- Flow 1:
Average throughput: 49.90 Mbit/s
95th percentile per-packet one-way delay: 43.453 ms
Loss rate: 19.53%
-- Flow 2:
Average throughput: 28.10 Mbit/s
95th percentile per-packet one-way delay: 49.067 ms
Loss rate: 63.69%
-- Flow 3:
Average throughput: 12.85 Mbit/s
95th percentile per-packet one-way delay: 43.913 ms
Loss rate: 31.78%
```
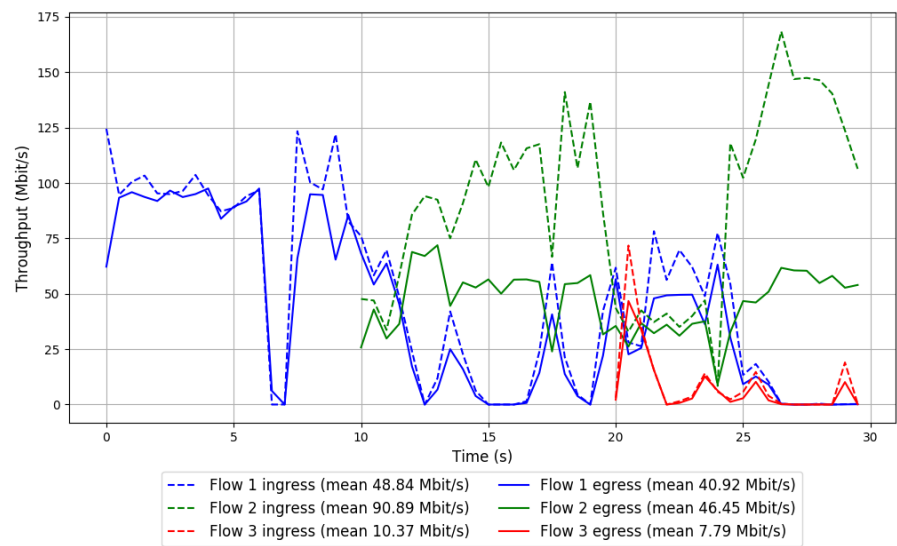
Run 8: Report of Verus — Data Link



Flow 1 ingress (mean 62.06 Mbit/s)    Flow 1 egress (mean 49.90 Mbit/s)
Flow 2 ingress (mean 77.62 Mbit/s)    Flow 2 egress (mean 28.10 Mbit/s)
Flow 3 ingress (mean 18.47 Mbit/s)    Flow 3 egress (mean 12.85 Mbit/s)



Flow 1 (95th percentile 43.45 ms)    Flow 2 (95th percentile 49.07 ms)    Flow 3 (95th percentile 43.91 ms)

```
Run 9: Statistics of Verus

Start at: 2018-02-28 06:29:39
End at: 2018-02-28 06:30:09
Local clock offset: 0.808 ms
Remote clock offset: -7.819 ms


# Below is generated by plot.py at 2018-02-28 07:55:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.86 Mbit/s
95th percentile per-packet one-way delay: 53.379 ms
Loss rate: 49.39%
-- Flow 1:
Average throughput: 52.07 Mbit/s
95th percentile per-packet one-way delay: 46.483 ms
Loss rate: 14.43%
-- Flow 2:
Average throughput: 37.02 Mbit/s
95th percentile per-packet one-way delay: 69.587 ms
Loss rate: 73.78%
-- Flow 3:
Average throughput: 13.91 Mbit/s
95th percentile per-packet one-way delay: 45.612 ms
Loss rate: 17.33%
```
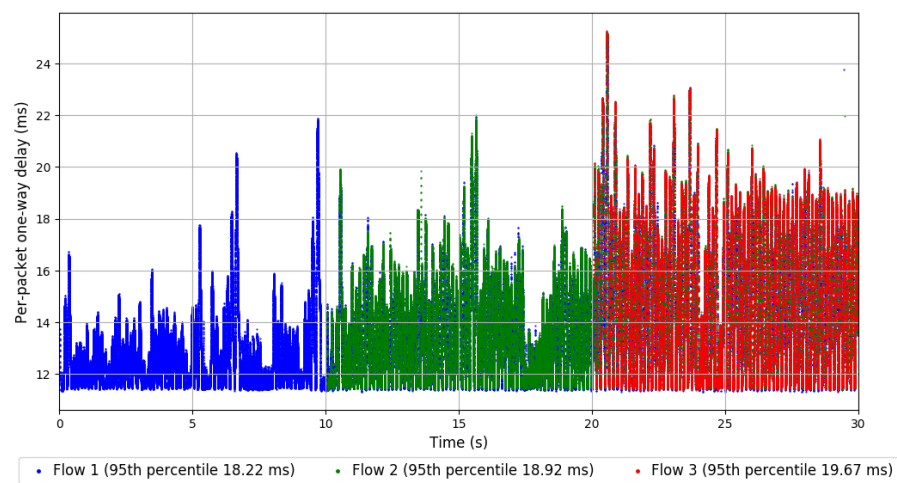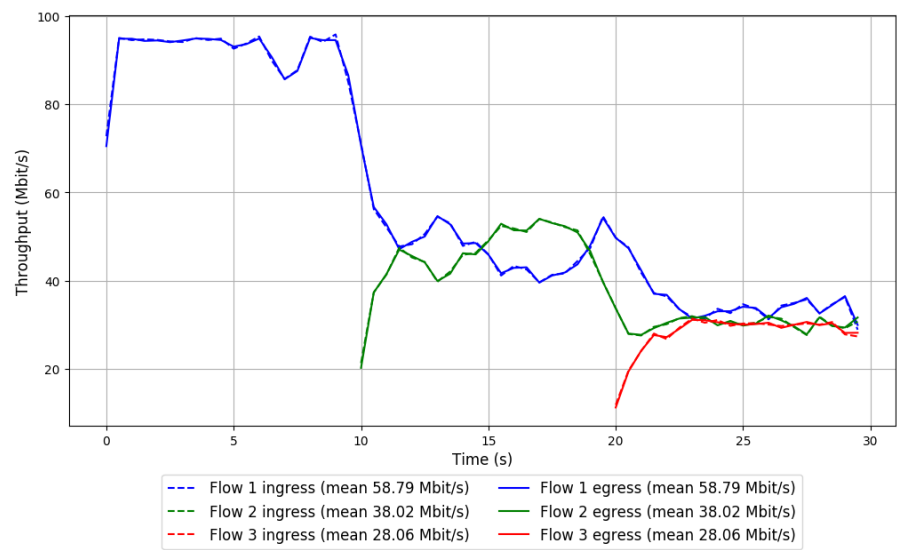
Run 9: Report of Verus — Data Link



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```
Run 10: Statistics of Verus

Start at: 2018-02-28 06:51:04
End at: 2018-02-28 06:51:34
Local clock offset: 1.95 ms
Remote clock offset: -3.601 ms


# Below is generated by plot.py at 2018-02-28 07:55:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.28 Mbit/s
95th percentile per-packet one-way delay: 49.347 ms
Loss rate: 33.95%
-- Flow 1:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 48.106 ms
Loss rate: 16.12%
-- Flow 2:
Average throughput: 46.45 Mbit/s
95th percentile per-packet one-way delay: 50.695 ms
Loss rate: 48.82%
-- Flow 3:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 48.193 ms
Loss rate: 25.22%
```

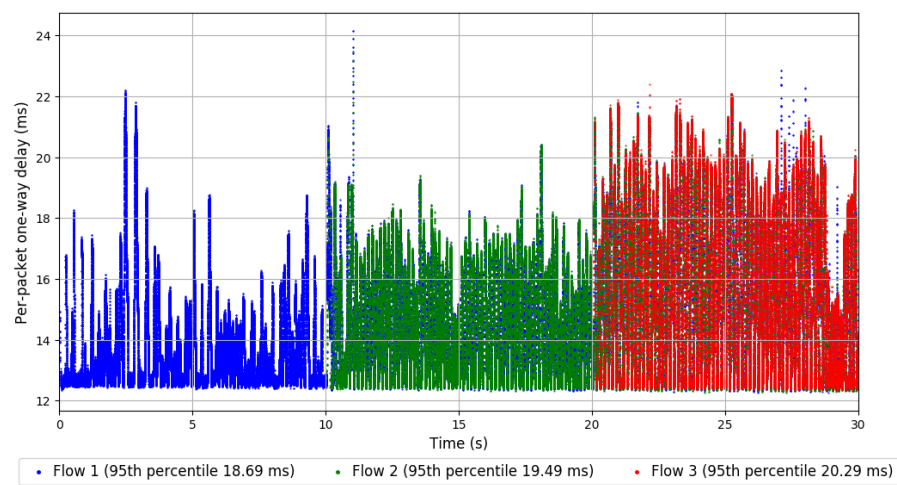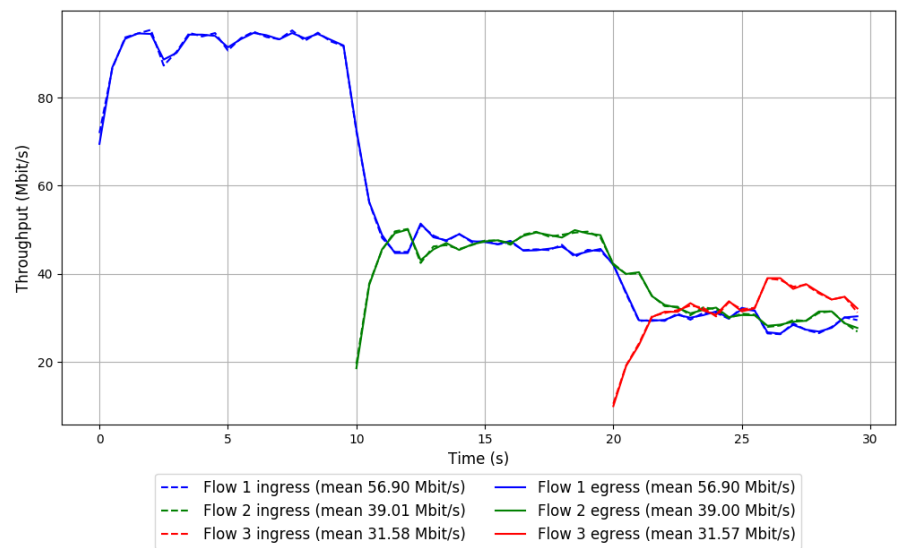# Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-02-28 03:40:52
End at: 2018-02-28 03:41:22
Local clock offset: 3.118 ms
Remote clock offset: 1.027 ms


# Below is generated by plot.py at 2018-02-28 07:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.43 Mbit/s
95th percentile per-packet one-way delay: 18.718 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.79 Mbit/s
95th percentile per-packet one-way delay: 18.223 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.02 Mbit/s
95th percentile per-packet one-way delay: 18.917 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.06 Mbit/s
95th percentile per-packet one-way delay: 19.667 ms
Loss rate: 0.00%
```
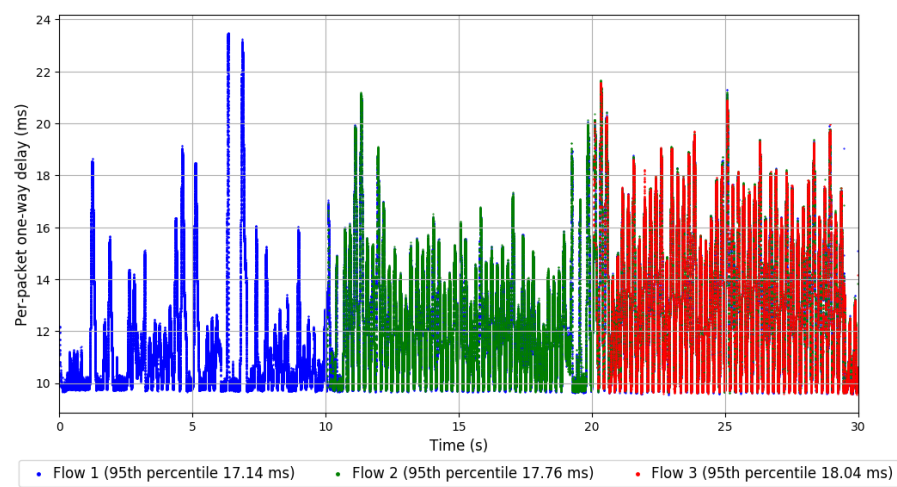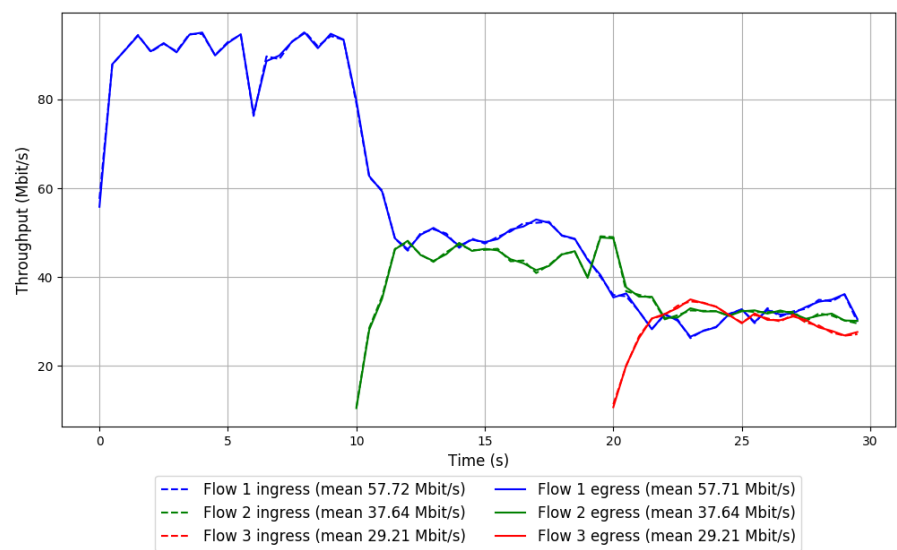
Run 1: Report of Copa — Data Link



Flow 1 ingress (mean 58.79 Mbit/s) —— Flow 1 egress (mean 58.79 Mbit/s)
Flow 2 ingress (mean 38.02 Mbit/s) —— Flow 2 egress (mean 38.02 Mbit/s)
Flow 3 ingress (mean 28.06 Mbit/s) —— Flow 3 egress (mean 28.06 Mbit/s)



• Flow 1 (95th percentile 18.22 ms)   • Flow 2 (95th percentile 18.92 ms)   • Flow 3 (95th percentile 19.67 ms)

```
Run 2: Statistics of Copa

Start at: 2018-02-28 04:02:25
End at: 2018-02-28 04:02:55
Local clock offset: 2.665 ms
Remote clock offset: 10.846 ms


# Below is generated by plot.py at 2018-02-28 07:56:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.34 Mbit/s
95th percentile per-packet one-way delay: 19.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.90 Mbit/s
95th percentile per-packet one-way delay: 18.686 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.00 Mbit/s
95th percentile per-packet one-way delay: 19.493 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 20.285 ms
Loss rate: 0.00%
```
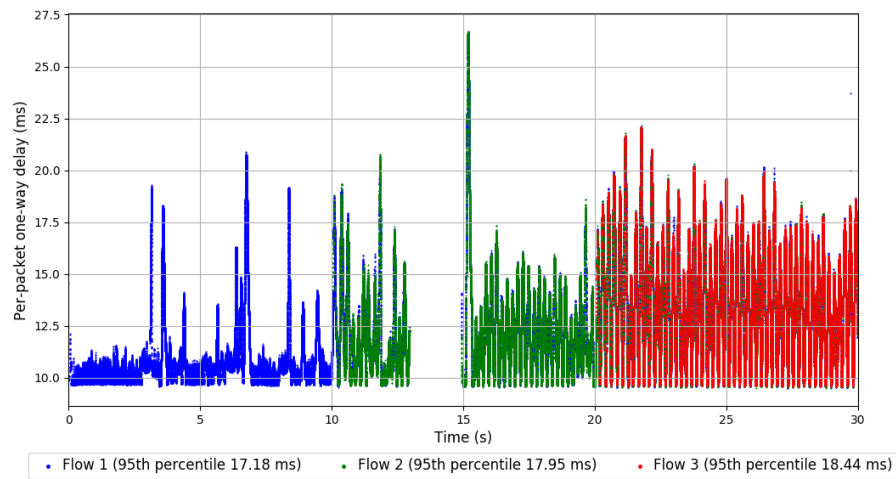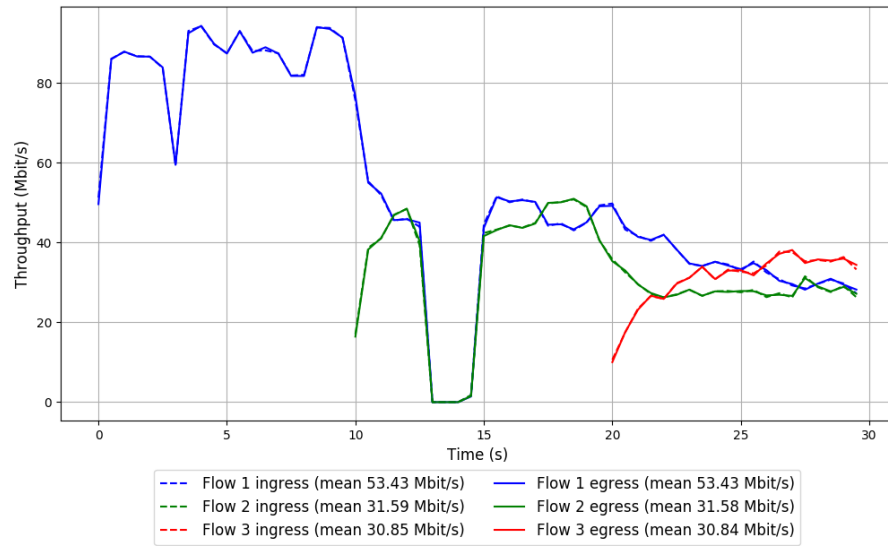
Run 2: Report of Copa — Data Link



Flow 1 ingress (mean 56.90 Mbit/s)    Flow 1 egress (mean 56.90 Mbit/s)
Flow 2 ingress (mean 39.01 Mbit/s)    Flow 2 egress (mean 39.00 Mbit/s)
Flow 3 ingress (mean 31.58 Mbit/s)    Flow 3 egress (mean 31.57 Mbit/s)



Flow 1 (95th percentile 18.69 ms)    Flow 2 (95th percentile 19.49 ms)    Flow 3 (95th percentile 20.29 ms)

```
Run 3: Statistics of Copa

Start at: 2018-02-28 04:23:54
End at: 2018-02-28 04:24:24
Local clock offset: 6.317 ms
Remote clock offset: 16.615 ms


# Below is generated by plot.py at 2018-02-28 07:56:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 17.520 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.71 Mbit/s
95th percentile per-packet one-way delay: 17.140 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.64 Mbit/s
95th percentile per-packet one-way delay: 17.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.21 Mbit/s
95th percentile per-packet one-way delay: 18.043 ms
Loss rate: 0.00%
```
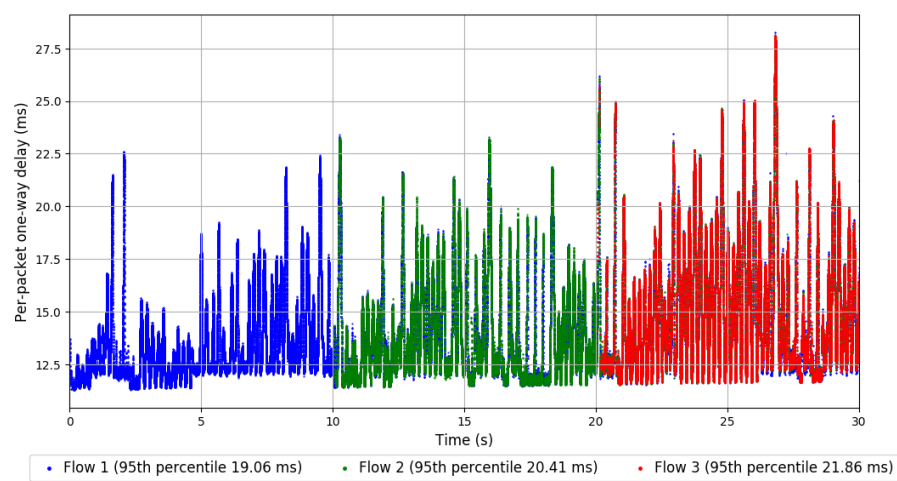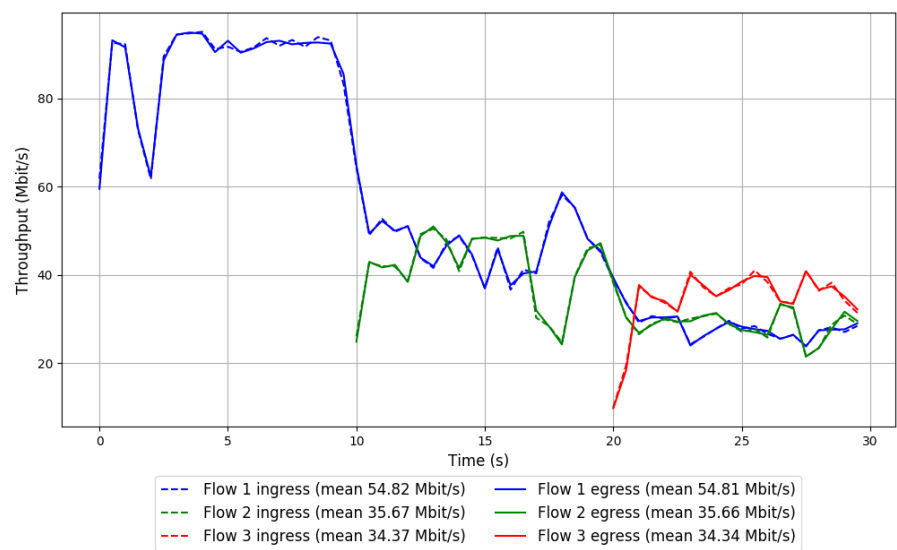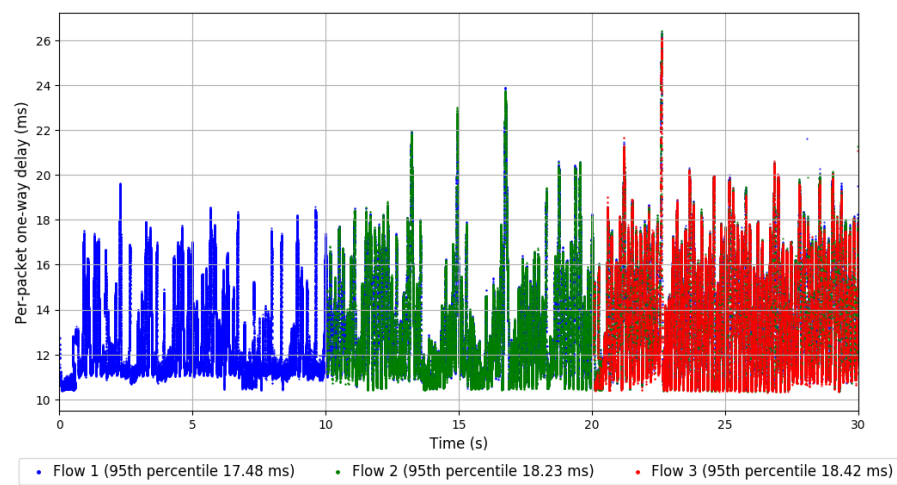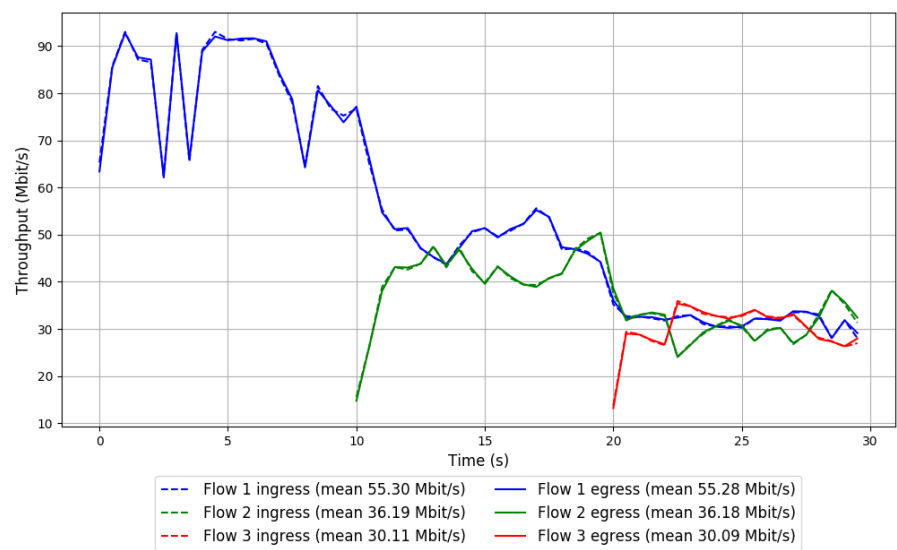
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-02-28 04:45:24
End at: 2018-02-28 04:45:54
Local clock offset: -2.227 ms
Remote clock offset: 12.332 ms


# Below is generated by plot.py at 2018-02-28 07:57:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.70 Mbit/s
95th percentile per-packet one-way delay: 17.645 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.43 Mbit/s
95th percentile per-packet one-way delay: 17.176 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 17.951 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 18.442 ms
Loss rate: 0.00%
```

Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-02-28 05:06:49
End at: 2018-02-28 05:07:19
Local clock offset: 3.102 ms
Remote clock offset: 1.457 ms


