# Pantheon Report

Generated at 2018-06-06 06:14:58 (UTC).

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

Repeated the test of 16 congestion control schemes 10 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
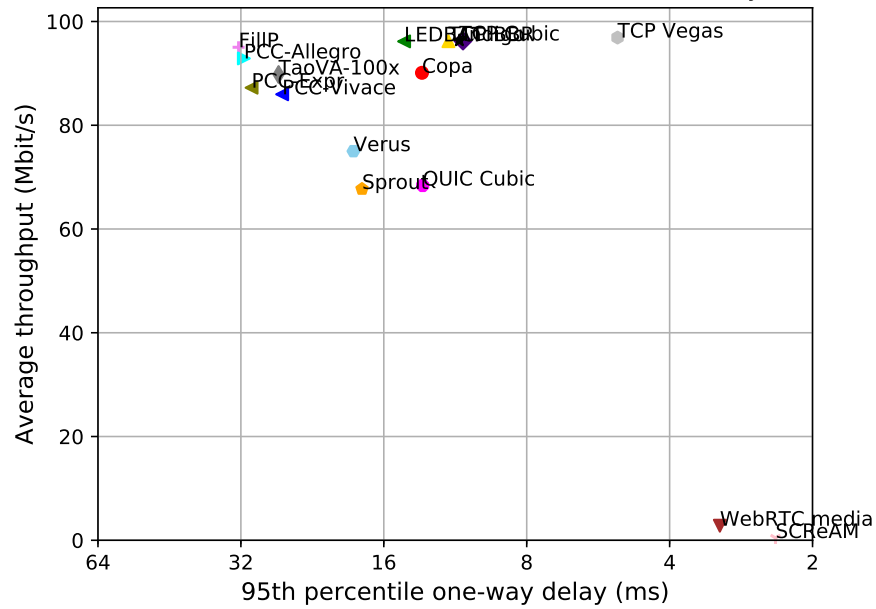
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.
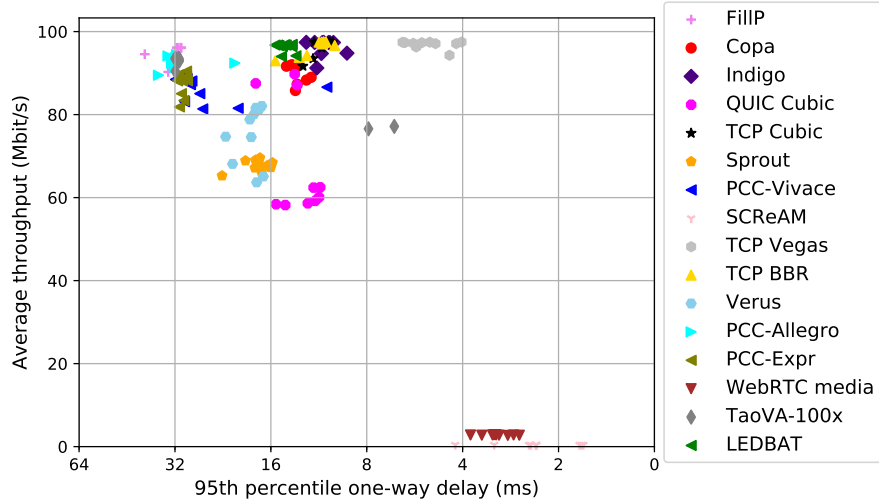
```
Git summary:
branch: master @ 227fdf9a3757f17b88537cceed5743a33037a3d2
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ c838669682f0c19f6baf92afc9a596a406d48c1f
 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 @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



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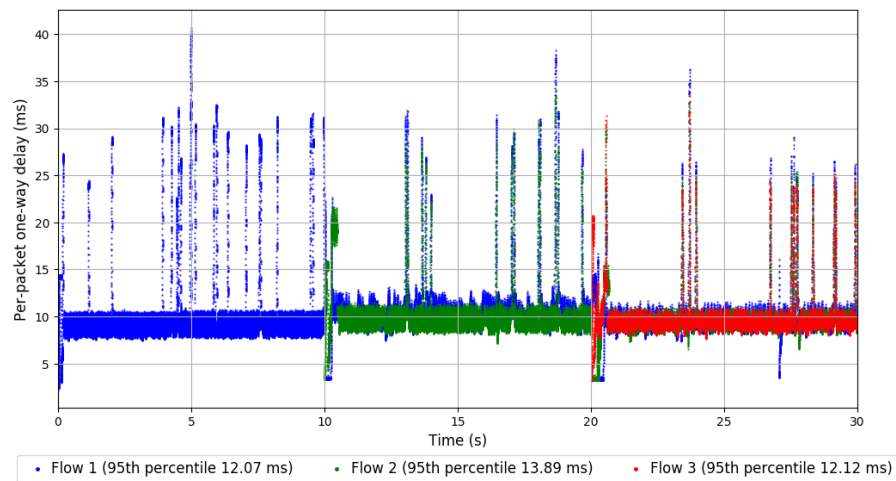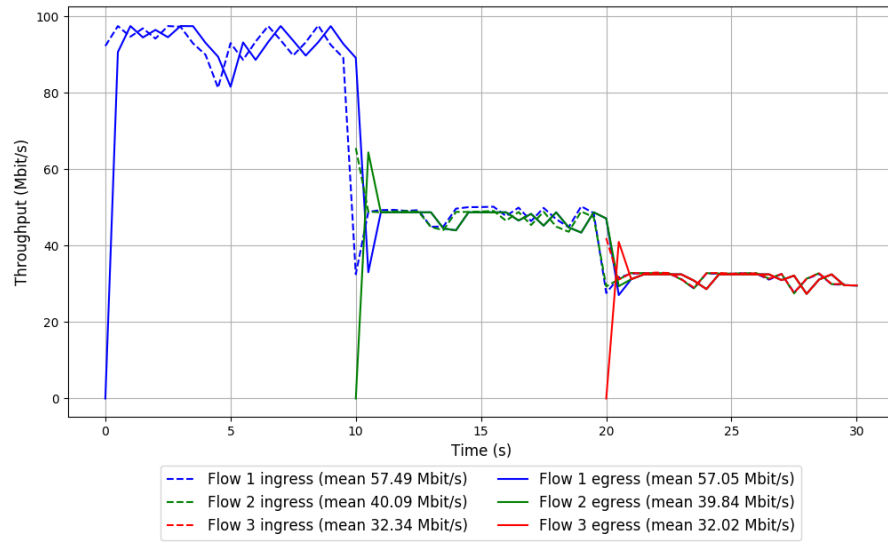## 3 flows with 10s interval between flows



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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 | 58.45 | 40.45 | 32.56 | 10.72 | 12.86 | 12.86 | 0.29 | 0.59 | 0.84 |
| Copa | 10 | 53.69 | 39.33 | 30.79 | 12.41 | 13.21 | 15.50 | 0.03 | 0.06 | 0.14 |
| TCP Cubic | 10 | 58.96 | 40.16 | 32.05 | 12.32 | 10.86 | 11.55 | 0.08 | 0.14 | 0.23 |
| FillP | 10 | 59.15 | 39.08 | 29.79 | 29.77 | 32.92 | 34.74 | 1.57 | 3.57 | 4.00 |
| Indigo | 10 | 58.90 | 40.19 | 32.25 | 10.26 | 11.23 | 9.88 | 0.05 | 0.62 | 0.32 |
| LEDBAT | 10 | 58.64 | 40.24 | 32.28 | 14.11 | 14.60 | 14.58 | 0.13 | 0.23 | 0.37 |
| PCC-Allegro | 10 | 63.13 | 31.91 | 25.95 | 29.69 | 30.62 | 22.99 | 3.52 | 3.25 | 0.69 |
| PCC-Expr | 10 | 52.81 | 37.23 | 29.30 | 27.38 | 30.53 | 31.01 | 0.32 | 0.51 | 0.53 |
| QUIC Cubic | 10 | 16.63 | 58.41 | 42.01 | 6.39 | 13.26 | 13.72 | 0.05 | 0.19 | 0.36 |
| SCReAM | 10 | 0.22 | 0.22 | 0.22 | 2.39 | 2.39 | 2.40 | 0.00 | 0.00 | 0.03 |
| Sprout | 10 | 35.33 | 33.68 | 30.29 | 15.83 | 18.01 | 20.57 | 0.04 | 0.07 | 0.14 |
| TaoVA-100x | 10 | 55.31 | 36.14 | 31.30 | 26.27 | 26.98 | 27.17 | 0.27 | 0.59 | 1.43 |
| TCP Vegas | 10 | 51.87 | 49.14 | 37.03 | 5.83 | 4.76 | 5.42 | 0.01 | 0.02 | 0.05 |
| Verus | 10 | 43.37 | 32.98 | 29.12 | 15.72 | 19.82 | 24.25 | 0.01 | 0.06 | 0.08 |
| PCC-Vivace | 10 | 55.55 | 32.68 | 26.29 | 21.23 | 23.23 | 18.68 | 0.31 | 0.40 | 0.81 |
| WebRTC media | 10 | 1.53 | 0.87 | 0.42 | 3.08 | 3.11 | 3.39 | 0.00 | 0.05 | 0.00 |

```
Run 1: Statistics of TCP BBR

Start at: 2018-06-06 02:56:08
End at: 2018-06-06 02:56:38
Local clock offset: -5.357 ms
Remote clock offset: -1.753 ms


# Below is generated by plot.py at 2018-06-06 05:53:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.24 Mbit/s
95th percentile per-packet one-way delay: 12.331 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 12.069 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 13.886 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 12.120 ms
Loss rate: 1.03%
```

Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-06-06 03:14:07
End at: 2018-06-06 03:14:37
Local clock offset: -5.231 ms
Remote clock offset: -1.163 ms


# Below is generated by plot.py at 2018-06-06 05:53:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 13.042 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 57.09 Mbit/s
95th percentile per-packet one-way delay: 10.754 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 39.36 Mbit/s
95th percentile per-packet one-way delay: 16.830 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 31.61 Mbit/s
95th percentile per-packet one-way delay: 16.457 ms
Loss rate: 1.38%
```
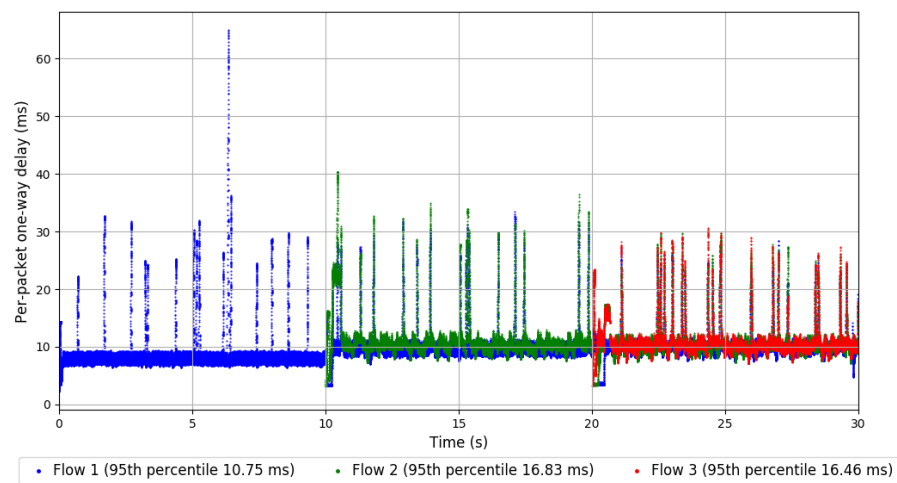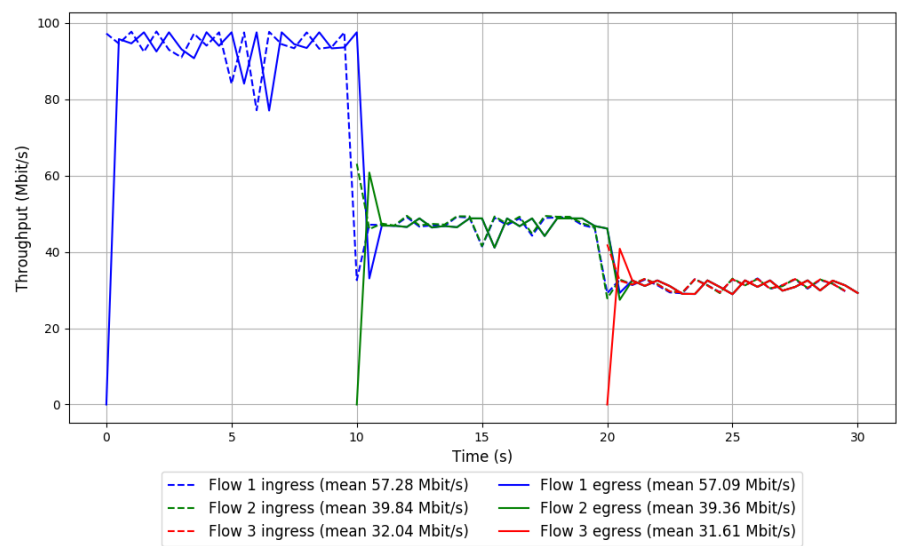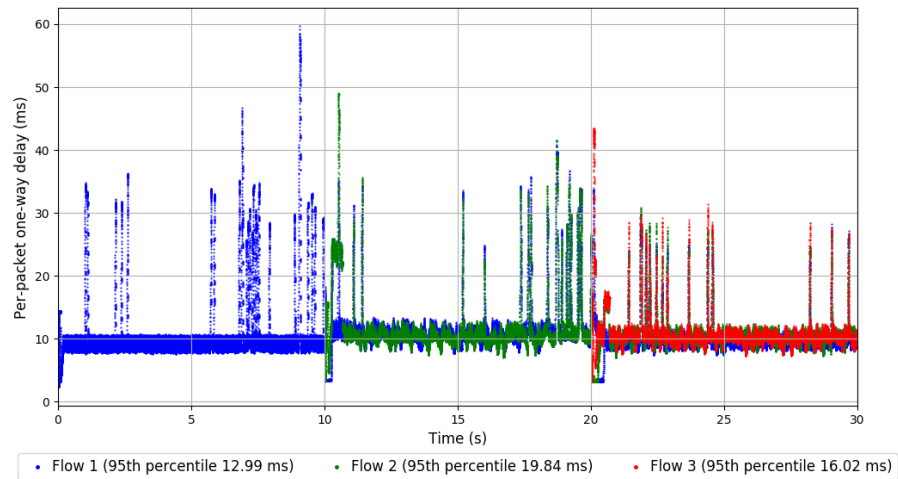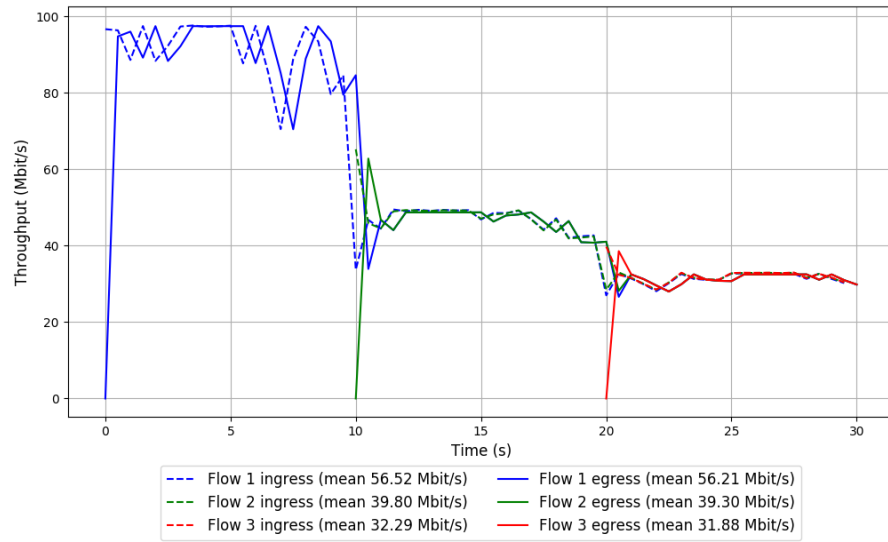
Run 2: Report of TCP BBR — Data Link



Flow 1 ingress (mean 57.28 Mbit/s) --- Flow 1 egress (mean 57.09 Mbit/s)
Flow 2 ingress (mean 39.84 Mbit/s) --- Flow 2 egress (mean 39.36 Mbit/s)
Flow 3 ingress (mean 32.04 Mbit/s) --- Flow 3 egress (mean 31.61 Mbit/s)



Flow 1 (95th percentile 10.75 ms)   Flow 2 (95th percentile 16.83 ms)   Flow 3 (95th percentile 16.46 ms)

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```
Run 3: Statistics of TCP BBR

Start at: 2018-06-06 03:32:08
End at: 2018-06-06 03:32:38
Local clock offset: -5.043 ms
Remote clock offset: -2.199 ms


# Below is generated by plot.py at 2018-06-06 05:53:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.97 Mbit/s
95th percentile per-packet one-way delay: 15.496 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 12.994 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 39.30 Mbit/s
95th percentile per-packet one-way delay: 19.837 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: 16.015 ms
Loss rate: 1.32%
```
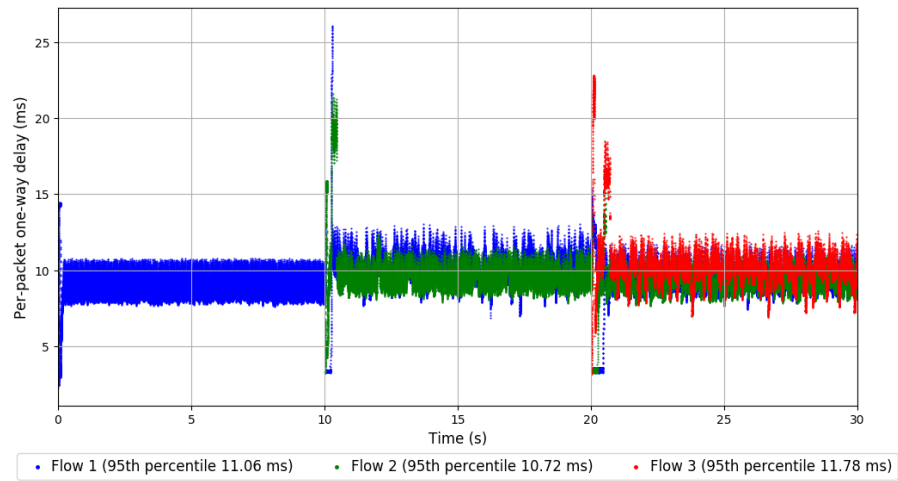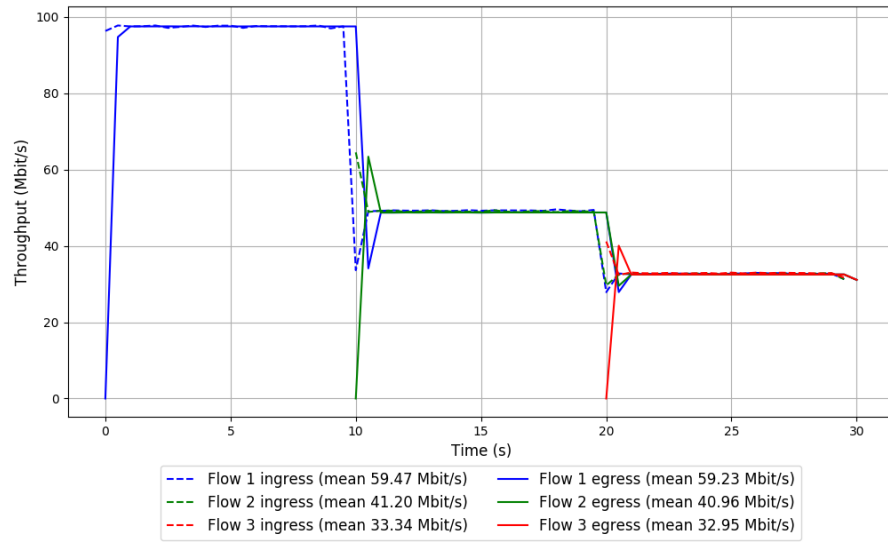
Run 3: Report of TCP BBR — Data Link



- - - Flow 1 ingress (mean 56.52 Mbit/s) —— Flow 1 egress (mean 56.21 Mbit/s)
- - - Flow 2 ingress (mean 39.80 Mbit/s) —— Flow 2 egress (mean 39.30 Mbit/s)
- - - Flow 3 ingress (mean 32.29 Mbit/s) —— Flow 3 egress (mean 31.88 Mbit/s)



• Flow 1 (95th percentile 12.99 ms)     • Flow 2 (95th percentile 19.84 ms)     • Flow 3 (95th percentile 16.02 ms)

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```
Run 4: Statistics of TCP BBR

Start at: 2018-06-06 03:50:11
End at: 2018-06-06 03:50:41
Local clock offset: -4.846 ms
Remote clock offset: -2.351 ms


# Below is generated by plot.py at 2018-06-06 05:53:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 11.085 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 11.057 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 10.716 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 11.775 ms
Loss rate: 1.20%
```
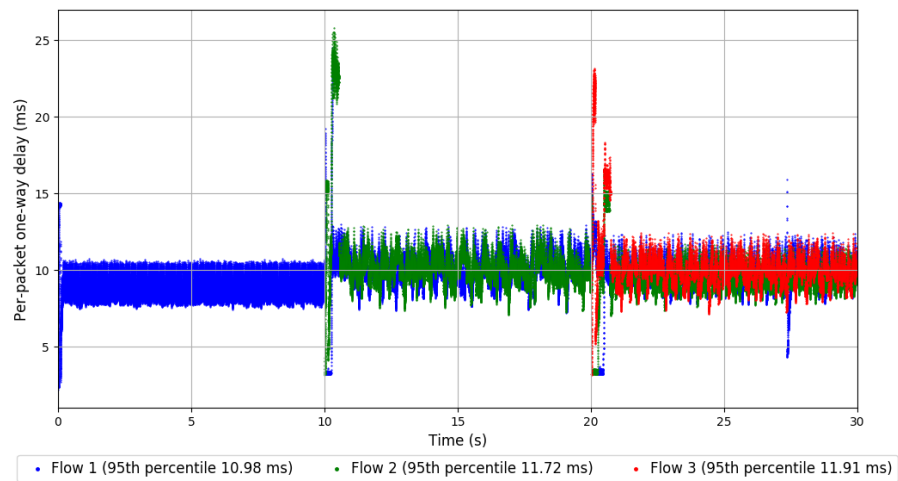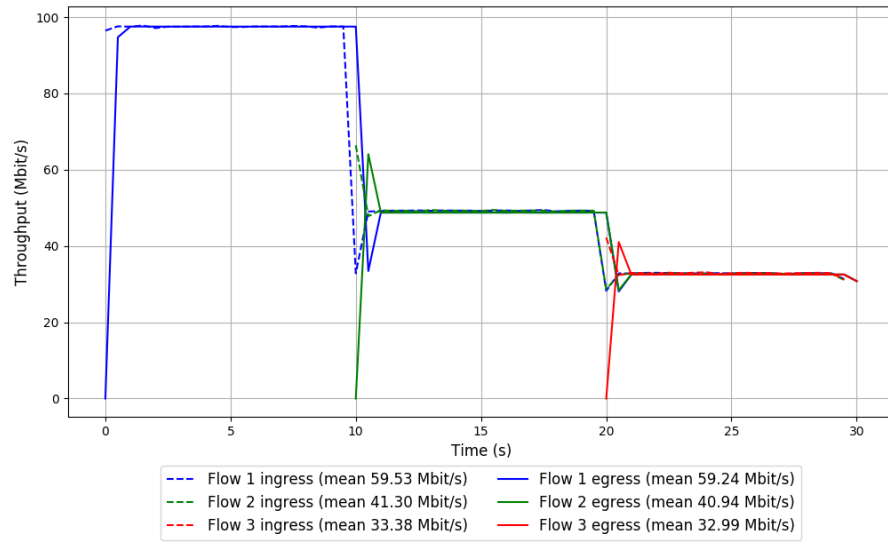
Run 4: Report of TCP BBR — Data Link



Flow 1 ingress (mean 59.47 Mbit/s) --- Flow 1 egress (mean 59.23 Mbit/s)
Flow 2 ingress (mean 41.20 Mbit/s) --- Flow 2 egress (mean 40.96 Mbit/s)
Flow 3 ingress (mean 33.34 Mbit/s) --- Flow 3 egress (mean 32.95 Mbit/s)



Flow 1 (95th percentile 11.06 ms)    Flow 2 (95th percentile 10.72 ms)    Flow 3 (95th percentile 11.78 ms)

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```
Run 5: Statistics of TCP BBR

Start at: 2018-06-06 04:08:14
End at: 2018-06-06 04:08:44
Local clock offset: -4.849 ms
Remote clock offset: -2.262 ms


# Below is generated by plot.py at 2018-06-06 05:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 11.281 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 59.24 Mbit/s
95th percentile per-packet one-way delay: 10.980 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 40.94 Mbit/s
95th percentile per-packet one-way delay: 11.717 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 32.99 Mbit/s
95th percentile per-packet one-way delay: 11.908 ms
Loss rate: 1.23%
```
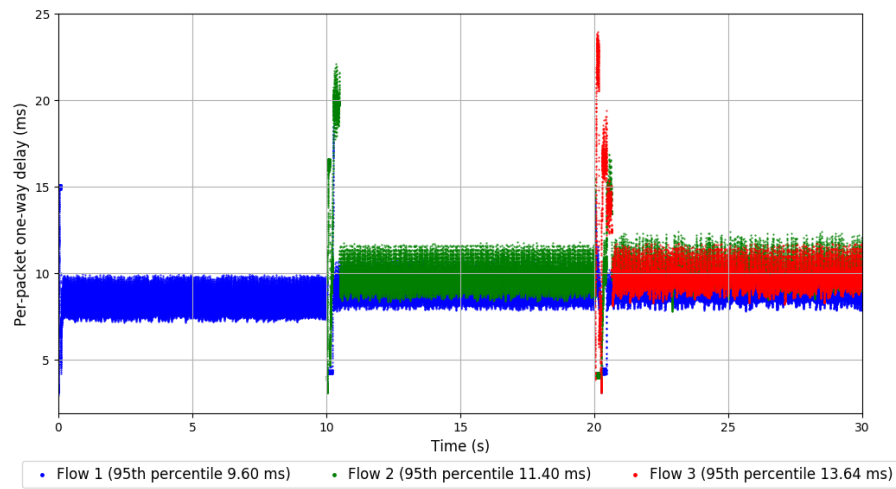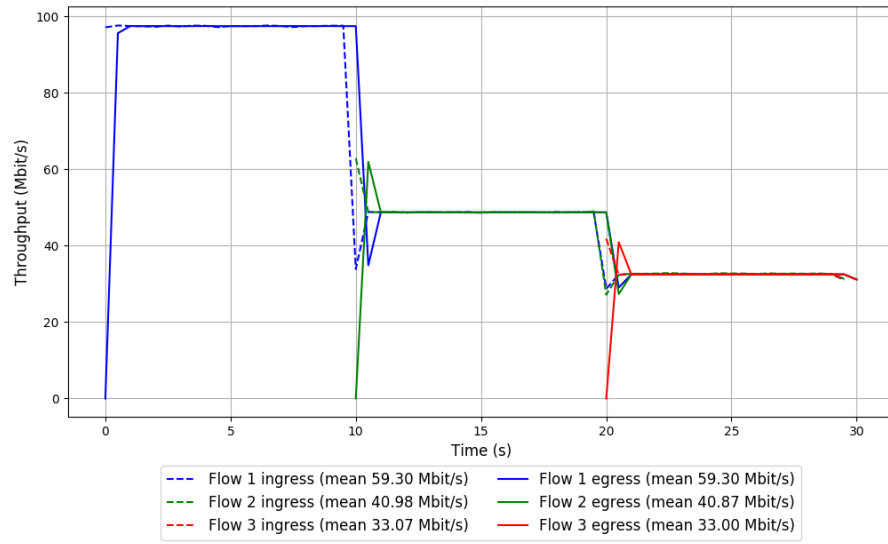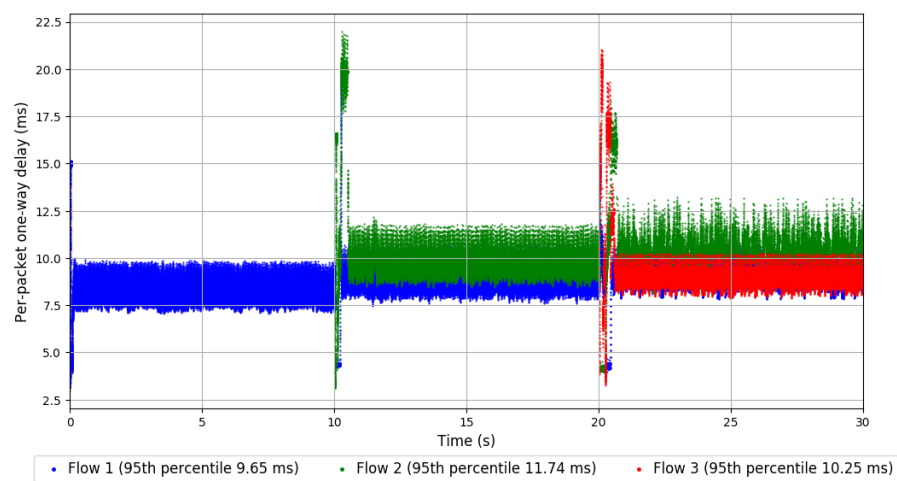
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 59.53 Mbit/s) — Flow 1 egress (mean 59.24 Mbit/s)
Flow 2 ingress (mean 41.30 Mbit/s) — Flow 2 egress (mean 40.94 Mbit/s)
Flow 3 ingress (mean 33.38 Mbit/s) — Flow 3 egress (mean 32.99 Mbit/s)

Flow 1 (95th percentile 10.98 ms)　　Flow 2 (95th percentile 11.72 ms)　　Flow 3 (95th percentile 11.91 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-06-06 04:26:17
End at: 2018-06-06 04:26:47
Local clock offset: -4.188 ms
Remote clock offset: -2.261 ms

# Below is generated by plot.py at 2018-06-06 05:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.741 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.30 Mbit/s
95th percentile per-packet one-way delay: 9.599 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 11.402 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 13.645 ms
Loss rate: 0.23%
```
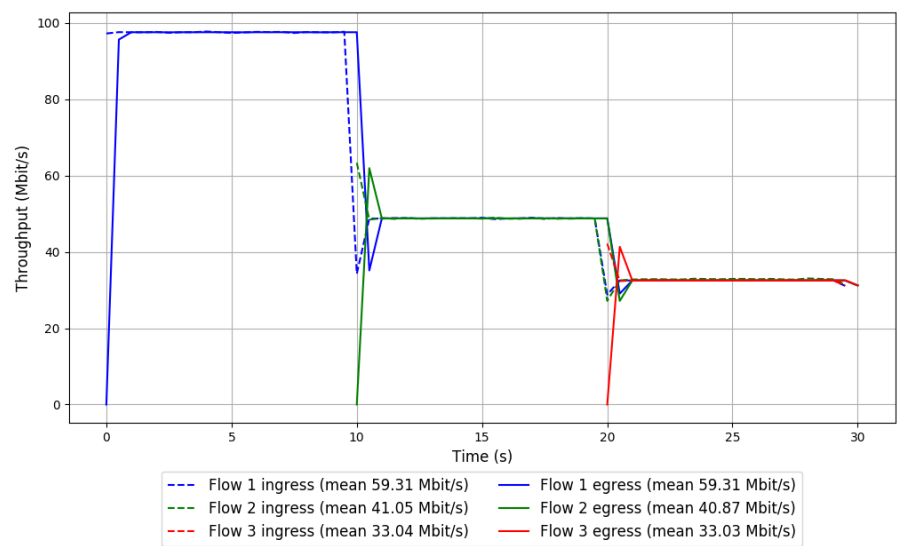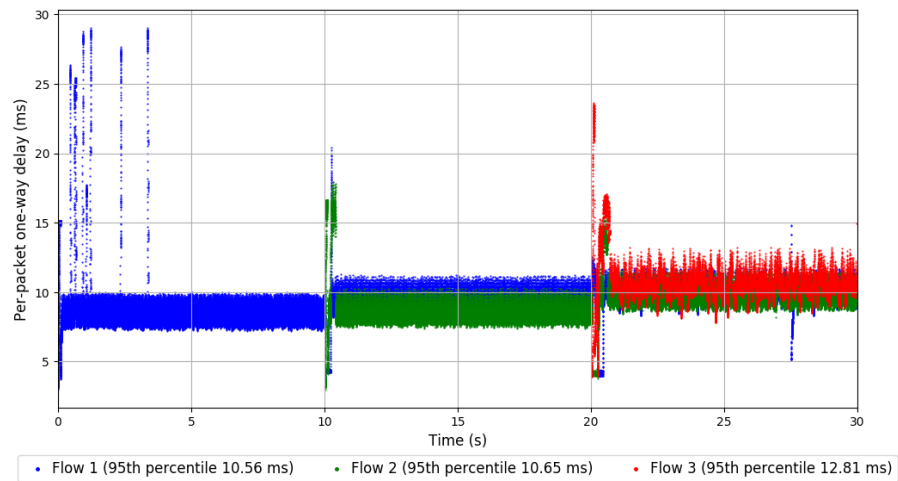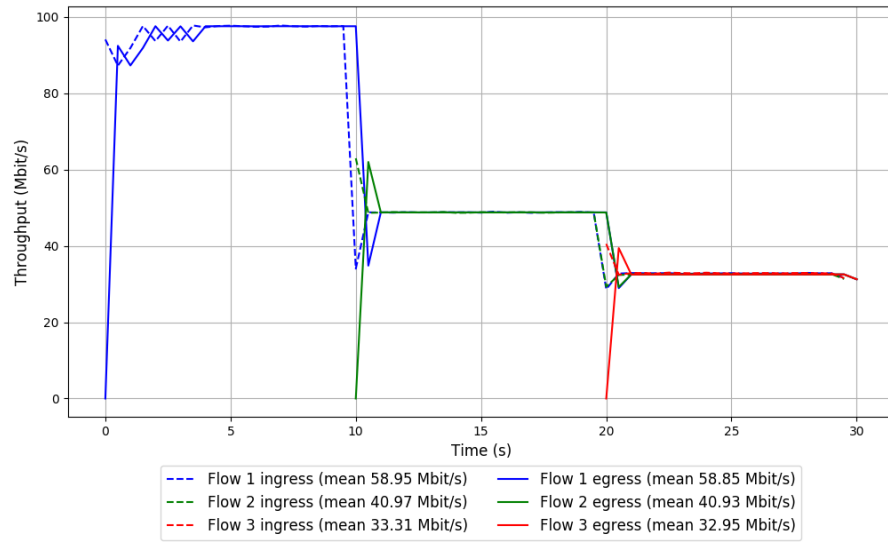
Run 6: Report of TCP BBR — Data Link



Flow 1 ingress (mean 59.30 Mbit/s)    Flow 1 egress (mean 59.30 Mbit/s)
Flow 2 ingress (mean 40.98 Mbit/s)    Flow 2 egress (mean 40.87 Mbit/s)
Flow 3 ingress (mean 33.07 Mbit/s)    Flow 3 egress (mean 33.00 Mbit/s)



Flow 1 (95th percentile 9.60 ms)    Flow 2 (95th percentile 11.40 ms)    Flow 3 (95th percentile 13.64 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-06-06 04:44:18
End at: 2018-06-06 04:44:48
Local clock offset: -4.353 ms
Remote clock offset: -2.472 ms


# Below is generated by plot.py at 2018-06-06 05:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.50 Mbit/s
95th percentile per-packet one-way delay: 10.933 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 9.650 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 11.742 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 33.03 Mbit/s
95th percentile per-packet one-way delay: 10.252 ms
Loss rate: 0.10%
```
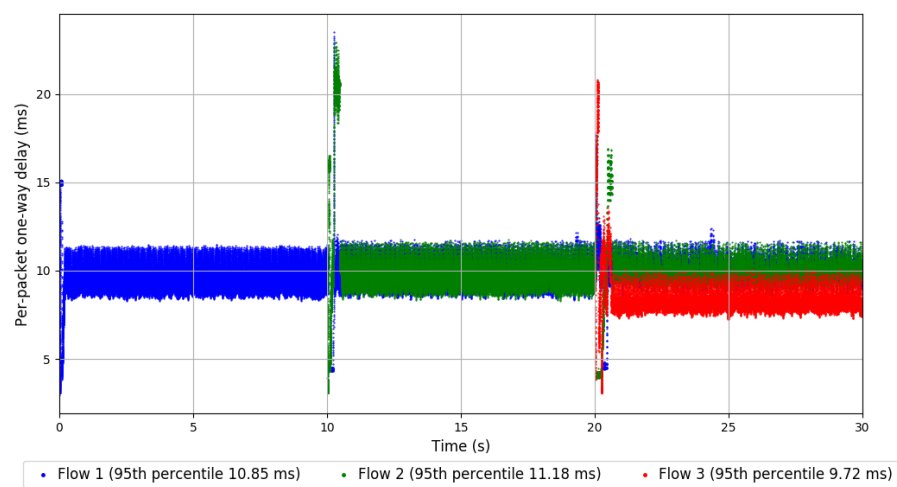
Run 7: Report of TCP BBR — Data Link



- - - - Flow 1 ingress (mean 59.31 Mbit/s)     —— Flow 1 egress (mean 59.31 Mbit/s)
- - - - Flow 2 ingress (mean 41.05 Mbit/s)     —— Flow 2 egress (mean 40.87 Mbit/s)
- - - - Flow 3 ingress (mean 33.04 Mbit/s)     —— Flow 3 egress (mean 33.03 Mbit/s)



• Flow 1 (95th percentile 9.65 ms)     • Flow 2 (95th percentile 11.74 ms)     • Flow 3 (95th percentile 10.25 ms)
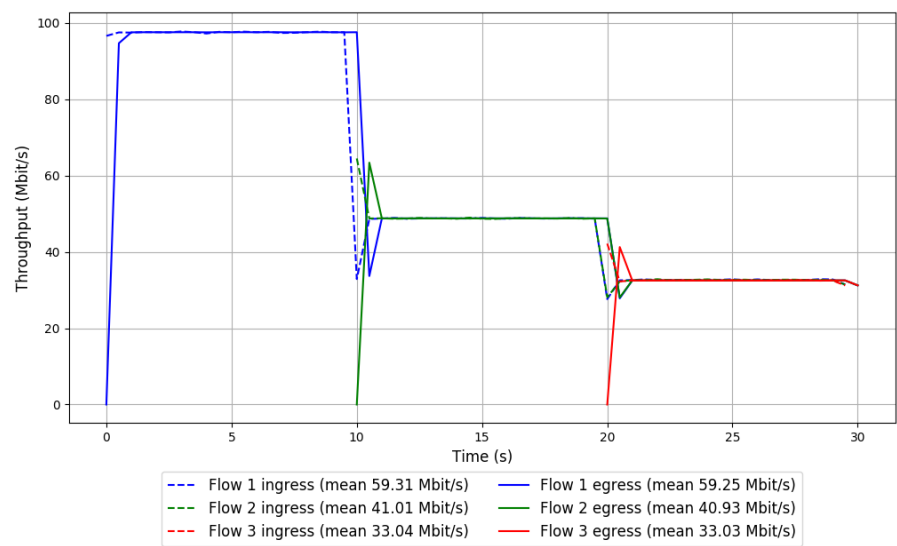
```
Run 8: Statistics of TCP BBR

Start at: 2018-06-06 05:02:18
End at: 2018-06-06 05:02:48
Local clock offset: -4.46 ms
Remote clock offset: -2.542 ms


# Below is generated by plot.py at 2018-06-06 05:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.04 Mbit/s
95th percentile per-packet one-way delay: 11.023 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 58.85 Mbit/s
95th percentile per-packet one-way delay: 10.558 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 10.650 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 12.810 ms
Loss rate: 1.09%
```
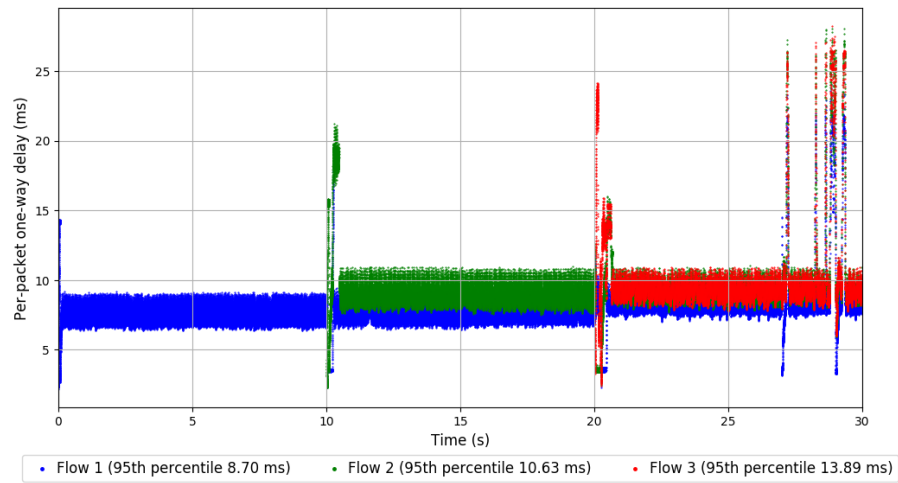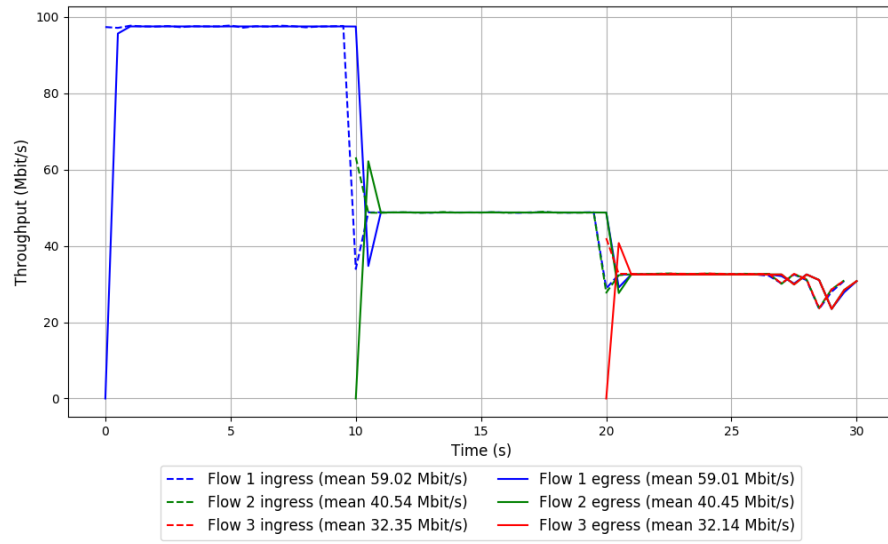
Run 8: Report of TCP BBR — Data Link



Flow 1 ingress (mean 58.95 Mbit/s) --- Flow 1 egress (mean 58.85 Mbit/s)
Flow 2 ingress (mean 40.97 Mbit/s) --- Flow 2 egress (mean 40.93 Mbit/s)
Flow 3 ingress (mean 33.31 Mbit/s) --- Flow 3 egress (mean 32.95 Mbit/s)



Flow 1 (95th percentile 10.56 ms)   Flow 2 (95th percentile 10.65 ms)   Flow 3 (95th percentile 12.81 ms)

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```
Run 9: Statistics of TCP BBR

Start at: 2018-06-06 05:20:20
End at: 2018-06-06 05:20:50
Local clock offset: -4.369 ms
Remote clock offset: -2.573 ms


# Below is generated by plot.py at 2018-06-06 05:54:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.924 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 59.25 Mbit/s
95th percentile per-packet one-way delay: 10.852 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 11.181 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 33.03 Mbit/s
95th percentile per-packet one-way delay: 9.720 ms
Loss rate: 0.08%
```
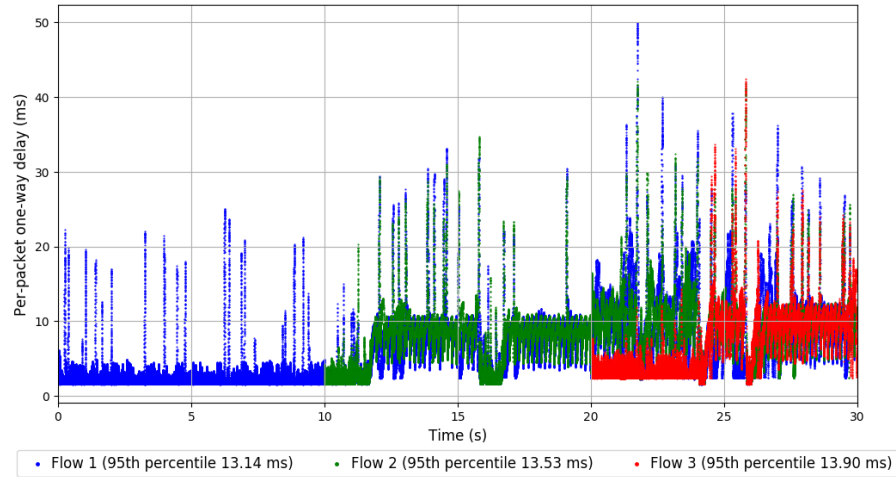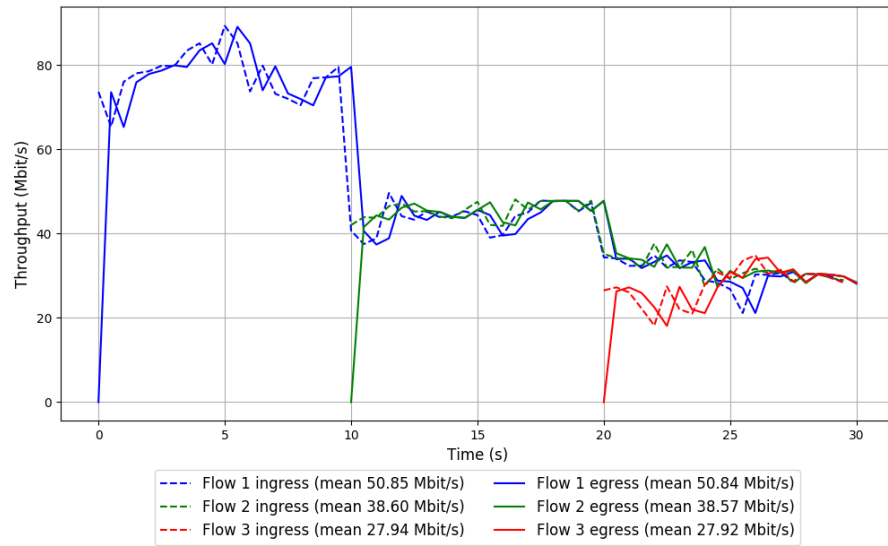
Run 9: Report of TCP BBR — Data Link