# Below is generated by plot.py at 2018-02-28 07:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.95 Mbit/s
95th percentile per-packet one-way delay: 19.975 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.81 Mbit/s
95th percentile per-packet one-way delay: 19.064 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.66 Mbit/s
95th percentile per-packet one-way delay: 20.409 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.34 Mbit/s
95th percentile per-packet one-way delay: 21.865 ms
Loss rate: 0.00%
```
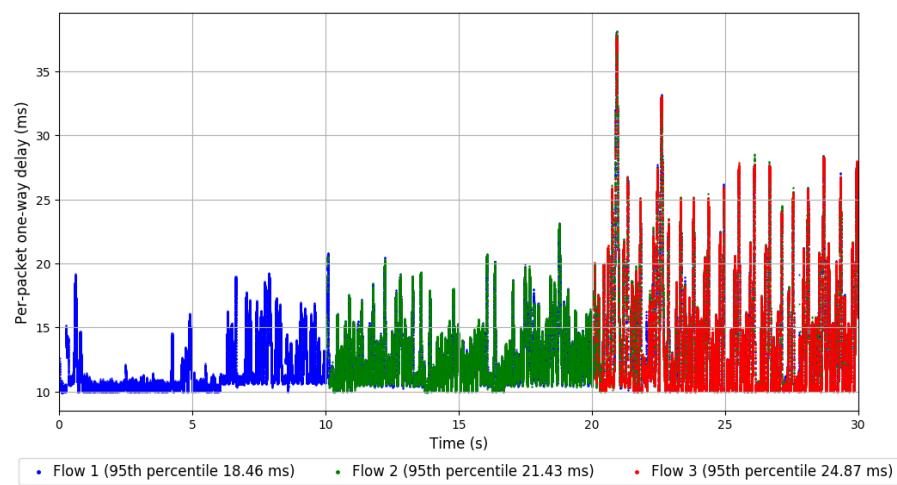
## Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-02-28 05:28:07
End at: 2018-02-28 05:28:37
Local clock offset: 1.497 ms
Remote clock offset: -8.403 ms


# Below is generated by plot.py at 2018-02-28 07:57:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 17.770 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 17.477 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.18 Mbit/s
95th percentile per-packet one-way delay: 18.235 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.09 Mbit/s
95th percentile per-packet one-way delay: 18.420 ms
Loss rate: 0.00%
```
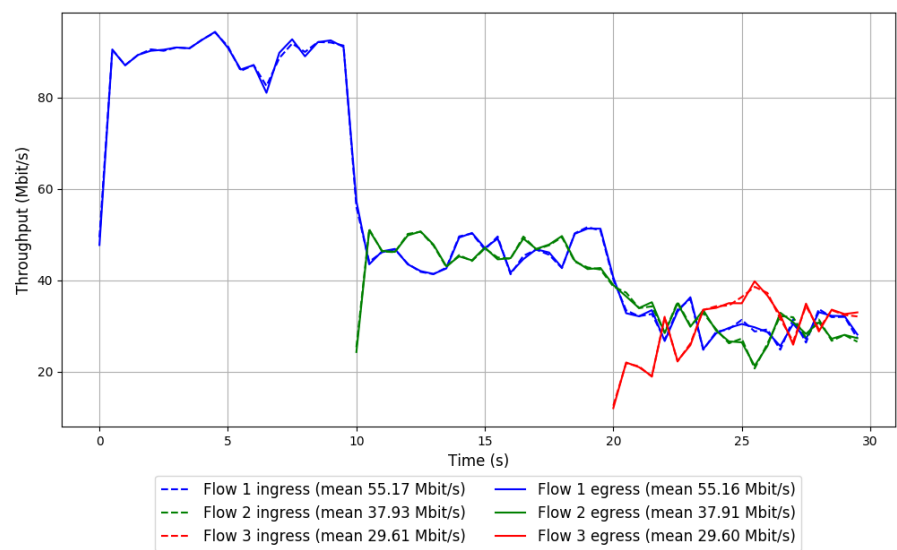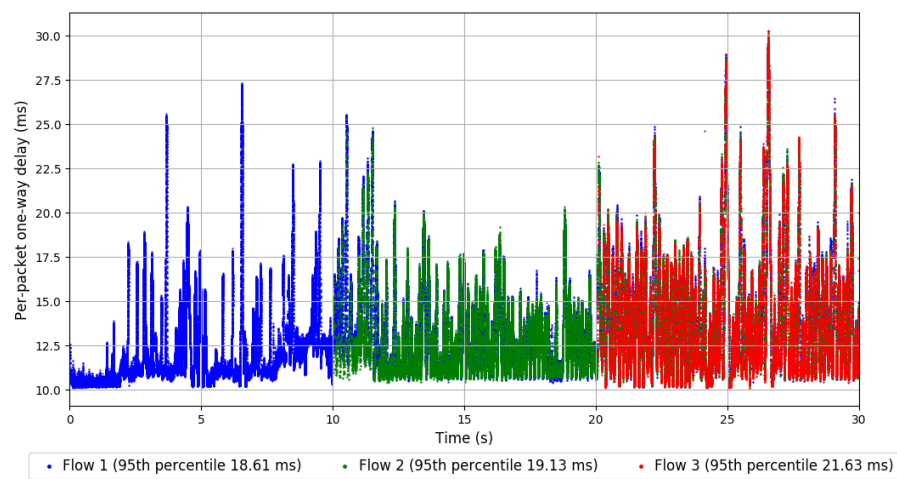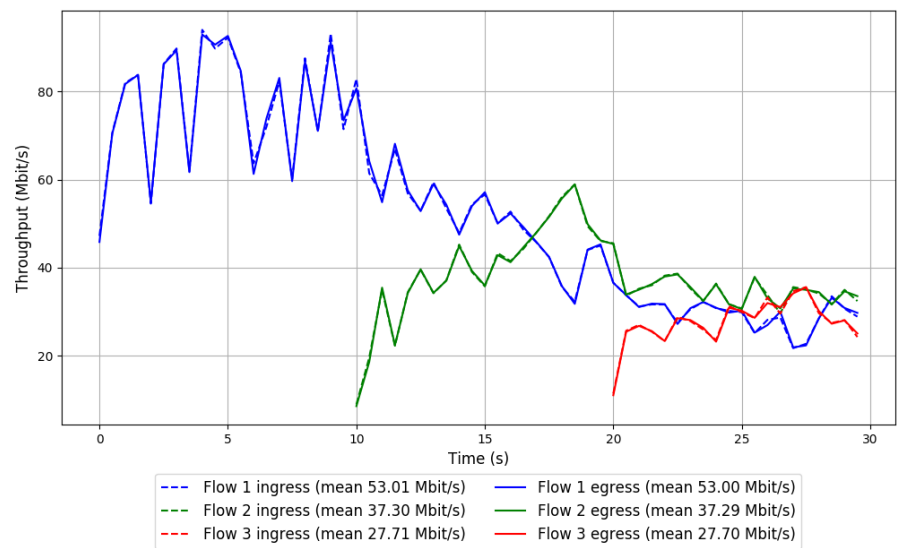
## Run 6: Report of Copa — Data Link



Flow 1 ingress (mean 55.30 Mbit/s) --- Flow 1 egress (mean 55.28 Mbit/s)
Flow 2 ingress (mean 36.19 Mbit/s) --- Flow 2 egress (mean 36.18 Mbit/s)
Flow 3 ingress (mean 30.11 Mbit/s) --- Flow 3 egress (mean 30.09 Mbit/s)



Flow 1 (95th percentile 17.48 ms)  Flow 2 (95th percentile 18.23 ms)  Flow 3 (95th percentile 18.42 ms)

```
Run 7: Statistics of Copa

Start at: 2018-02-28 05:49:36
End at: 2018-02-28 05:50:06
Local clock offset: 2.095 ms
Remote clock offset: -4.76 ms


# Below is generated by plot.py at 2018-02-28 07:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.24 Mbit/s
95th percentile per-packet one-way delay: 20.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.16 Mbit/s
95th percentile per-packet one-way delay: 18.459 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.91 Mbit/s
95th percentile per-packet one-way delay: 21.434 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 24.872 ms
Loss rate: 0.00%
```
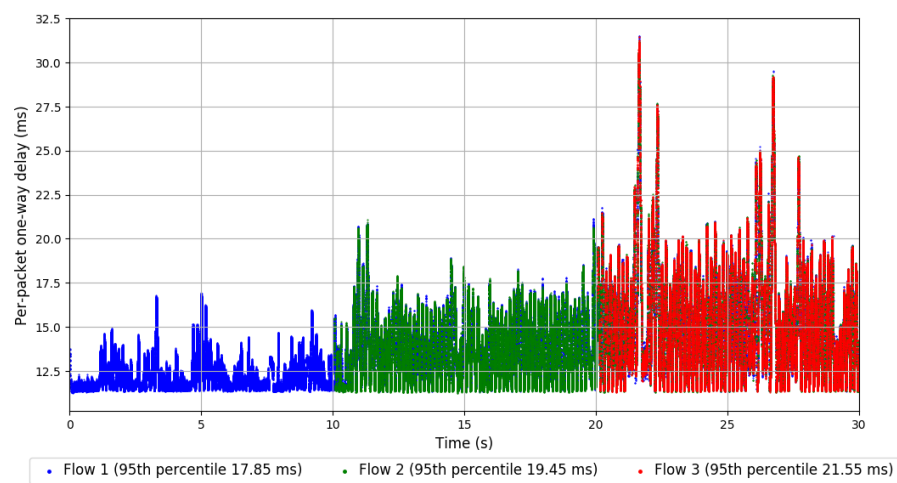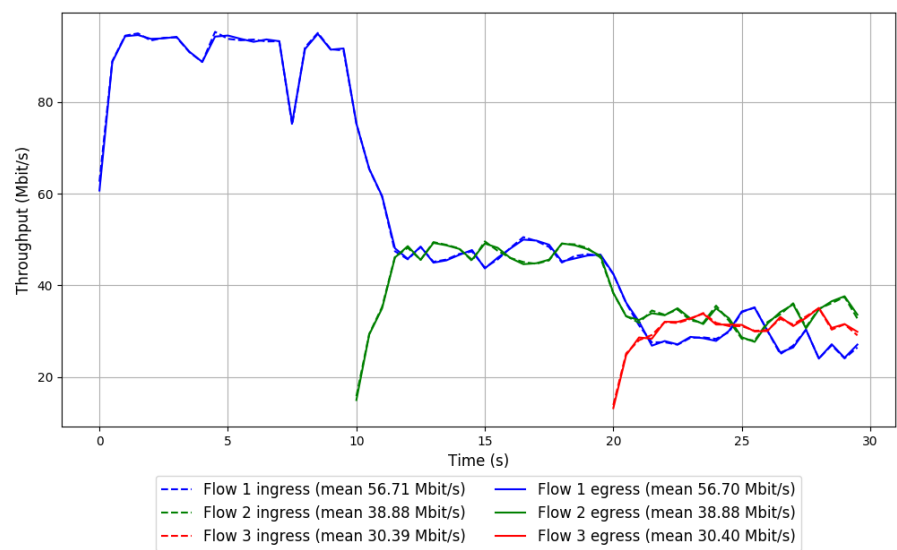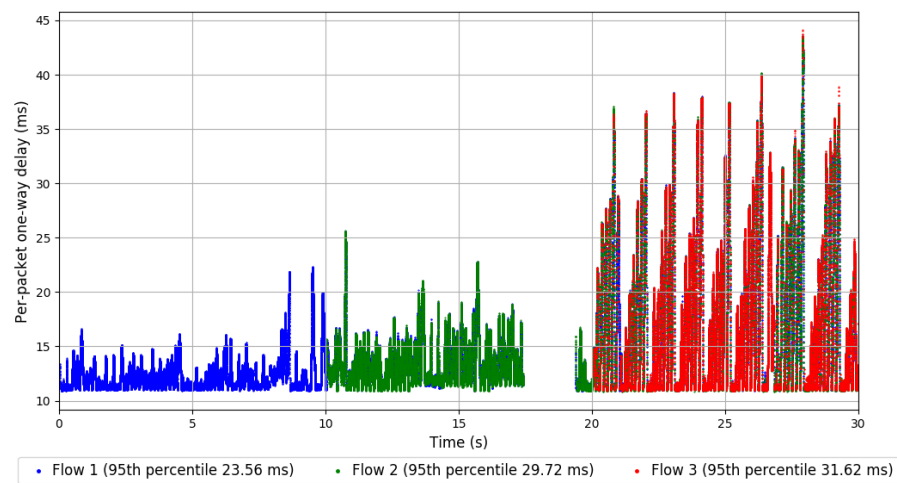
Run 7: Report of Copa — Data Link



Flow 1 ingress (mean 55.17 Mbit/s)     Flow 1 egress (mean 55.16 Mbit/s)
Flow 2 ingress (mean 37.93 Mbit/s)     Flow 2 egress (mean 37.91 Mbit/s)
Flow 3 ingress (mean 29.61 Mbit/s)     Flow 3 egress (mean 29.60 Mbit/s)



Flow 1 (95th percentile 18.46 ms)     Flow 2 (95th percentile 21.43 ms)     Flow 3 (95th percentile 24.87 ms)

```
Run 8: Statistics of Copa

Start at: 2018-02-28 06:10:49
End at: 2018-02-28 06:11:19
Local clock offset: 3.774 ms
Remote clock offset: -4.416 ms


# Below is generated by plot.py at 2018-02-28 07:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.03 Mbit/s
95th percentile per-packet one-way delay: 19.059 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.00 Mbit/s
95th percentile per-packet one-way delay: 18.608 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.29 Mbit/s
95th percentile per-packet one-way delay: 19.127 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 21.633 ms
Loss rate: 0.00%
```
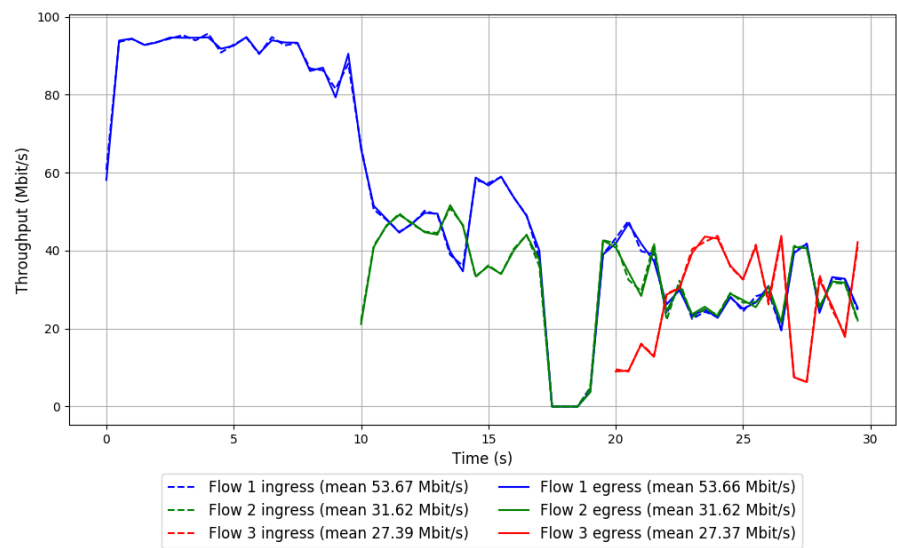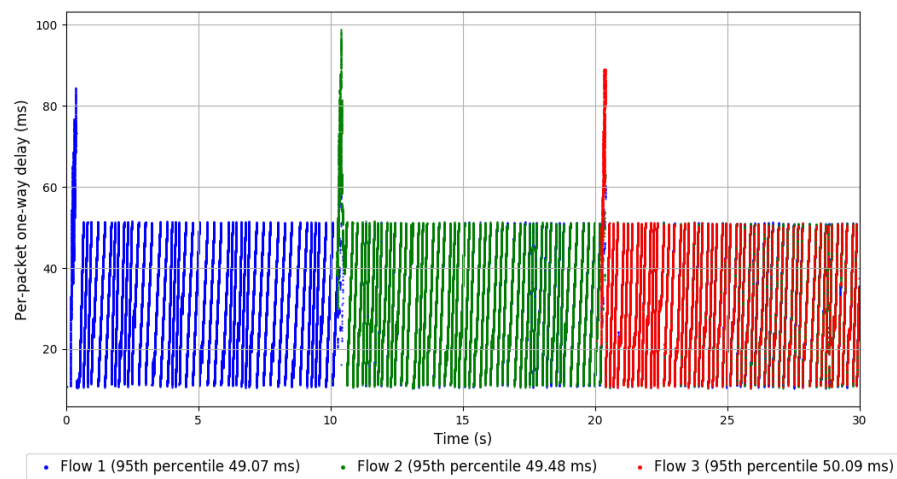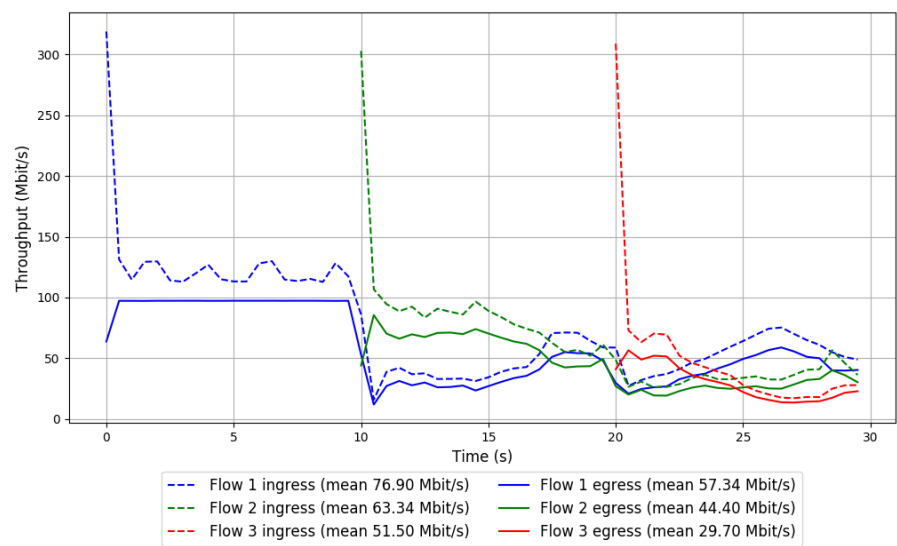
Run 8: Report of Copa — Data Link



Flow 1 ingress (mean 53.01 Mbit/s) --- Flow 1 egress (mean 53.00 Mbit/s)
Flow 2 ingress (mean 37.30 Mbit/s) --- Flow 2 egress (mean 37.29 Mbit/s)
Flow 3 ingress (mean 27.71 Mbit/s) --- Flow 3 egress (mean 27.70 Mbit/s)



Flow 1 (95th percentile 18.61 ms)　　Flow 2 (95th percentile 19.13 ms)　　Flow 3 (95th percentile 21.63 ms)

```
Run 9: Statistics of Copa

Start at: 2018-02-28 06:32:08
End at: 2018-02-28 06:32:38
Local clock offset: 2.479 ms
Remote clock offset: -6.877 ms


# Below is generated by plot.py at 2018-02-28 07:58:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.68 Mbit/s
95th percentile per-packet one-way delay: 18.950 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.70 Mbit/s
95th percentile per-packet one-way delay: 17.851 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.88 Mbit/s
95th percentile per-packet one-way delay: 19.445 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 21.546 ms
Loss rate: 0.00%
```
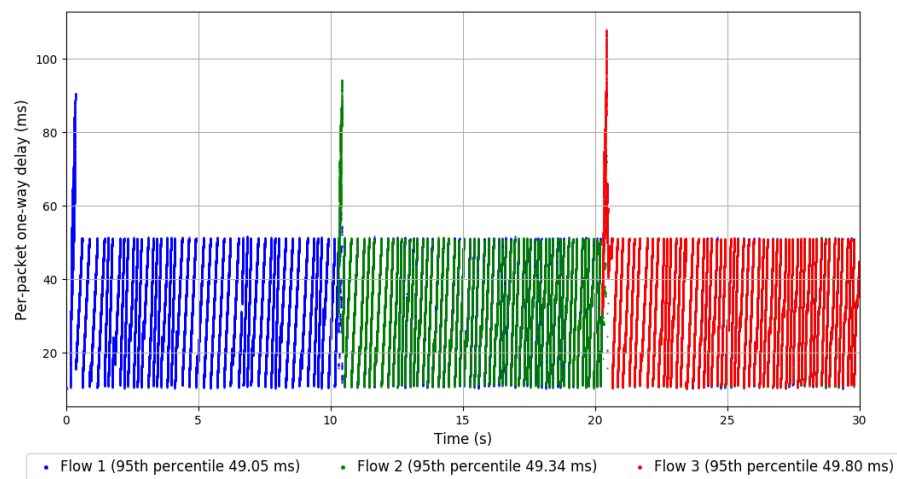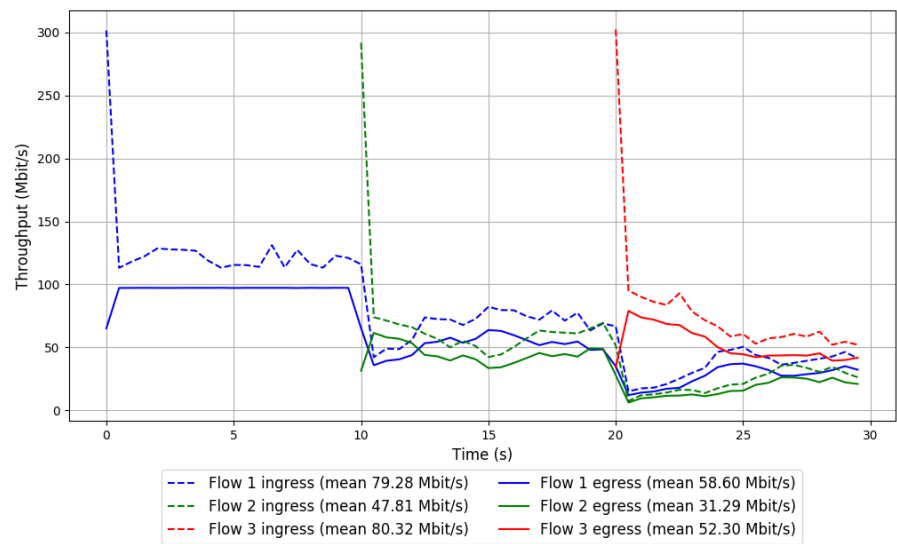
## Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2018-02-28 06:53:27
End at: 2018-02-28 06:53:57
Local clock offset: 2.755 ms
Remote clock offset: -4.012 ms


# Below is generated by plot.py at 2018-02-28 07:58:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.80 Mbit/s
95th percentile per-packet one-way delay: 27.132 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.66 Mbit/s
95th percentile per-packet one-way delay: 23.556 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 29.724 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.37 Mbit/s
95th percentile per-packet one-way delay: 31.618 ms
Loss rate: 0.00%
```

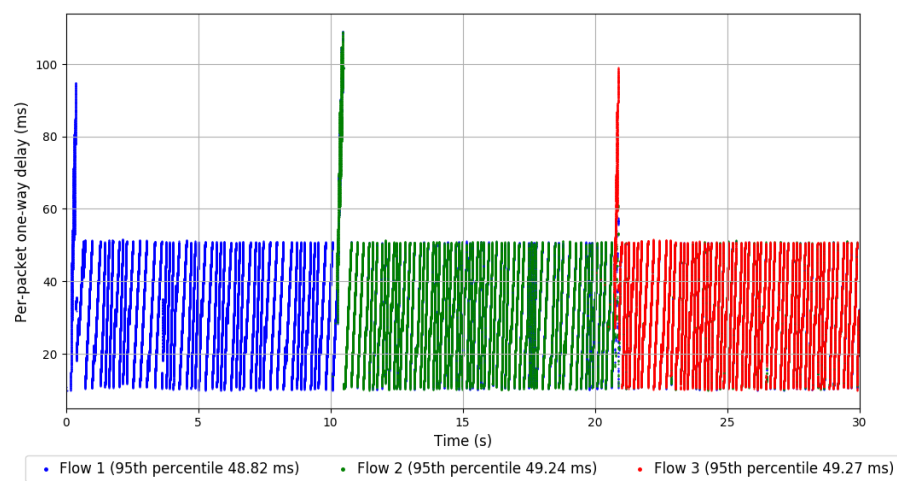Run 10: Report of Copa — Data Link





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```
Run 1: Statistics of FillP

Start at: 2018-02-28 03:48:07
End at: 2018-02-28 03:48:37
Local clock offset: 4.008 ms
Remote clock offset: 3.27 ms

# Below is generated by plot.py at 2018-02-28 07:58:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.70 Mbit/s
95th percentile per-packet one-way delay: 49.294 ms
Loss rate: 28.90%
-- Flow 1:
Average throughput: 57.34 Mbit/s
95th percentile per-packet one-way delay: 49.066 ms
Loss rate: 25.37%
-- Flow 2:
Average throughput: 44.40 Mbit/s
95th percentile per-packet one-way delay: 49.476 ms
Loss rate: 29.94%
-- Flow 3:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 50.086 ms
Loss rate: 42.24%
```
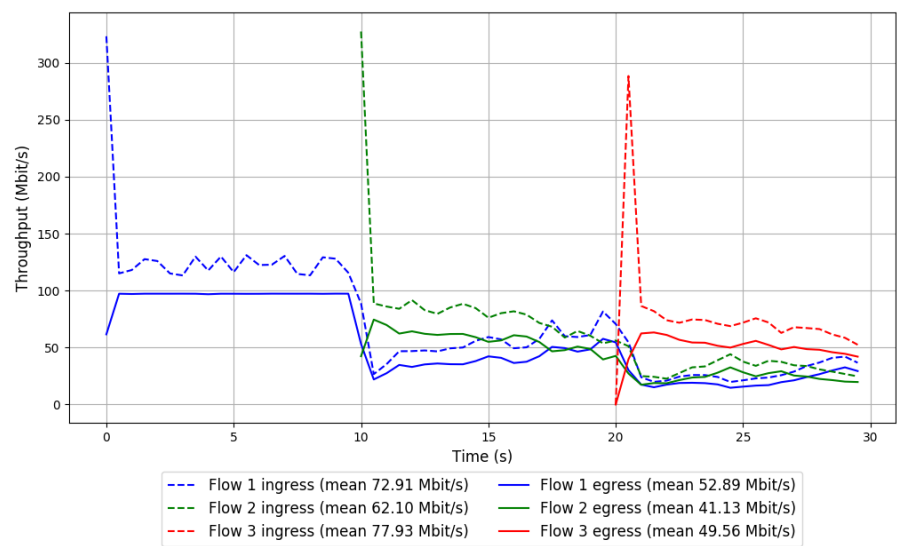
Run 1: Report of FillP — Data Link



Flow 1 ingress (mean 76.90 Mbit/s)    Flow 1 egress (mean 57.34 Mbit/s)
Flow 2 ingress (mean 63.34 Mbit/s)    Flow 2 egress (mean 44.40 Mbit/s)
Flow 3 ingress (mean 51.50 Mbit/s)    Flow 3 egress (mean 29.70 Mbit/s)



Flow 1 (95th percentile 49.07 ms)    Flow 2 (95th percentile 49.48 ms)    Flow 3 (95th percentile 50.09 ms)
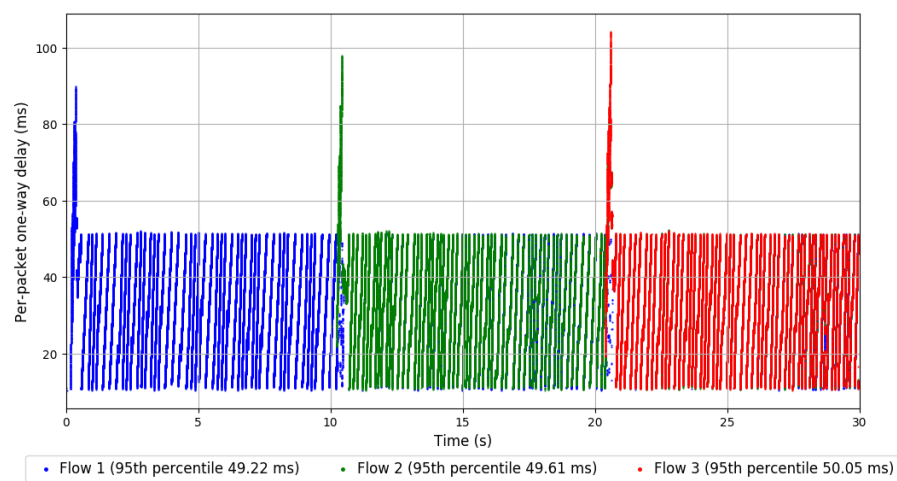
245

```
Run 2: Statistics of FillP

Start at: 2018-02-28 04:09:39
End at: 2018-02-28 04:10:09
Local clock offset: 3.352 ms
Remote clock offset: 11.623 ms


# Below is generated by plot.py at 2018-02-28 07:58:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.72 Mbit/s
95th percentile per-packet one-way delay: 49.251 ms
Loss rate: 29.69%
-- Flow 1:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 49.053 ms
Loss rate: 25.99%
-- Flow 2:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 49.338 ms
Loss rate: 34.51%
-- Flow 3:
Average throughput: 52.30 Mbit/s
95th percentile per-packet one-way delay: 49.805 ms
Loss rate: 34.92%
```
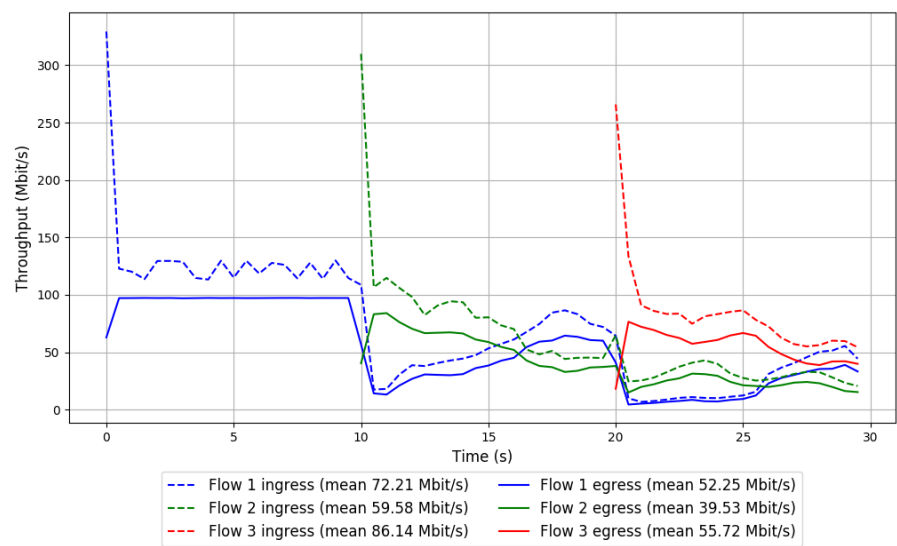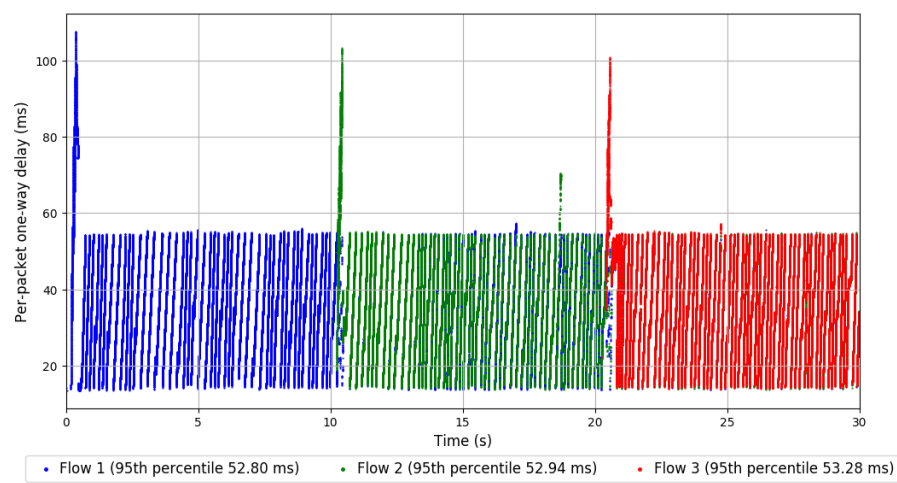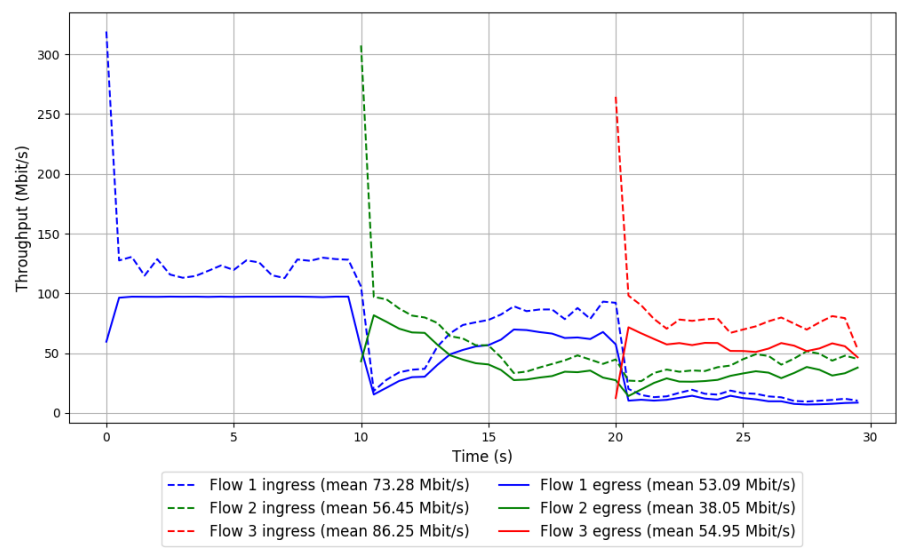
Run 2: Report of FillP — Data Link