Flow 1 ingress (mean 59.31 Mbit/s)  Flow 1 egress (mean 59.25 Mbit/s)
Flow 2 ingress (mean 41.01 Mbit/s)  Flow 2 egress (mean 40.93 Mbit/s)
Flow 3 ingress (mean 33.04 Mbit/s)  Flow 3 egress (mean 33.03 Mbit/s)



Flow 1 (95th percentile 10.85 ms)    Flow 2 (95th percentile 11.18 ms)    Flow 3 (95th percentile 9.72 ms)

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```
Run 10: Statistics of TCP BBR

Start at: 2018-06-06 05:38:22
End at: 2018-06-06 05:38:52
Local clock offset: -5.154 ms
Remote clock offset: -2.684 ms


# Below is generated by plot.py at 2018-06-06 05:54:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.63 Mbit/s
95th percentile per-packet one-way delay: 10.086 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 8.697 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 10.628 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 32.14 Mbit/s
95th percentile per-packet one-way delay: 13.886 ms
Loss rate: 0.71%
```
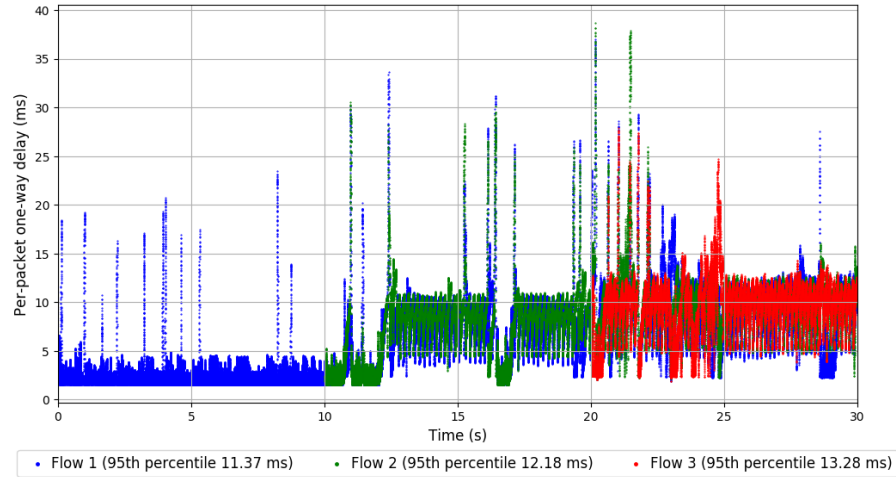
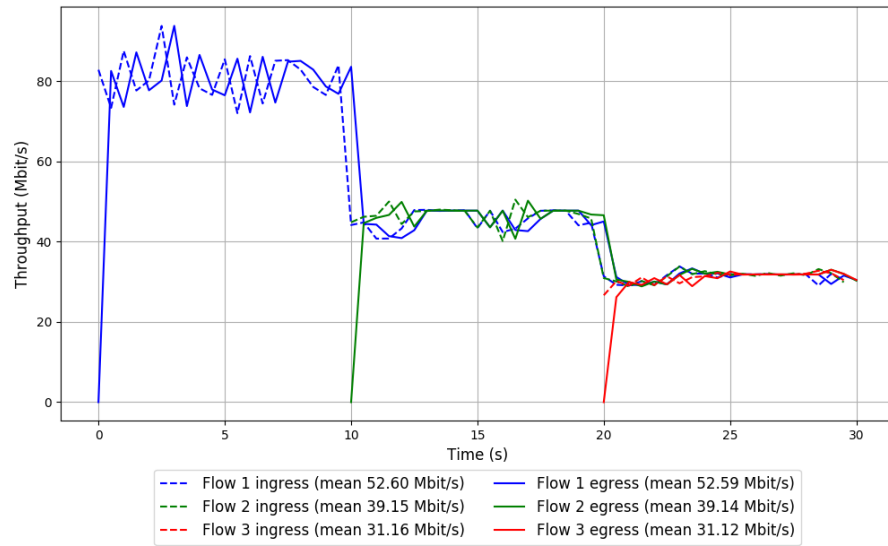Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-06-06 03:03:55
End at: 2018-06-06 03:04:25
Local clock offset: -6.129 ms
Remote clock offset: -1.479 ms


# Below is generated by plot.py at 2018-06-06 05:55:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.81 Mbit/s
95th percentile per-packet one-way delay: 13.398 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 50.84 Mbit/s
95th percentile per-packet one-way delay: 13.140 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 13.530 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 27.92 Mbit/s
95th percentile per-packet one-way delay: 13.897 ms
Loss rate: 0.10%
```
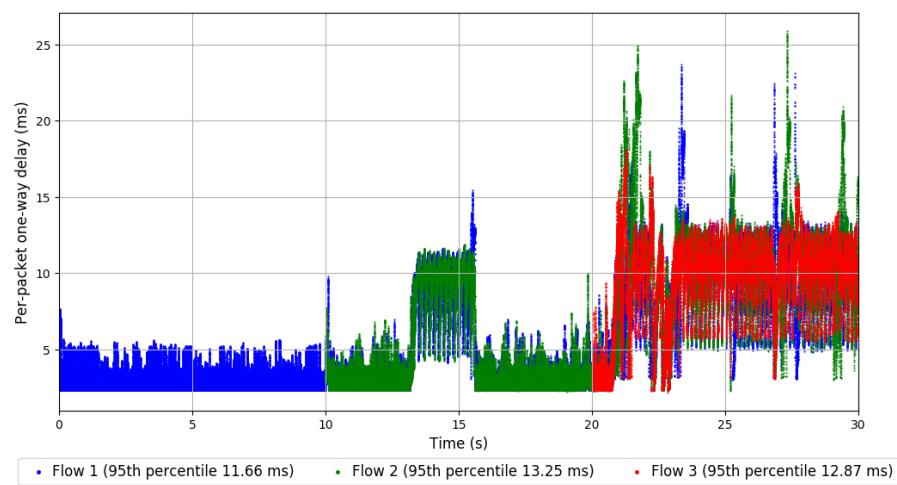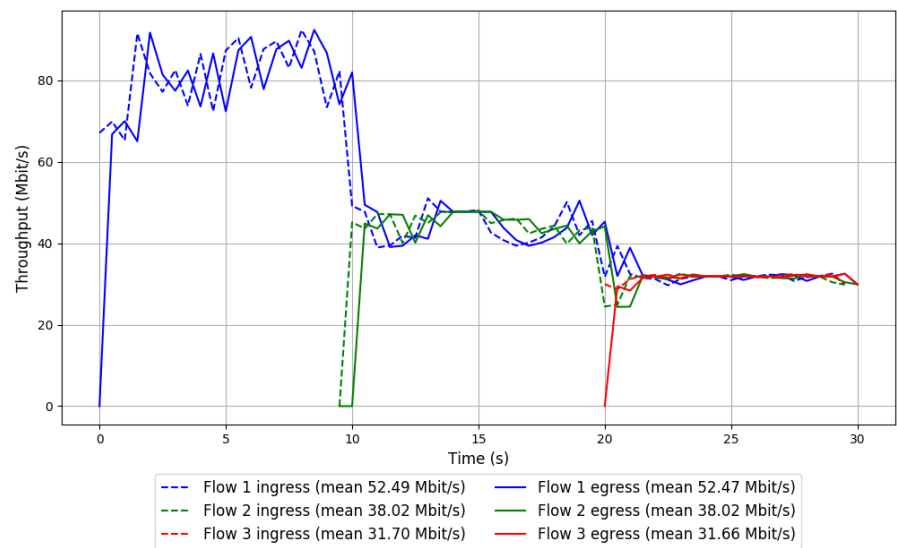
Run 1: Report of Copa — Data Link



Flow 1 ingress (mean 50.85 Mbit/s) --- Flow 1 egress (mean 50.84 Mbit/s)
Flow 2 ingress (mean 38.60 Mbit/s) --- Flow 2 egress (mean 38.57 Mbit/s)
Flow 3 ingress (mean 27.94 Mbit/s) --- Flow 3 egress (mean 27.92 Mbit/s)



Flow 1 (95th percentile 13.14 ms)    Flow 2 (95th percentile 13.53 ms)    Flow 3 (95th percentile 13.90 ms)

```
Run 2: Statistics of Copa

Start at: 2018-06-06 03:21:54
End at: 2018-06-06 03:22:24
Local clock offset: -5.851 ms
Remote clock offset: -1.738 ms


# Below is generated by plot.py at 2018-06-06 05:55:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.98 Mbit/s
95th percentile per-packet one-way delay: 11.958 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 52.59 Mbit/s
95th percentile per-packet one-way delay: 11.374 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 12.183 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 13.284 ms
Loss rate: 0.14%
```
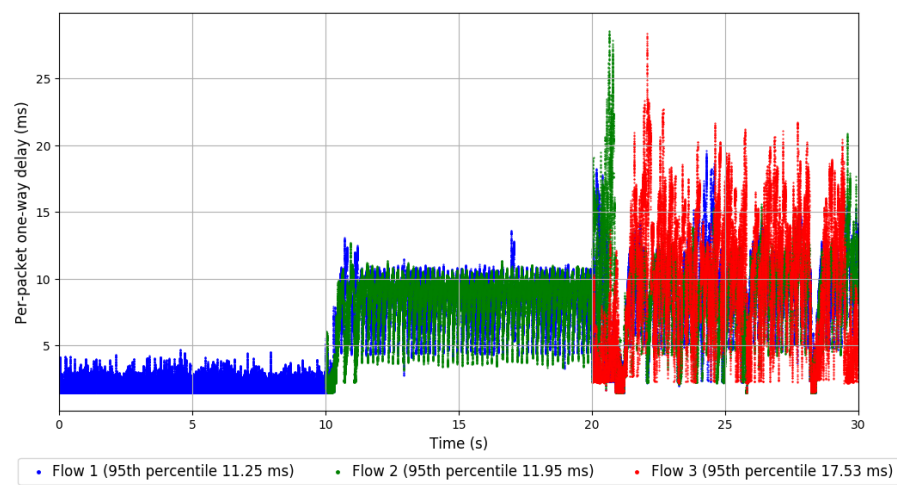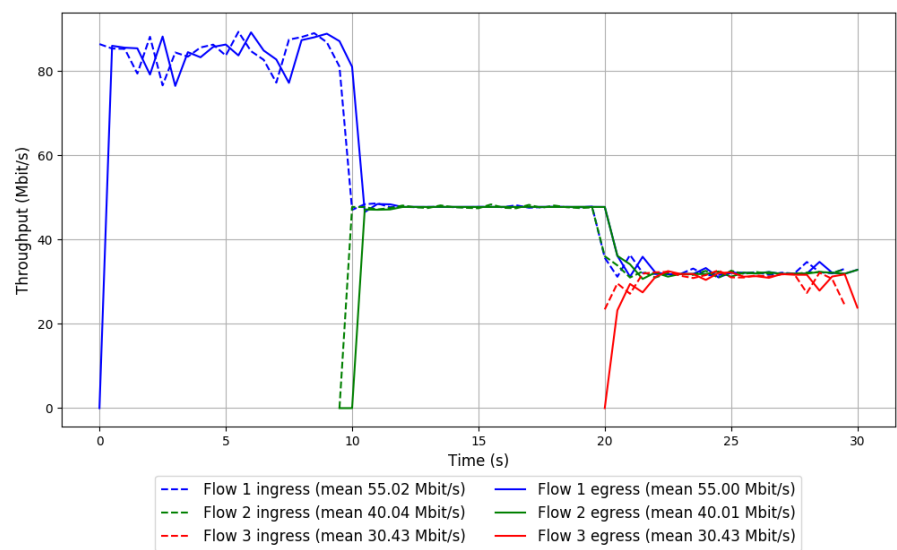
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-06-06 03:39:57
End at: 2018-06-06 03:40:27
Local clock offset: -4.942 ms
Remote clock offset: -2.278 ms


# Below is generated by plot.py at 2018-06-06 05:55:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.32 Mbit/s
95th percentile per-packet one-way delay: 12.375 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 11.660 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.02 Mbit/s
95th percentile per-packet one-way delay: 13.246 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 31.66 Mbit/s
95th percentile per-packet one-way delay: 12.873 ms
Loss rate: 0.14%
```
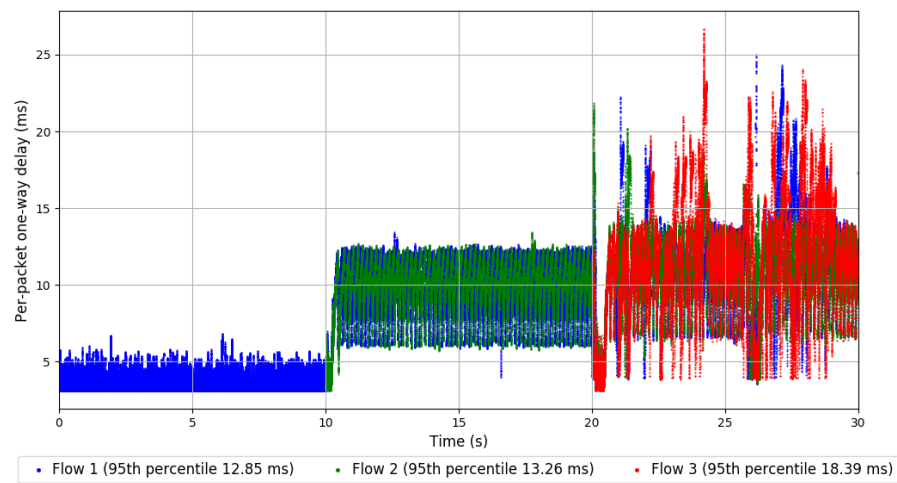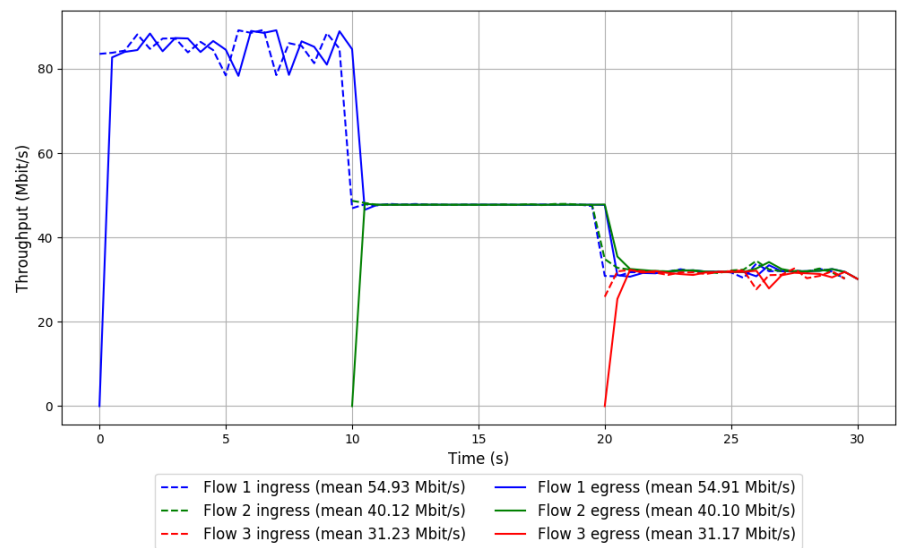
Run 3: Report of Copa — Data Link



Flow 1 ingress (mean 52.49 Mbit/s)
Flow 1 egress (mean 52.47 Mbit/s)
Flow 2 ingress (mean 38.02 Mbit/s)
Flow 2 egress (mean 38.02 Mbit/s)
Flow 3 ingress (mean 31.70 Mbit/s)
Flow 3 egress (mean 31.66 Mbit/s)



• Flow 1 (95th percentile 11.66 ms)     • Flow 2 (95th percentile 13.25 ms)     • Flow 3 (95th percentile 12.87 ms)

```
Run 4: Statistics of Copa

Start at: 2018-06-06 03:58:00
End at: 2018-06-06 03:58:30
Local clock offset: -5.633 ms
Remote clock offset: -2.284 ms


# Below is generated by plot.py at 2018-06-06 05:55:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.76 Mbit/s
95th percentile per-packet one-way delay: 13.102 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 11.247 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 40.01 Mbit/s
95th percentile per-packet one-way delay: 11.949 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 30.43 Mbit/s
95th percentile per-packet one-way delay: 17.532 ms
Loss rate: 0.12%
```
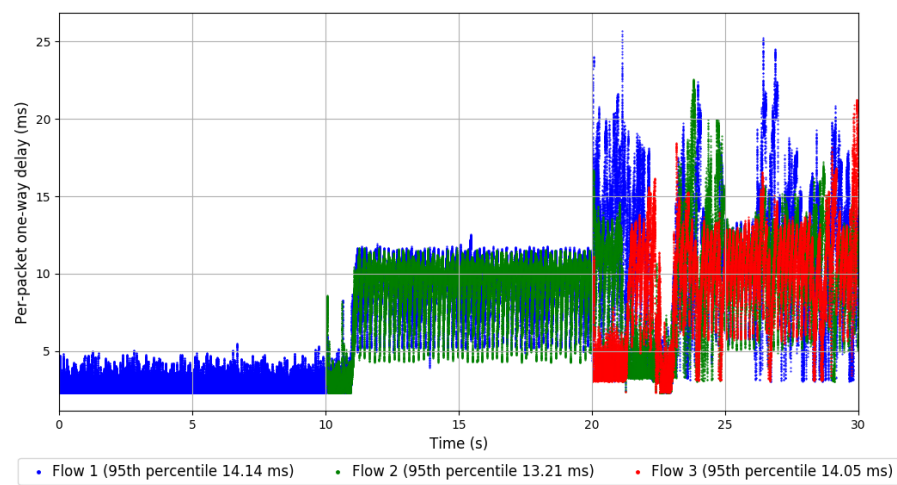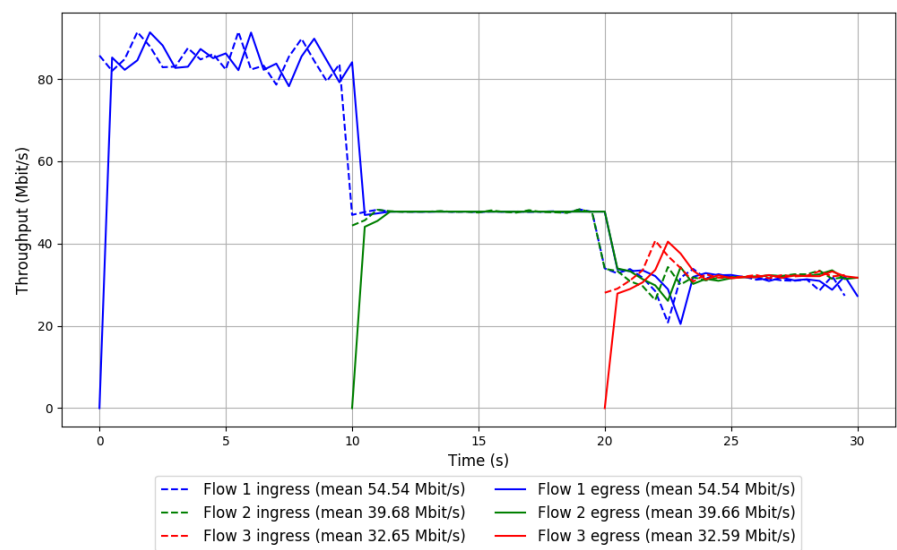
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-06-06 04:16:02
End at: 2018-06-06 04:16:32
Local clock offset: -4.158 ms
Remote clock offset: -2.234 ms


# Below is generated by plot.py at 2018-06-06 05:55:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 13.800 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 54.91 Mbit/s
95th percentile per-packet one-way delay: 12.849 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 40.10 Mbit/s
95th percentile per-packet one-way delay: 13.258 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 18.391 ms
Loss rate: 0.15%
```
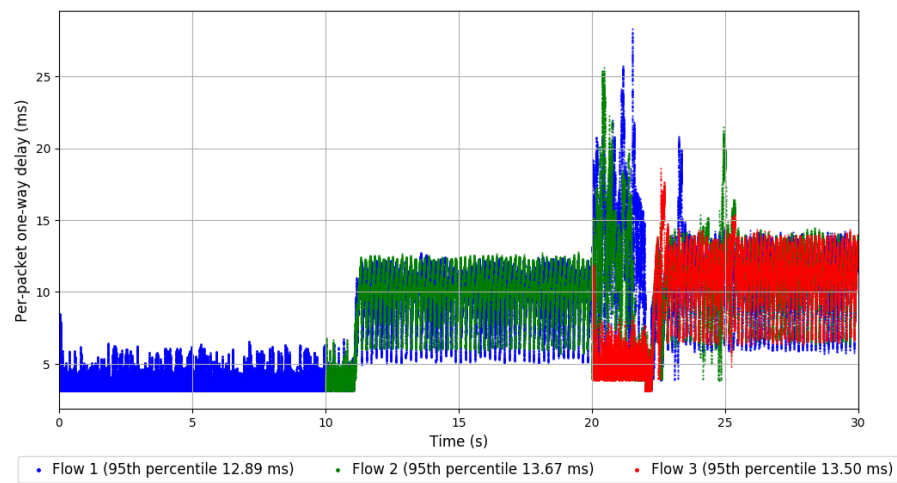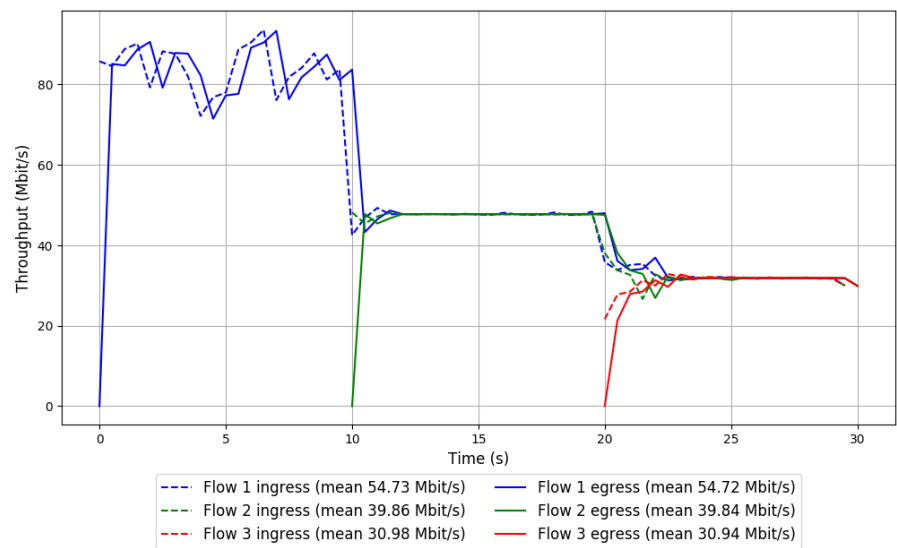
Run 5: Report of Copa — Data Link



Flow 1 ingress (mean 54.93 Mbit/s) --- Flow 1 egress (mean 54.91 Mbit/s)
Flow 2 ingress (mean 40.12 Mbit/s) --- Flow 2 egress (mean 40.10 Mbit/s)
Flow 3 ingress (mean 31.23 Mbit/s) --- Flow 3 egress (mean 31.17 Mbit/s)



Flow 1 (95th percentile 12.85 ms)    Flow 2 (95th percentile 13.26 ms)    Flow 3 (95th percentile 18.39 ms)

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```
Run 6: Statistics of Copa

Start at: 2018-06-06 04:34:04
End at: 2018-06-06 04:34:34
Local clock offset: -4.97 ms
Remote clock offset: -2.389 ms


# Below is generated by plot.py at 2018-06-06 05:55:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.77 Mbit/s
95th percentile per-packet one-way delay: 13.780 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 54.54 Mbit/s
95th percentile per-packet one-way delay: 14.144 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 13.210 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 32.59 Mbit/s
95th percentile per-packet one-way delay: 14.049 ms
Loss rate: 0.24%
```
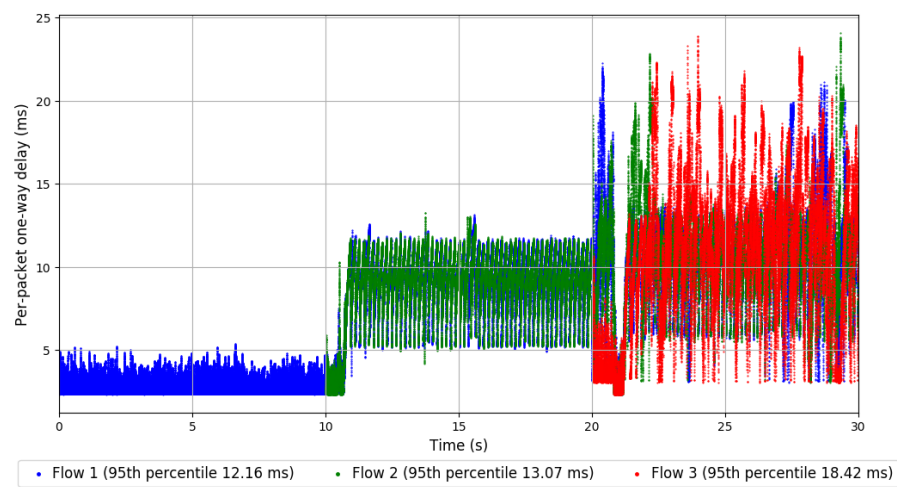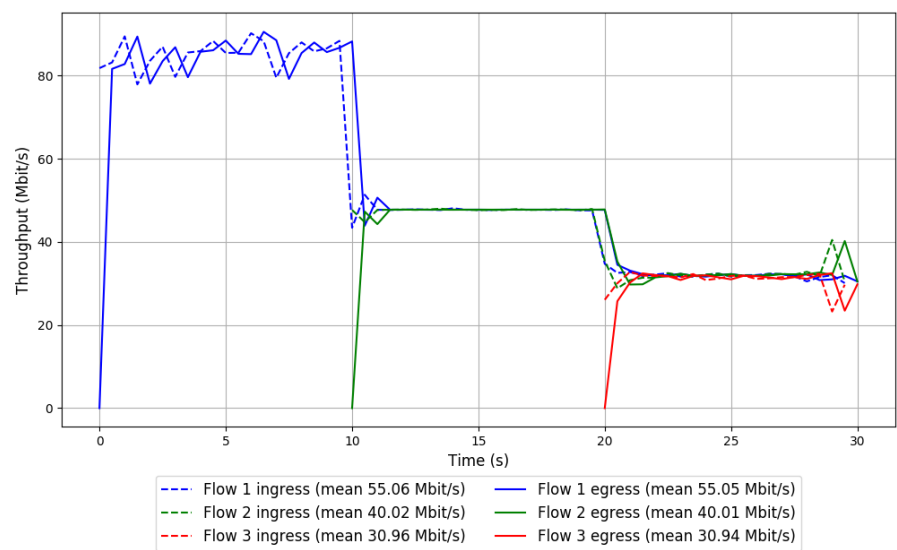
Run 6: Report of Copa — Data Link



Flow 1 ingress (mean 54.54 Mbit/s)  Flow 1 egress (mean 54.54 Mbit/s)
Flow 2 ingress (mean 39.68 Mbit/s)  Flow 2 egress (mean 39.66 Mbit/s)
Flow 3 ingress (mean 32.65 Mbit/s)  Flow 3 egress (mean 32.59 Mbit/s)



Flow 1 (95th percentile 14.14 ms)   Flow 2 (95th percentile 13.21 ms)   Flow 3 (95th percentile 14.05 ms)

```
Run 7: Statistics of Copa

Start at: 2018-06-06 04:52:05
End at: 2018-06-06 04:52:35
Local clock offset: -4.422 ms
Remote clock offset: -2.548 ms


# Below is generated by plot.py at 2018-06-06 05:56:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.53 Mbit/s
95th percentile per-packet one-way delay: 13.290 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 54.72 Mbit/s
95th percentile per-packet one-way delay: 12.889 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 13.667 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 13.500 ms
Loss rate: 0.17%
```
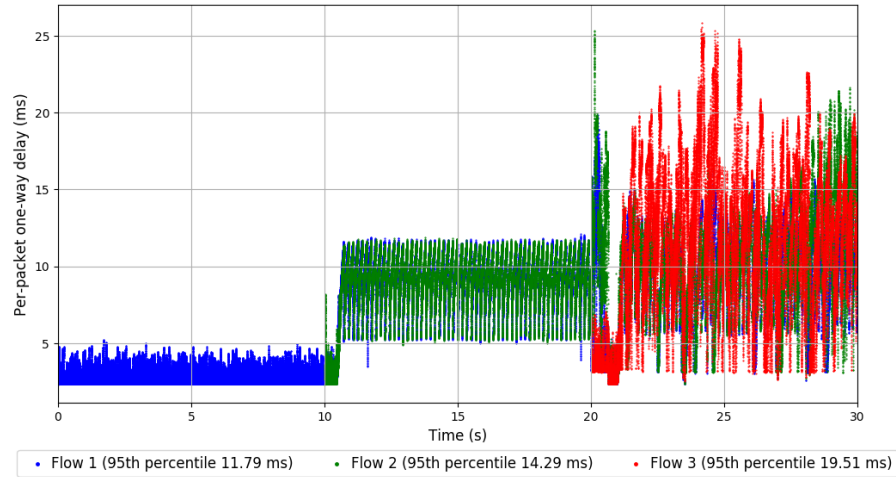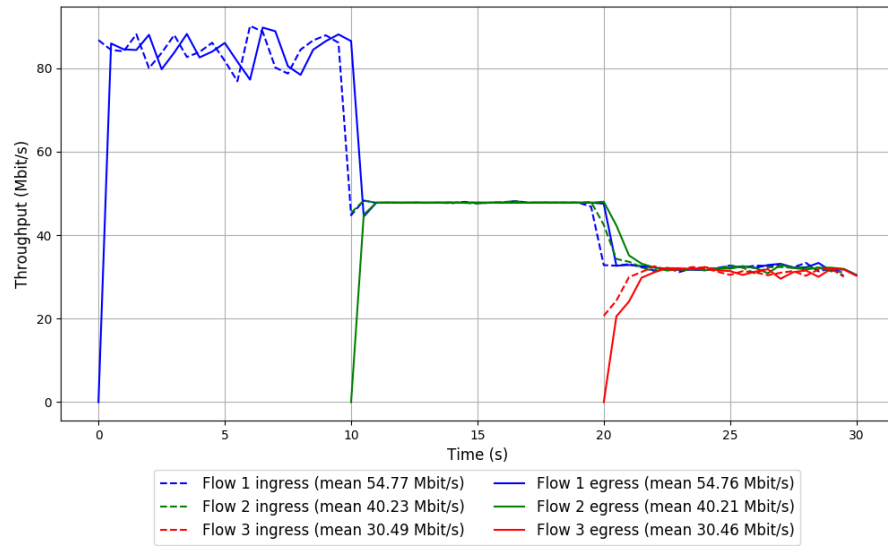
# Run 7: Report of Copa — Data Link



Flow 1 ingress (mean 54.73 Mbit/s) — Flow 1 egress (mean 54.72 Mbit/s)
Flow 2 ingress (mean 39.86 Mbit/s) — Flow 2 egress (mean 39.84 Mbit/s)
Flow 3 ingress (mean 30.98 Mbit/s) — Flow 3 egress (mean 30.94 Mbit/s)



Flow 1 (95th percentile 12.89 ms)   Flow 2 (95th percentile 13.67 ms)   Flow 3 (95th percentile 13.50 ms)

```
Run 8: Statistics of Copa

Start at: 2018-06-06 05:10:05
End at: 2018-06-06 05:10:35
Local clock offset: -5.144 ms
Remote clock offset: -2.552 ms


# Below is generated by plot.py at 2018-06-06 05:56:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.97 Mbit/s
95th percentile per-packet one-way delay: 13.713 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 55.05 Mbit/s
95th percentile per-packet one-way delay: 12.158 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.01 Mbit/s
95th percentile per-packet one-way delay: 13.068 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 18.421 ms
Loss rate: 0.12%
```
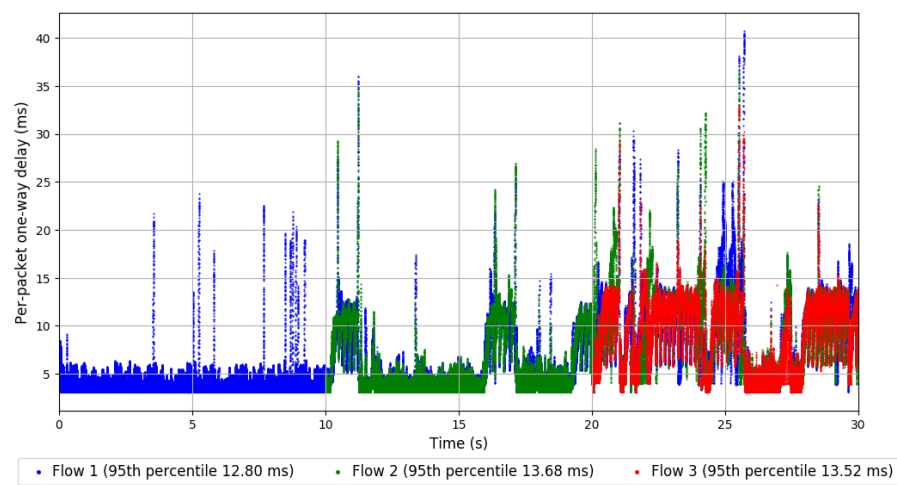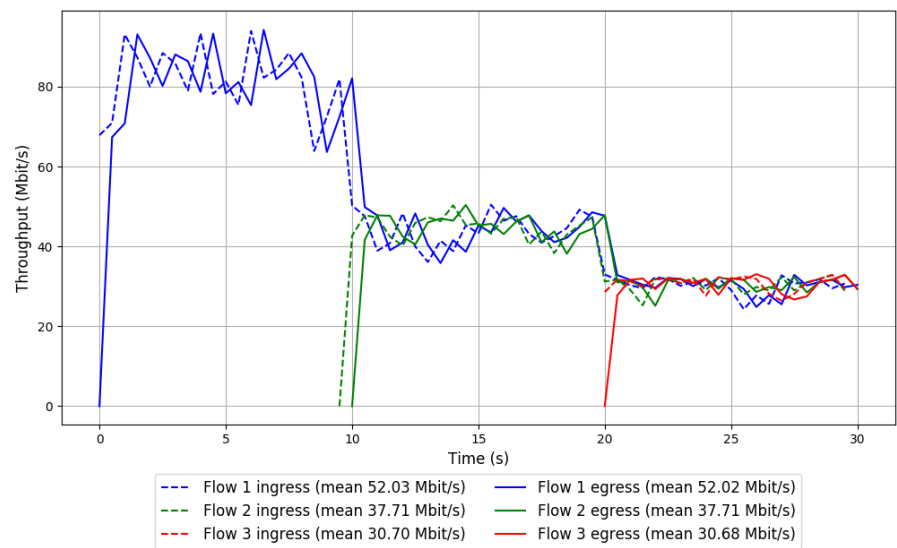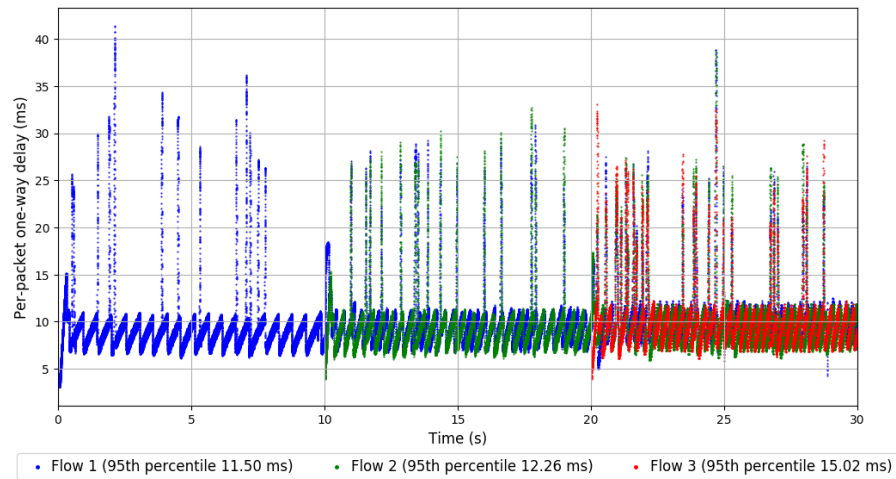
Run 8: Report of Copa — Data Link



Flow 1 ingress (mean 55.06 Mbit/s)    Flow 1 egress (mean 55.05 Mbit/s)
Flow 2 ingress (mean 40.02 Mbit/s)    Flow 2 egress (mean 40.01 Mbit/s)
Flow 3 ingress (mean 30.96 Mbit/s)    Flow 3 egress (mean 30.94 Mbit/s)



Flow 1 (95th percentile 12.16 ms)    Flow 2 (95th percentile 13.07 ms)    Flow 3 (95th percentile 18.42 ms)

```
Run 9: Statistics of Copa

Start at: 2018-06-06 05:28:07
End at: 2018-06-06 05:28:37
Local clock offset: -5.063 ms
Remote clock offset: -2.581 ms


# Below is generated by plot.py at 2018-06-06 05:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.66 Mbit/s
95th percentile per-packet one-way delay: 14.298 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 54.76 Mbit/s
95th percentile per-packet one-way delay: 11.790 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.21 Mbit/s
95th percentile per-packet one-way delay: 14.294 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 30.46 Mbit/s
95th percentile per-packet one-way delay: 19.509 ms
Loss rate: 0.13%
```
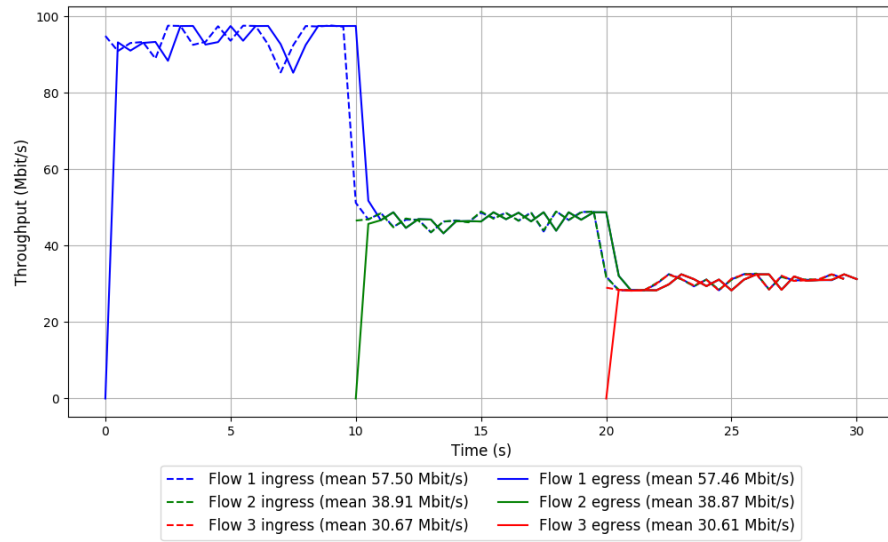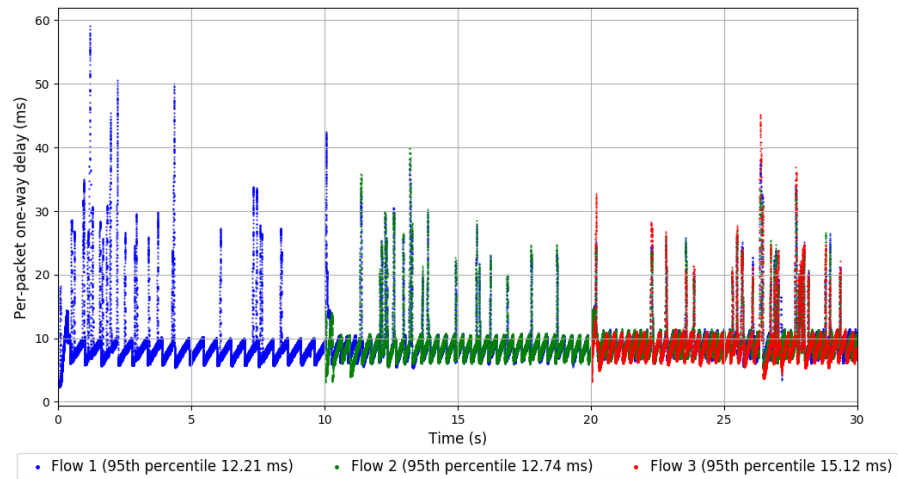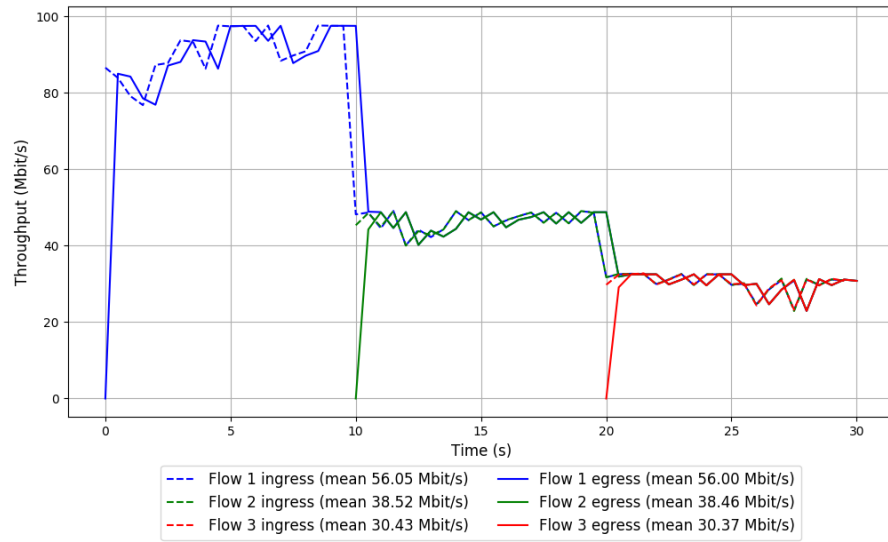
Run 9: Report of Copa — Data Link



Flow 1 ingress (mean 54.77 Mbit/s)    Flow 1 egress (mean 54.76 Mbit/s)
Flow 2 ingress (mean 40.23 Mbit/s)    Flow 2 egress (mean 40.21 Mbit/s)
Flow 3 ingress (mean 30.49 Mbit/s)    Flow 3 egress (mean 30.46 Mbit/s)



Flow 1 (95th percentile 11.79 ms)    Flow 2 (95th percentile 14.29 ms)    Flow 3 (95th percentile 19.51 ms)

```
Run 10: Statistics of Copa

Start at: 2018-06-06 05:46:10
End at: 2018-06-06 05:46:40
Local clock offset: -4.381 ms
Remote clock offset: -2.769 ms