Flow 1 ingress (mean 79.28 Mbit/s) — Flow 1 egress (mean 58.60 Mbit/s)
Flow 2 ingress (mean 47.81 Mbit/s) — Flow 2 egress (mean 31.29 Mbit/s)
Flow 3 ingress (mean 80.32 Mbit/s) — Flow 3 egress (mean 52.30 Mbit/s)



Flow 1 (95th percentile 49.05 ms)   •   Flow 2 (95th percentile 49.34 ms)   •   Flow 3 (95th percentile 49.80 ms)

```
Run 3: Statistics of FillP

Start at: 2018-02-28 04:31:16
End at: 2018-02-28 04:31:46
Local clock offset: 5.071 ms
Remote clock offset: 17.101 ms


# Below is generated by plot.py at 2018-02-28 07:59:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.63 Mbit/s
95th percentile per-packet one-way delay: 49.018 ms
Loss rate: 30.98%
-- Flow 1:
Average throughput: 52.89 Mbit/s
95th percentile per-packet one-way delay: 48.819 ms
Loss rate: 27.42%
-- Flow 2:
Average throughput: 41.13 Mbit/s
95th percentile per-packet one-way delay: 49.240 ms
Loss rate: 33.83%
-- Flow 3:
Average throughput: 49.56 Mbit/s
95th percentile per-packet one-way delay: 49.273 ms
Loss rate: 36.47%
```
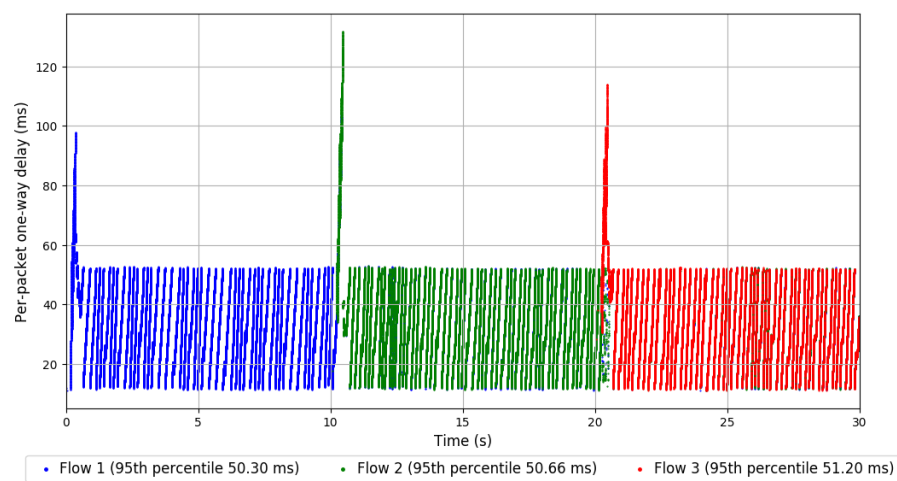
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 72.91 Mbit/s) --- Flow 1 egress (mean 52.89 Mbit/s) ———
Flow 2 ingress (mean 62.10 Mbit/s) --- Flow 2 egress (mean 41.13 Mbit/s) ———
Flow 3 ingress (mean 77.93 Mbit/s) --- Flow 3 egress (mean 49.56 Mbit/s) ———

Flow 1 (95th percentile 48.82 ms) • Flow 2 (95th percentile 49.24 ms) • Flow 3 (95th percentile 49.27 ms)

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```
Run 4: Statistics of FillP

Start at: 2018-02-28 04:52:40
End at: 2018-02-28 04:53:10
Local clock offset: 4.237 ms
Remote clock offset: 21.298 ms


# Below is generated by plot.py at 2018-02-28 07:59:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 49.472 ms
Loss rate: 31.15%
-- Flow 1:
Average throughput: 52.25 Mbit/s
95th percentile per-packet one-way delay: 49.218 ms
Loss rate: 27.63%
-- Flow 2:
Average throughput: 39.53 Mbit/s
95th percentile per-packet one-way delay: 49.608 ms
Loss rate: 33.70%
-- Flow 3:
Average throughput: 55.72 Mbit/s
95th percentile per-packet one-way delay: 50.053 ms
Loss rate: 36.49%
```
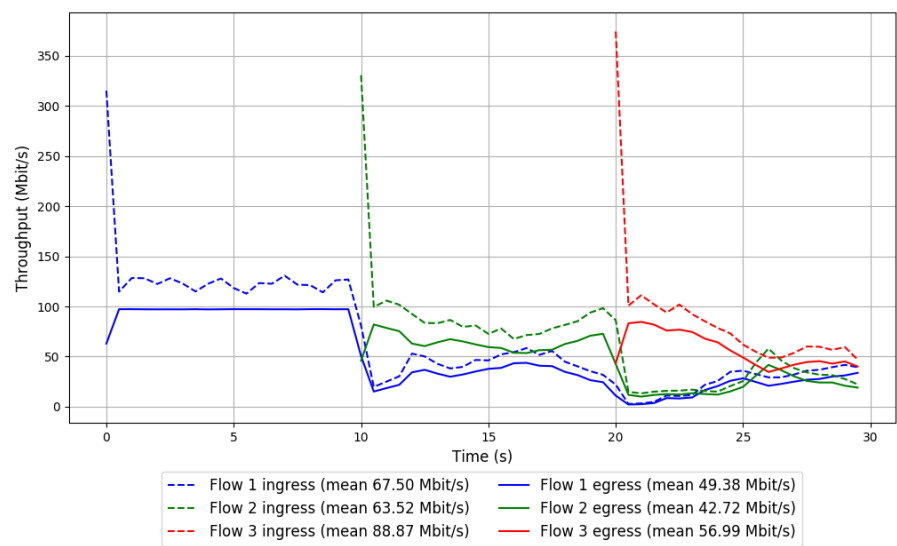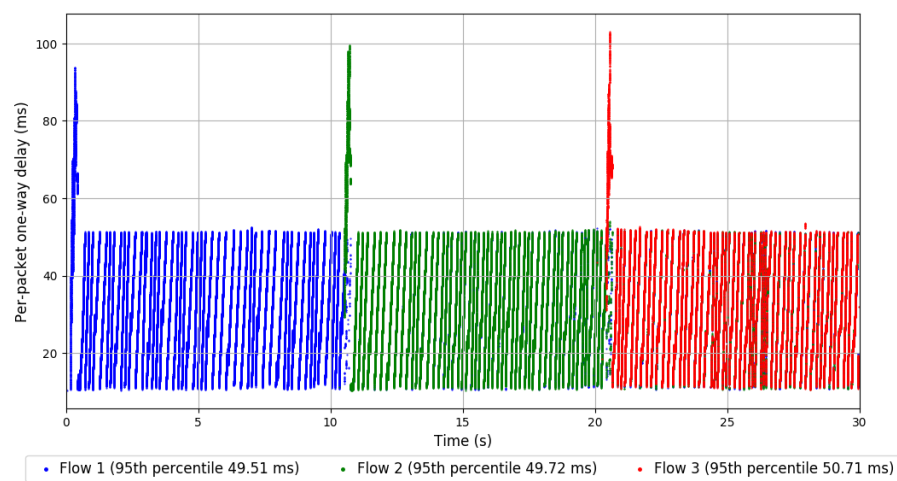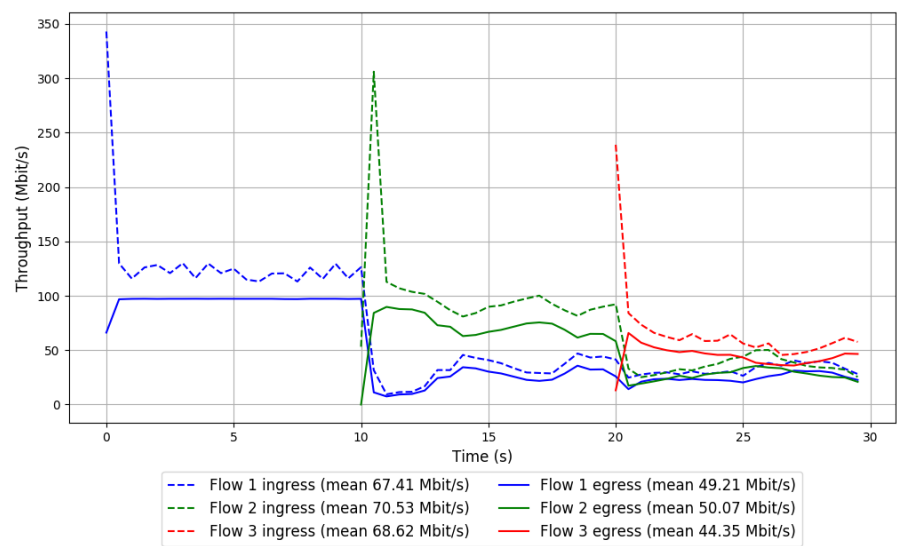
Run 4: Report of FillP — Data Link



Flow 1 ingress (mean 72.21 Mbit/s) --- Flow 1 egress (mean 52.25 Mbit/s)
Flow 2 ingress (mean 59.58 Mbit/s) --- Flow 2 egress (mean 39.53 Mbit/s)
Flow 3 ingress (mean 86.14 Mbit/s) --- Flow 3 egress (mean 55.72 Mbit/s)



Flow 1 (95th percentile 49.22 ms)   Flow 2 (95th percentile 49.61 ms)   Flow 3 (95th percentile 50.05 ms)
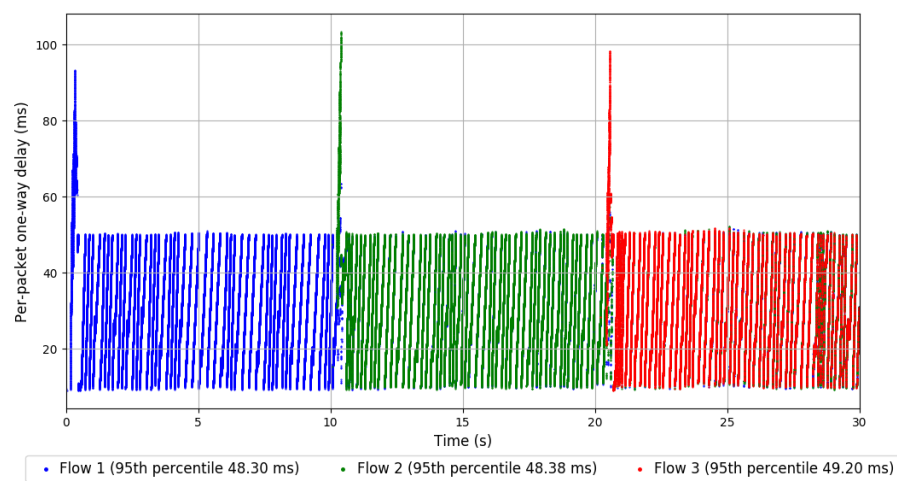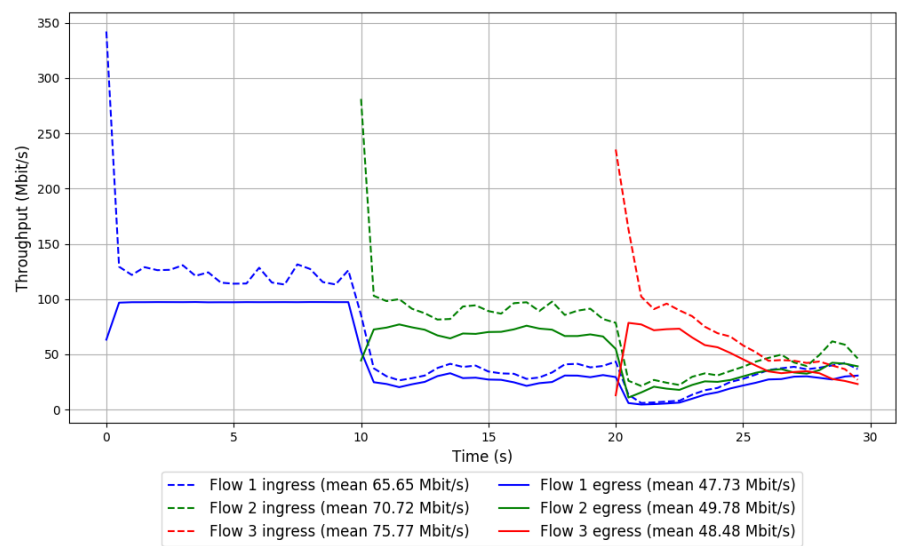
```
Run 5: Statistics of FillP

Start at: 2018-02-28 05:14:02
End at: 2018-02-28 05:14:32
Local clock offset: 1.46 ms
Remote clock offset: -1.824 ms


# Below is generated by plot.py at 2018-02-28 07:59:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.62 Mbit/s
95th percentile per-packet one-way delay: 52.932 ms
Loss rate: 30.68%
-- Flow 1:
Average throughput: 53.09 Mbit/s
95th percentile per-packet one-way delay: 52.800 ms
Loss rate: 27.50%
-- Flow 2:
Average throughput: 38.05 Mbit/s
95th percentile per-packet one-way delay: 52.944 ms
Loss rate: 32.59%
-- Flow 3:
Average throughput: 54.95 Mbit/s
95th percentile per-packet one-way delay: 53.282 ms
Loss rate: 36.30%
```

## Run 5: Report of FillP — Data Link

```
Run 6: Statistics of FillP

Start at: 2018-02-28 05:35:21
End at: 2018-02-28 05:35:51
Local clock offset: 1.056 ms
Remote clock offset: -5.24 ms


# Below is generated by plot.py at 2018-02-28 07:59:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.68 Mbit/s
95th percentile per-packet one-way delay: 50.573 ms
Loss rate: 30.52%
-- Flow 1:
Average throughput: 49.38 Mbit/s
95th percentile per-packet one-way delay: 50.302 ms
Loss rate: 26.78%
-- Flow 2:
Average throughput: 42.72 Mbit/s
95th percentile per-packet one-way delay: 50.665 ms
Loss rate: 32.79%
-- Flow 3:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 51.200 ms
Loss rate: 35.82%
```
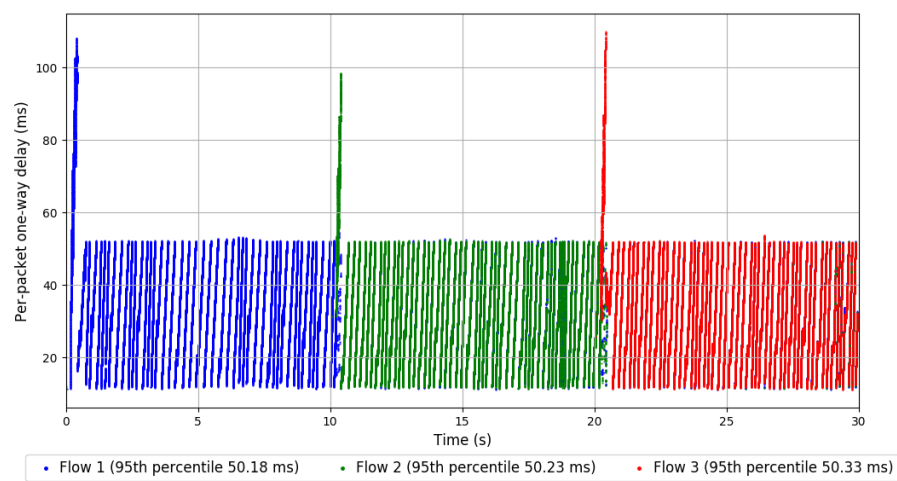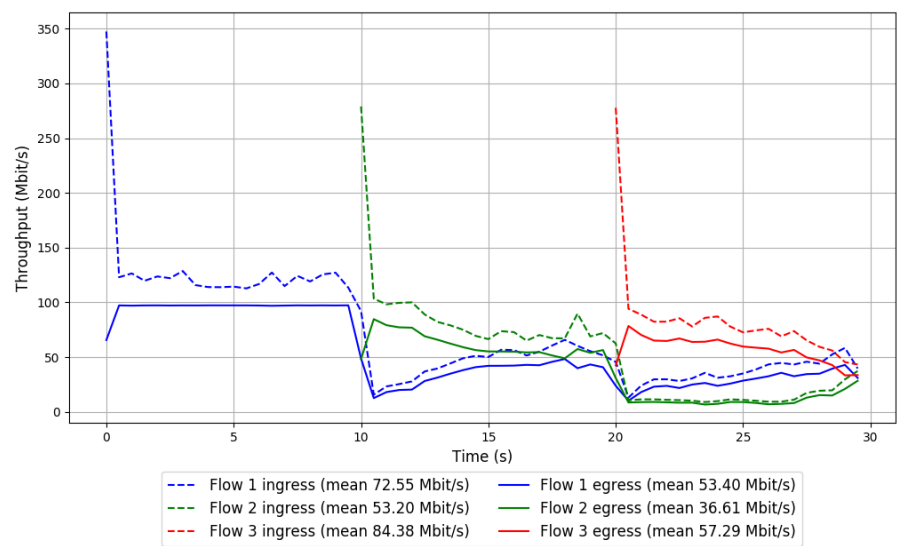
Run 6: Report of FillP — Data Link





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```
Run 7: Statistics of FillP

Start at: 2018-02-28 05:56:47
End at: 2018-02-28 05:57:17
Local clock offset: 3.11 ms
Remote clock offset: -4.255 ms


# Below is generated by plot.py at 2018-02-28 08:00:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.67 Mbit/s
95th percentile per-packet one-way delay: 49.744 ms
Loss rate: 29.45%
-- Flow 1:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 49.511 ms
Loss rate: 26.98%
-- Flow 2:
Average throughput: 50.07 Mbit/s
95th percentile per-packet one-way delay: 49.716 ms
Loss rate: 30.07%
-- Flow 3:
Average throughput: 44.35 Mbit/s
95th percentile per-packet one-way delay: 50.709 ms
Loss rate: 35.45%
```

Run 7: Report of FillP — Data Link





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```
Run 8: Statistics of FillP

Start at: 2018-02-28 06:18:01
End at: 2018-02-28 06:18:31
Local clock offset: 4.349 ms
Remote clock offset: -5.381 ms


# Below is generated by plot.py at 2018-02-28 08:00:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.63 Mbit/s
95th percentile per-packet one-way delay: 48.475 ms
Loss rate: 29.84%
-- Flow 1:
Average throughput: 47.73 Mbit/s
95th percentile per-packet one-way delay: 48.302 ms
Loss rate: 27.24%
-- Flow 2:
Average throughput: 49.78 Mbit/s
95th percentile per-packet one-way delay: 48.380 ms
Loss rate: 29.67%
-- Flow 3:
Average throughput: 48.48 Mbit/s
95th percentile per-packet one-way delay: 49.198 ms
Loss rate: 36.97%
```
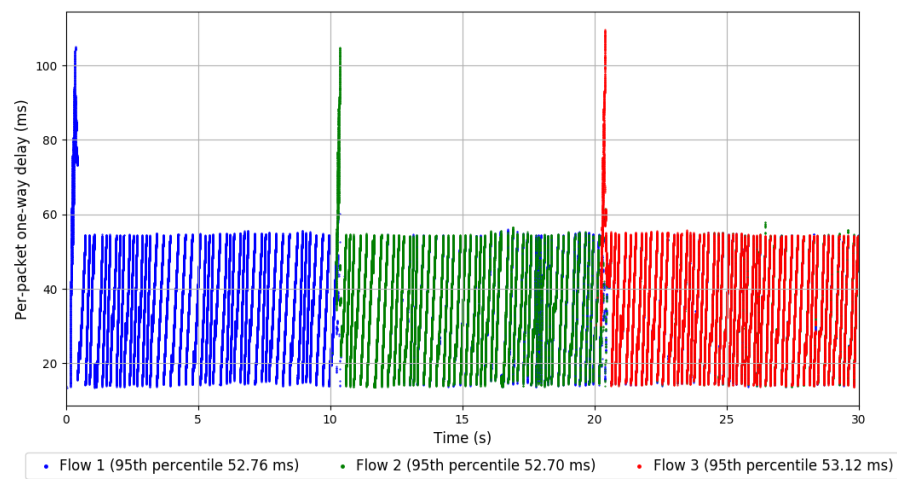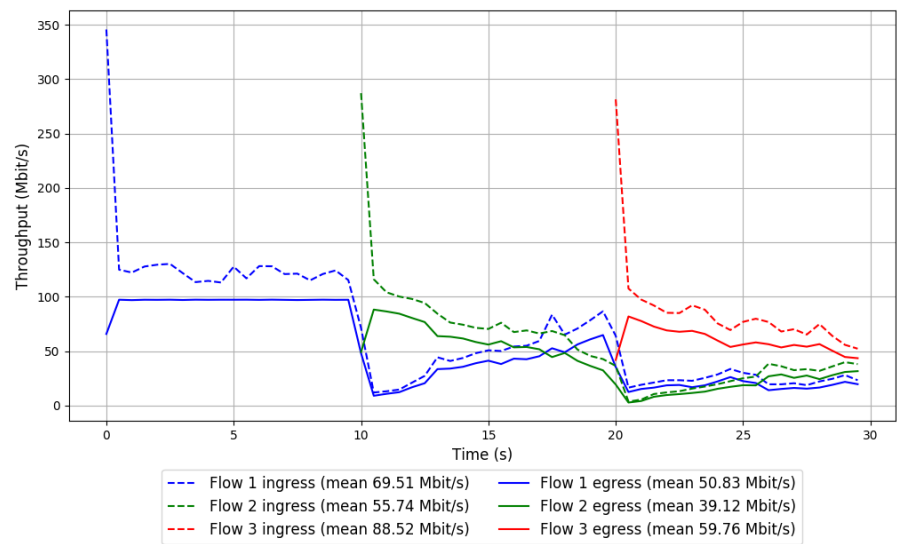
## Run 8: Report of FillP — Data Link

```
Run 9: Statistics of FillP

Start at: 2018-02-28 06:39:21
End at: 2018-02-28 06:39:51
Local clock offset: 2.297 ms
Remote clock offset: -6.395 ms