# Below is generated by plot.py at 2018-06-06 05:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.33 Mbit/s
95th percentile per-packet one-way delay: 13.236 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 52.02 Mbit/s
95th percentile per-packet one-way delay: 12.805 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 13.677 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.68 Mbit/s
95th percentile per-packet one-way delay: 13.521 ms
Loss rate: 0.12%
```
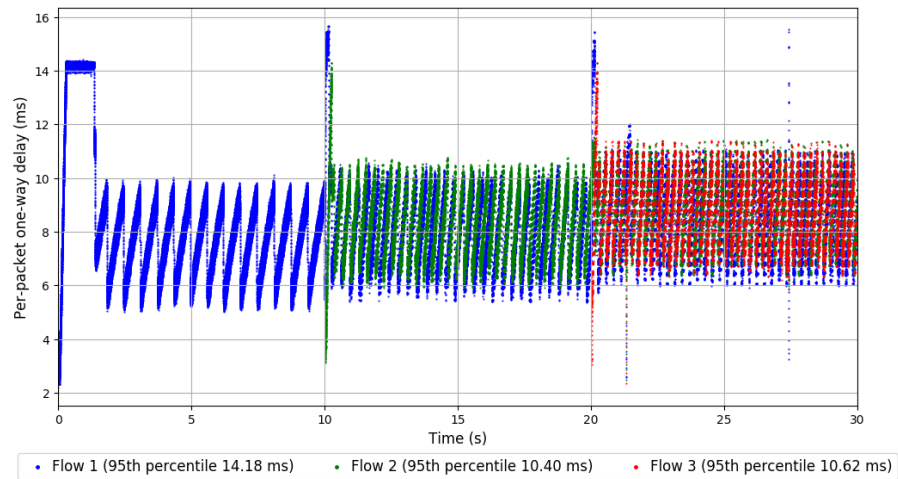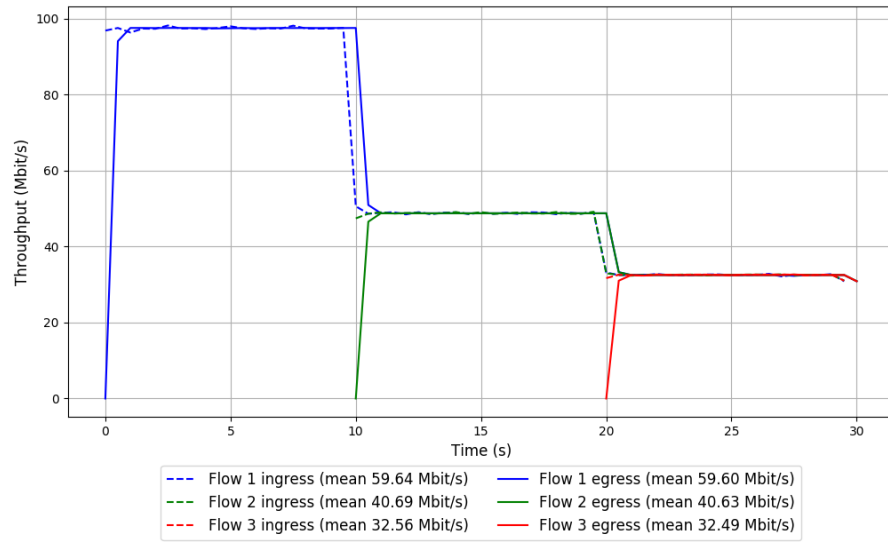
Run 10: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-06-06 02:51:40
End at: 2018-06-06 02:52:10
Local clock offset: -4.606 ms
Remote clock offset: -1.939 ms


# Below is generated by plot.py at 2018-06-06 05:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.49 Mbit/s
95th percentile per-packet one-way delay: 11.796 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 57.46 Mbit/s
95th percentile per-packet one-way delay: 11.497 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 38.87 Mbit/s
95th percentile per-packet one-way delay: 12.260 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 15.021 ms
Loss rate: 0.23%
```
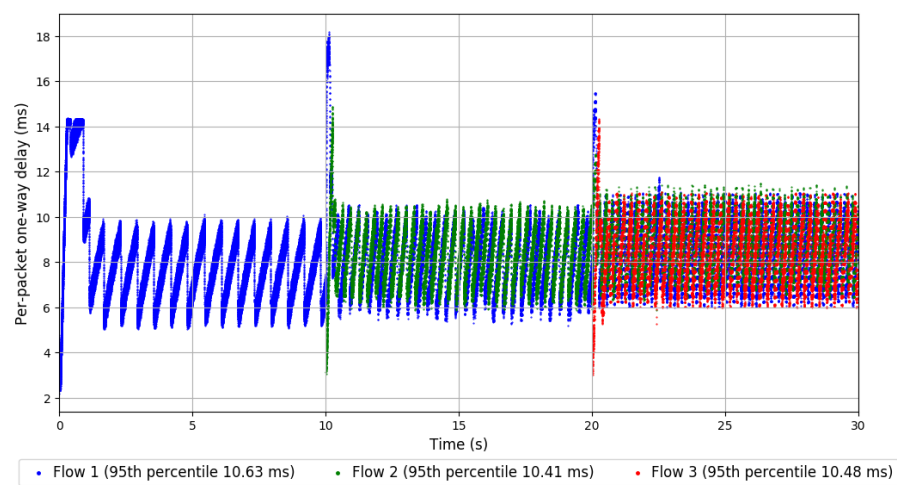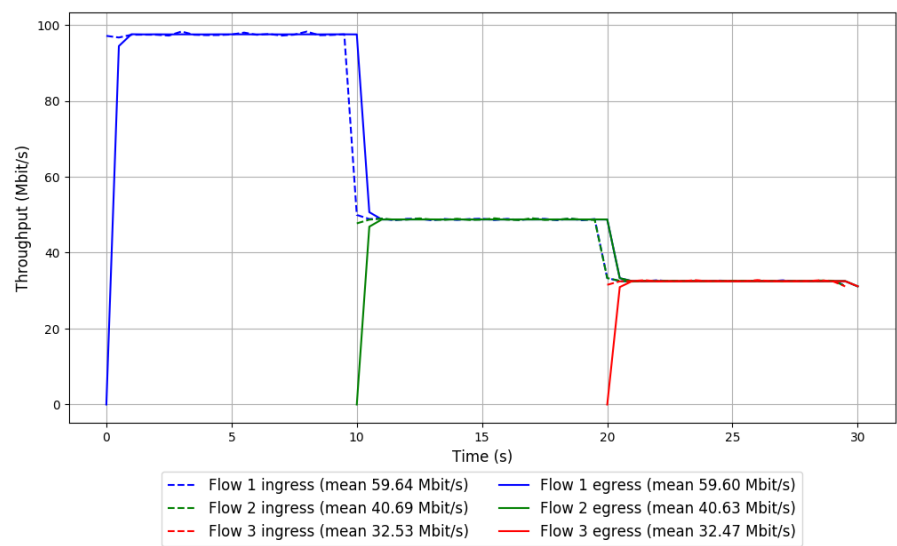
Run 1: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 57.50 Mbit/s)          Flow 1 egress (mean 57.46 Mbit/s)
Flow 2 ingress (mean 38.91 Mbit/s)          Flow 2 egress (mean 38.87 Mbit/s)
Flow 3 ingress (mean 30.67 Mbit/s)          Flow 3 egress (mean 30.61 Mbit/s)



Flow 1 (95th percentile 11.50 ms)     Flow 2 (95th percentile 12.26 ms)     Flow 3 (95th percentile 15.02 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2018-06-06 03:09:38
End at: 2018-06-06 03:10:08
Local clock offset: -5.226 ms
Remote clock offset: -1.293 ms


# Below is generated by plot.py at 2018-06-06 05:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.69 Mbit/s
95th percentile per-packet one-way delay: 12.697 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 56.00 Mbit/s
95th percentile per-packet one-way delay: 12.212 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 12.742 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 15.121 ms
Loss rate: 0.24%
```
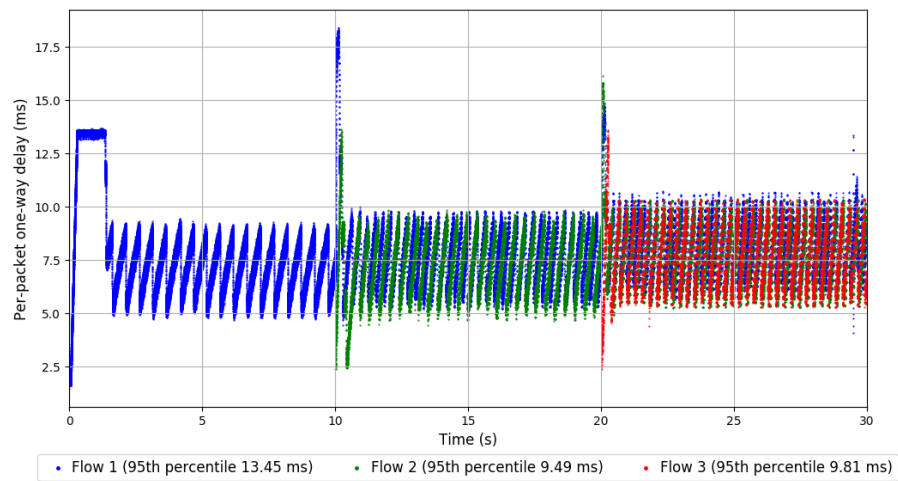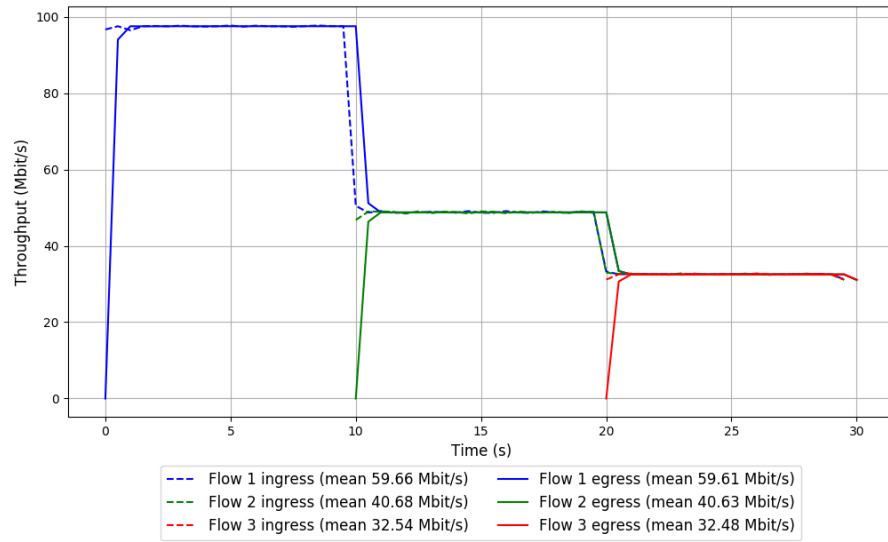
# Run 2: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 56.05 Mbit/s) --- Flow 1 egress (mean 56.00 Mbit/s)
Flow 2 ingress (mean 38.52 Mbit/s) --- Flow 2 egress (mean 38.46 Mbit/s)
Flow 3 ingress (mean 30.43 Mbit/s) --- Flow 3 egress (mean 30.37 Mbit/s)



Flow 1 (95th percentile 12.21 ms)  Flow 2 (95th percentile 12.74 ms)  Flow 3 (95th percentile 15.12 ms)

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```
Run 3: Statistics of TCP Cubic

Start at: 2018-06-06 03:27:39
End at: 2018-06-06 03:28:09
Local clock offset: -5.07 ms
Remote clock offset: -2.073 ms


# Below is generated by plot.py at 2018-06-06 05:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 10.893 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.60 Mbit/s
95th percentile per-packet one-way delay: 14.181 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 10.399 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.617 ms
Loss rate: 0.25%
```
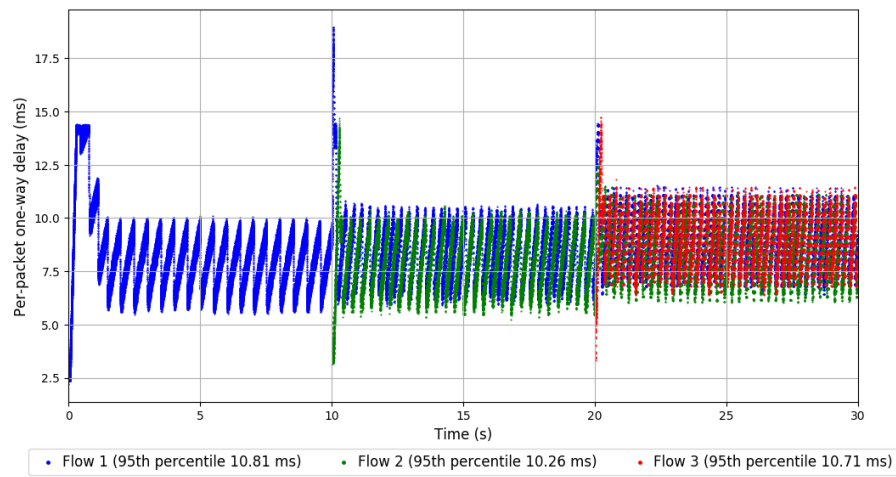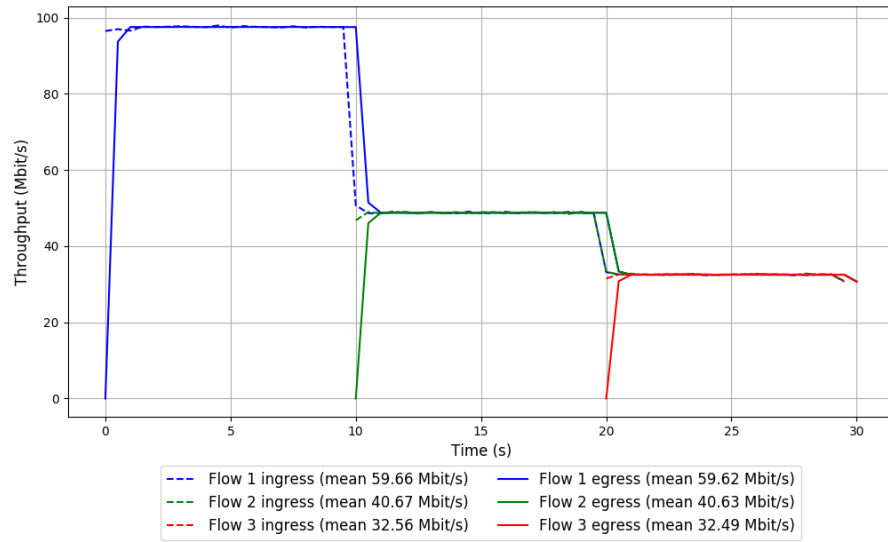
Run 3: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 59.64 Mbit/s)   Flow 1 egress (mean 59.60 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s)   Flow 2 egress (mean 40.63 Mbit/s)
Flow 3 ingress (mean 32.56 Mbit/s)   Flow 3 egress (mean 32.49 Mbit/s)



Flow 1 (95th percentile 14.18 ms)   Flow 2 (95th percentile 10.40 ms)   Flow 3 (95th percentile 10.62 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-06-06 03:45:42
End at: 2018-06-06 03:46:12
Local clock offset: -4.885 ms
Remote clock offset: -2.258 ms


# Below is generated by plot.py at 2018-06-06 05:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 10.493 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.60 Mbit/s
95th percentile per-packet one-way delay: 10.629 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 10.409 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.47 Mbit/s
95th percentile per-packet one-way delay: 10.481 ms
Loss rate: 0.21%
```
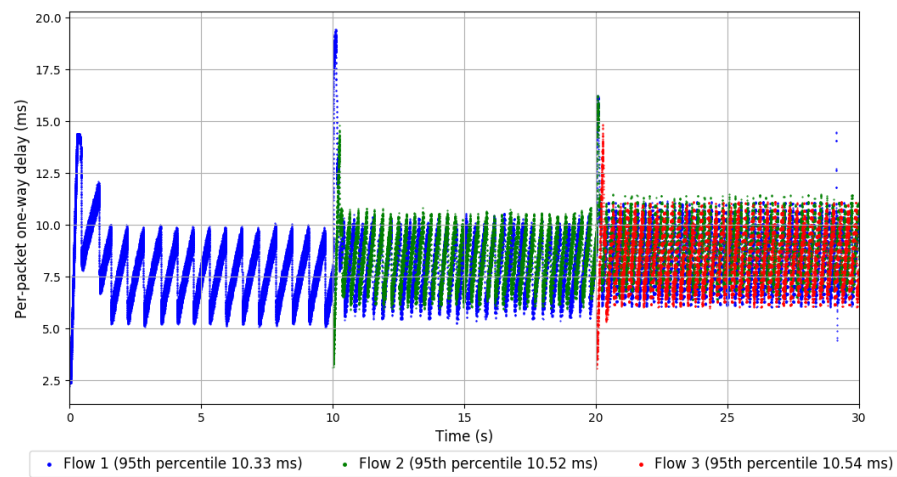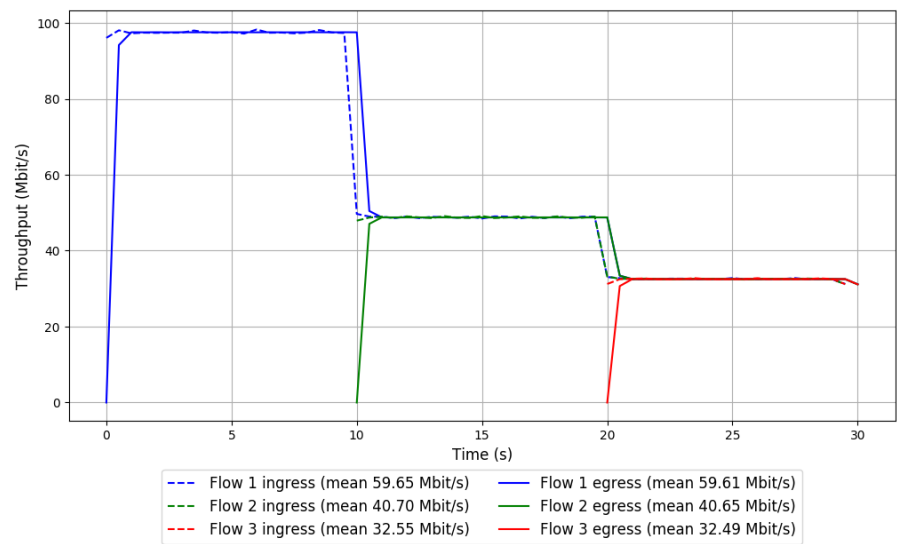
Run 4: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 59.64 Mbit/s) --- Flow 1 egress (mean 59.60 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s) --- Flow 2 egress (mean 40.63 Mbit/s)
Flow 3 ingress (mean 32.53 Mbit/s) --- Flow 3 egress (mean 32.47 Mbit/s)



Flow 1 (95th percentile 10.63 ms)   Flow 2 (95th percentile 10.41 ms)   Flow 3 (95th percentile 10.48 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-06-06 04:03:45
End at: 2018-06-06 04:04:15
Local clock offset: -5.538 ms
Remote clock offset: -2.271 ms


# Below is generated by plot.py at 2018-06-06 05:57:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 10.225 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 13.445 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 9.487 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 9.813 ms
Loss rate: 0.21%
```
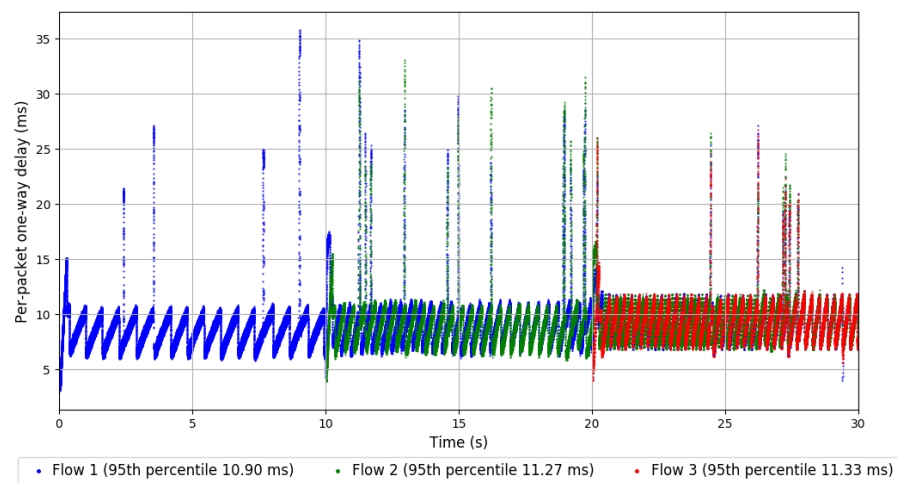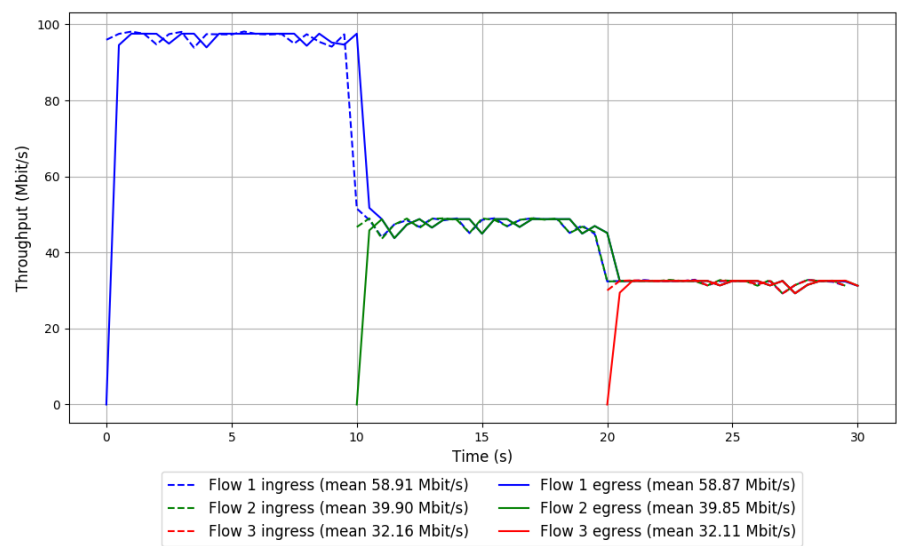
Run 5: Report of TCP Cubic — Data Link



- - - Flow 1 ingress (mean 59.66 Mbit/s) —— Flow 1 egress (mean 59.61 Mbit/s)
- - - Flow 2 ingress (mean 40.68 Mbit/s) —— Flow 2 egress (mean 40.63 Mbit/s)
- - - Flow 3 ingress (mean 32.54 Mbit/s) —— Flow 3 egress (mean 32.48 Mbit/s)



• Flow 1 (95th percentile 13.45 ms)    • Flow 2 (95th percentile 9.49 ms)    • Flow 3 (95th percentile 9.81 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-06-06 04:21:48
End at: 2018-06-06 04:22:18
Local clock offset: -4.944 ms
Remote clock offset: -2.228 ms