# Below is generated by plot.py at 2018-02-28 08:00:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.75 Mbit/s
95th percentile per-packet one-way delay: 50.218 ms
Loss rate: 28.78%
-- Flow 1:
Average throughput: 53.40 Mbit/s
95th percentile per-packet one-way delay: 50.179 ms
Loss rate: 26.35%
-- Flow 2:
Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 50.231 ms
Loss rate: 31.15%
-- Flow 3:
Average throughput: 57.29 Mbit/s
95th percentile per-packet one-way delay: 50.325 ms
Loss rate: 32.07%
```
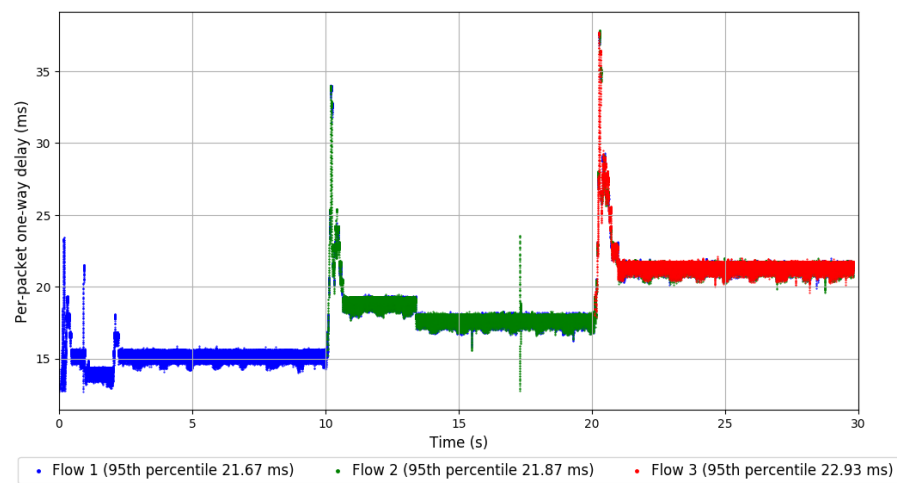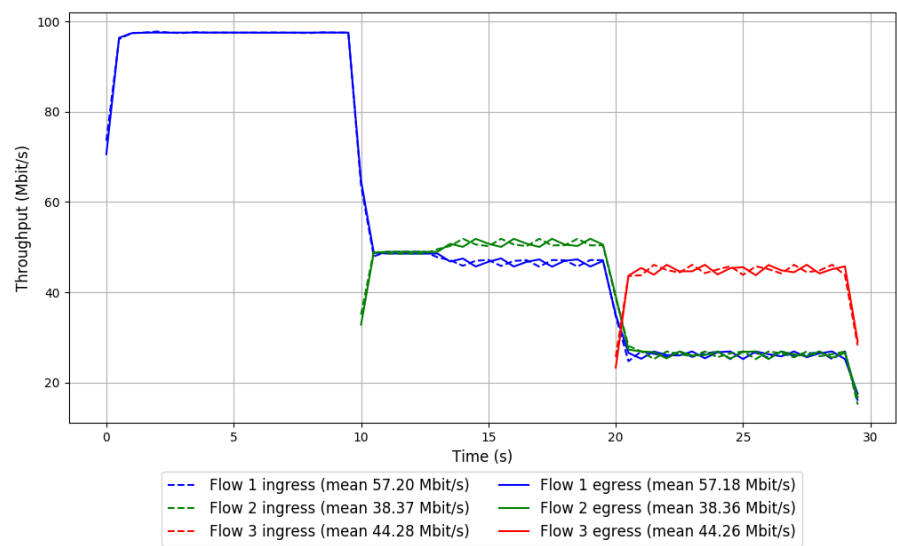
# Run 9: Report of FillP — Data Link



- Flow 1 ingress (mean 72.55 Mbit/s)
- Flow 1 egress (mean 53.40 Mbit/s)
- Flow 2 ingress (mean 53.20 Mbit/s)
- Flow 2 egress (mean 36.61 Mbit/s)
- Flow 3 ingress (mean 84.38 Mbit/s)
- Flow 3 egress (mean 57.29 Mbit/s)



- Flow 1 (95th percentile 50.18 ms)
- Flow 2 (95th percentile 50.23 ms)
- Flow 3 (95th percentile 50.33 ms)

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```
Run 10: Statistics of FillP

Start at: 2018-02-28 07:00:54
End at: 2018-02-28 07:01:24
Local clock offset: 1.017 ms
Remote clock offset: -3.52 ms


# Below is generated by plot.py at 2018-02-28 08:00:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.68 Mbit/s
95th percentile per-packet one-way delay: 52.822 ms
Loss rate: 28.83%
-- Flow 1:
Average throughput: 50.83 Mbit/s
95th percentile per-packet one-way delay: 52.761 ms
Loss rate: 26.81%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 52.697 ms
Loss rate: 29.75%
-- Flow 3:
Average throughput: 59.76 Mbit/s
95th percentile per-packet one-way delay: 53.124 ms
Loss rate: 32.43%
```
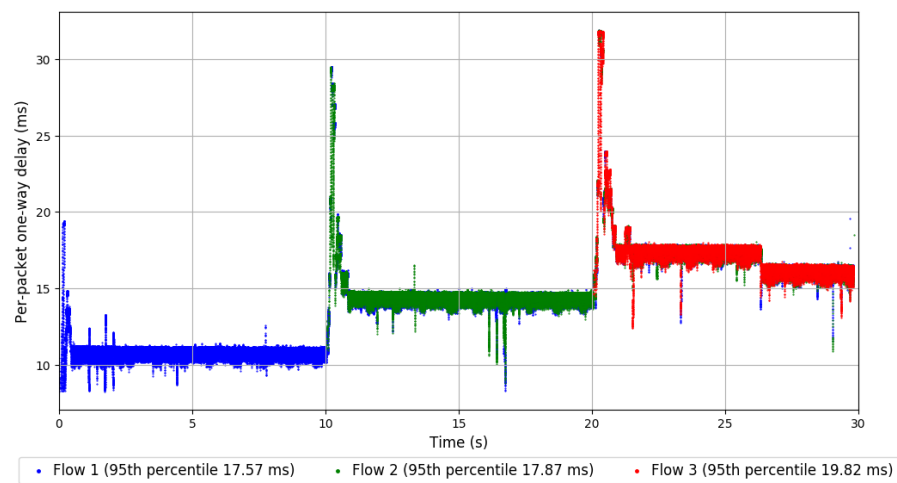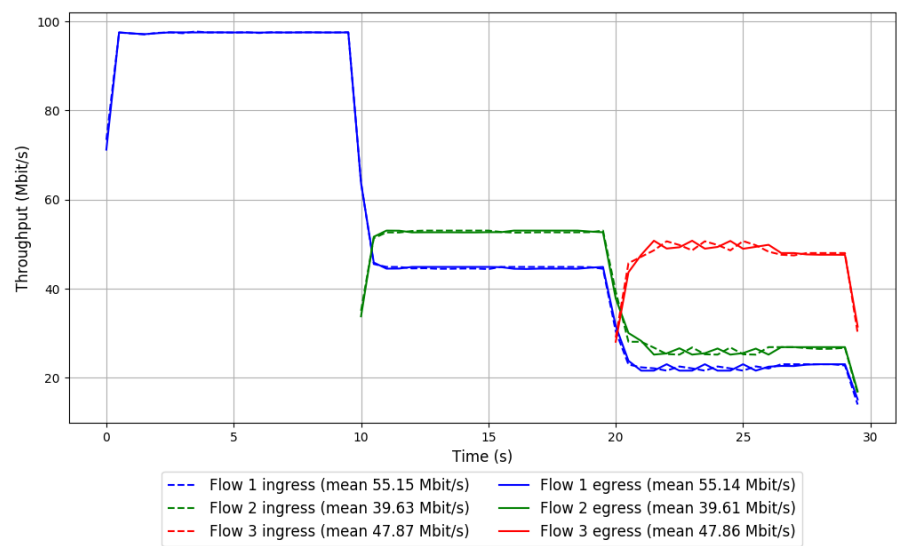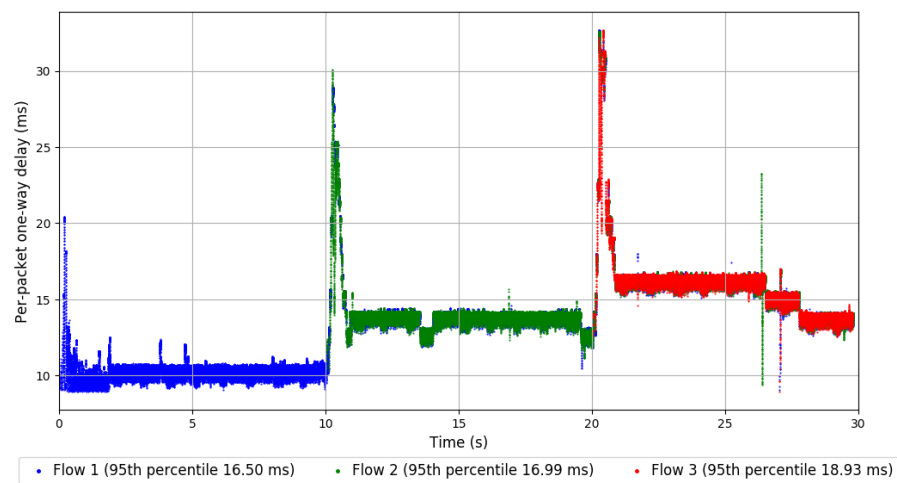
## Run 10: Report of FillP — Data Link

```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-28 03:33:46
End at: 2018-02-28 03:34:16
Local clock offset: 1.451 ms
Remote clock offset: 0.748 ms


# Below is generated by plot.py at 2018-02-28 08:00:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.09 Mbit/s
95th percentile per-packet one-way delay: 21.735 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.18 Mbit/s
95th percentile per-packet one-way delay: 21.668 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.36 Mbit/s
95th percentile per-packet one-way delay: 21.869 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.26 Mbit/s
95th percentile per-packet one-way delay: 22.927 ms
Loss rate: 0.00%
```
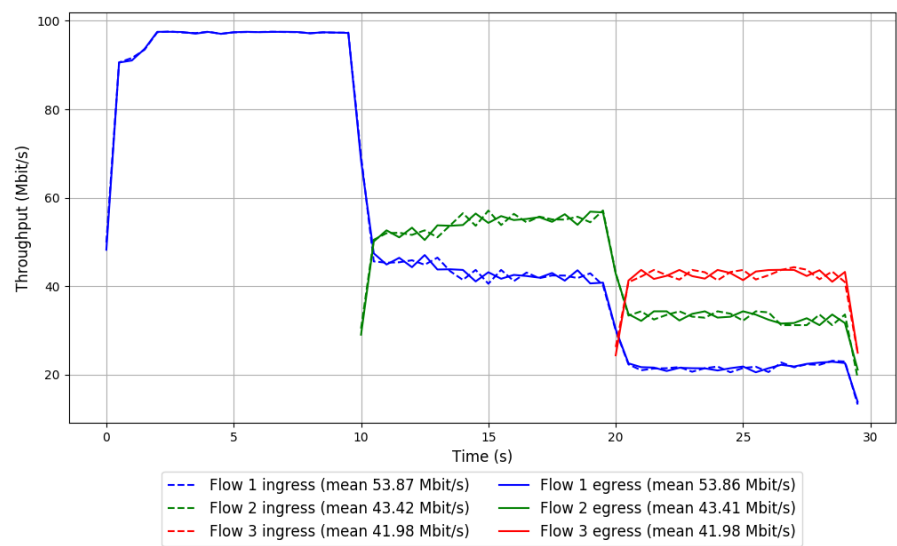
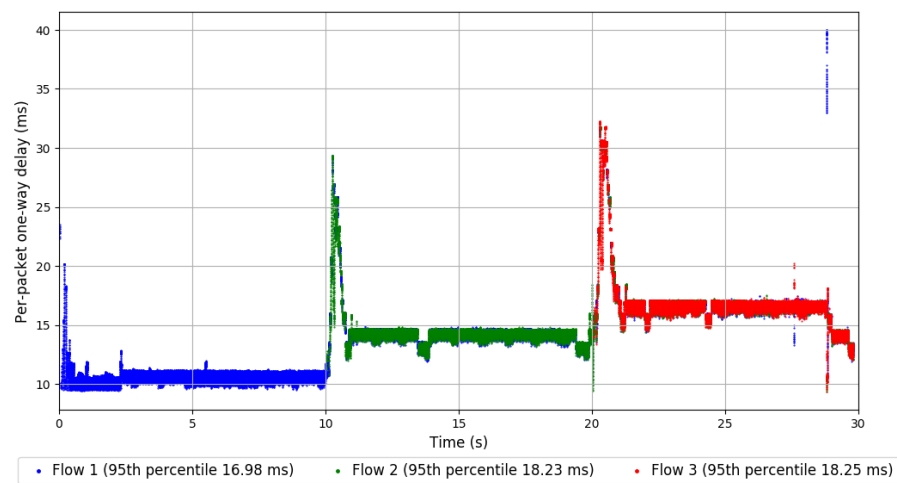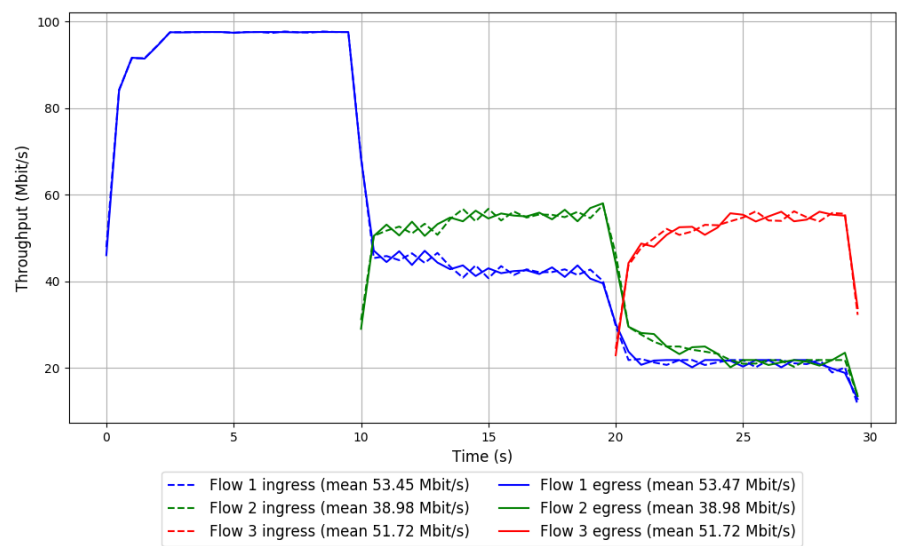Run 1: Report of Indigo-1-32 — Data Link

```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-28 03:55:12
End at: 2018-02-28 03:55:42
Local clock offset: 6.326 ms
Remote clock offset: 7.761 ms


# Below is generated by plot.py at 2018-02-28 08:00:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.09 Mbit/s
95th percentile per-packet one-way delay: 17.784 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.14 Mbit/s
95th percentile per-packet one-way delay: 17.575 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.61 Mbit/s
95th percentile per-packet one-way delay: 17.867 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.86 Mbit/s
95th percentile per-packet one-way delay: 19.815 ms
Loss rate: 0.00%
```

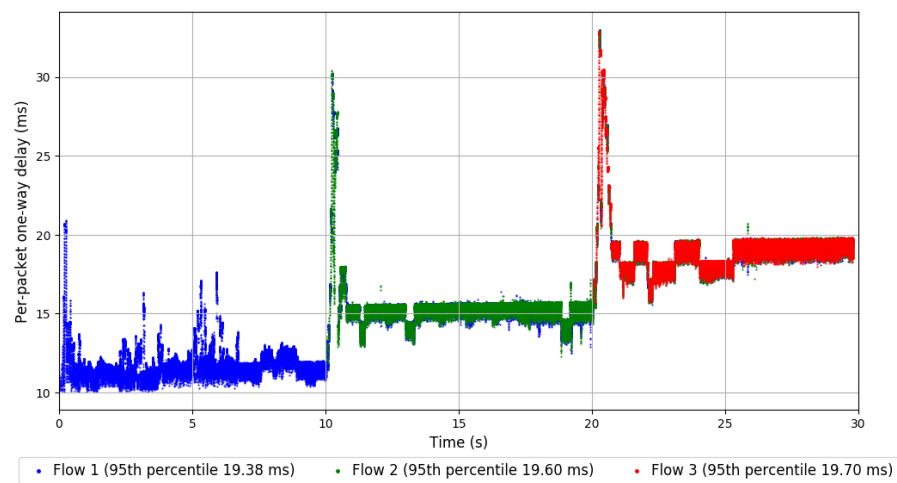Run 2: Report of Indigo-1-32 — Data Link

```
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-28 04:16:46
End at: 2018-02-28 04:17:17
Local clock offset: 5.508 ms
Remote clock offset: 13.893 ms


# Below is generated by plot.py at 2018-02-28 08:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 16.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.86 Mbit/s
95th percentile per-packet one-way delay: 16.500 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.41 Mbit/s
95th percentile per-packet one-way delay: 16.990 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.98 Mbit/s
95th percentile per-packet one-way delay: 18.928 ms
Loss rate: 0.00%
```
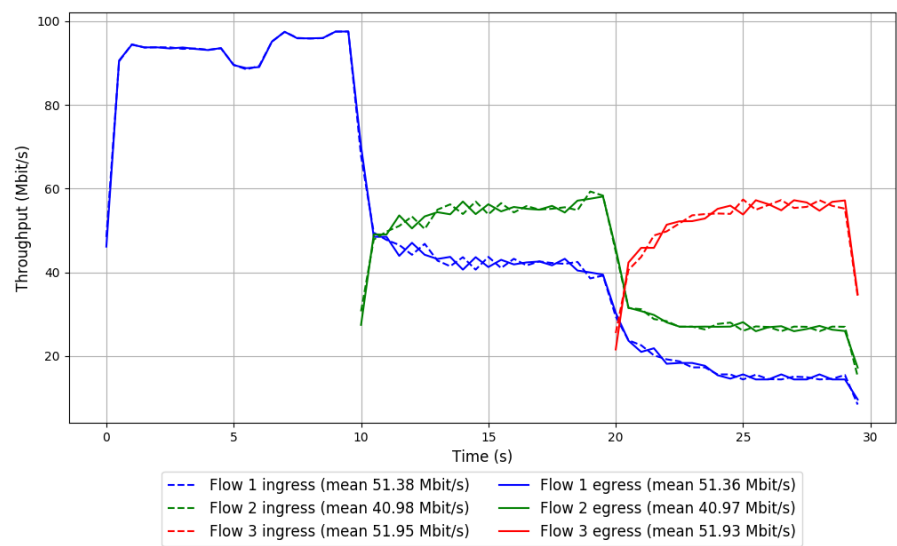
Run 3: Report of Indigo-1-32 — Data Link

```
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-28 04:38:16
End at: 2018-02-28 04:38:46
Local clock offset: 4.627 ms
Remote clock offset: 17.479 ms


# Below is generated by plot.py at 2018-02-28 08:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 17.048 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 16.978 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 18.233 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 51.72 Mbit/s
95th percentile per-packet one-way delay: 18.254 ms
Loss rate: 0.00%
```
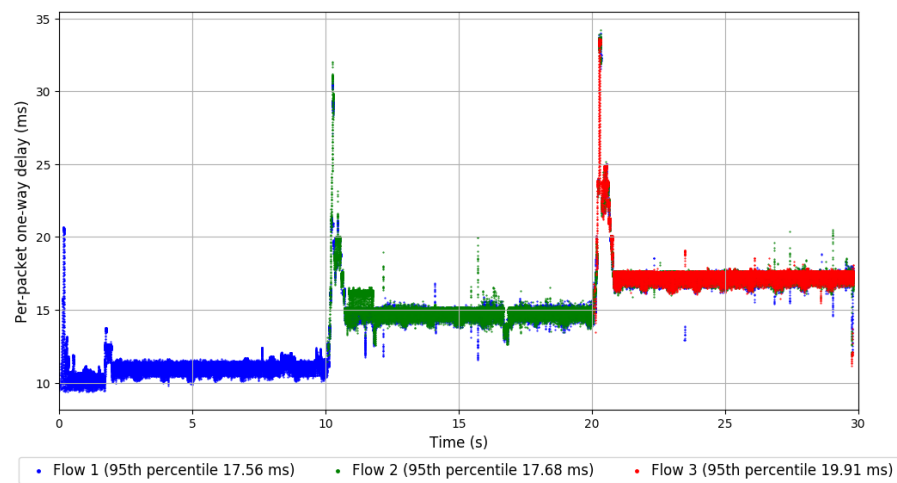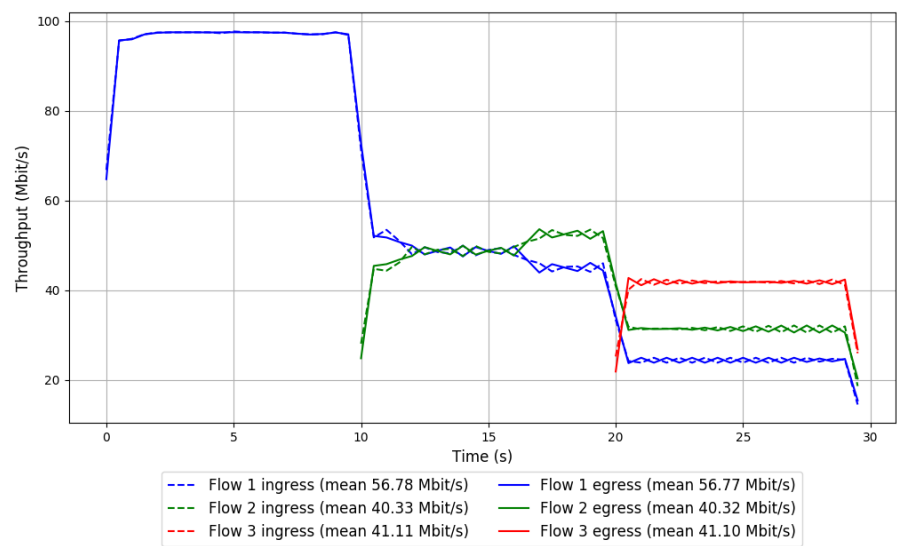
Run 4: Report of Indigo-1-32 — Data Link

```
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-28 04:59:42
End at: 2018-02-28 05:00:12
Local clock offset: 5.081 ms
Remote clock offset: 10.446 ms


# Below is generated by plot.py at 2018-02-28 08:01:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.51 Mbit/s
95th percentile per-packet one-way delay: 19.586 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.36 Mbit/s
95th percentile per-packet one-way delay: 19.381 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.97 Mbit/s
95th percentile per-packet one-way delay: 19.604 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.93 Mbit/s
95th percentile per-packet one-way delay: 19.705 ms
Loss rate: 0.00%
```

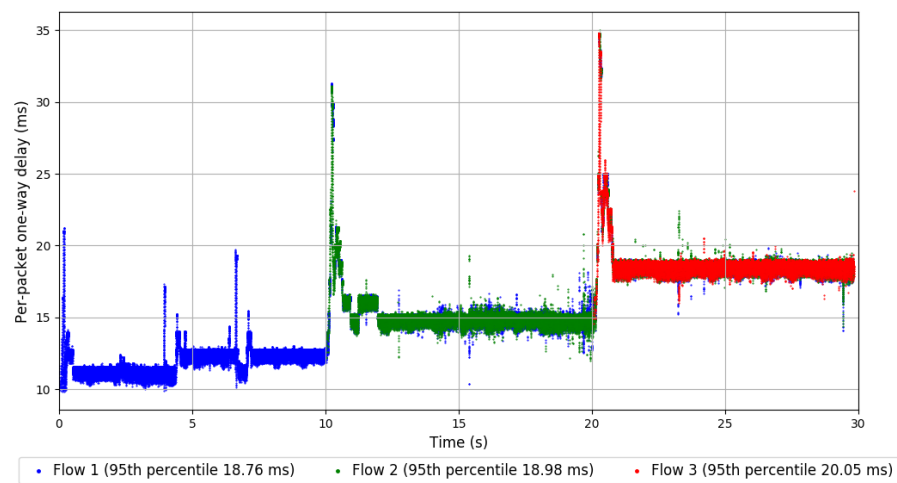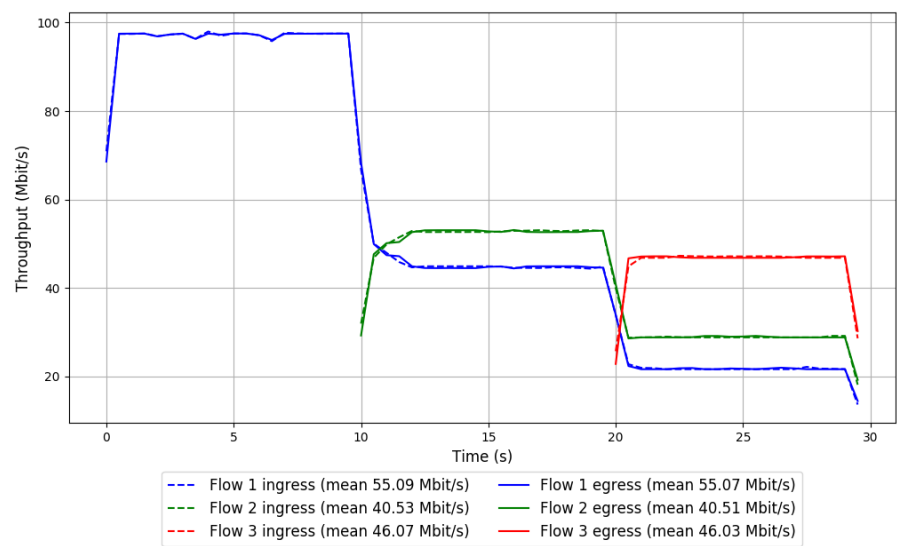Run 5: Report of Indigo-1-32 — Data Link





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```
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-28 05:21:05
End at: 2018-02-28 05:21:35
Local clock offset: 4.155 ms
Remote clock offset: -5.771 ms


# Below is generated by plot.py at 2018-02-28 08:01:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.91 Mbit/s
95th percentile per-packet one-way delay: 17.634 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.77 Mbit/s
95th percentile per-packet one-way delay: 17.560 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.32 Mbit/s
95th percentile per-packet one-way delay: 17.677 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 19.914 ms
Loss rate: 0.00%
```
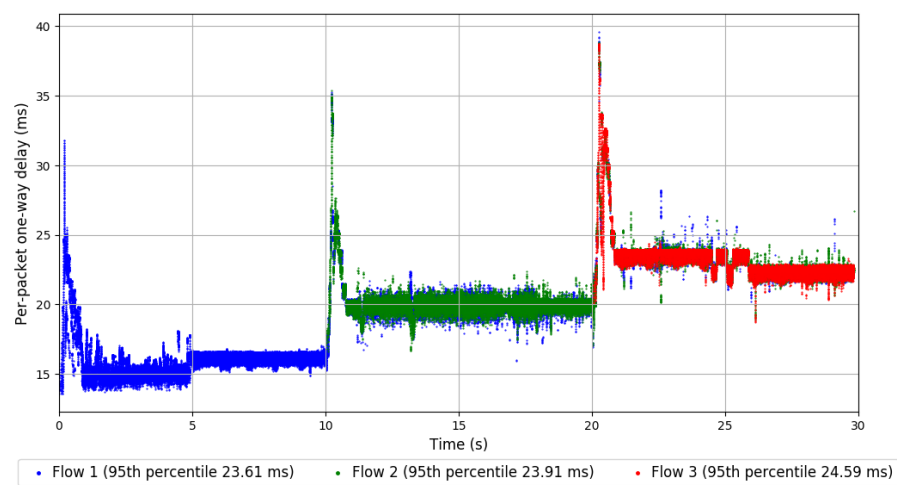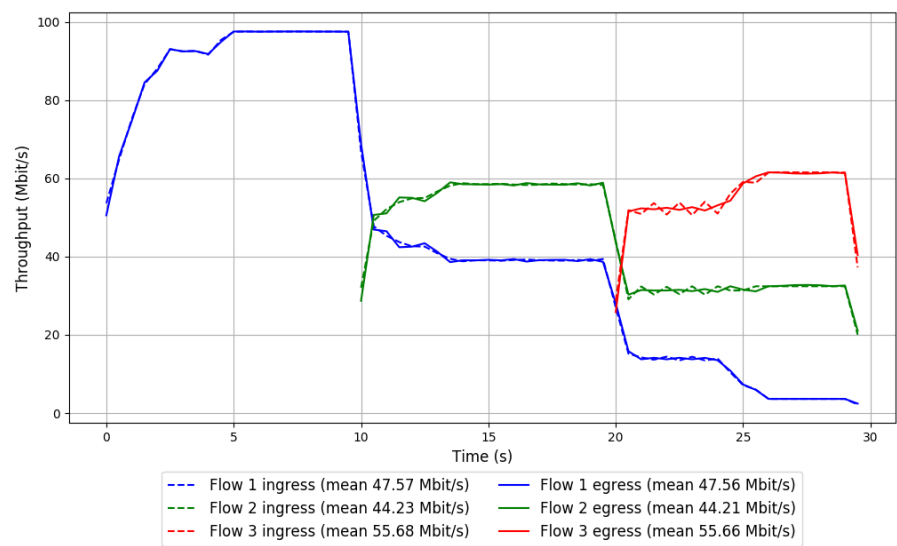
Run 6: Report of Indigo-1-32 — Data Link

```
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-28 05:42:29
End at: 2018-02-28 05:42:59
Local clock offset: 3.159 ms
Remote clock offset: -3.677 ms