# Below is generated by plot.py at 2018-06-06 05:57:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 10.637 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 10.811 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 10.260 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.712 ms
Loss rate: 0.25%
```
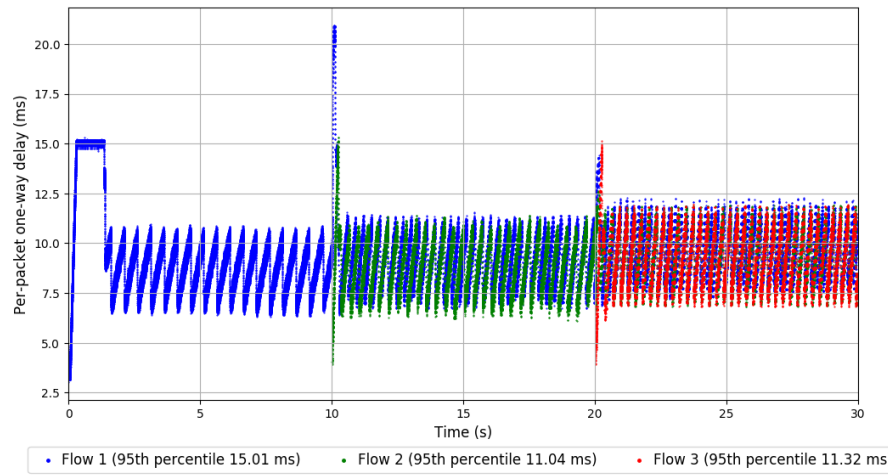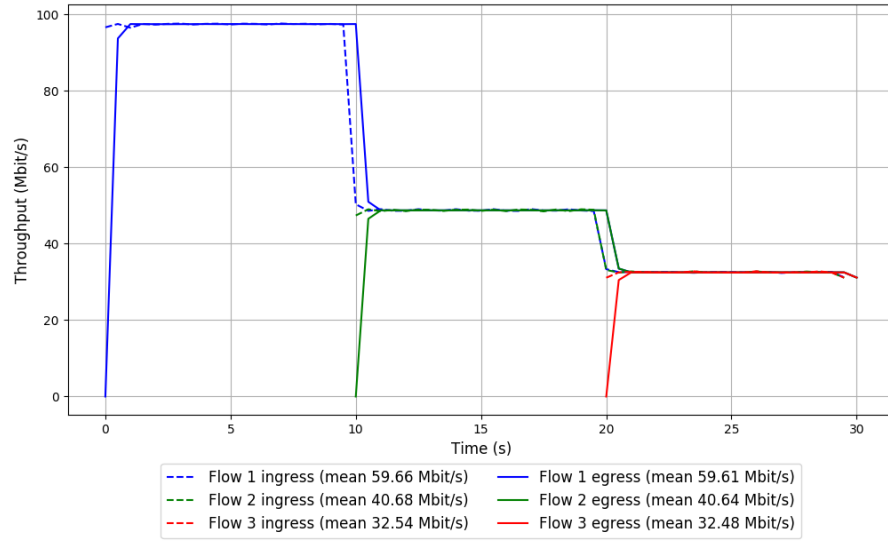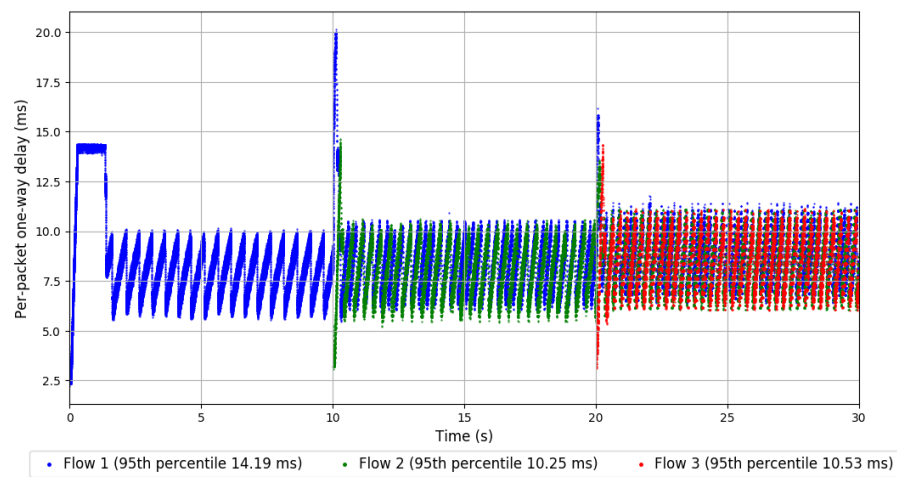
Run 6: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 59.66 Mbit/s) --- Flow 1 egress (mean 59.62 Mbit/s)
Flow 2 ingress (mean 40.67 Mbit/s) --- Flow 2 egress (mean 40.63 Mbit/s)
Flow 3 ingress (mean 32.56 Mbit/s) --- Flow 3 egress (mean 32.49 Mbit/s)



Flow 1 (95th percentile 10.81 ms)   •   Flow 2 (95th percentile 10.26 ms)   •   Flow 3 (95th percentile 10.71 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2018-06-06 04:39:49
End at: 2018-06-06 04:40:19
Local clock offset: -5.068 ms
Remote clock offset: -2.449 ms

# Below is generated by plot.py at 2018-06-06 05:58:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.437 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 10.328 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 10.521 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.538 ms
Loss rate: 0.23%
```
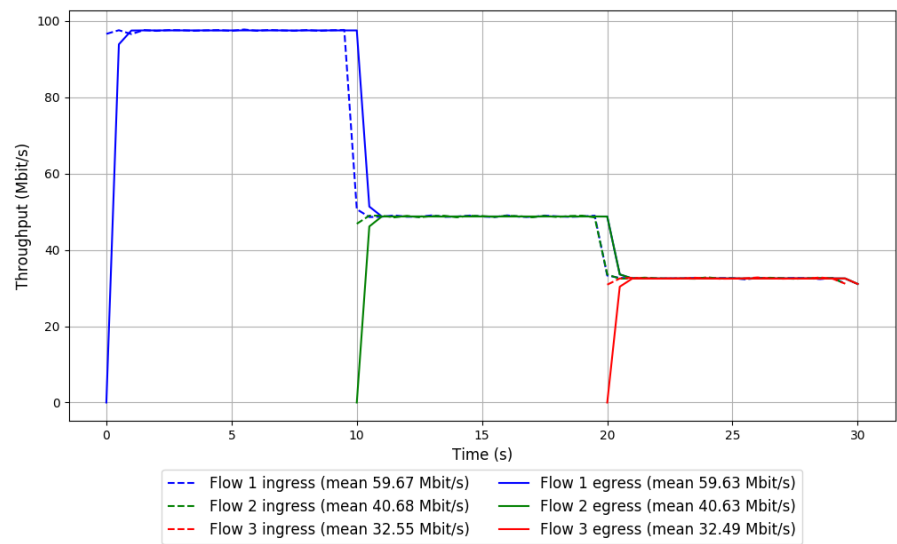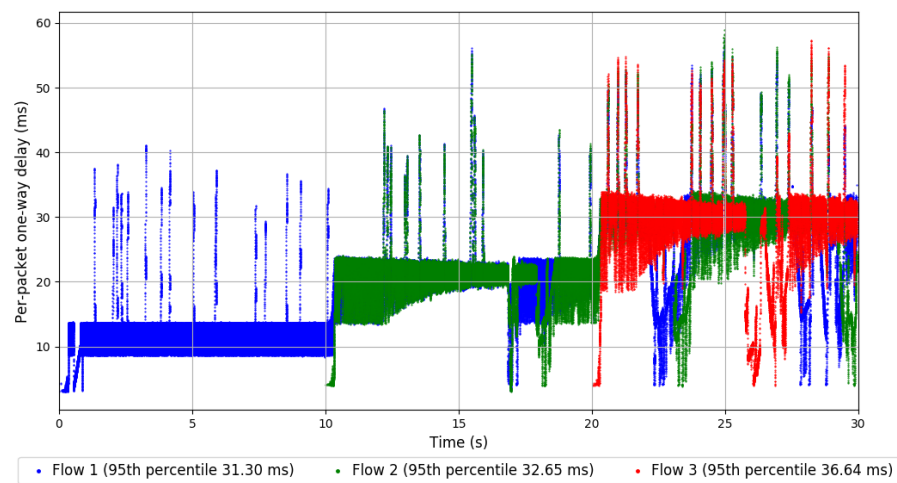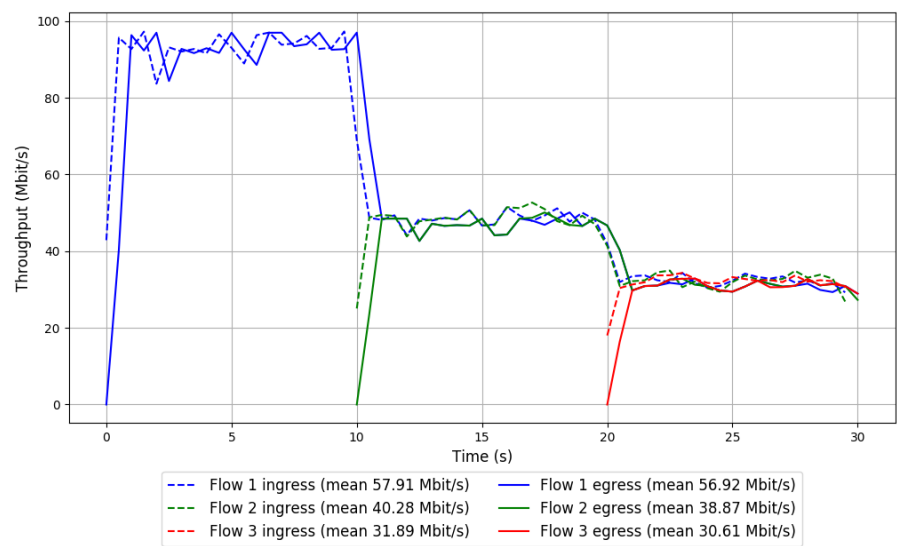
# Run 7: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 59.65 Mbit/s) --- Flow 1 egress (mean 59.61 Mbit/s)
Flow 2 ingress (mean 40.70 Mbit/s) --- Flow 2 egress (mean 40.65 Mbit/s)
Flow 3 ingress (mean 32.55 Mbit/s) --- Flow 3 egress (mean 32.49 Mbit/s)



Flow 1 (95th percentile 10.33 ms) • Flow 2 (95th percentile 10.52 ms) • Flow 3 (95th percentile 10.54 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2018-06-06 04:57:50
End at: 2018-06-06 04:58:20
Local clock offset: -4.448 ms
Remote clock offset: -2.494 ms


# Below is generated by plot.py at 2018-06-06 05:58:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 11.067 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 10.904 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 11.272 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 11.330 ms
Loss rate: 0.21%
```
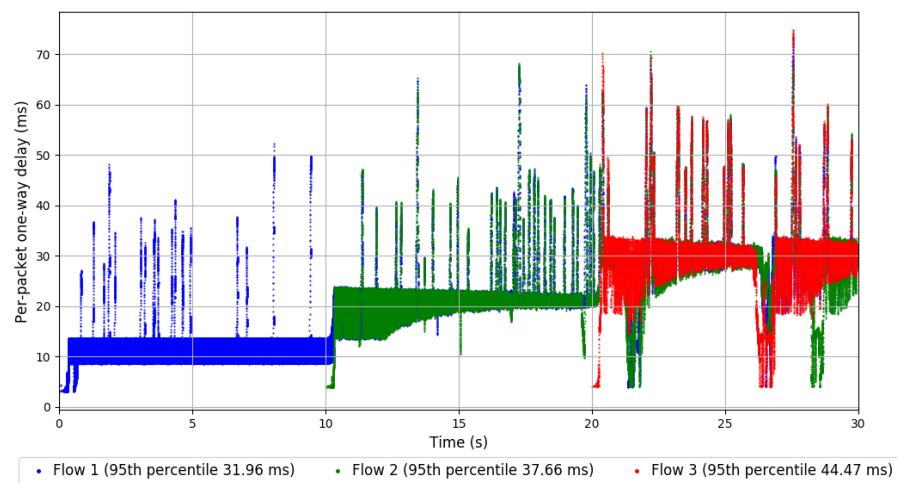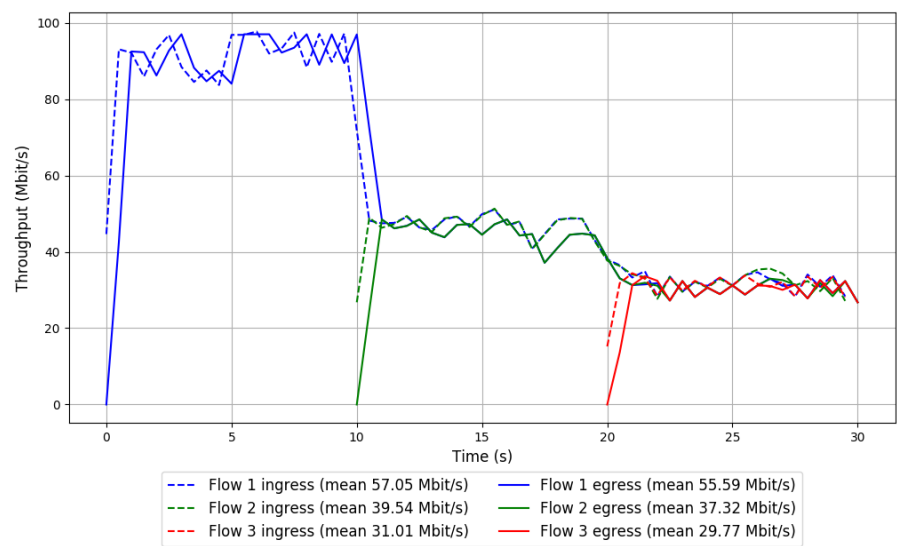
Run 8: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 58.91 Mbit/s) --- Flow 1 egress (mean 58.87 Mbit/s)
Flow 2 ingress (mean 39.90 Mbit/s) --- Flow 2 egress (mean 39.85 Mbit/s)
Flow 3 ingress (mean 32.16 Mbit/s) --- Flow 3 egress (mean 32.11 Mbit/s)



• Flow 1 (95th percentile 10.90 ms)    • Flow 2 (95th percentile 11.27 ms)    • Flow 3 (95th percentile 11.33 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-06-06 05:15:51
End at: 2018-06-06 05:16:21
Local clock offset: -4.335 ms
Remote clock offset: -2.604 ms

# Below is generated by plot.py at 2018-06-06 05:58:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 11.702 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 15.009 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 11.044 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 11.319 ms
Loss rate: 0.22%
```

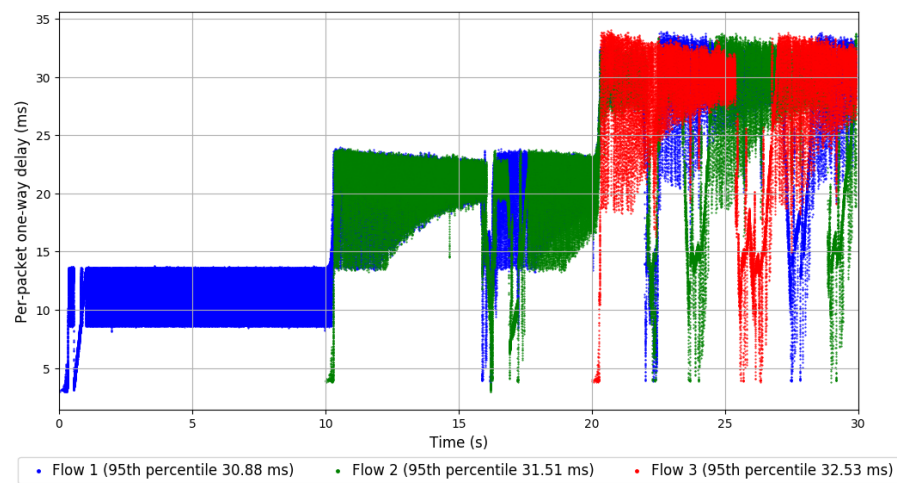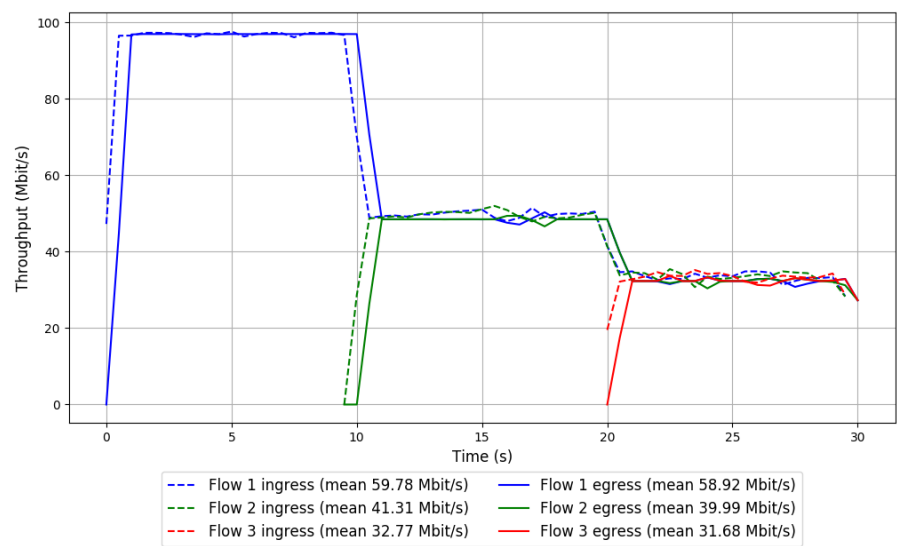Run 9: Report of TCP Cubic — Data Link

```
Run 10: Statistics of TCP Cubic

Start at: 2018-06-06 05:33:53
End at: 2018-06-06 05:34:23
Local clock offset: -5.059 ms
Remote clock offset: -2.616 ms


# Below is generated by plot.py at 2018-06-06 05:58:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.935 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 14.193 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 10.247 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.525 ms
Loss rate: 0.22%
```

Run 10: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 59.67 Mbit/s) --- Flow 1 egress (mean 59.63 Mbit/s)
Flow 2 ingress (mean 40.68 Mbit/s) --- Flow 2 egress (mean 40.63 Mbit/s)
Flow 3 ingress (mean 32.55 Mbit/s) --- Flow 3 egress (mean 32.49 Mbit/s)



Flow 1 (95th percentile 14.19 ms)    Flow 2 (95th percentile 10.25 ms)    Flow 3 (95th percentile 10.53 ms)
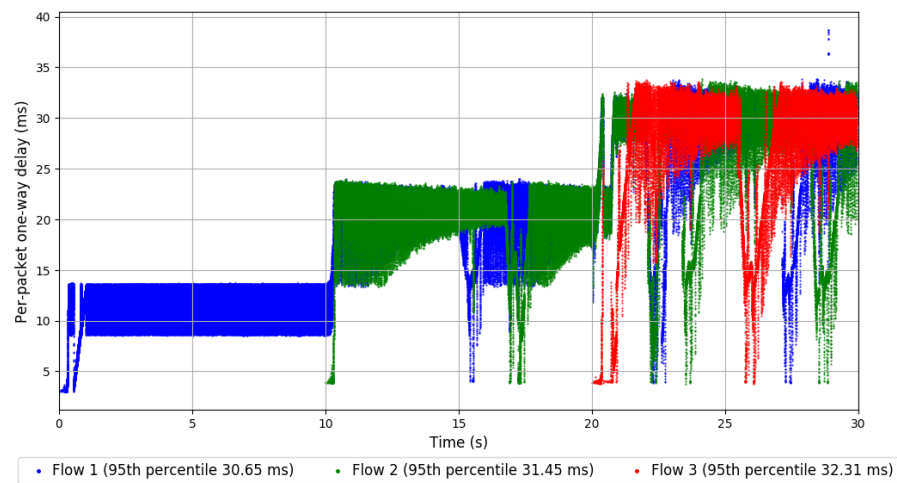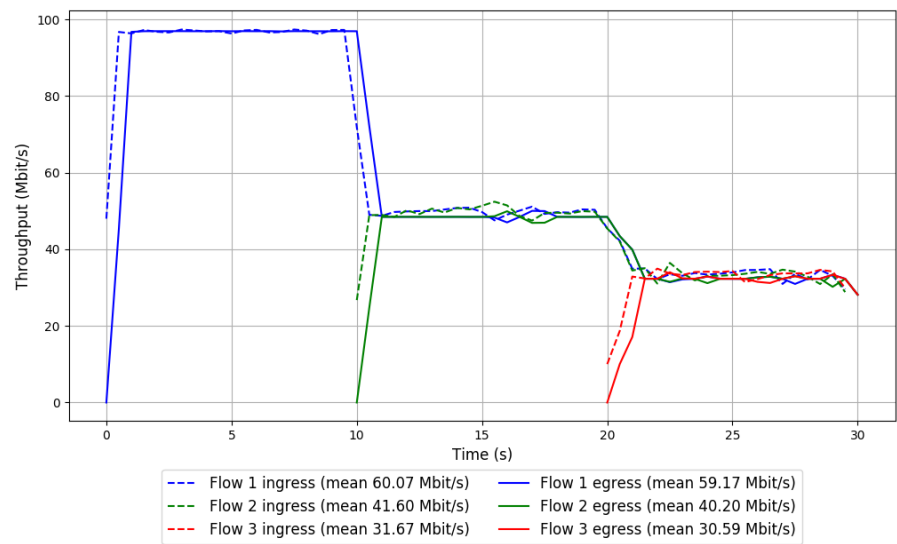
```
Run 1: Statistics of FillP

Start at: 2018-06-06 02:55:01
End at: 2018-06-06 02:55:31
Local clock offset: -4.586 ms
Remote clock offset: -1.857 ms


# Below is generated by plot.py at 2018-06-06 05:58:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.91 Mbit/s
95th percentile per-packet one-way delay: 32.253 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 56.92 Mbit/s
95th percentile per-packet one-way delay: 31.299 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 38.87 Mbit/s
95th percentile per-packet one-way delay: 32.647 ms
Loss rate: 3.47%
-- Flow 3:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 36.641 ms
Loss rate: 4.16%
```
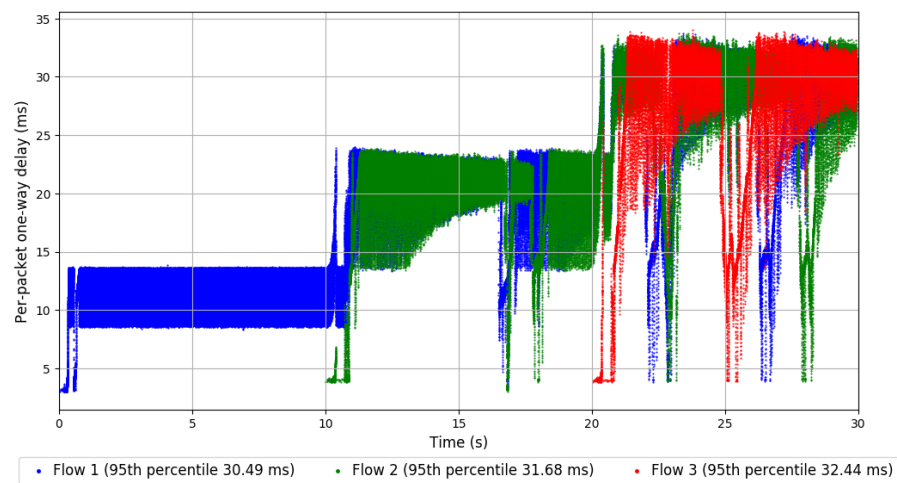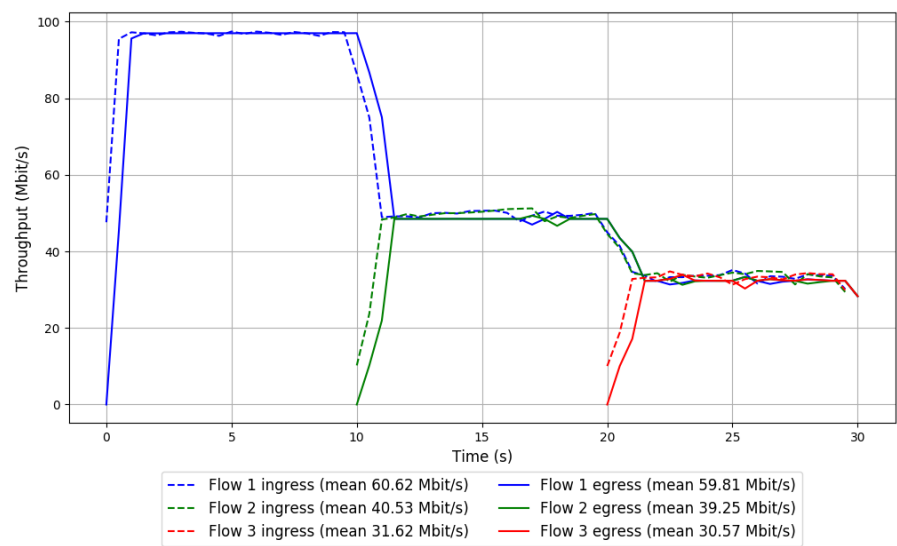
# Run 1: Report of FillP — Data Link