# Below is generated by plot.py at 2018-02-28 08:01:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.98 Mbit/s
95th percentile per-packet one-way delay: 18.862 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.07 Mbit/s
95th percentile per-packet one-way delay: 18.764 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.51 Mbit/s
95th percentile per-packet one-way delay: 18.982 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.03 Mbit/s
95th percentile per-packet one-way delay: 20.048 ms
Loss rate: 0.01%
```
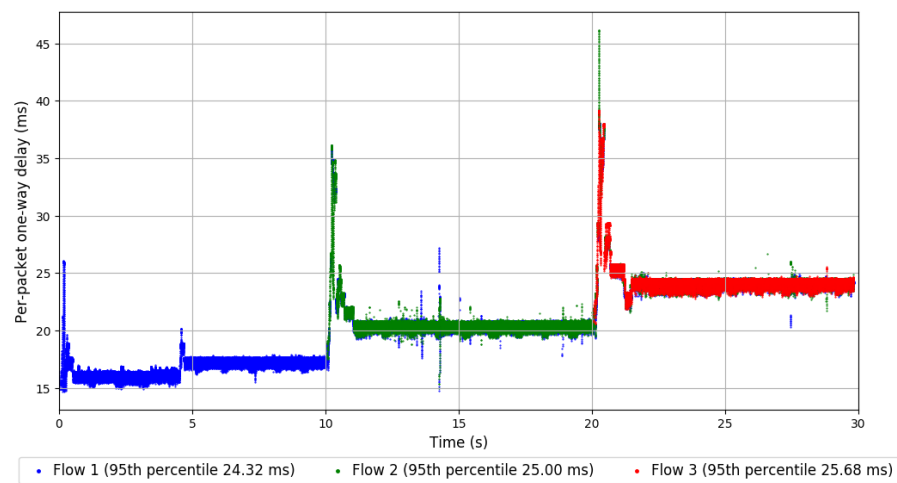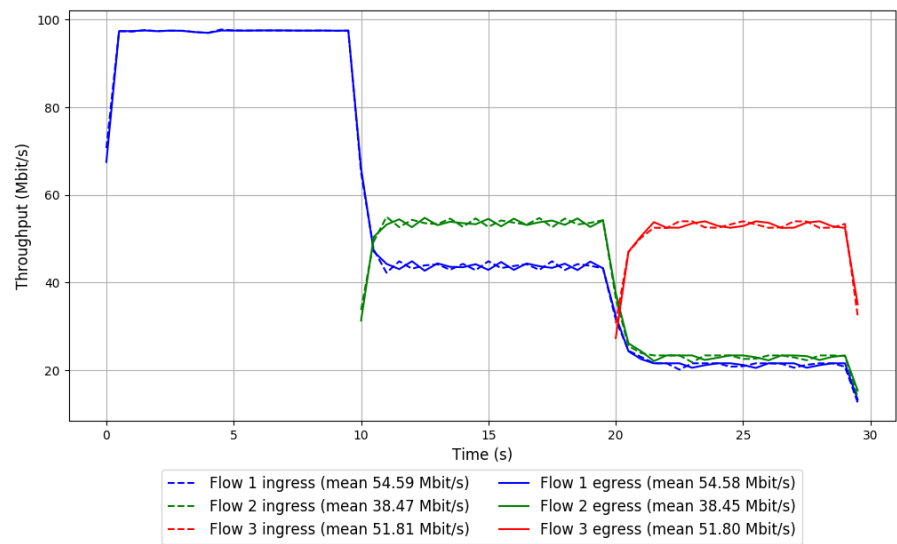
Run 7: Report of Indigo-1-32 — Data Link



- - - - Flow 1 ingress (mean 55.09 Mbit/s) ——— Flow 1 egress (mean 55.07 Mbit/s)
- - - - Flow 2 ingress (mean 40.53 Mbit/s) ——— Flow 2 egress (mean 40.51 Mbit/s)
- - - - Flow 3 ingress (mean 46.07 Mbit/s) ——— Flow 3 egress (mean 46.03 Mbit/s)



• Flow 1 (95th percentile 18.76 ms)   • Flow 2 (95th percentile 18.98 ms)   • Flow 3 (95th percentile 20.05 ms)

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```
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-28 06:03:44
End at: 2018-02-28 06:04:14
Local clock offset: -0.753 ms
Remote clock offset: -5.228 ms


# Below is generated by plot.py at 2018-02-28 08:02:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.08 Mbit/s
95th percentile per-packet one-way delay: 23.890 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.56 Mbit/s
95th percentile per-packet one-way delay: 23.605 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.21 Mbit/s
95th percentile per-packet one-way delay: 23.914 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.66 Mbit/s
95th percentile per-packet one-way delay: 24.588 ms
Loss rate: 0.00%
```
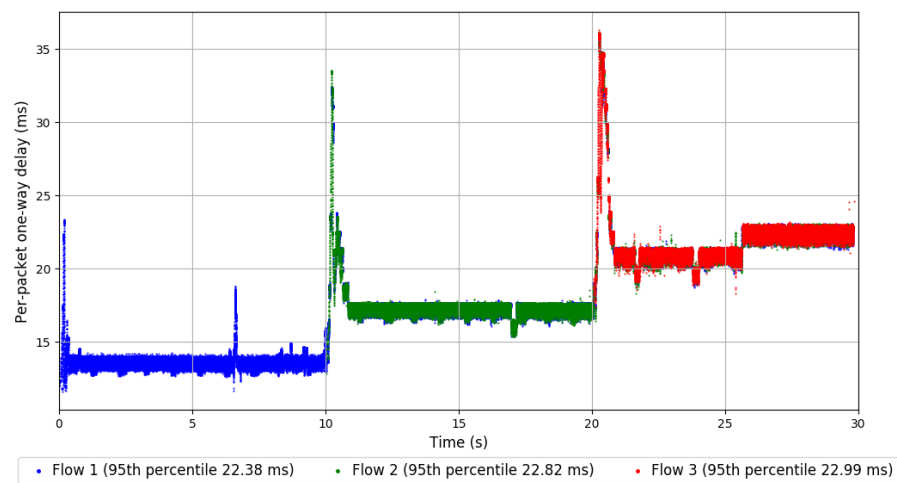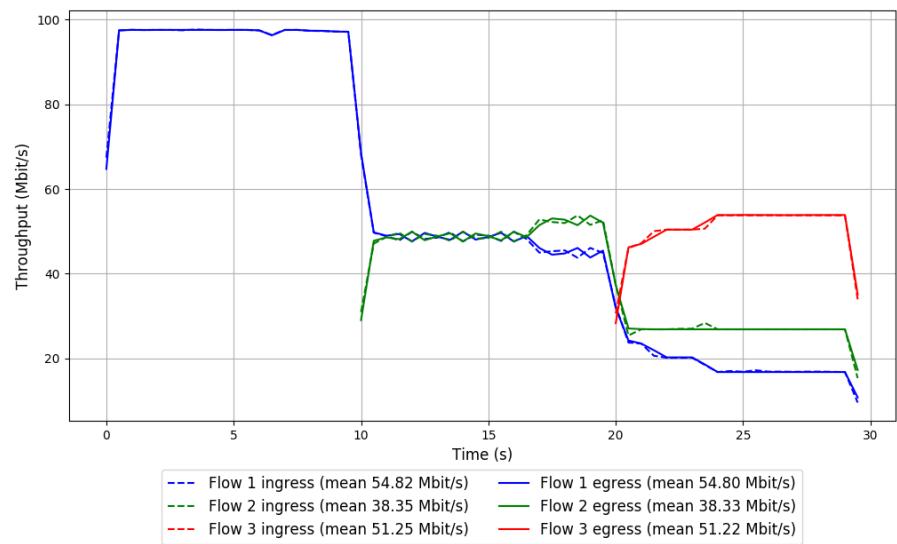
Run 8: Report of Indigo-1-32 — Data Link

```
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-28 06:24:58
End at: 2018-02-28 06:25:28
Local clock offset: -1.25 ms
Remote clock offset: -6.154 ms


# Below is generated by plot.py at 2018-02-28 08:02:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.03 Mbit/s
95th percentile per-packet one-way delay: 24.517 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.58 Mbit/s
95th percentile per-packet one-way delay: 24.319 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 25.003 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.80 Mbit/s
95th percentile per-packet one-way delay: 25.683 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo-1-32 — Data Link



Flow 1 ingress (mean 54.59 Mbit/s)    Flow 1 egress (mean 54.58 Mbit/s)
Flow 2 ingress (mean 38.47 Mbit/s)    Flow 2 egress (mean 38.45 Mbit/s)
Flow 3 ingress (mean 51.81 Mbit/s)    Flow 3 egress (mean 51.80 Mbit/s)



Flow 1 (95th percentile 24.32 ms)    Flow 2 (95th percentile 25.00 ms)    Flow 3 (95th percentile 25.68 ms)

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```
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-28 06:46:20
End at: 2018-02-28 06:46:50
Local clock offset: 2.096 ms
Remote clock offset: -4.888 ms


# Below is generated by plot.py at 2018-02-28 08:02:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.97 Mbit/s
95th percentile per-packet one-way delay: 22.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 22.382 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.33 Mbit/s
95th percentile per-packet one-way delay: 22.816 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.22 Mbit/s
95th percentile per-packet one-way delay: 22.986 ms
Loss rate: 0.00%
```
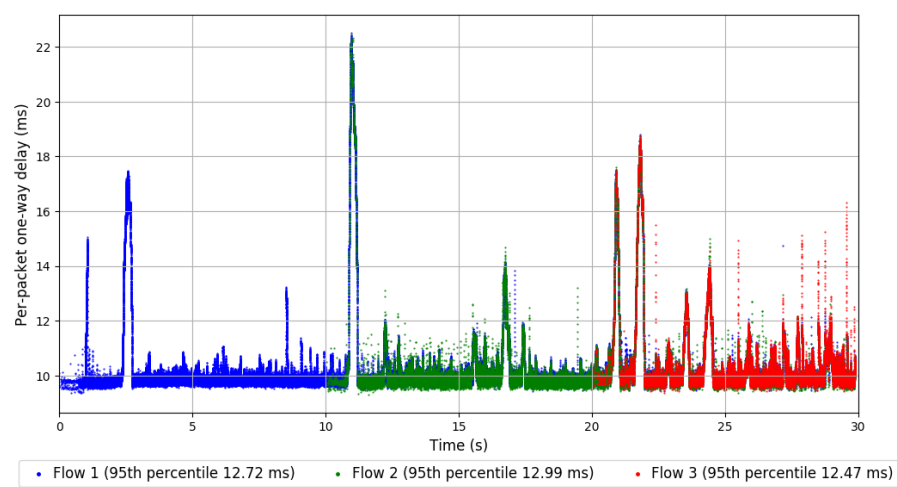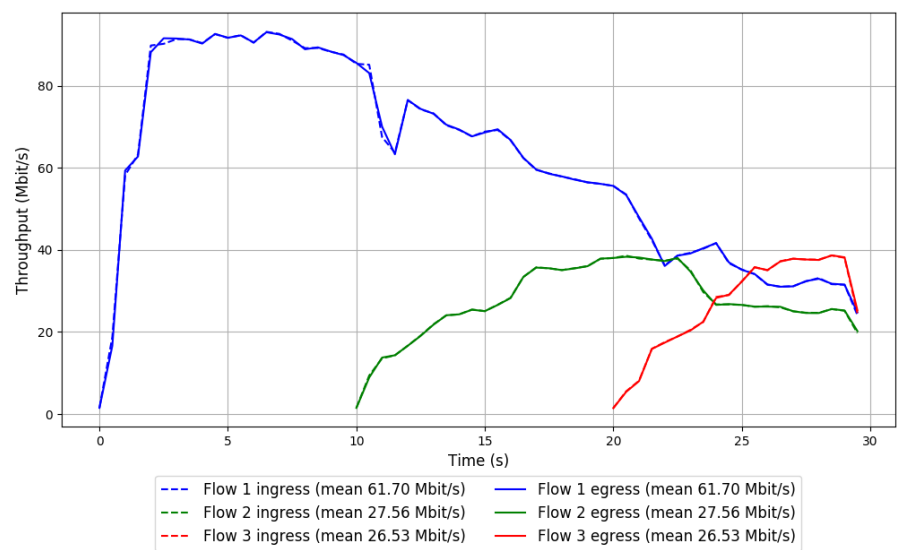
## Run 10: Report of Indigo-1-32 — Data Link



Flow 1 ingress (mean 54.82 Mbit/s) — Flow 1 egress (mean 54.80 Mbit/s)
Flow 2 ingress (mean 38.35 Mbit/s) — Flow 2 egress (mean 38.33 Mbit/s)
Flow 3 ingress (mean 51.25 Mbit/s) — Flow 3 egress (mean 51.22 Mbit/s)



Flow 1 (95th percentile 22.38 ms)　　Flow 2 (95th percentile 22.82 ms)　　Flow 3 (95th percentile 22.99 ms)

```
Run 1: Statistics of Vivace-latency

Start at: 2018-02-28 03:43:17
End at: 2018-02-28 03:43:47
Local clock offset: 5.466 ms
Remote clock offset: 1.706 ms


# Below is generated by plot.py at 2018-02-28 08:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 12.736 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.70 Mbit/s
95th percentile per-packet one-way delay: 12.721 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.56 Mbit/s
95th percentile per-packet one-way delay: 12.989 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.53 Mbit/s
95th percentile per-packet one-way delay: 12.473 ms
Loss rate: 0.00%
```

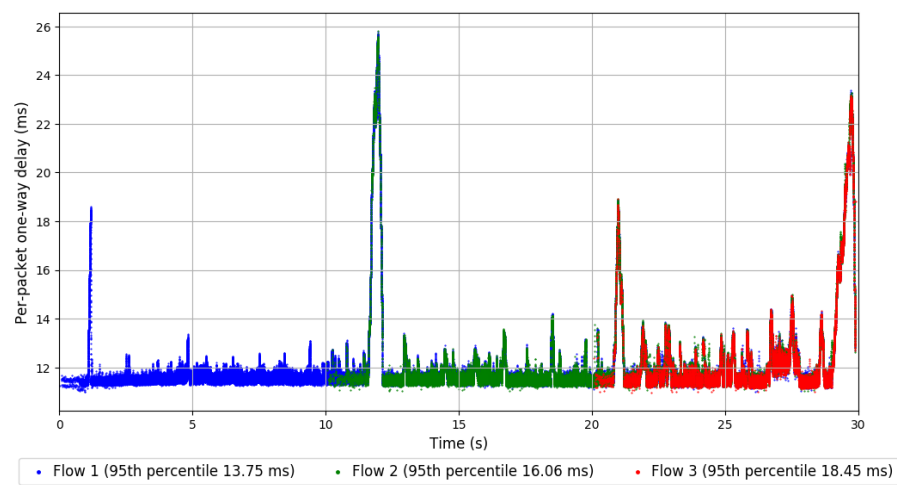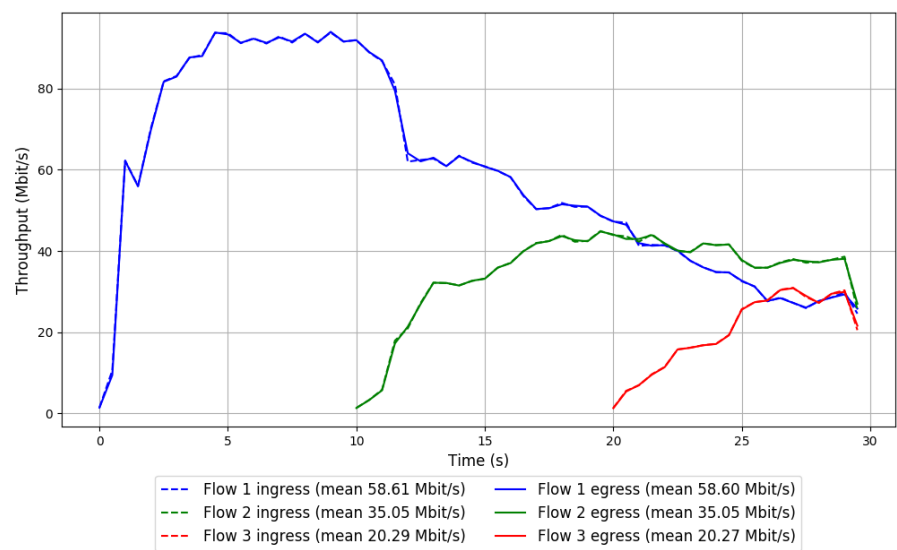Run 1: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 61.70 Mbit/s)   Flow 1 egress (mean 61.70 Mbit/s)
Flow 2 ingress (mean 27.56 Mbit/s)   Flow 2 egress (mean 27.56 Mbit/s)
Flow 3 ingress (mean 26.53 Mbit/s)   Flow 3 egress (mean 26.53 Mbit/s)

Flow 1 (95th percentile 12.72 ms)   Flow 2 (95th percentile 12.99 ms)   Flow 3 (95th percentile 12.47 ms)

```
Run 2: Statistics of Vivace-latency

Start at: 2018-02-28 04:04:50
End at: 2018-02-28 04:05:20
Local clock offset: 4.027 ms
Remote clock offset: 10.642 ms


# Below is generated by plot.py at 2018-02-28 08:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.04 Mbit/s
95th percentile per-packet one-way delay: 14.266 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.45 Mbit/s
95th percentile per-packet one-way delay: 12.307 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 15.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.42 Mbit/s
95th percentile per-packet one-way delay: 17.456 ms
Loss rate: 0.00%
```

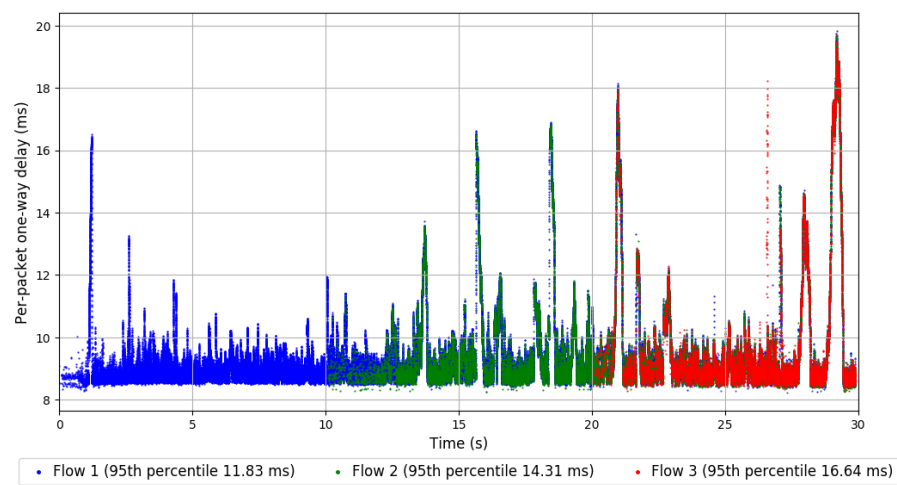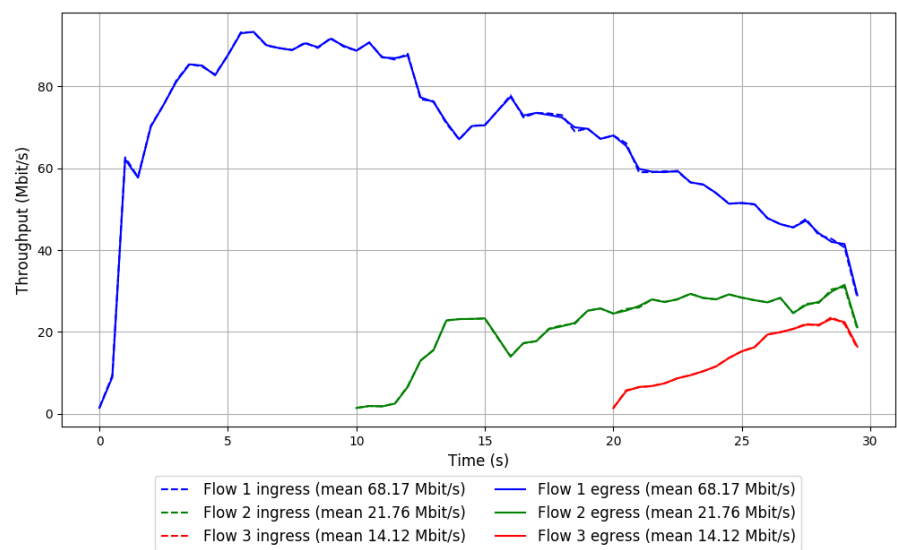Run 2: Report of Vivace-latency — Data Link

```
Run 3: Statistics of Vivace-latency

Start at: 2018-02-28 04:26:26
End at: 2018-02-28 04:26:56
Local clock offset: 4.464 ms
Remote clock offset: 16.848 ms


# Below is generated by plot.py at 2018-02-28 08:03:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.55 Mbit/s
95th percentile per-packet one-way delay: 15.111 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 13.750 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.05 Mbit/s
95th percentile per-packet one-way delay: 16.061 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.27 Mbit/s
95th percentile per-packet one-way delay: 18.448 ms
Loss rate: 0.00%
```

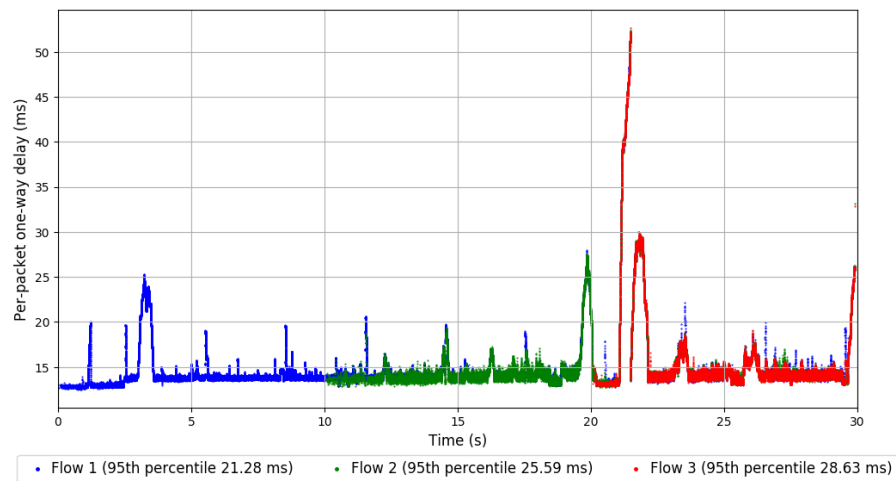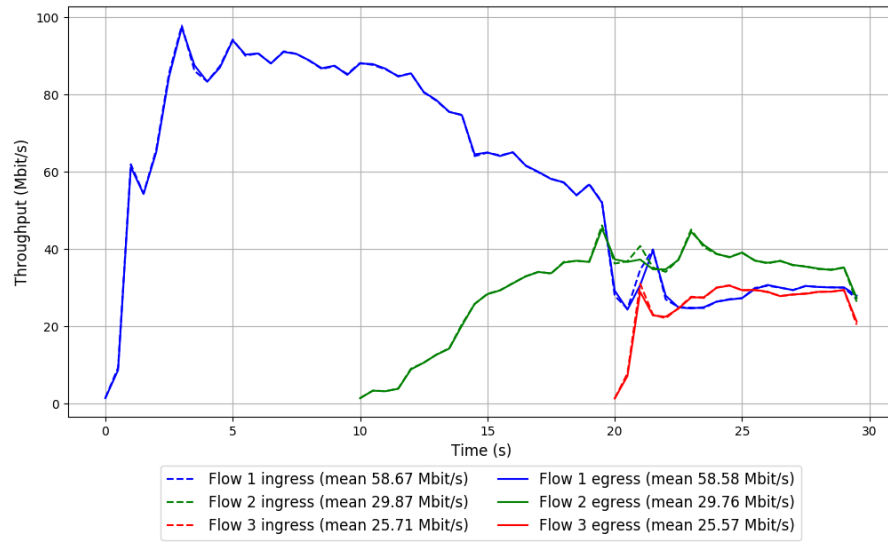# Run 3: Report of Vivace-latency — Data Link

```
Run 4: Statistics of Vivace-latency

Start at: 2018-02-28 04:47:50
End at: 2018-02-28 04:48:20
Local clock offset: 5.103 ms
Remote clock offset: 19.147 ms


# Below is generated by plot.py at 2018-02-28 08:03:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.29 Mbit/s
95th percentile per-packet one-way delay: 12.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.17 Mbit/s
95th percentile per-packet one-way delay: 11.829 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.76 Mbit/s
95th percentile per-packet one-way delay: 14.310 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.12 Mbit/s
95th percentile per-packet one-way delay: 16.635 ms
Loss rate: 0.00%
```
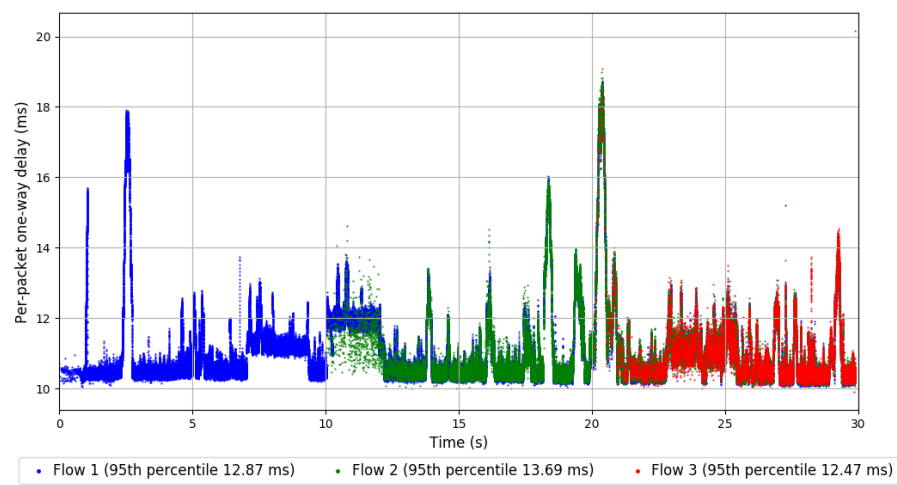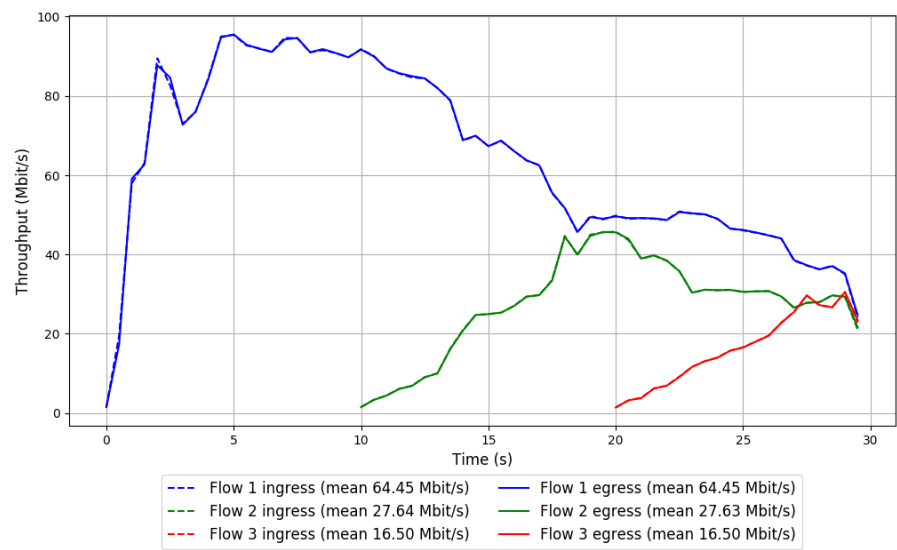
# Run 4: Report of Vivace-latency — Data Link

```
Run 5: Statistics of Vivace-latency

Start at: 2018-02-28 05:09:15
End at: 2018-02-28 05:09:45
Local clock offset: 1.942 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-02-28 08:03:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.79 Mbit/s
95th percentile per-packet one-way delay: 22.862 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 58.58 Mbit/s
95th percentile per-packet one-way delay: 21.283 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 29.76 Mbit/s
95th percentile per-packet one-way delay: 25.594 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 25.57 Mbit/s
95th percentile per-packet one-way delay: 28.634 ms
Loss rate: 0.39%
```

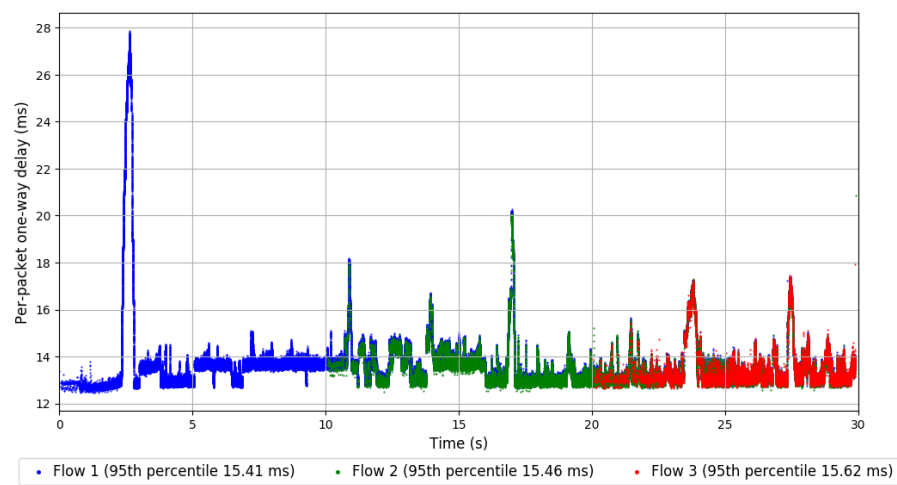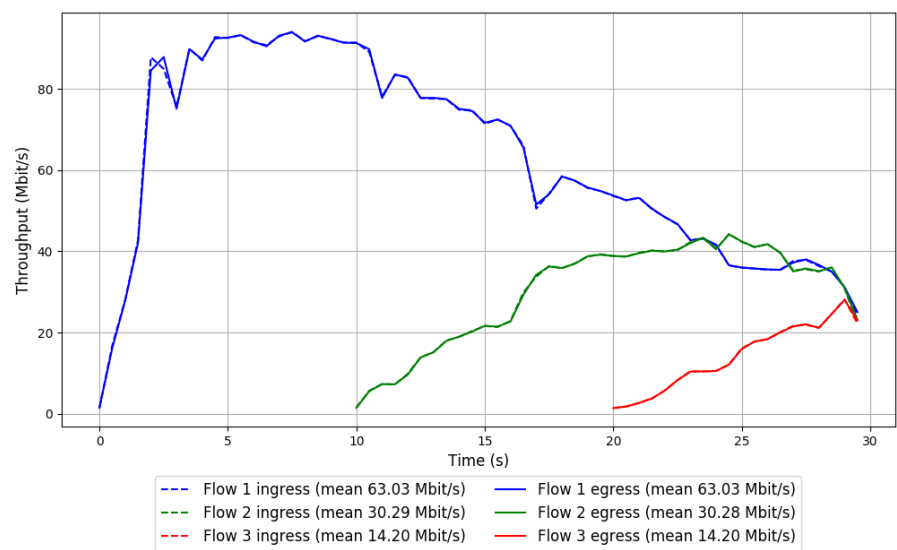Run 5: Report of Vivace-latency — Data Link

```
Run 6: Statistics of Vivace-latency

Start at: 2018-02-28 05:30:31
End at: 2018-02-28 05:31:01
Local clock offset: 2.602 ms
Remote clock offset: -6.216 ms


# Below is generated by plot.py at 2018-02-28 08:03:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.25 Mbit/s
95th percentile per-packet one-way delay: 13.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.45 Mbit/s
95th percentile per-packet one-way delay: 12.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.63 Mbit/s
95th percentile per-packet one-way delay: 13.689 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.50 Mbit/s
95th percentile per-packet one-way delay: 12.475 ms
Loss rate: 0.00%
```