Flow 1 ingress (mean 57.91 Mbit/s)      Flow 1 egress (mean 56.92 Mbit/s)
Flow 2 ingress (mean 40.28 Mbit/s)      Flow 2 egress (mean 38.87 Mbit/s)
Flow 3 ingress (mean 31.89 Mbit/s)      Flow 3 egress (mean 30.61 Mbit/s)



Flow 1 (95th percentile 31.30 ms)      Flow 2 (95th percentile 32.65 ms)      Flow 3 (95th percentile 36.64 ms)

```
Run 2: Statistics of FillP

Start at: 2018-06-06 03:13:00
End at: 2018-06-06 03:13:30
Local clock offset: -4.409 ms
Remote clock offset: -1.185 ms


# Below is generated by plot.py at 2018-06-06 05:58:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.28 Mbit/s
95th percentile per-packet one-way delay: 33.606 ms
Loss rate: 3.64%
-- Flow 1:
Average throughput: 55.59 Mbit/s
95th percentile per-packet one-way delay: 31.962 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 37.32 Mbit/s
95th percentile per-packet one-way delay: 37.659 ms
Loss rate: 5.67%
-- Flow 3:
Average throughput: 29.77 Mbit/s
95th percentile per-packet one-way delay: 44.467 ms
Loss rate: 4.13%
```
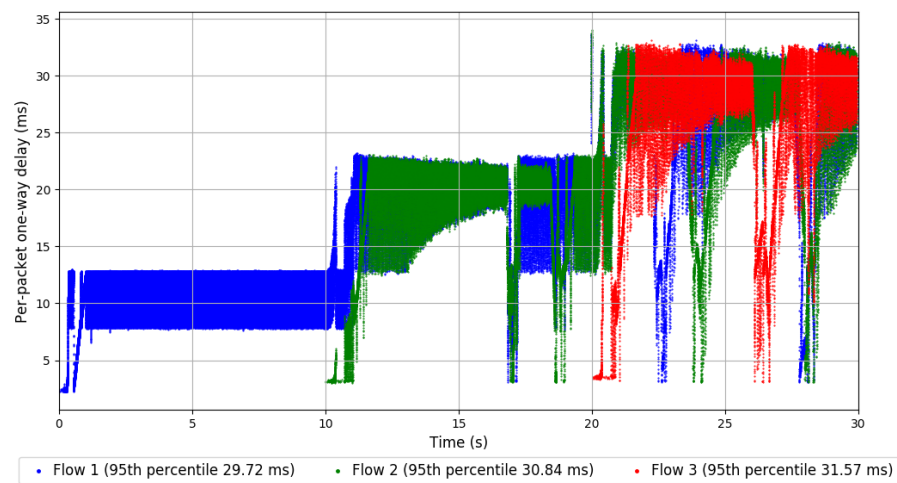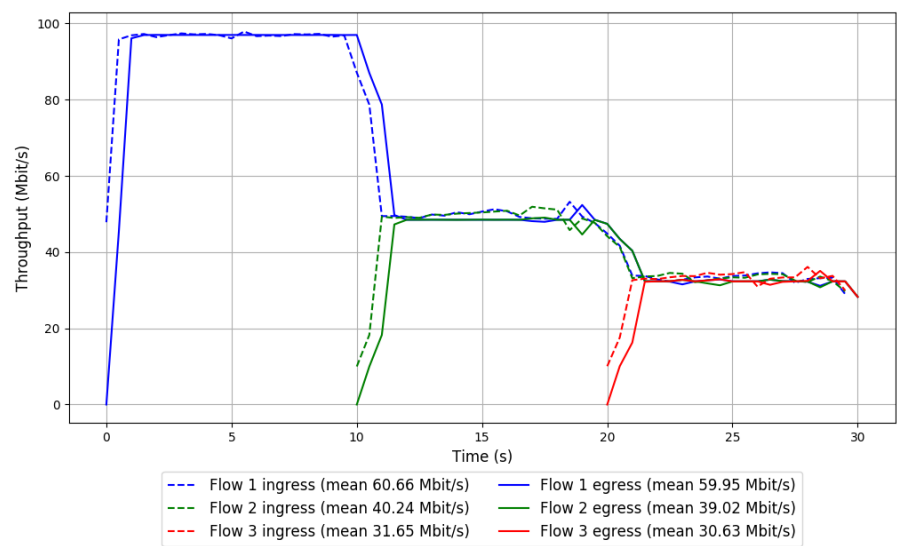
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-06-06 03:31:01
End at: 2018-06-06 03:31:31
Local clock offset: -4.275 ms
Remote clock offset: -2.187 ms


# Below is generated by plot.py at 2018-06-06 05:59:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 31.558 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 30.876 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 39.99 Mbit/s
95th percentile per-packet one-way delay: 31.509 ms
Loss rate: 3.25%
-- Flow 3:
Average throughput: 31.68 Mbit/s
95th percentile per-packet one-way delay: 32.532 ms
Loss rate: 3.49%
```
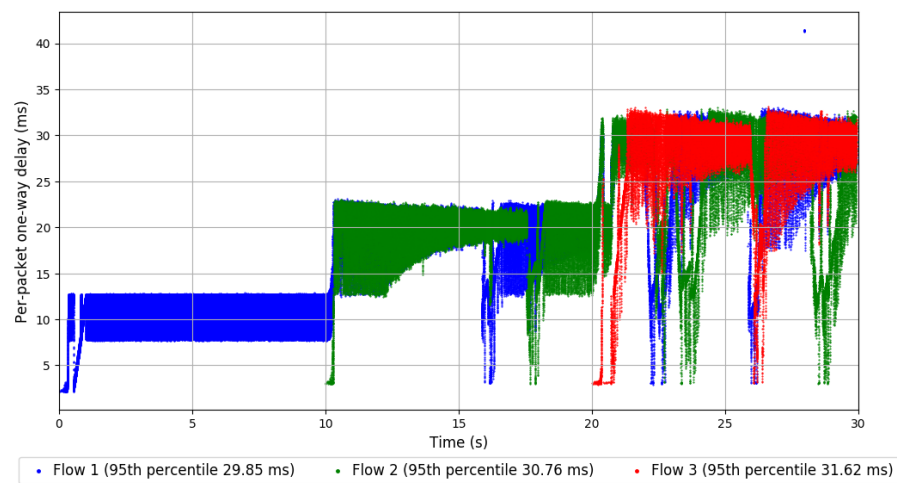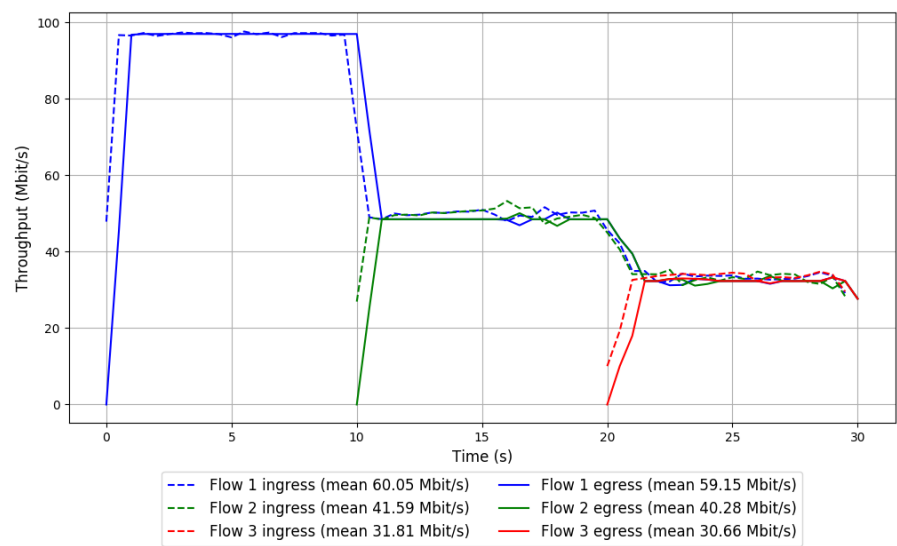
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-06-06 03:49:04
End at: 2018-06-06 03:49:34
Local clock offset: -4.079 ms
Remote clock offset: -2.283 ms

# Below is generated by plot.py at 2018-06-06 05:59:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 31.420 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 59.17 Mbit/s
95th percentile per-packet one-way delay: 30.648 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 40.20 Mbit/s
95th percentile per-packet one-way delay: 31.454 ms
Loss rate: 3.42%
-- Flow 3:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 32.312 ms
Loss rate: 3.58%
```

## Run 4: Report of FillP — Data Link



- - - Flow 1 ingress (mean 60.07 Mbit/s)    —— Flow 1 egress (mean 59.17 Mbit/s)
- - - Flow 2 ingress (mean 41.60 Mbit/s)    —— Flow 2 egress (mean 40.20 Mbit/s)
- - - Flow 3 ingress (mean 31.67 Mbit/s)    —— Flow 3 egress (mean 30.59 Mbit/s)



• Flow 1 (95th percentile 30.65 ms)    • Flow 2 (95th percentile 31.45 ms)    • Flow 3 (95th percentile 32.31 ms)
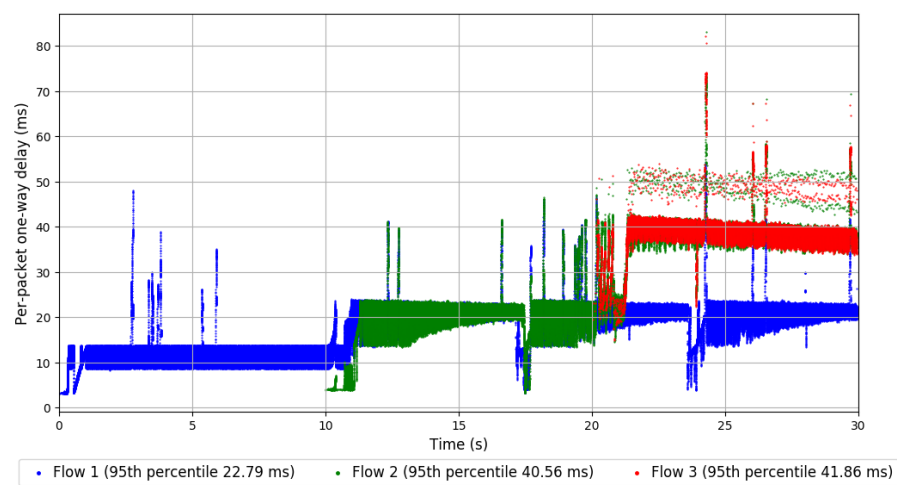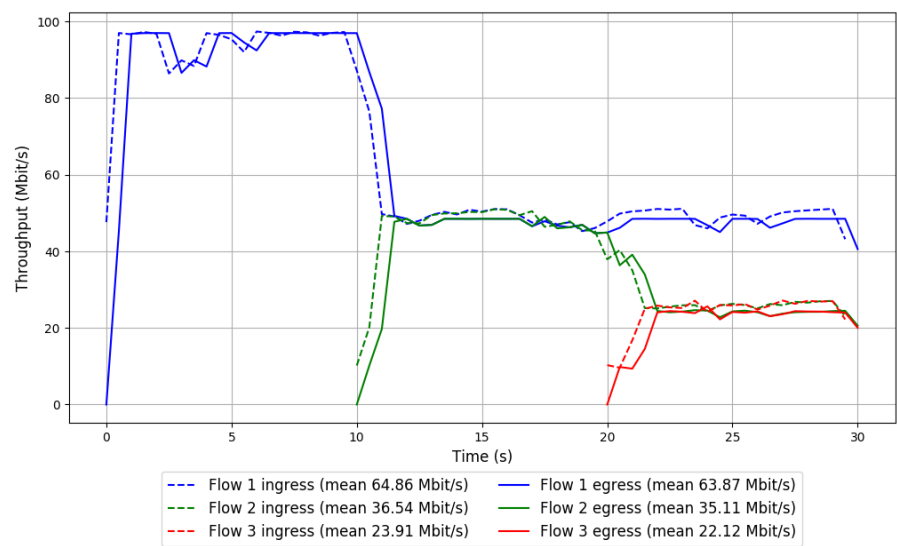
```
Run 5: Statistics of FillP

Start at: 2018-06-06 04:07:07
End at: 2018-06-06 04:07:37
Local clock offset: -4.068 ms
Remote clock offset: -2.259 ms

# Below is generated by plot.py at 2018-06-06 05:59:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 31.504 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 59.81 Mbit/s
95th percentile per-packet one-way delay: 30.492 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 39.25 Mbit/s
95th percentile per-packet one-way delay: 31.677 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 32.442 ms
Loss rate: 3.34%
```
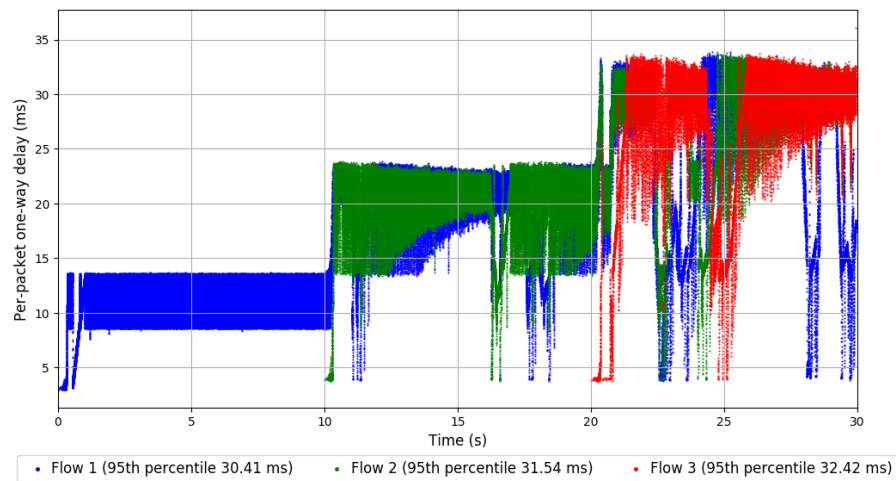
Run 5: Report of FillP — Data Link



Flow 1 ingress (mean 60.62 Mbit/s) --- Flow 1 egress (mean 59.81 Mbit/s)
Flow 2 ingress (mean 40.53 Mbit/s) --- Flow 2 egress (mean 39.25 Mbit/s)
Flow 3 ingress (mean 31.62 Mbit/s) --- Flow 3 egress (mean 30.57 Mbit/s)



Flow 1 (95th percentile 30.49 ms)   Flow 2 (95th percentile 31.68 ms)   Flow 3 (95th percentile 32.44 ms)
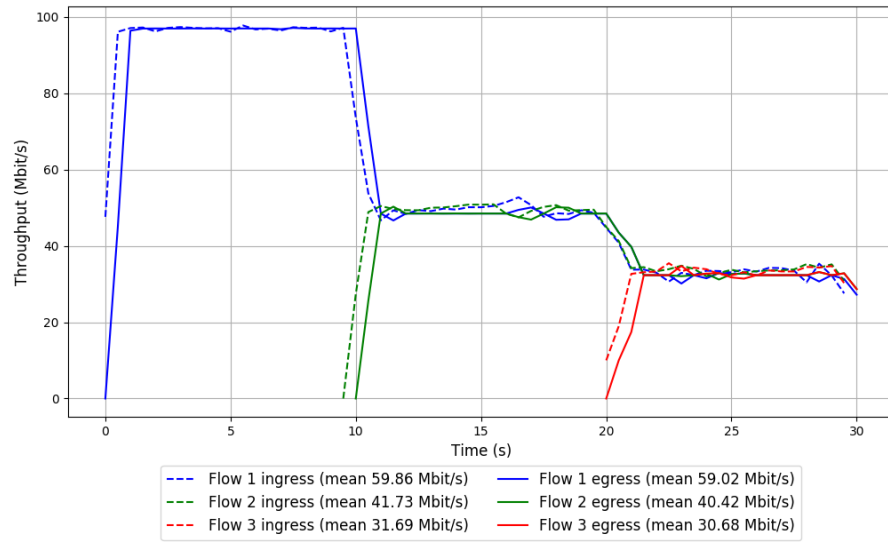
73

```
Run 6: Statistics of FillP

Start at: 2018-06-06 04:25:10
End at: 2018-06-06 04:25:40
Local clock offset: -4.96 ms
Remote clock offset: -2.247 ms


# Below is generated by plot.py at 2018-06-06 05:59:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 30.669 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 59.95 Mbit/s
95th percentile per-packet one-way delay: 29.720 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 39.02 Mbit/s
95th percentile per-packet one-way delay: 30.843 ms
Loss rate: 3.12%
-- Flow 3:
Average throughput: 30.63 Mbit/s
95th percentile per-packet one-way delay: 31.568 ms
Loss rate: 3.40%
```
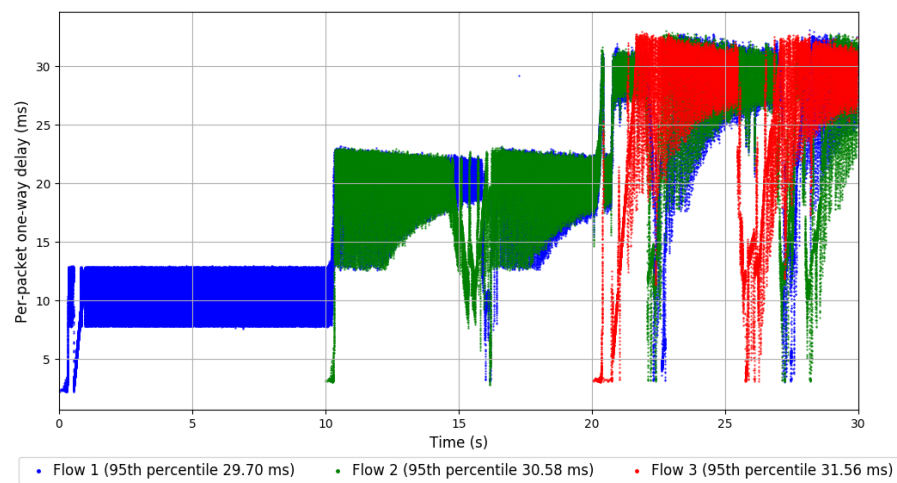
Run 6: Report of FillP — Data Link



Flow 1 ingress (mean 60.66 Mbit/s)  Flow 1 egress (mean 59.95 Mbit/s)
Flow 2 ingress (mean 40.24 Mbit/s)  Flow 2 egress (mean 39.02 Mbit/s)
Flow 3 ingress (mean 31.65 Mbit/s)  Flow 3 egress (mean 30.63 Mbit/s)



Flow 1 (95th percentile 29.72 ms)   Flow 2 (95th percentile 30.84 ms)   Flow 3 (95th percentile 31.57 ms)

75

```
Run 7: Statistics of FillP

Start at: 2018-06-06 04:43:10
End at: 2018-06-06 04:43:41
Local clock offset: -5.196 ms
Remote clock offset: -2.464 ms


# Below is generated by plot.py at 2018-06-06 05:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.12 Mbit/s
95th percentile per-packet one-way delay: 30.715 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 59.15 Mbit/s
95th percentile per-packet one-way delay: 29.849 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 40.28 Mbit/s
95th percentile per-packet one-way delay: 30.761 ms
Loss rate: 3.17%
-- Flow 3:
Average throughput: 30.66 Mbit/s
95th percentile per-packet one-way delay: 31.618 ms
Loss rate: 3.80%
```
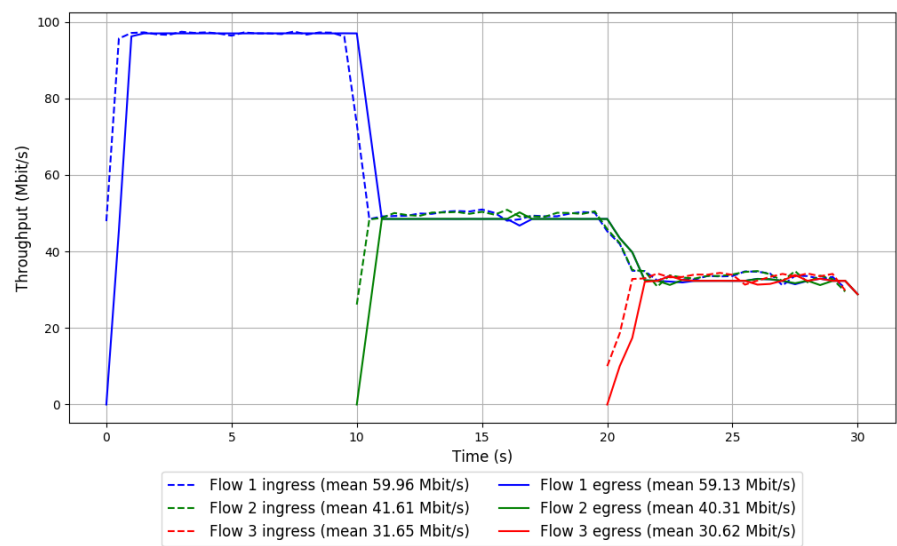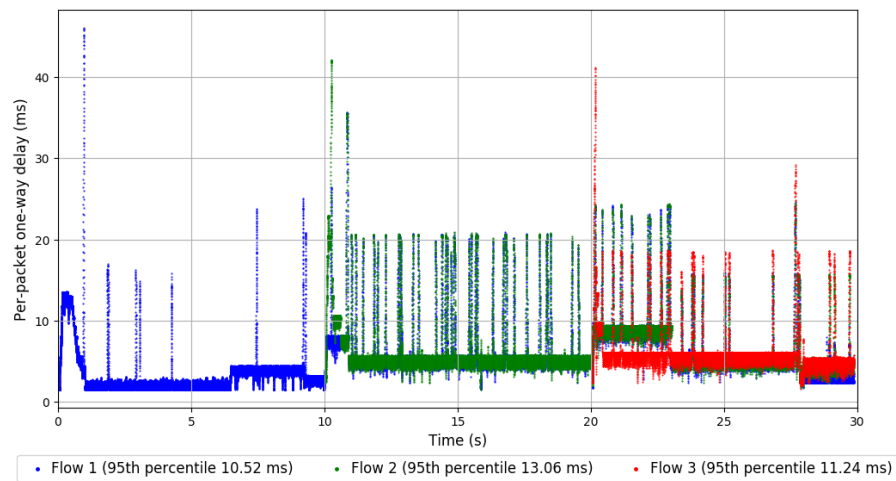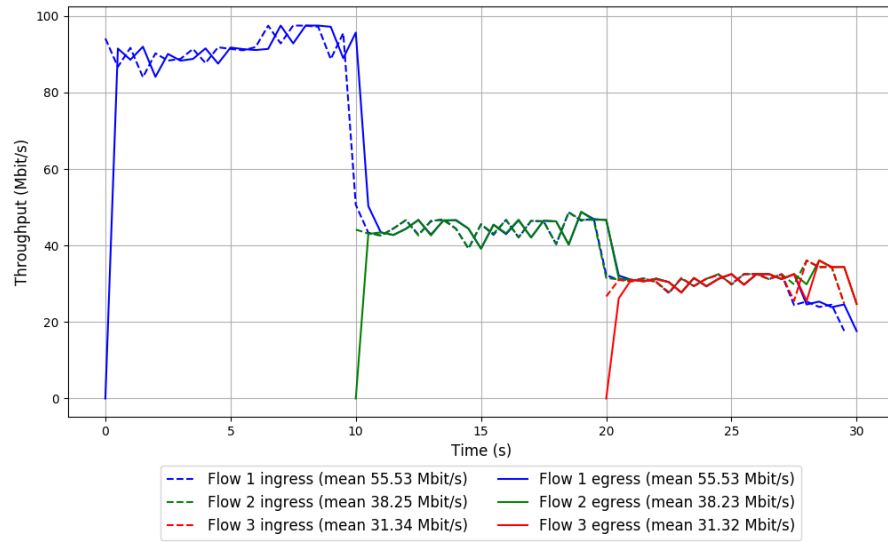
Run 7: Report of FillP — Data Link