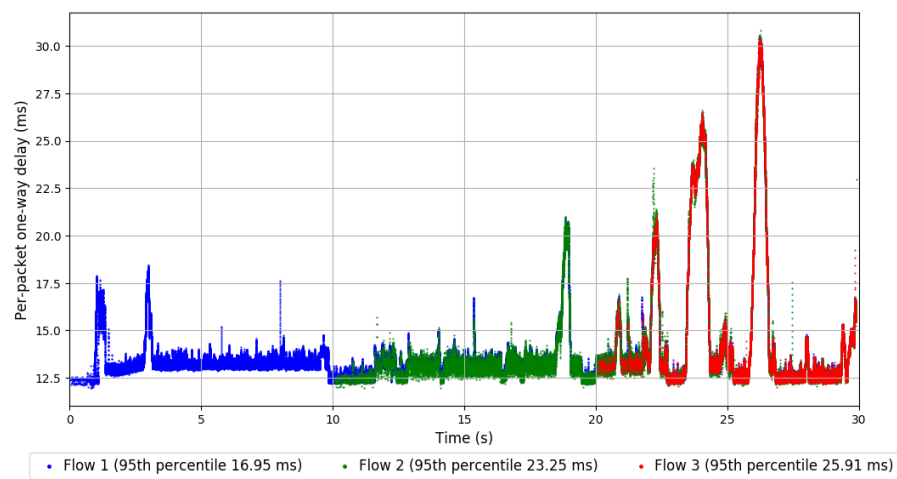Run 6: Report of Vivace-latency — Data Link

```
Run 7: Statistics of Vivace-latency

Start at: 2018-02-28 05:51:59
End at: 2018-02-28 05:52:29
Local clock offset: 0.64 ms
Remote clock offset: -3.828 ms


# Below is generated by plot.py at 2018-02-28 08:03:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.82 Mbit/s
95th percentile per-packet one-way delay: 15.446 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.03 Mbit/s
95th percentile per-packet one-way delay: 15.406 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.28 Mbit/s
95th percentile per-packet one-way delay: 15.461 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 15.617 ms
Loss rate: 0.01%
```

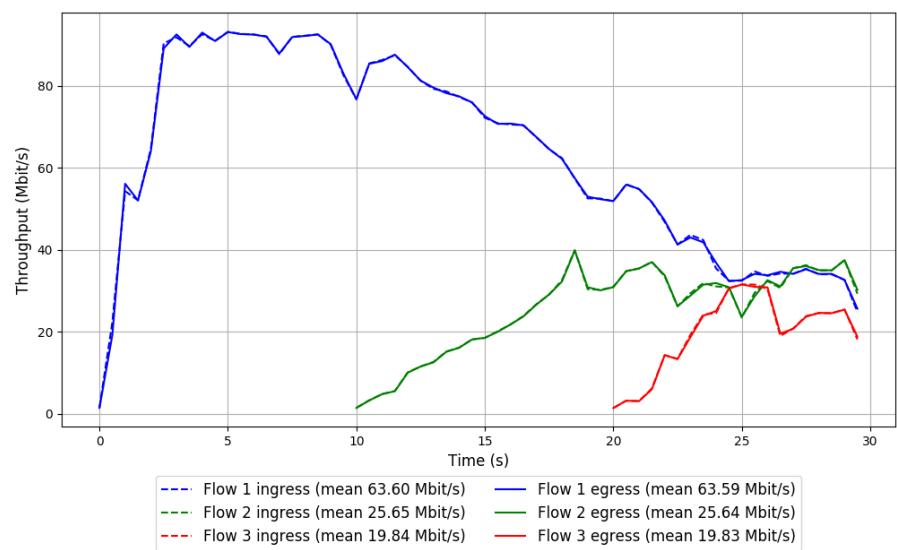Run 7: Report of Vivace-latency — Data Link

```
Run 8: Statistics of Vivace-latency

Start at: 2018-02-28 06:13:16
End at: 2018-02-28 06:13:46
Local clock offset: 0.983 ms
Remote clock offset: -5.248 ms


# Below is generated by plot.py at 2018-02-28 08:03:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 20.060 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 16.954 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.64 Mbit/s
95th percentile per-packet one-way delay: 23.255 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.83 Mbit/s
95th percentile per-packet one-way delay: 25.914 ms
Loss rate: 0.00%
```

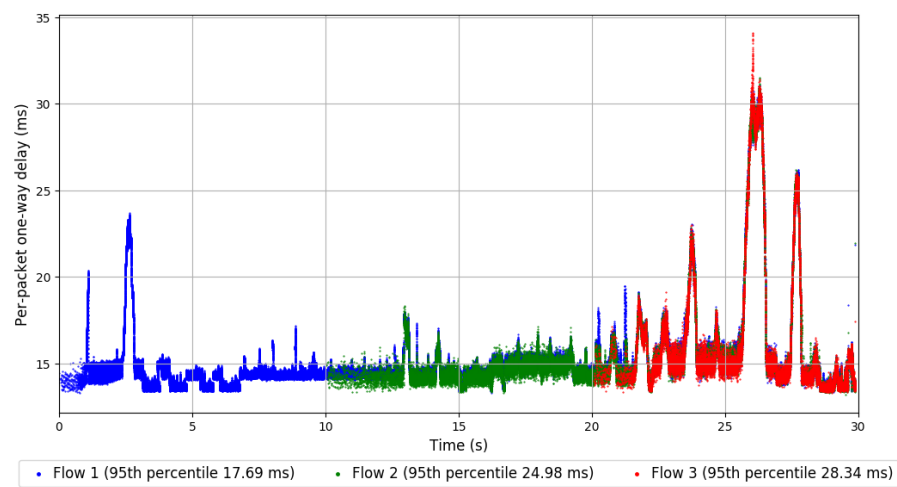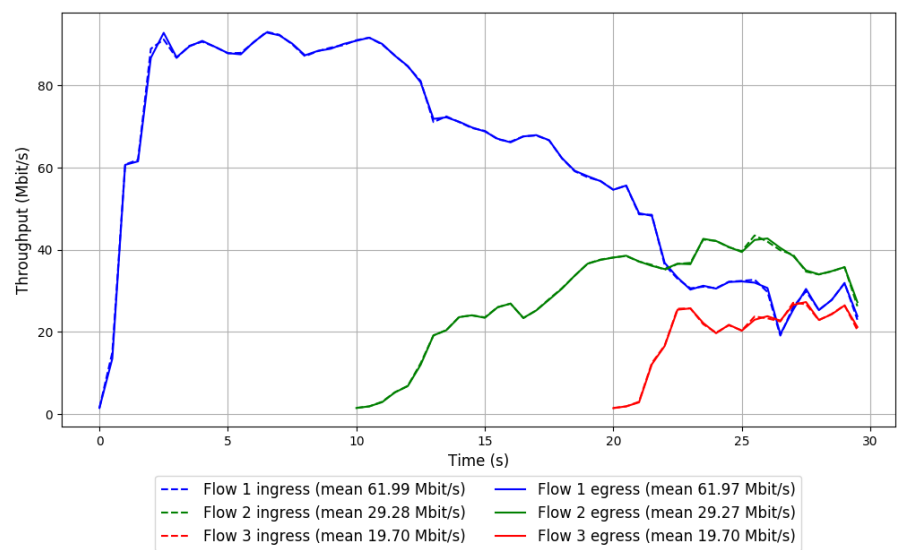Run 8: Report of Vivace-latency — Data Link

```
Run 9: Statistics of Vivace-latency

Start at: 2018-02-28 06:34:36
End at: 2018-02-28 06:35:06
Local clock offset: -0.315 ms
Remote clock offset: -7.891 ms


# Below is generated by plot.py at 2018-02-28 08:03:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.93 Mbit/s
95th percentile per-packet one-way delay: 21.059 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.97 Mbit/s
95th percentile per-packet one-way delay: 17.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.27 Mbit/s
95th percentile per-packet one-way delay: 24.984 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.70 Mbit/s
95th percentile per-packet one-way delay: 28.339 ms
Loss rate: 0.00%
```

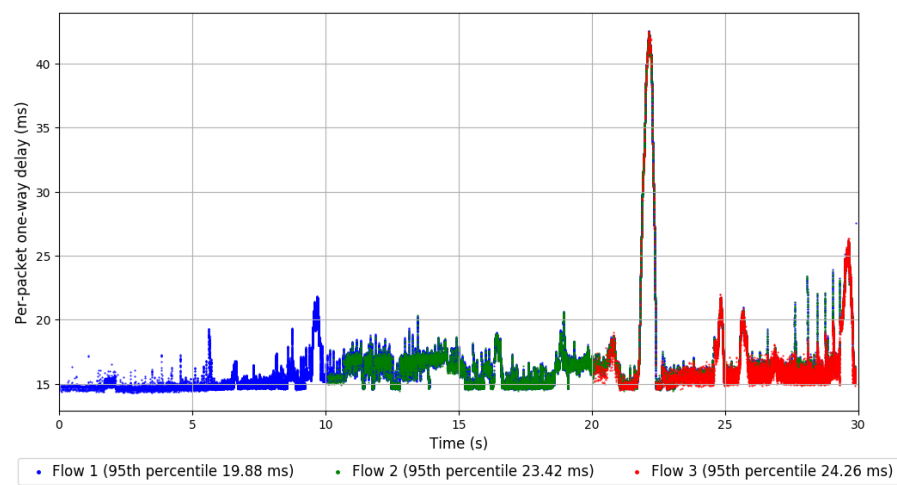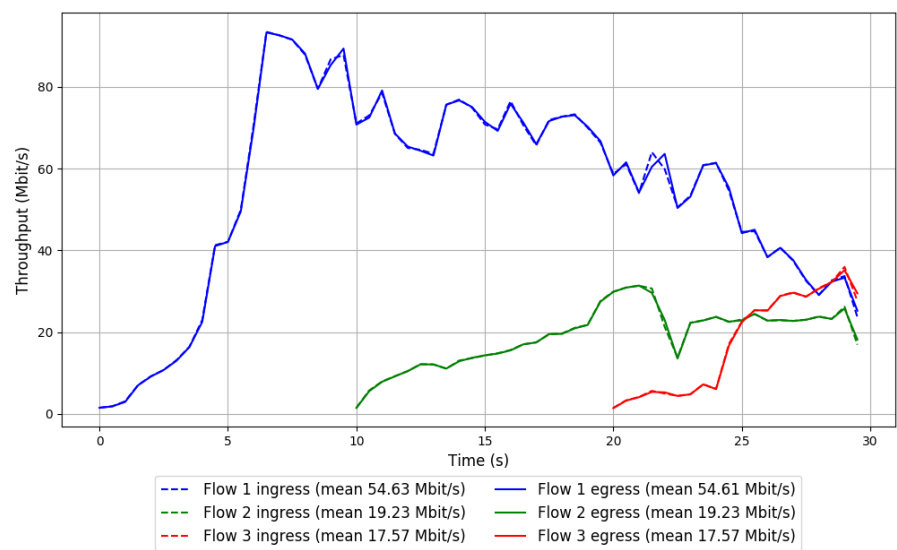Run 9: Report of Vivace-latency — Data Link

```
Run 10: Statistics of Vivace-latency

Start at: 2018-02-28 06:55:54
End at: 2018-02-28 06:56:24
Local clock offset: -0.537 ms
Remote clock offset: -3.855 ms


# Below is generated by plot.py at 2018-02-28 08:03:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.18 Mbit/s
95th percentile per-packet one-way delay: 20.560 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.61 Mbit/s
95th percentile per-packet one-way delay: 19.882 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.23 Mbit/s
95th percentile per-packet one-way delay: 23.416 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.57 Mbit/s
95th percentile per-packet one-way delay: 24.259 ms
Loss rate: 0.00%
```
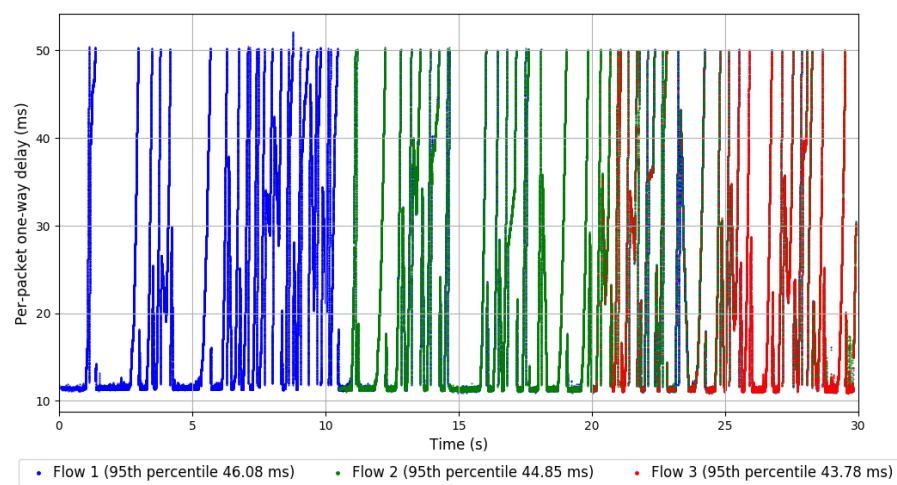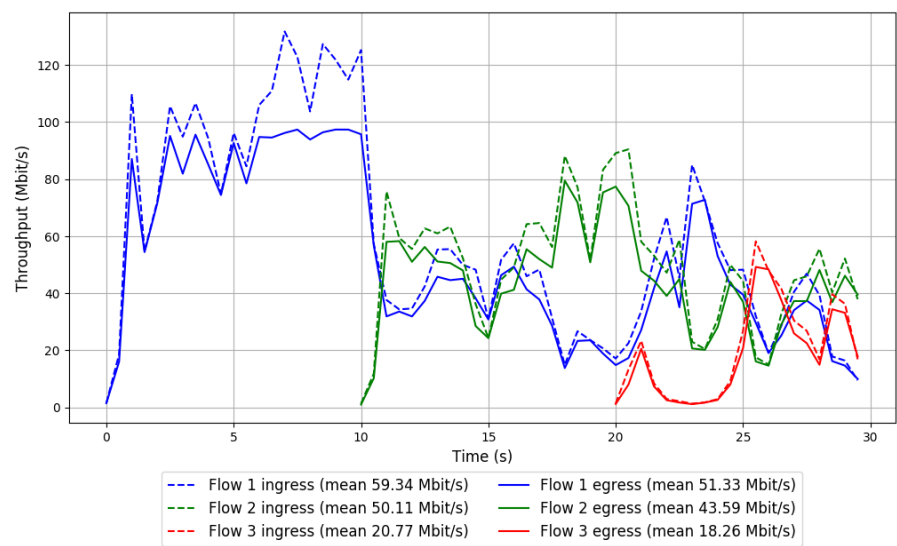
Run 10: Report of Vivace-latency — Data Link



Flow 1 ingress (mean 54.63 Mbit/s) --- Flow 1 egress (mean 54.61 Mbit/s)
Flow 2 ingress (mean 19.23 Mbit/s) --- Flow 2 egress (mean 19.23 Mbit/s)
Flow 3 ingress (mean 17.57 Mbit/s) --- Flow 3 egress (mean 17.57 Mbit/s)



Flow 1 (95th percentile 19.88 ms)  Flow 2 (95th percentile 23.42 ms)  Flow 3 (95th percentile 24.26 ms)

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```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-28 03:50:26
End at: 2018-02-28 03:50:56
Local clock offset: 2.939 ms
Remote clock offset: 4.652 ms


# Below is generated by plot.py at 2018-02-28 08:04:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.33 Mbit/s
95th percentile per-packet one-way delay: 45.674 ms
Loss rate: 13.18%
-- Flow 1:
Average throughput: 51.33 Mbit/s
95th percentile per-packet one-way delay: 46.081 ms
Loss rate: 13.45%
-- Flow 2:
Average throughput: 43.59 Mbit/s
95th percentile per-packet one-way delay: 44.853 ms
Loss rate: 12.97%
-- Flow 3:
Average throughput: 18.26 Mbit/s
95th percentile per-packet one-way delay: 43.784 ms
Loss rate: 11.90%
```

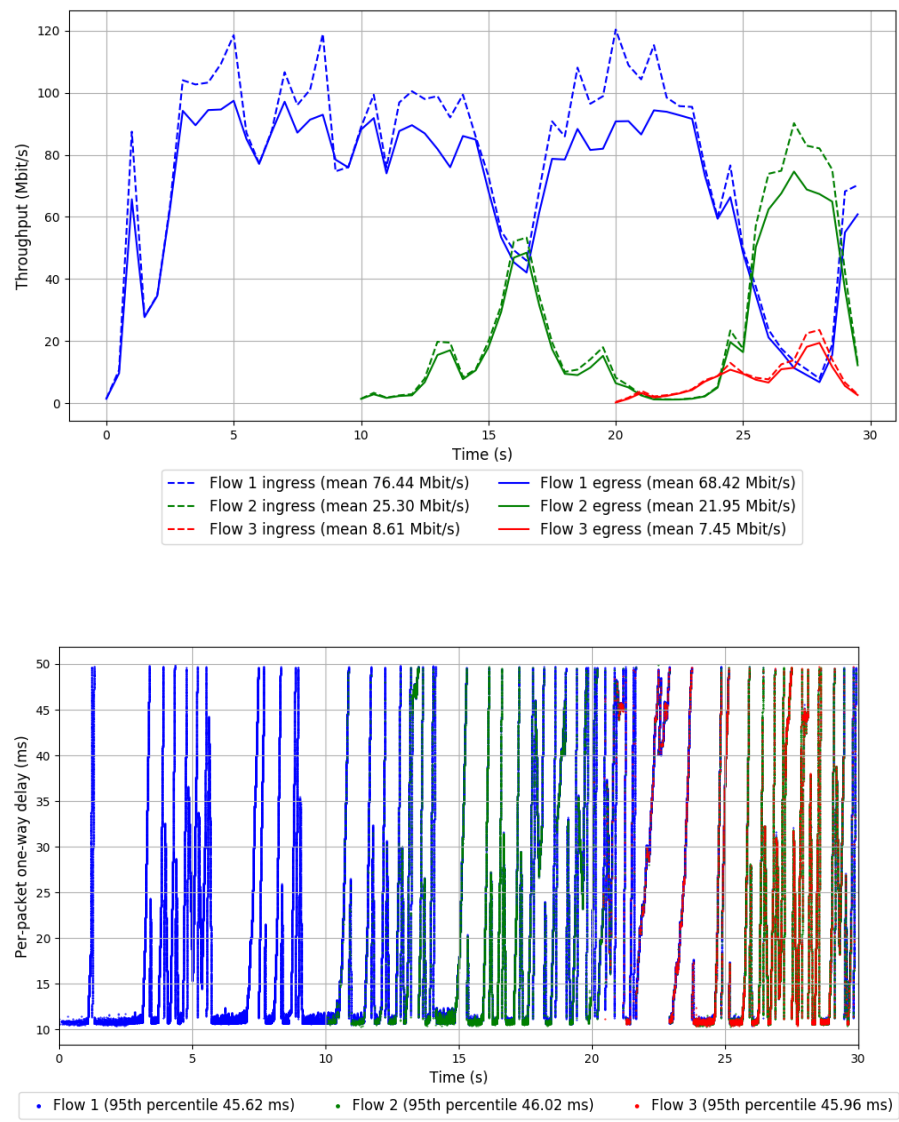# Run 1: Report of Vivace-loss — Data Link

```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-28 04:12:02
End at: 2018-02-28 04:12:32
Local clock offset: 3.937 ms
Remote clock offset: 12.931 ms


# Below is generated by plot.py at 2018-02-28 08:04:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.47 Mbit/s
95th percentile per-packet one-way delay: 45.682 ms
Loss rate: 11.00%
-- Flow 1:
Average throughput: 68.42 Mbit/s
95th percentile per-packet one-way delay: 45.623 ms
Loss rate: 10.43%
-- Flow 2:
Average throughput: 21.95 Mbit/s
95th percentile per-packet one-way delay: 46.019 ms
Loss rate: 13.16%
-- Flow 3:
Average throughput: 7.45 Mbit/s
95th percentile per-packet one-way delay: 45.961 ms
Loss rate: 13.50%
```

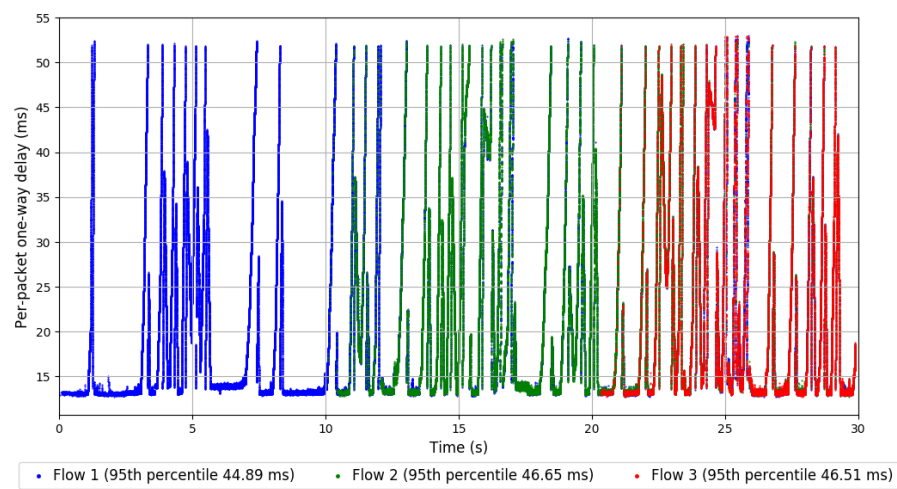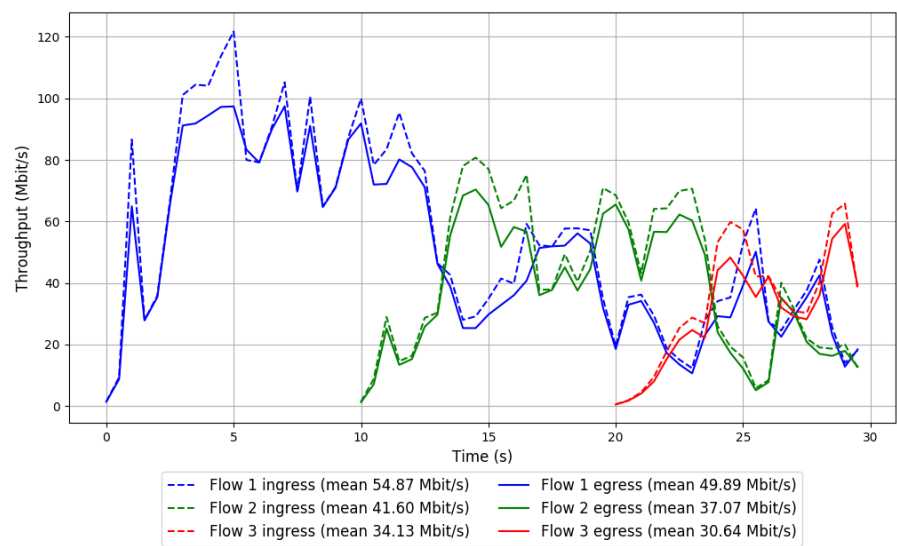Run 2: Report of Vivace-loss — Data Link

```
Run 3: Statistics of Vivace-loss

Start at: 2018-02-28 04:33:36
End at: 2018-02-28 04:34:06
Local clock offset: 2.901 ms
Remote clock offset: 18.295 ms


# Below is generated by plot.py at 2018-02-28 08:04:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.38 Mbit/s
95th percentile per-packet one-way delay: 45.757 ms
Loss rate: 10.01%
-- Flow 1:
Average throughput: 49.89 Mbit/s
95th percentile per-packet one-way delay: 44.893 ms
Loss rate: 9.06%
-- Flow 2:
Average throughput: 37.07 Mbit/s
95th percentile per-packet one-way delay: 46.650 ms
Loss rate: 10.88%
-- Flow 3:
Average throughput: 30.64 Mbit/s
95th percentile per-packet one-way delay: 46.512 ms
Loss rate: 12.49%
```

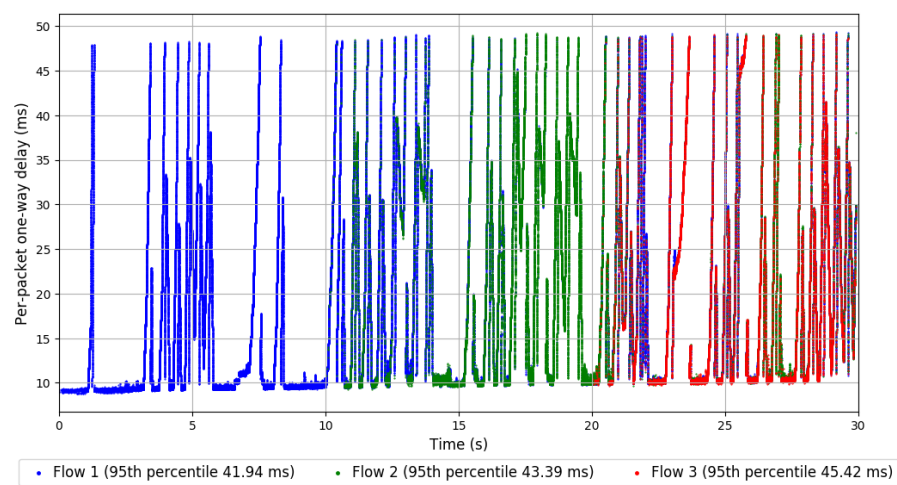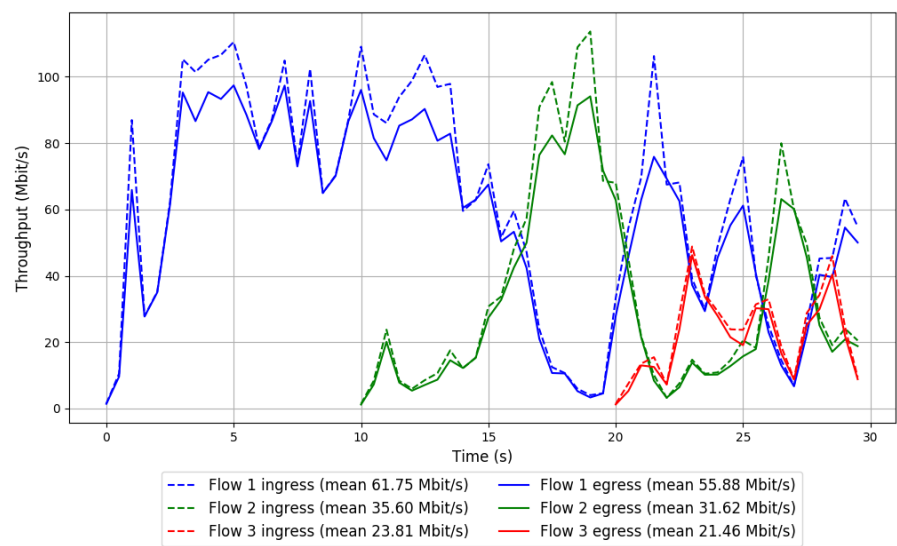Run 3: Report of Vivace-loss — Data Link

```
Run 4: Statistics of Vivace-loss

Start at: 2018-02-28 04:55:01
End at: 2018-02-28 04:55:31
Local clock offset: 5.182 ms
Remote clock offset: 19.014 ms


# Below is generated by plot.py at 2018-02-28 08:04:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.97 Mbit/s
95th percentile per-packet one-way delay: 42.818 ms
Loss rate: 9.87%
-- Flow 1:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 41.939 ms
Loss rate: 9.45%
-- Flow 2:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 43.392 ms
Loss rate: 11.05%
-- Flow 3:
Average throughput: 21.46 Mbit/s
95th percentile per-packet one-way delay: 45.417 ms
Loss rate: 9.67%
```

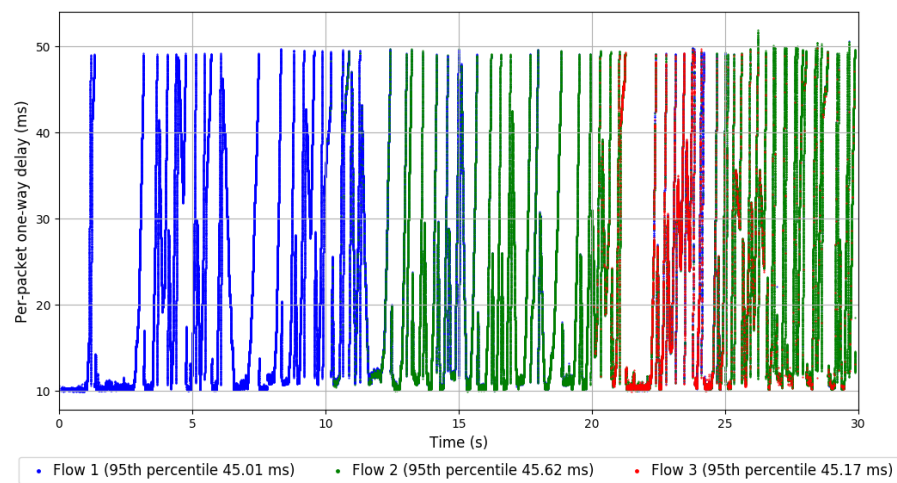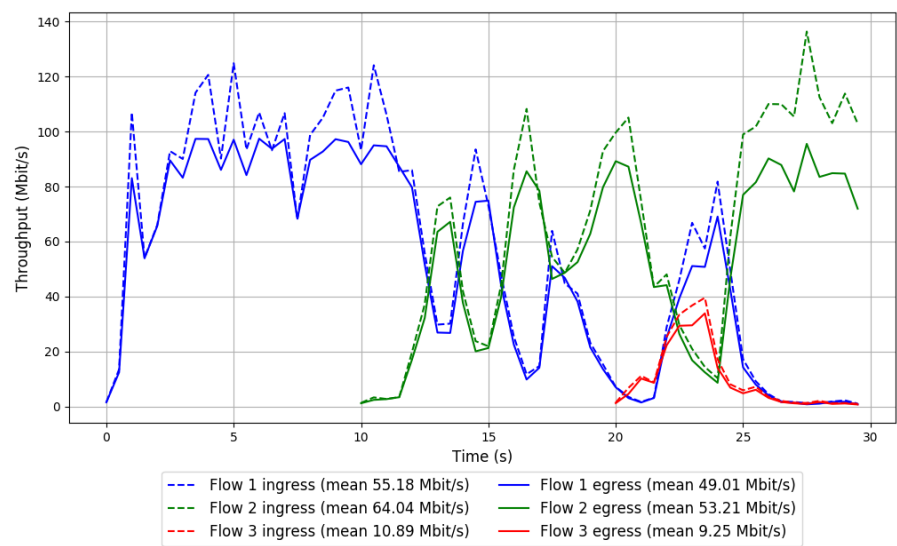Run 4: Report of Vivace-loss — Data Link

```
Run 5: Statistics of Vivace-loss

Start at: 2018-02-28 05:16:26
End at: 2018-02-28 05:16:56
Local clock offset: 2.648 ms
Remote clock offset: -4.928 ms


# Below is generated by plot.py at 2018-02-28 08:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.38 Mbit/s
95th percentile per-packet one-way delay: 45.260 ms
Loss rate: 13.76%
-- Flow 1:
Average throughput: 49.01 Mbit/s
95th percentile per-packet one-way delay: 45.007 ms
Loss rate: 11.17%
-- Flow 2:
Average throughput: 53.21 Mbit/s
95th percentile per-packet one-way delay: 45.616 ms
Loss rate: 17.00%
-- Flow 3:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 45.175 ms
Loss rate: 15.19%
```

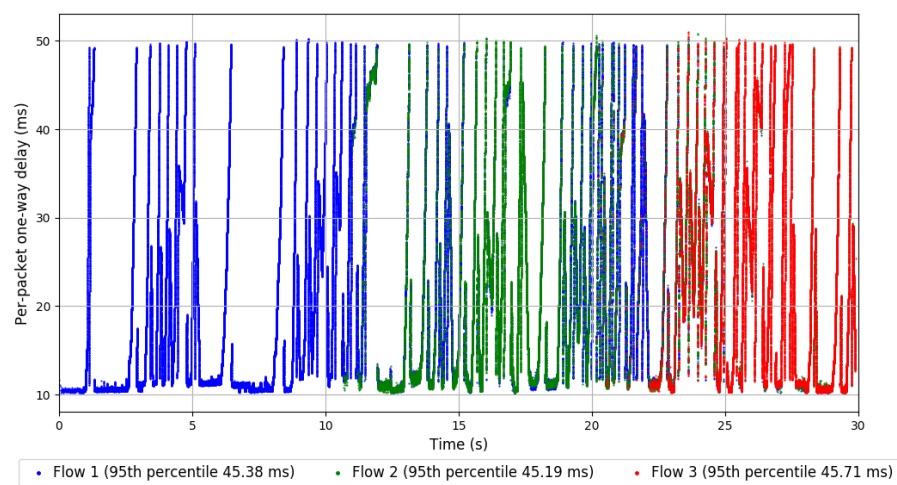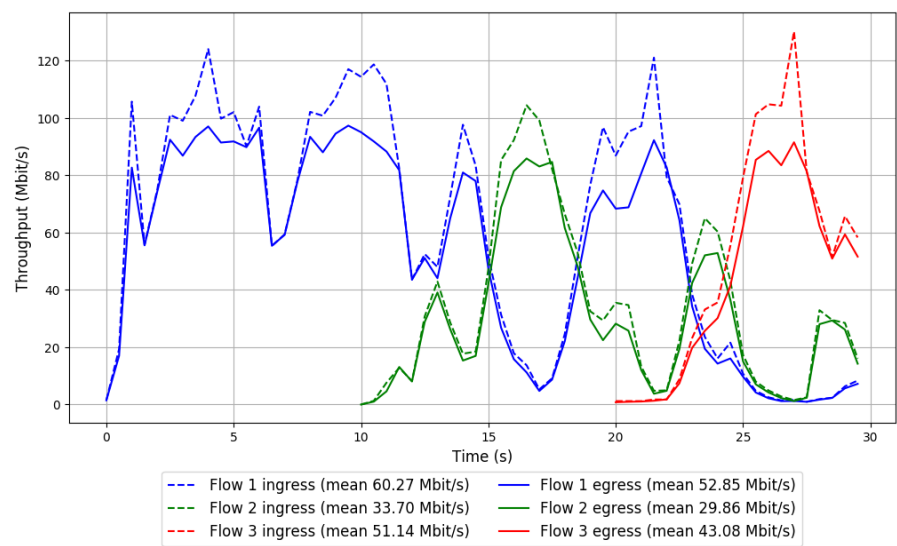Run 5: Report of Vivace-loss — Data Link

```
Run 6: Statistics of Vivace-loss

Start at: 2018-02-28 05:37:44
End at: 2018-02-28 05:38:14
Local clock offset: 2.565 ms
Remote clock offset: -4.178 ms


# Below is generated by plot.py at 2018-02-28 08:04:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.59 Mbit/s
95th percentile per-packet one-way delay: 45.320 ms
Loss rate: 12.98%
-- Flow 1:
Average throughput: 52.85 Mbit/s
95th percentile per-packet one-way delay: 45.380 ms
Loss rate: 12.31%
-- Flow 2:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 45.185 ms
Loss rate: 12.60%
-- Flow 3:
Average throughput: 43.08 Mbit/s
95th percentile per-packet one-way delay: 45.709 ms
Loss rate: 15.90%
```

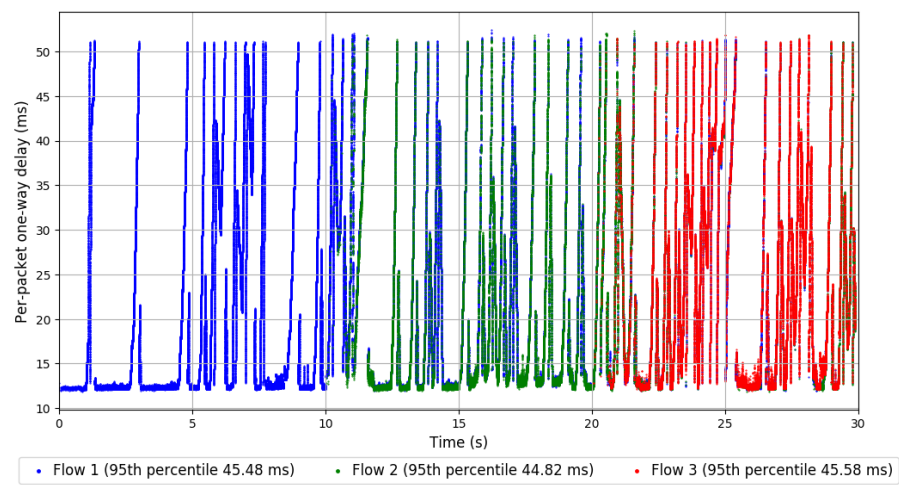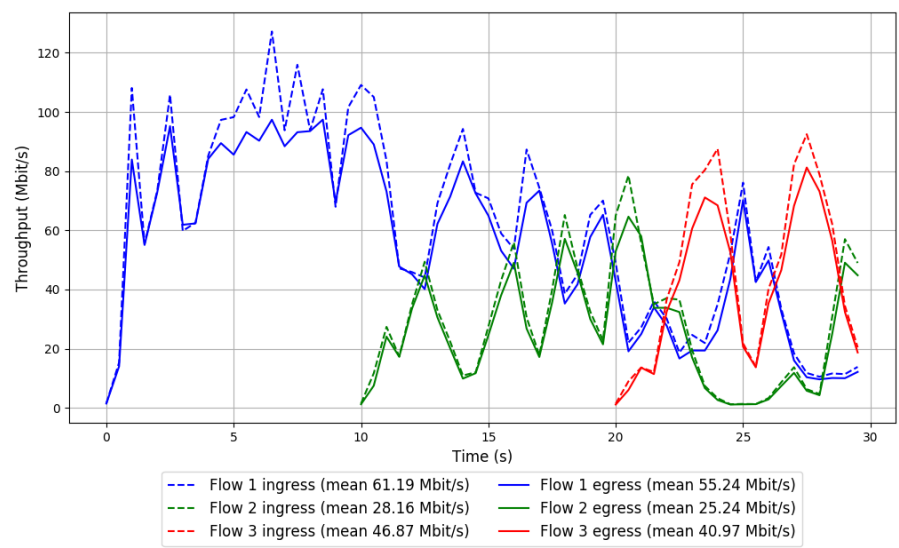Run 6: Report of Vivace-loss — Data Link





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```
Run 7: Statistics of Vivace-loss

Start at: 2018-02-28 05:59:05
End at: 2018-02-28 05:59:35
Local clock offset: -3.142 ms
Remote clock offset: -8.963 ms


# Below is generated by plot.py at 2018-02-28 08:04:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.53 Mbit/s
95th percentile per-packet one-way delay: 45.353 ms
Loss rate: 10.29%
-- Flow 1:
Average throughput: 55.24 Mbit/s
95th percentile per-packet one-way delay: 45.477 ms
Loss rate: 9.70%
-- Flow 2:
Average throughput: 25.24 Mbit/s
95th percentile per-packet one-way delay: 44.822 ms
Loss rate: 10.35%
-- Flow 3:
Average throughput: 40.97 Mbit/s
95th percentile per-packet one-way delay: 45.578 ms
Loss rate: 12.53%
```

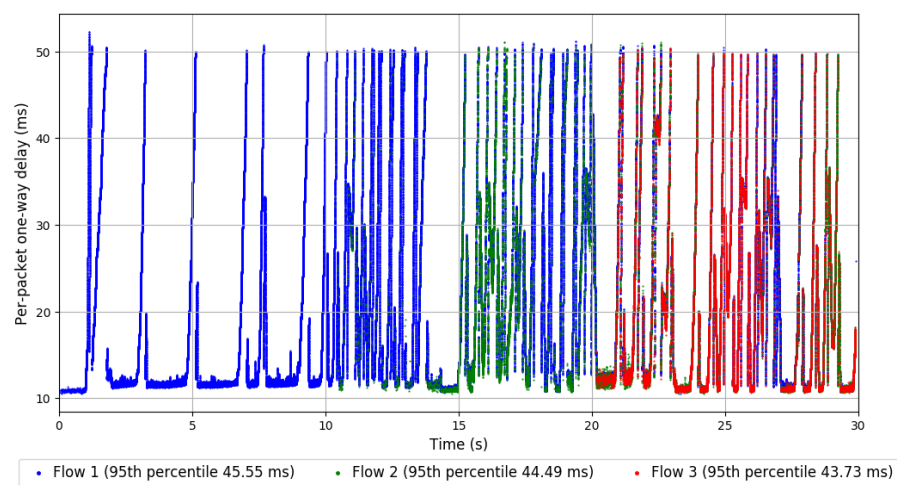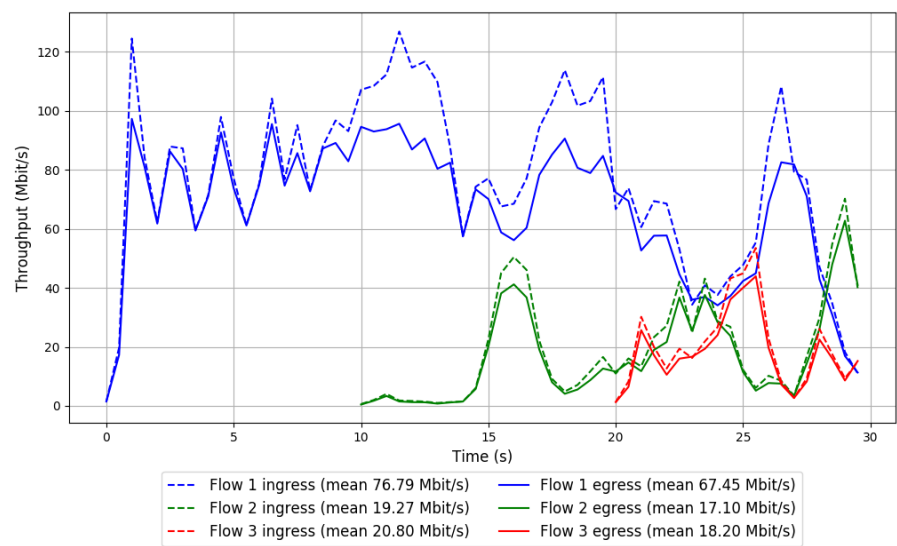Run 7: Report of Vivace-loss — Data Link

```
Run 8: Statistics of Vivace-loss

Start at: 2018-02-28 06:20:19
End at: 2018-02-28 06:20:49
Local clock offset: 2.494 ms
Remote clock offset: -5.911 ms


# Below is generated by plot.py at 2018-02-28 08:04:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.65 Mbit/s
95th percentile per-packet one-way delay: 45.297 ms
Loss rate: 12.20%
-- Flow 1:
Average throughput: 67.45 Mbit/s
95th percentile per-packet one-way delay: 45.546 ms
Loss rate: 12.13%
-- Flow 2:
Average throughput: 17.10 Mbit/s
95th percentile per-packet one-way delay: 44.495 ms
Loss rate: 12.35%
-- Flow 3:
Average throughput: 18.20 Mbit/s
95th percentile per-packet one-way delay: 43.731 ms
Loss rate: 12.68%
```

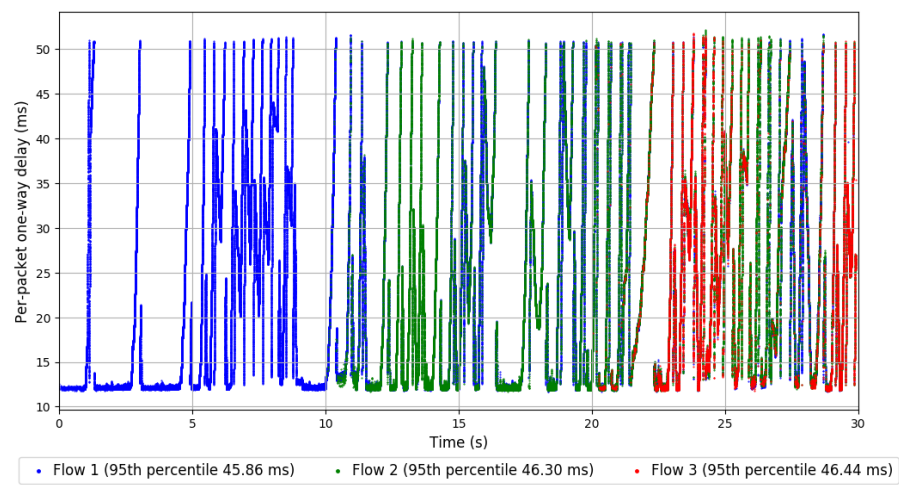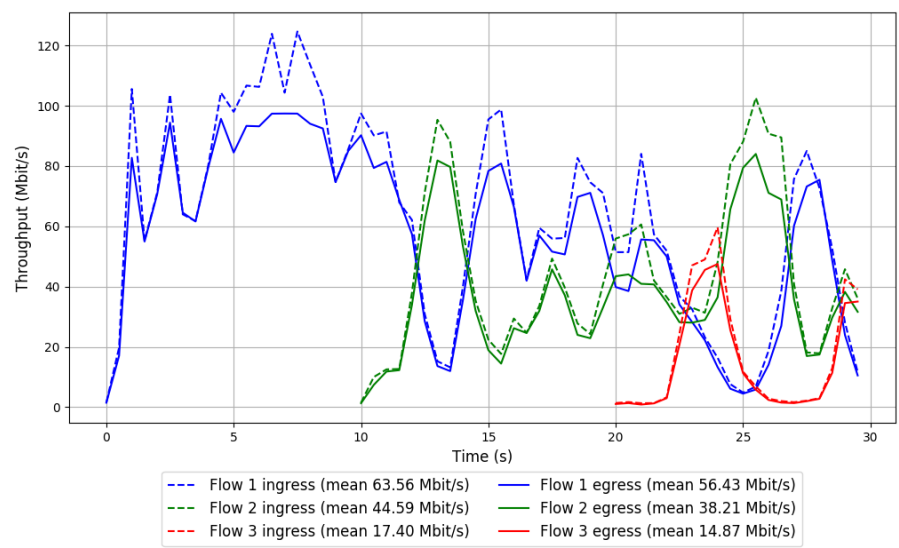Run 8: Report of Vivace-loss — Data Link

```
Run 9: Statistics of Vivace-loss

Start at: 2018-02-28 06:41:41
End at: 2018-02-28 06:42:11
Local clock offset: 1.242 ms
Remote clock offset: -5.961 ms


# Below is generated by plot.py at 2018-02-28 08:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.72 Mbit/s
95th percentile per-packet one-way delay: 46.031 ms
Loss rate: 12.29%
-- Flow 1:
Average throughput: 56.43 Mbit/s
95th percentile per-packet one-way delay: 45.860 ms
Loss rate: 11.19%
-- Flow 2:
Average throughput: 38.21 Mbit/s
95th percentile per-packet one-way delay: 46.302 ms
Loss rate: 14.26%
-- Flow 3:
Average throughput: 14.87 Mbit/s
95th percentile per-packet one-way delay: 46.439 ms
Loss rate: 14.38%
```

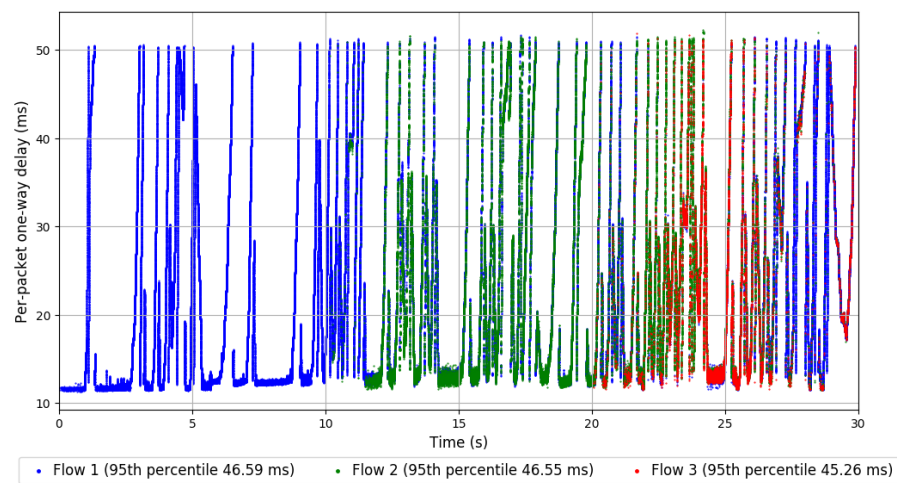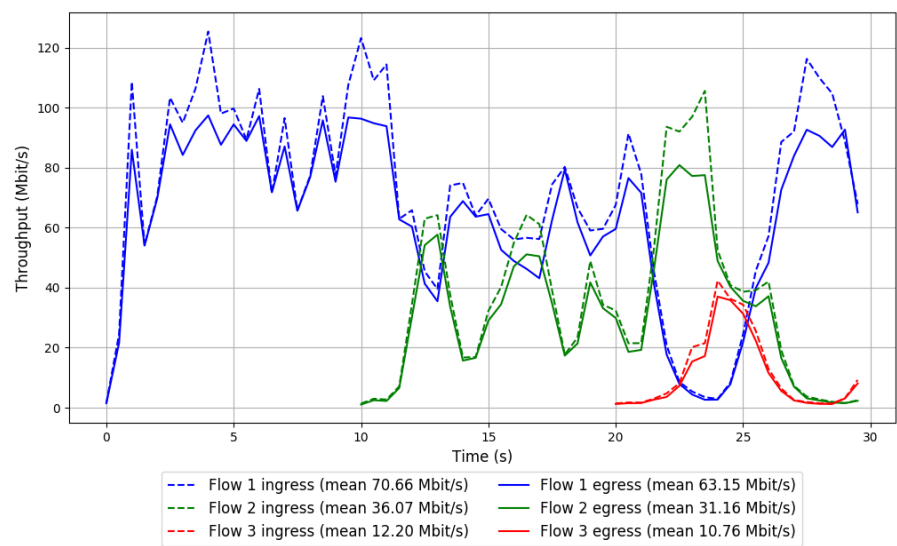Run 9: Report of Vivace-loss — Data Link

```
Run 10: Statistics of Vivace-loss

Start at: 2018-02-28 07:03:15
End at: 2018-02-28 07:03:45
Local clock offset: 3.32 ms
Remote clock offset: -3.303 ms


# Below is generated by plot.py at 2018-02-28 08:06:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.40 Mbit/s
95th percentile per-packet one-way delay: 46.533 ms
Loss rate: 11.39%
-- Flow 1:
Average throughput: 63.15 Mbit/s
95th percentile per-packet one-way delay: 46.585 ms
Loss rate: 10.61%
-- Flow 2:
Average throughput: 31.16 Mbit/s
95th percentile per-packet one-way delay: 46.553 ms
Loss rate: 13.62%
-- Flow 3:
Average throughput: 10.76 Mbit/s
95th percentile per-packet one-way delay: 45.257 ms
Loss rate: 11.79%
```

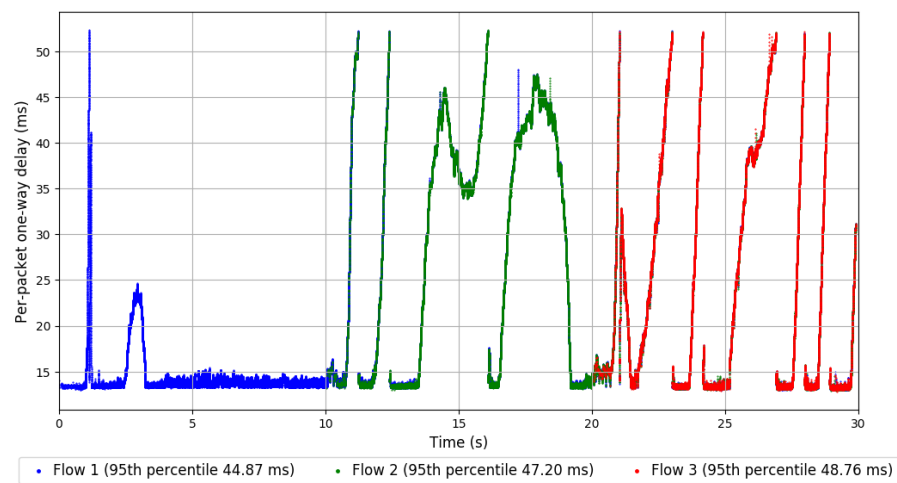Run 10: Report of Vivace-loss — Data Link

```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-28 03:45:42
End at: 2018-02-28 03:46:12
Local clock offset: 1.758 ms
Remote clock offset: 1.84 ms


# Below is generated by plot.py at 2018-02-28 08:06:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.93 Mbit/s
95th percentile per-packet one-way delay: 46.097 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 57.91 Mbit/s
95th percentile per-packet one-way delay: 44.872 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 47.203 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 23.67 Mbit/s
95th percentile per-packet one-way delay: 48.755 ms
Loss rate: 3.53%
```
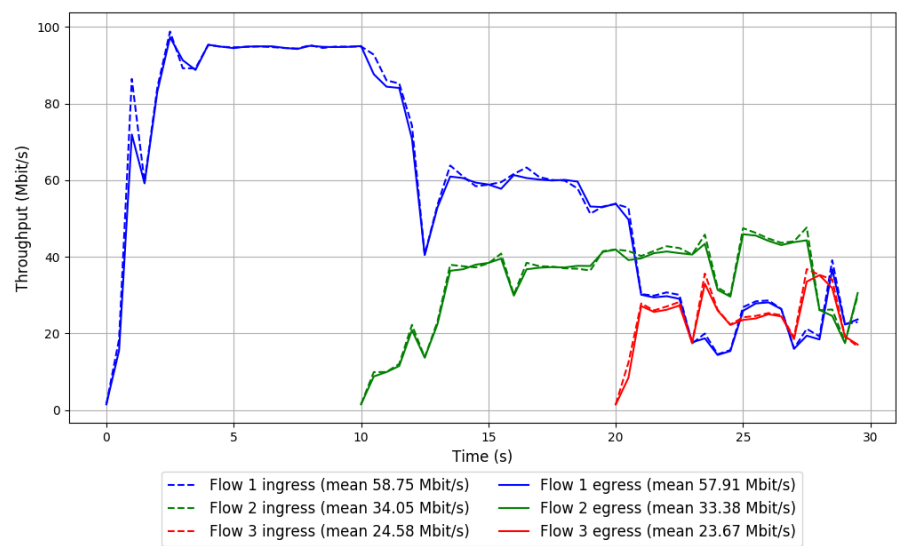
Run 1: Report of Vivace-LTE — Data Link



Flow 1 ingress (mean 58.75 Mbit/s)          Flow 1 egress (mean 57.91 Mbit/s)
Flow 2 ingress (mean 34.05 Mbit/s)          Flow 2 egress (mean 33.38 Mbit/s)
Flow 3 ingress (mean 24.58 Mbit/s)          Flow 3 egress (mean 23.67 Mbit/s)



Flow 1 (95th percentile 44.87 ms)    Flow 2 (95th percentile 47.20 ms)    Flow 3 (95th percentile 48.76 ms)
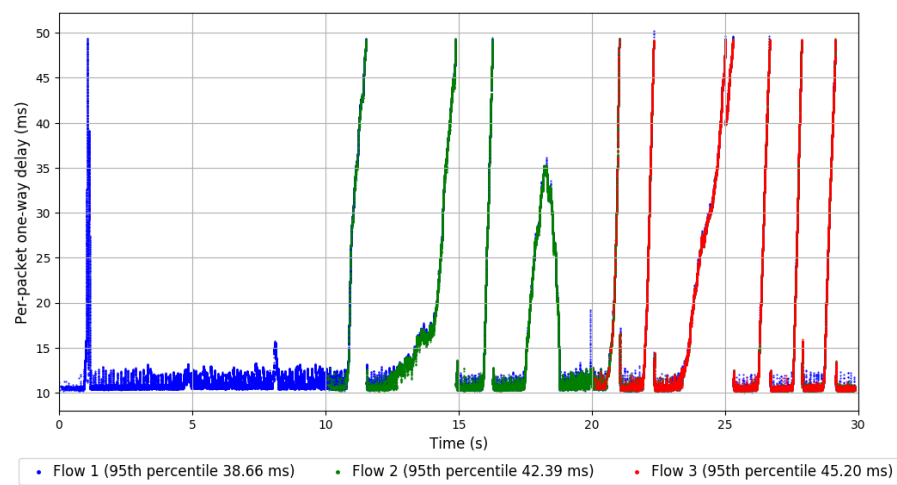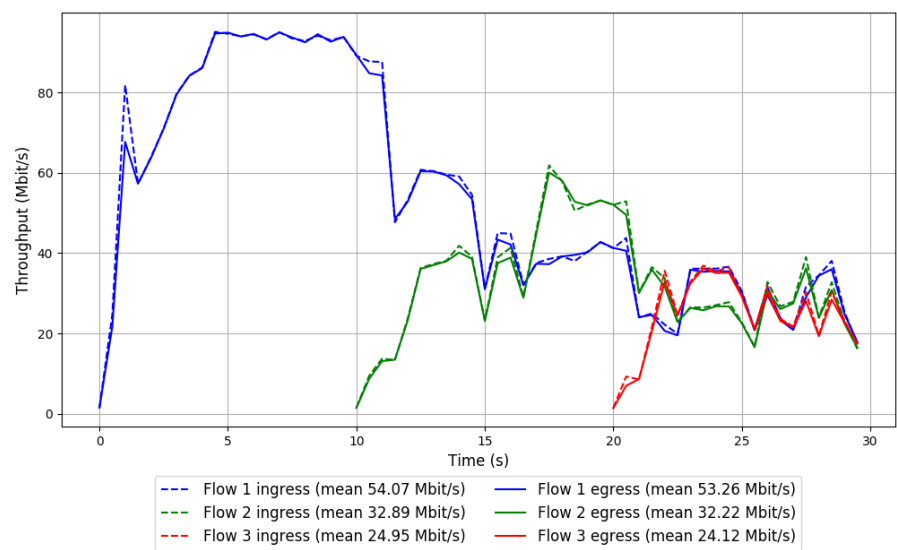
325

```
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-28 04:07:13
End at: 2018-02-28 04:07:43
Local clock offset: 5.333 ms
Remote clock offset: 13.014 ms


# Below is generated by plot.py at 2018-02-28 08:06:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.62 Mbit/s
95th percentile per-packet one-way delay: 41.206 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 53.26 Mbit/s
95th percentile per-packet one-way delay: 38.660 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 32.22 Mbit/s
95th percentile per-packet one-way delay: 42.388 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 24.12 Mbit/s
95th percentile per-packet one-way delay: 45.204 ms
Loss rate: 3.35%
```

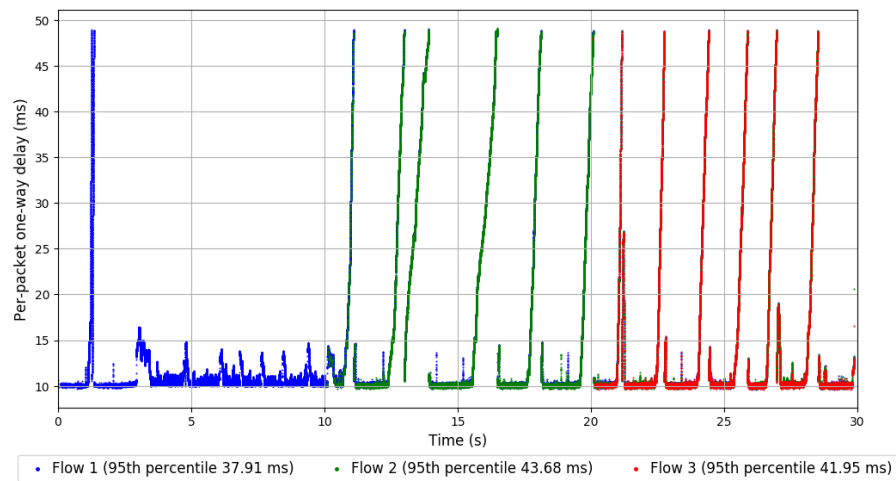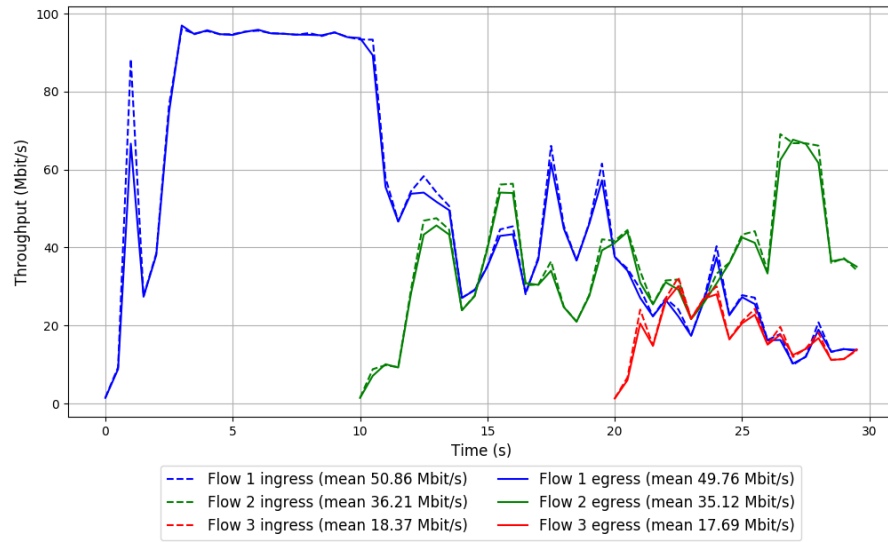Run 2: Report of Vivace-LTE — Data Link

```
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-28 04:28:50
End at: 2018-02-28 04:29:20
Local clock offset: 4.042 ms
Remote clock offset: 15.699 ms

# Below is generated by plot.py at 2018-02-28 08:06:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.91 Mbit/s
95th percentile per-packet one-way delay: 41.042 ms
Loss rate: 2.54%
-- Flow 1:
Average throughput: 49.76 Mbit/s
95th percentile per-packet one-way delay: 37.914 ms
Loss rate: 2.15%
-- Flow 2:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 43.684 ms
Loss rate: 2.98%
-- Flow 3:
Average throughput: 17.69 Mbit/s
95th percentile per-packet one-way delay: 41.948 ms
Loss rate: 4.00%
```

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



Legend:
- Flow 1 ingress (mean 50.86 Mbit/s)
- Flow 1 egress (mean 49.76 Mbit/s)
- Flow 2 ingress (mean 36.21 Mbit/s)
- Flow 2 egress (mean 35.12 Mbit/s)
- Flow 3 ingress (mean 18.37 Mbit/s)
- Flow 3 egress (mean 17.69 Mbit/s)



Legend:
- Flow 1 (95th percentile 37.91 ms)
- Flow 2 (95th percentile 43.68 ms)
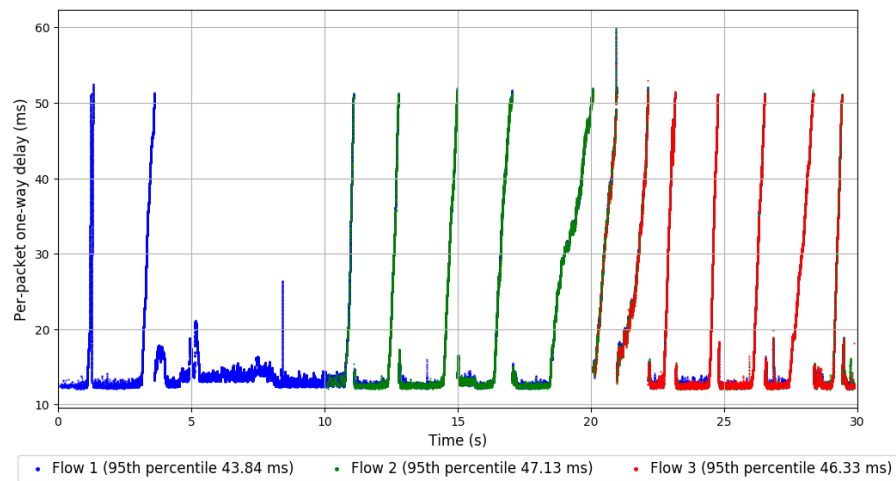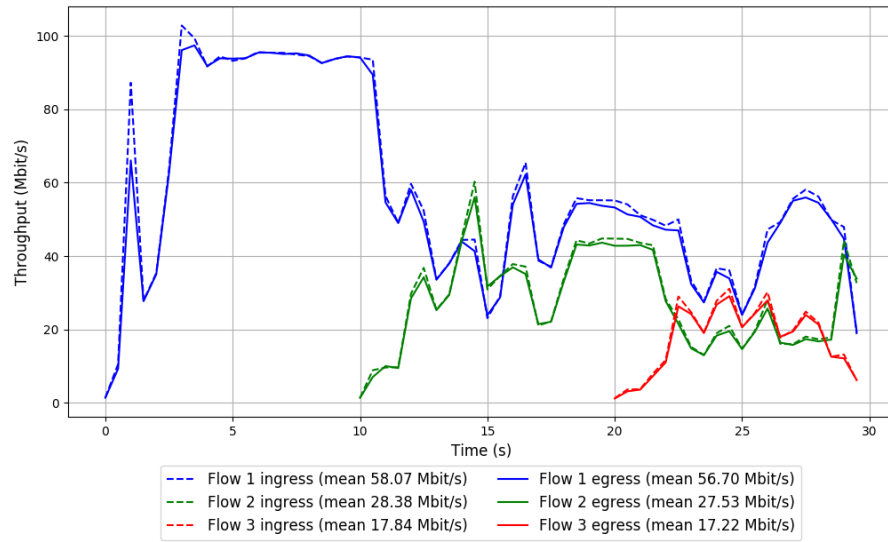- Flow 3 (95th percentile 41.95 ms)

```
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-28 04:50:13
End at: 2018-02-28 04:50:43
Local clock offset: 2.172 ms
Remote clock offset: 20.712 ms


# Below is generated by plot.py at 2018-02-28 08:06:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.65 Mbit/s
95th percentile per-packet one-way delay: 45.217 ms
Loss rate: 2.62%
-- Flow 1:
Average throughput: 56.70 Mbit/s
95th percentile per-packet one-way delay: 43.840 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 27.53 Mbit/s
95th percentile per-packet one-way delay: 47.133 ms
Loss rate: 3.01%
-- Flow 3:
Average throughput: 17.22 Mbit/s
95th percentile per-packet one-way delay: 46.330 ms
Loss rate: 3.78%
```

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



- - - Flow 1 ingress (mean 58.07 Mbit/s) ——— Flow 1 egress (mean 56.70 Mbit/s)
- - - Flow 2 ingress (mean 28.38 Mbit/s) ——— Flow 2 egress (mean 27.53 Mbit/s)
- - - Flow 3 ingress (mean 17.84 Mbit/s) ——— Flow 3 egress (mean 17.22 Mbit/s)



- Flow 1 (95th percentile 43.84 ms)　　• Flow 2 (95th percentile 47.13 ms)　　• Flow 3 (95th percentile 46.33 ms)
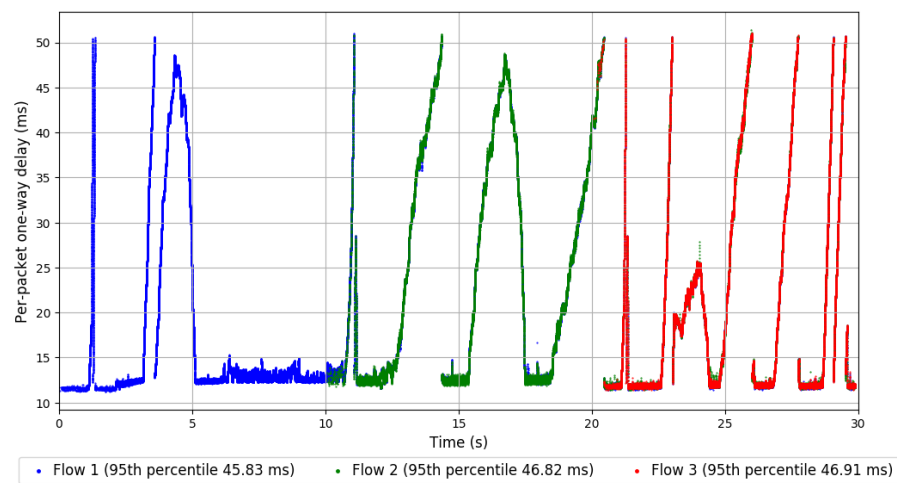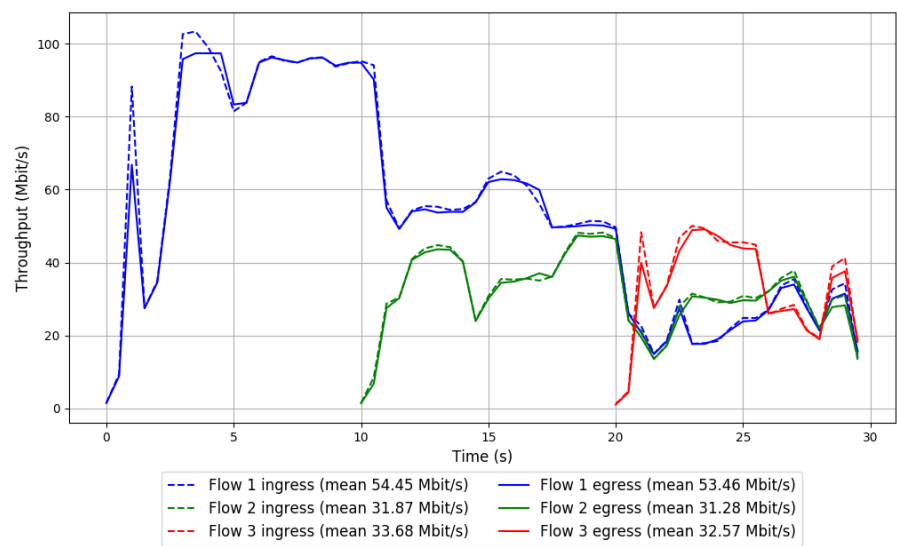
```
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-28 05:11:38
End at: 2018-02-28 05:12:08
Local clock offset: 3.215 ms
Remote clock offset: -1.291 ms


# Below is generated by plot.py at 2018-02-28 08:06:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.96 Mbit/s
95th percentile per-packet one-way delay: 46.311 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 53.46 Mbit/s
95th percentile per-packet one-way delay: 45.831 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 31.28 Mbit/s
95th percentile per-packet one-way delay: 46.816 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 32.57 Mbit/s
95th percentile per-packet one-way delay: 46.913 ms
Loss rate: 3.58%
```

# Run 5: Report of Vivace-LTE — Data Link



- Flow 1 ingress (mean 54.45 Mbit/s) — Flow 1 egress (mean 53.46 Mbit/s)
- Flow 2 ingress (mean 31.87 Mbit/s) — Flow 2 egress (mean 31.28 Mbit/s)
- Flow 3 ingress (mean 33.68 Mbit/s) — Flow 3 egress (mean 32.57 Mbit/s)



- Flow 1 (95th percentile 45.83 ms)   - Flow 2 (95th percentile 46.82 ms)   - Flow 3 (95th percentile 46.91 ms)
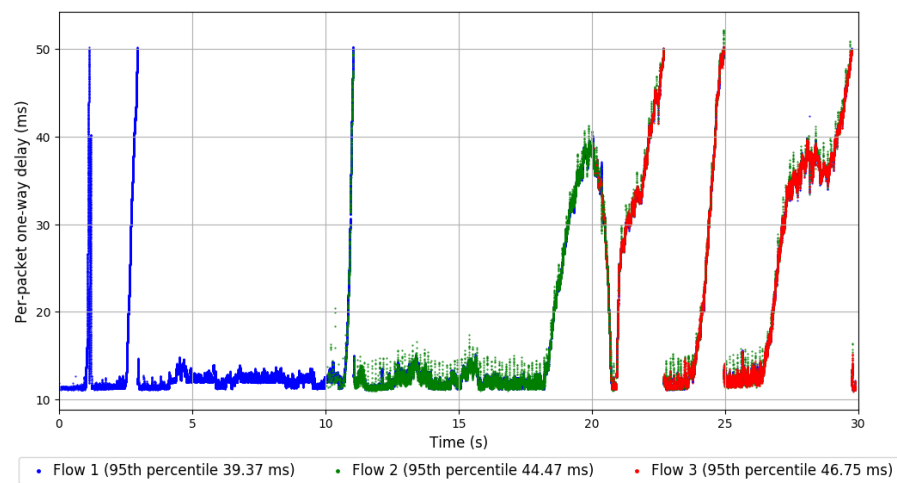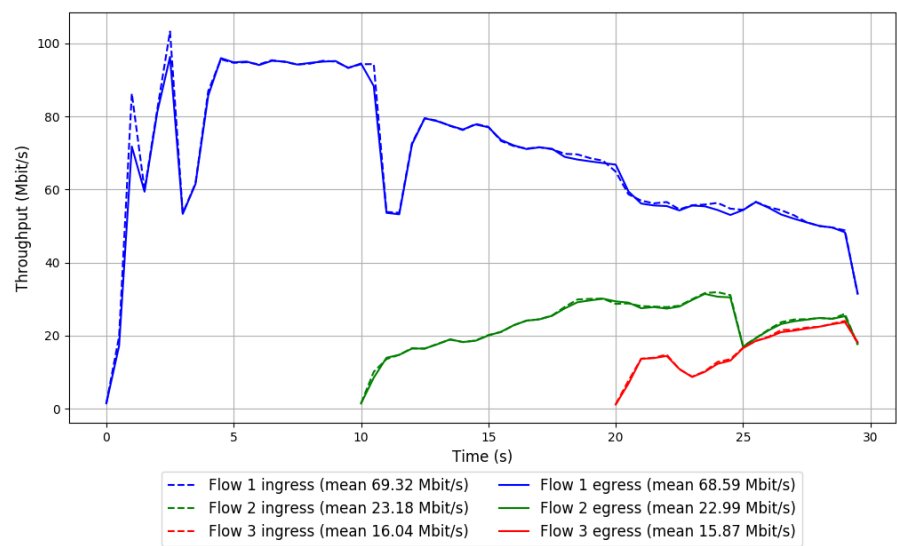
```
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-28 05:32:55
End at: 2018-02-28 05:33:25
Local clock offset: 0.365 ms
Remote clock offset: -6.578 ms


# Below is generated by plot.py at 2018-02-28 08:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.09 Mbit/s
95th percentile per-packet one-way delay: 41.615 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 68.59 Mbit/s
95th percentile per-packet one-way delay: 39.370 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 22.99 Mbit/s
95th percentile per-packet one-way delay: 44.472 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 15.87 Mbit/s
95th percentile per-packet one-way delay: 46.747 ms
Loss rate: 1.30%
```

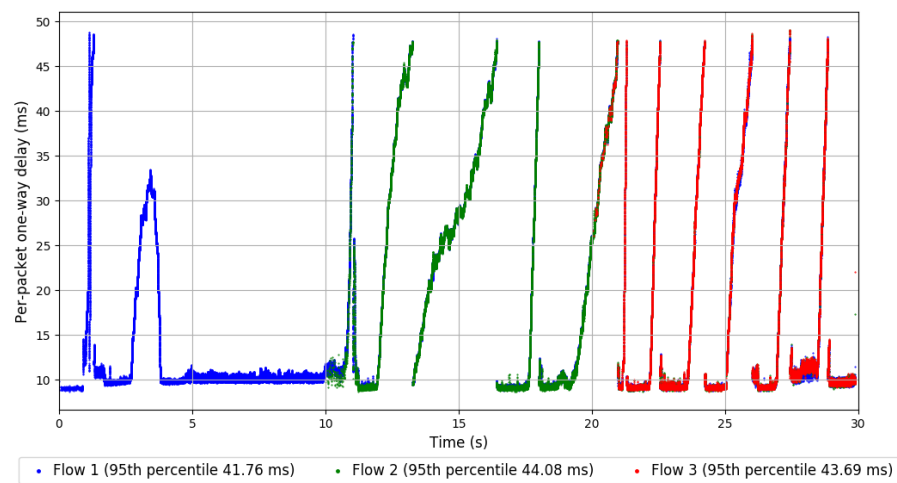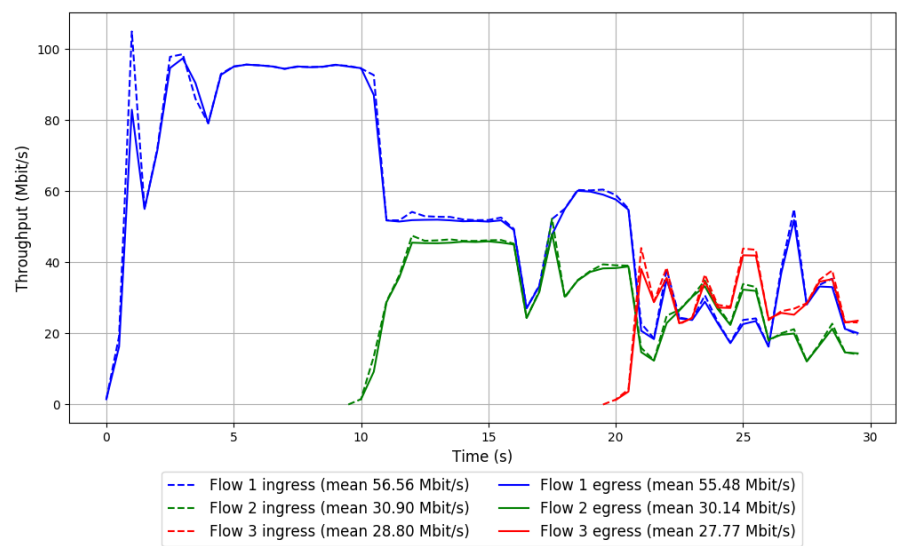Run 6: Report of Vivace-LTE — Data Link

```
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-28 05:54:24
End at: 2018-02-28 05:54:54
Local clock offset: 4.275 ms
Remote clock offset: -4.319 ms

# Below is generated by plot.py at 2018-02-28 08:06:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.67 Mbit/s
95th percentile per-packet one-way delay: 42.945 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 55.48 Mbit/s
95th percentile per-packet one-way delay: 41.763 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 44.084 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 27.77 Mbit/s
95th percentile per-packet one-way delay: 43.687 ms
Loss rate: 3.63%
```

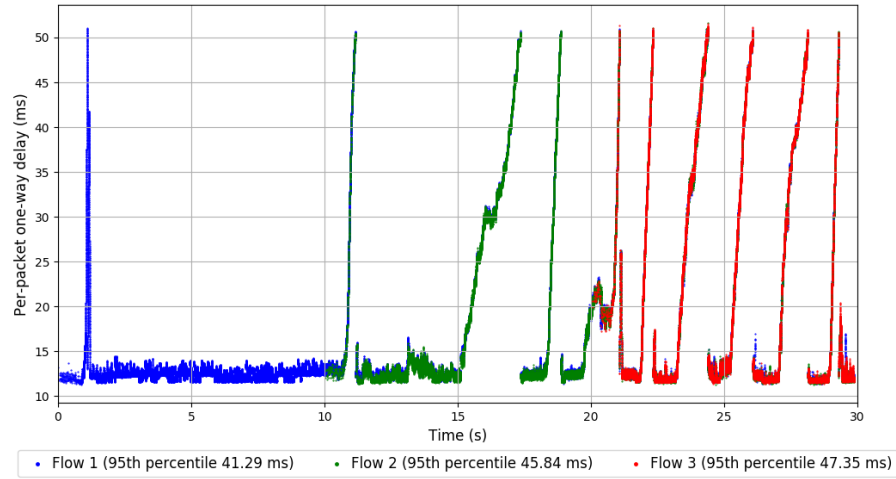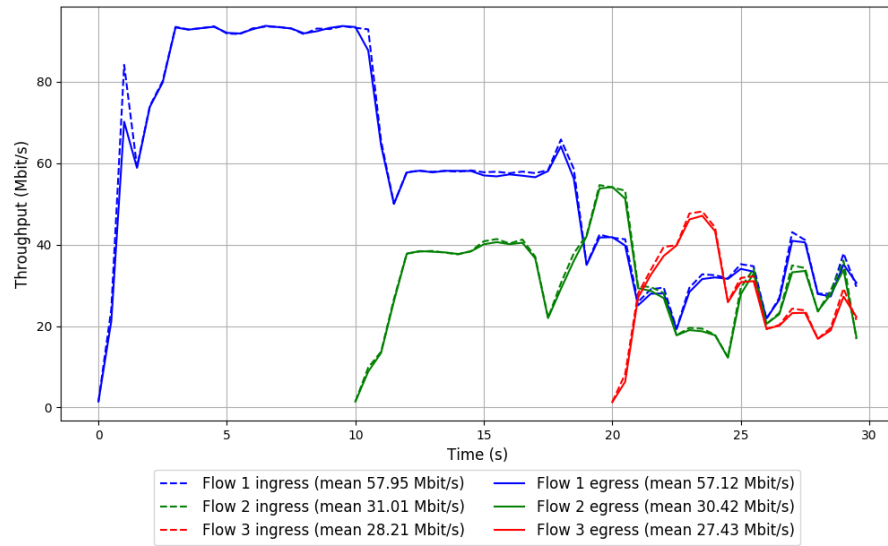Run 7: Report of Vivace-LTE — Data Link

```
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-28 06:15:38
End at: 2018-02-28 06:16:08
Local clock offset: 1.108 ms
Remote clock offset: -6.038 ms


# Below is generated by plot.py at 2018-02-28 08:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.38 Mbit/s
95th percentile per-packet one-way delay: 44.423 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 57.12 Mbit/s
95th percentile per-packet one-way delay: 41.292 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 30.42 Mbit/s
95th percentile per-packet one-way delay: 45.838 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 27.43 Mbit/s
95th percentile per-packet one-way delay: 47.353 ms
Loss rate: 2.87%
```

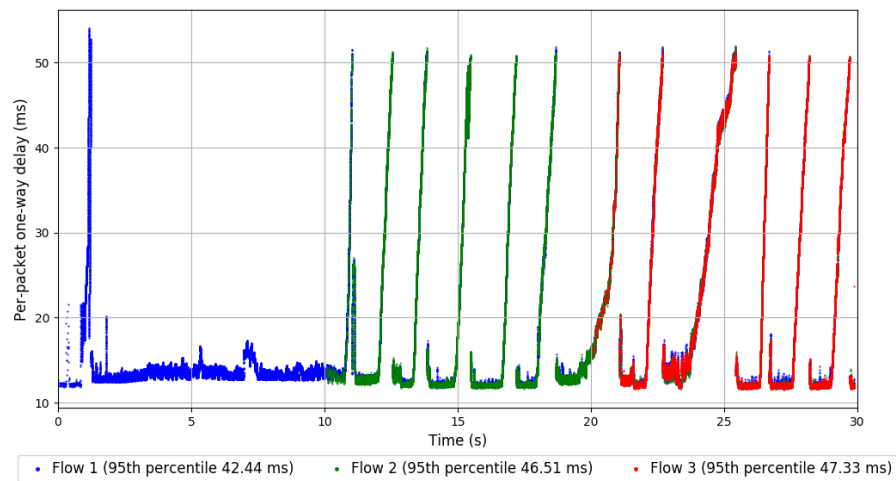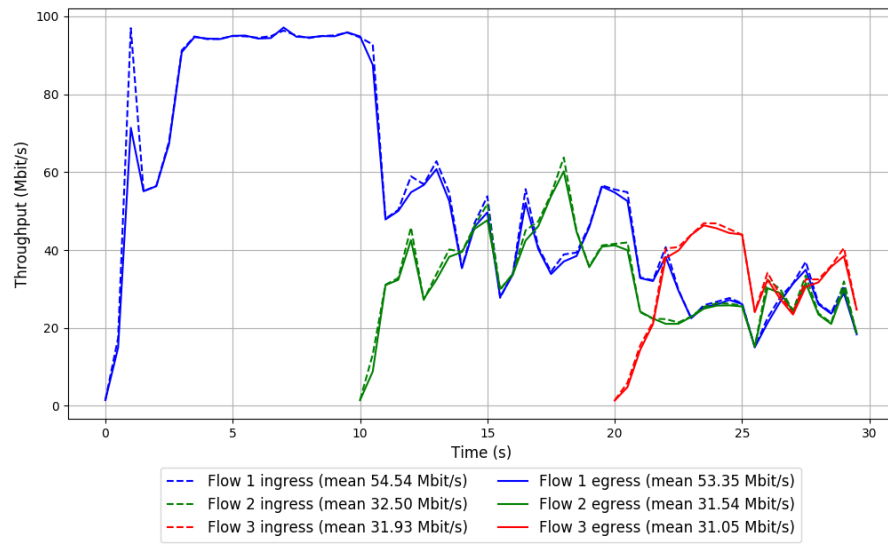Run 8: Report of Vivace-LTE — Data Link

```
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-28 06:36:58
End at: 2018-02-28 06:37:28
Local clock offset: 1.622 ms
Remote clock offset: -7.377 ms


# Below is generated by plot.py at 2018-02-28 08:06:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.53 Mbit/s
95th percentile per-packet one-way delay: 44.930 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 53.35 Mbit/s
95th percentile per-packet one-way delay: 42.438 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 31.54 Mbit/s
95th percentile per-packet one-way delay: 46.514 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 31.05 Mbit/s
95th percentile per-packet one-way delay: 47.327 ms
Loss rate: 2.68%
```

## Run 9: Report of Vivace-LTE — Data Link



- - - Flow 1 ingress (mean 54.54 Mbit/s) —— Flow 1 egress (mean 53.35 Mbit/s)
- - - Flow 2 ingress (mean 32.50 Mbit/s) —— Flow 2 egress (mean 31.54 Mbit/s)
- - - Flow 3 ingress (mean 31.93 Mbit/s) —— Flow 3 egress (mean 31.05 Mbit/s)



• Flow 1 (95th percentile 42.44 ms)   • Flow 2 (95th percentile 46.51 ms)   • Flow 3 (95th percentile 47.33 ms)

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```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-28 06:58:24
End at: 2018-02-28 06:58:54
Local clock offset: 2.319 ms
Remote clock offset: -3.431 ms


# Below is generated by plot.py at 2018-02-28 08:06:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.06 Mbit/s
95th percentile per-packet one-way delay: 44.731 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 53.18 Mbit/s
95th percentile per-packet one-way delay: 41.992 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 46.654 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 18.76 Mbit/s
95th percentile per-packet one-way delay: 47.838 ms
Loss rate: 3.64%
```

Run 10: Report of Vivace-LTE — Data Link