Flow 1 ingress (mean 60.05 Mbit/s) --- Flow 1 egress (mean 59.15 Mbit/s)
Flow 2 ingress (mean 41.59 Mbit/s) --- Flow 2 egress (mean 40.28 Mbit/s)
Flow 3 ingress (mean 31.81 Mbit/s) --- Flow 3 egress (mean 30.66 Mbit/s)



Flow 1 (95th percentile 29.85 ms)   Flow 2 (95th percentile 30.76 ms)   Flow 3 (95th percentile 31.62 ms)

```
Run 8: Statistics of FillP

Start at: 2018-06-06 05:01:11
End at: 2018-06-06 05:01:41
Local clock offset: -4.461 ms
Remote clock offset: -2.594 ms

# Below is generated by plot.py at 2018-06-06 05:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.56 Mbit/s
95th percentile per-packet one-way delay: 39.810 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 63.87 Mbit/s
95th percentile per-packet one-way delay: 22.791 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 40.562 ms
Loss rate: 4.05%
-- Flow 3:
Average throughput: 22.12 Mbit/s
95th percentile per-packet one-way delay: 41.864 ms
Loss rate: 7.65%
```
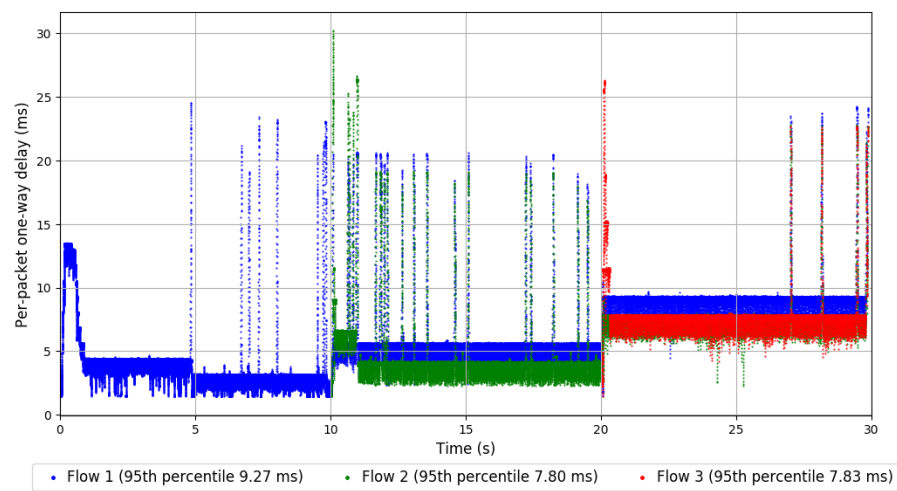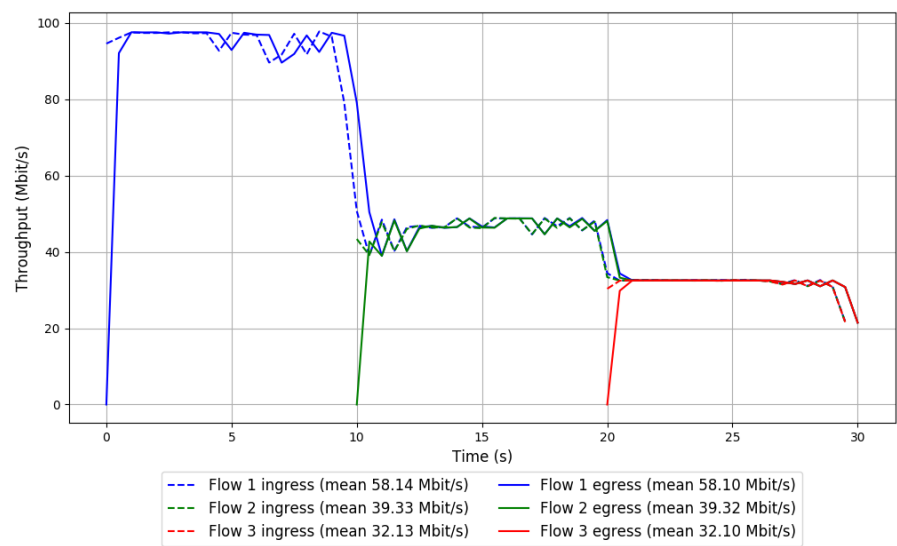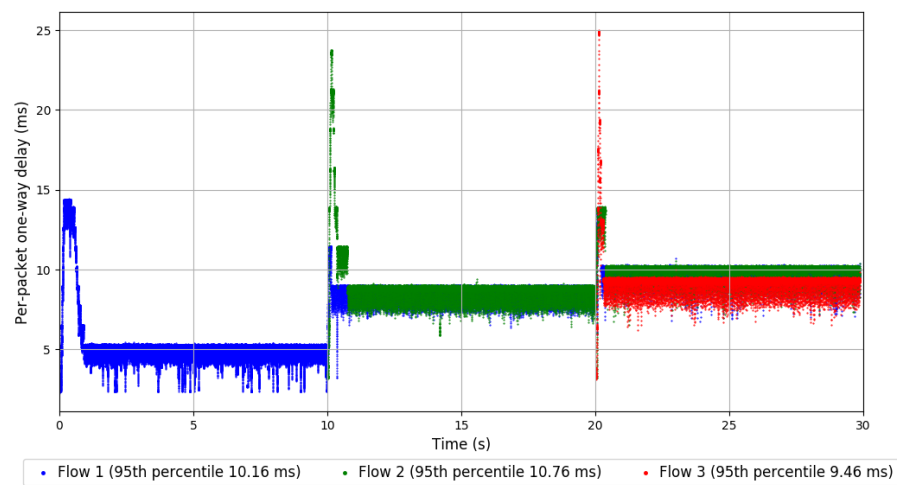
# Run 8: Report of FillP — Data Link



- - - - Flow 1 ingress (mean 64.86 Mbit/s)  ——— Flow 1 egress (mean 63.87 Mbit/s)
- - - - Flow 2 ingress (mean 36.54 Mbit/s)  ——— Flow 2 egress (mean 35.11 Mbit/s)
- - - - Flow 3 ingress (mean 23.91 Mbit/s)  ——— Flow 3 egress (mean 22.12 Mbit/s)



- Flow 1 (95th percentile 22.79 ms)  • Flow 2 (95th percentile 40.56 ms)  • Flow 3 (95th percentile 41.86 ms)

```
Run 9: Statistics of FillP

Start at: 2018-06-06 05:19:12
End at: 2018-06-06 05:19:42
Local clock offset: -4.317 ms
Remote clock offset: -2.559 ms


# Below is generated by plot.py at 2018-06-06 06:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.10 Mbit/s
95th percentile per-packet one-way delay: 31.469 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 59.02 Mbit/s
95th percentile per-packet one-way delay: 30.406 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 40.42 Mbit/s
95th percentile per-packet one-way delay: 31.536 ms
Loss rate: 3.19%
-- Flow 3:
Average throughput: 30.68 Mbit/s
95th percentile per-packet one-way delay: 32.425 ms
Loss rate: 3.24%
```
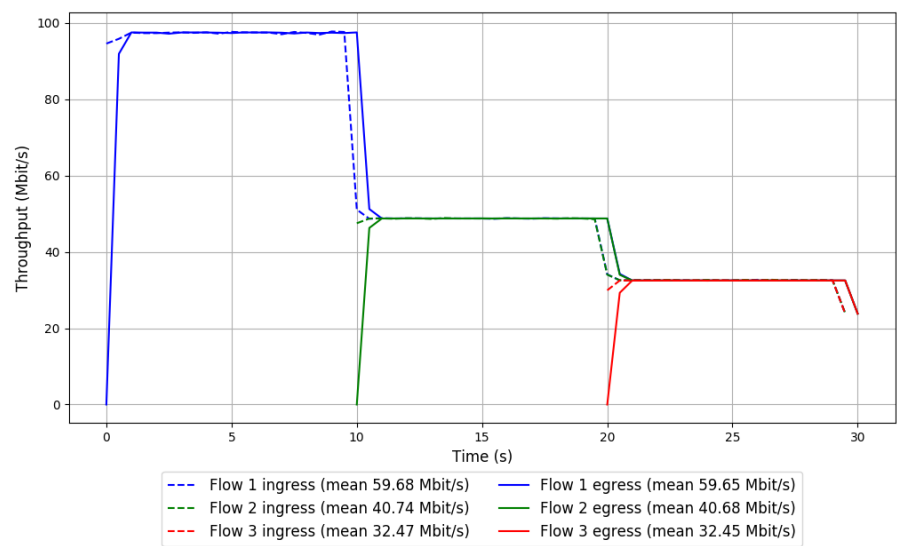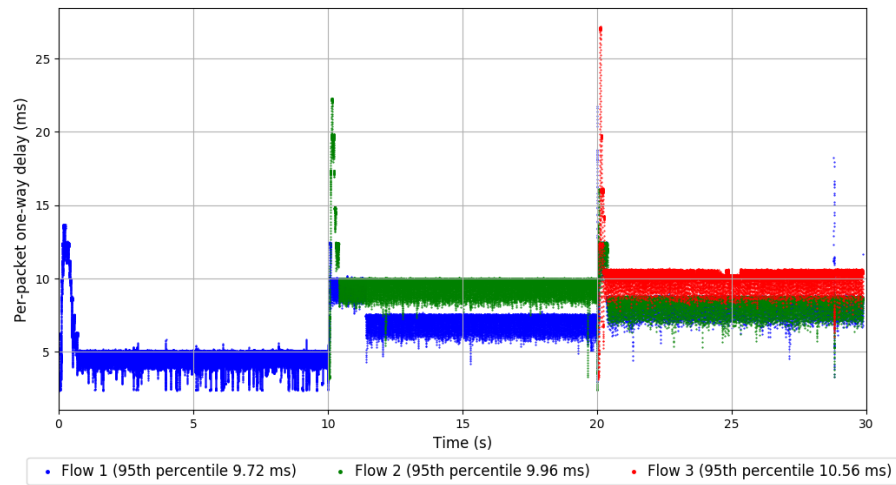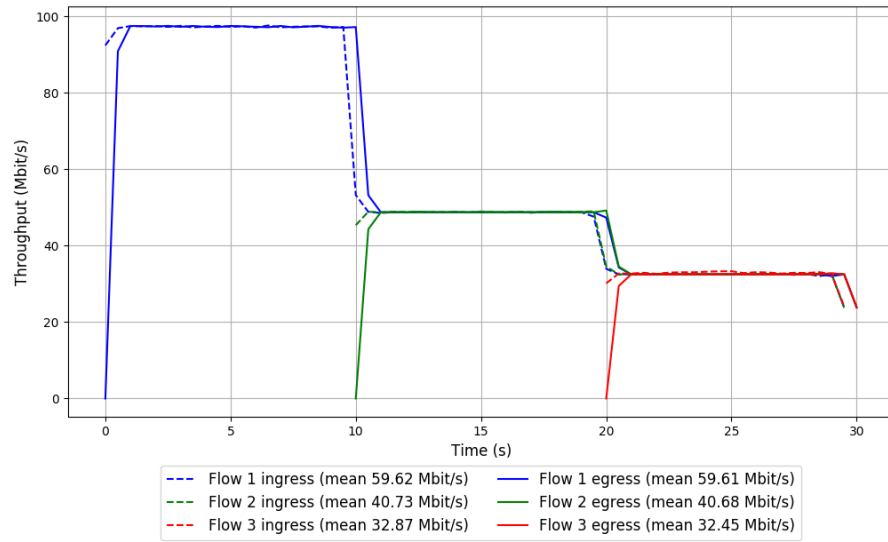
Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-06-06 05:37:14
End at: 2018-06-06 05:37:45
Local clock offset: -5.101 ms
Remote clock offset: -2.68 ms

# Below is generated by plot.py at 2018-06-06 06:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.10 Mbit/s
95th percentile per-packet one-way delay: 30.574 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 59.13 Mbit/s
95th percentile per-packet one-way delay: 29.703 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 40.31 Mbit/s
95th percentile per-packet one-way delay: 30.580 ms
Loss rate: 3.16%
-- Flow 3:
Average throughput: 30.62 Mbit/s
95th percentile per-packet one-way delay: 31.563 ms
Loss rate: 3.26%
```

Run 10: Report of FillP — Data Link



Flow 1 ingress (mean 59.96 Mbit/s) --- Flow 1 egress (mean 59.13 Mbit/s)
Flow 2 ingress (mean 41.61 Mbit/s) --- Flow 2 egress (mean 40.31 Mbit/s)
Flow 3 ingress (mean 31.65 Mbit/s) --- Flow 3 egress (mean 30.62 Mbit/s)



Flow 1 (95th percentile 29.70 ms)    Flow 2 (95th percentile 30.58 ms)    Flow 3 (95th percentile 31.56 ms)

```
Run 1: Statistics of Indigo

Start at: 2018-06-06 03:01:39
End at: 2018-06-06 03:02:09
Local clock offset: -6.187 ms
Remote clock offset: -1.549 ms


# Below is generated by plot.py at 2018-06-06 06:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.23 Mbit/s
95th percentile per-packet one-way delay: 11.481 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 55.53 Mbit/s
95th percentile per-packet one-way delay: 10.522 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 38.23 Mbit/s
95th percentile per-packet one-way delay: 13.063 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 31.32 Mbit/s
95th percentile per-packet one-way delay: 11.239 ms
Loss rate: 0.09%
```
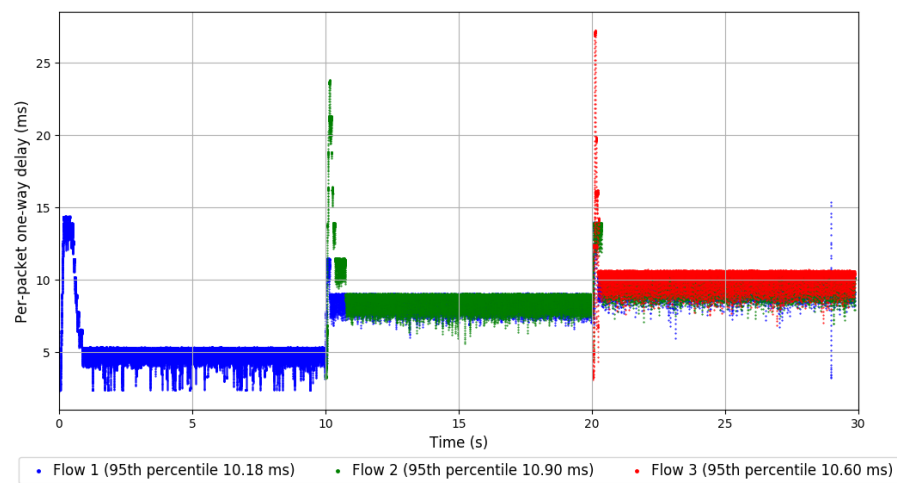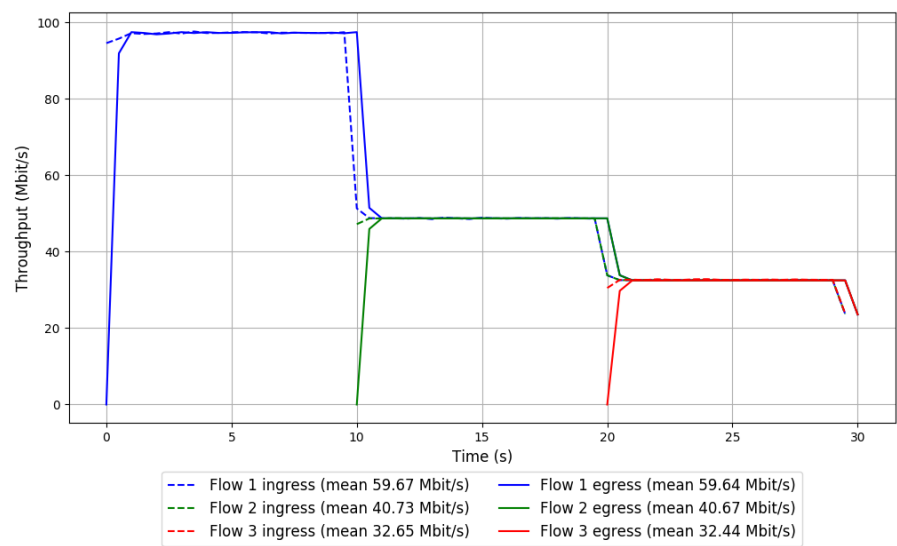
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-06-06 03:19:38
End at: 2018-06-06 03:20:08
Local clock offset: -5.95 ms
Remote clock offset: -1.516 ms


# Below is generated by plot.py at 2018-06-06 06:00:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.80 Mbit/s
95th percentile per-packet one-way delay: 9.232 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 58.10 Mbit/s
95th percentile per-packet one-way delay: 9.270 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 39.32 Mbit/s
95th percentile per-packet one-way delay: 7.804 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 32.10 Mbit/s
95th percentile per-packet one-way delay: 7.834 ms
Loss rate: 0.11%
```
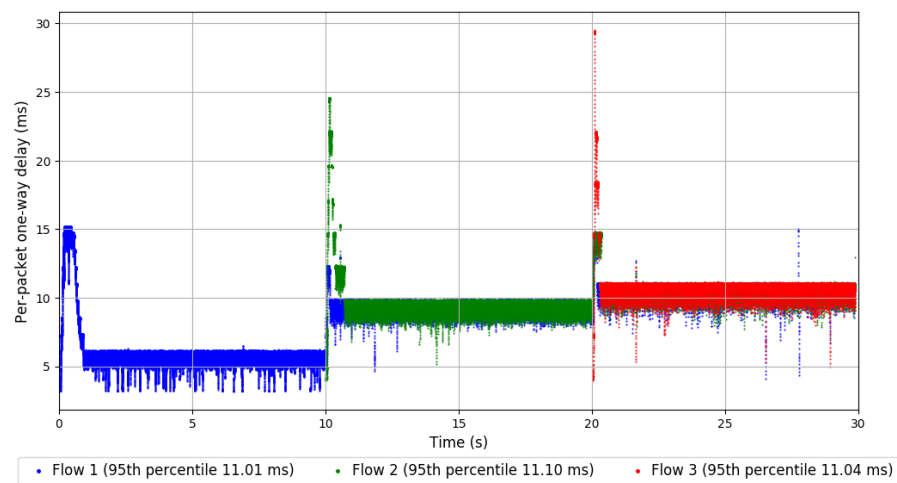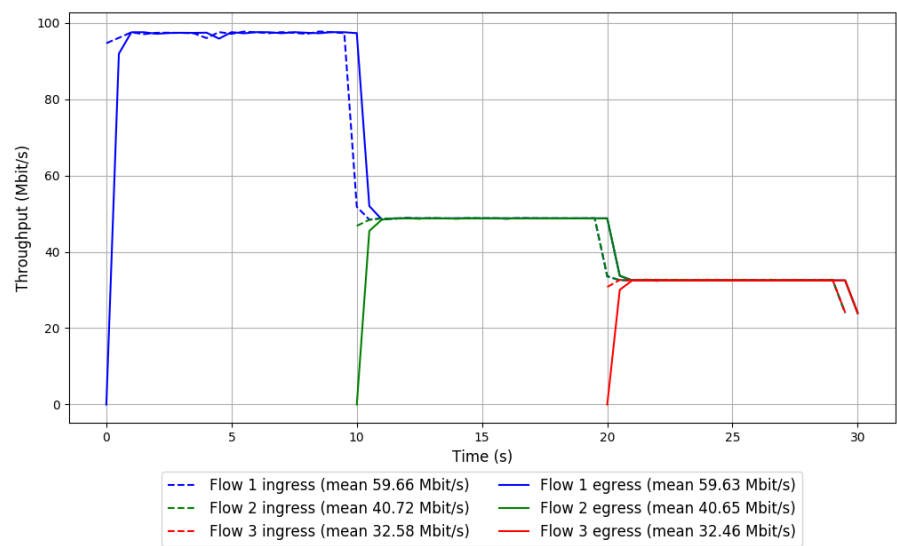
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-06-06 03:37:41
End at: 2018-06-06 03:38:11
Local clock offset: -4.972 ms
Remote clock offset: -2.279 ms


# Below is generated by plot.py at 2018-06-06 06:00:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 10.179 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 10.162 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 10.764 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 9.460 ms
Loss rate: 0.11%
```
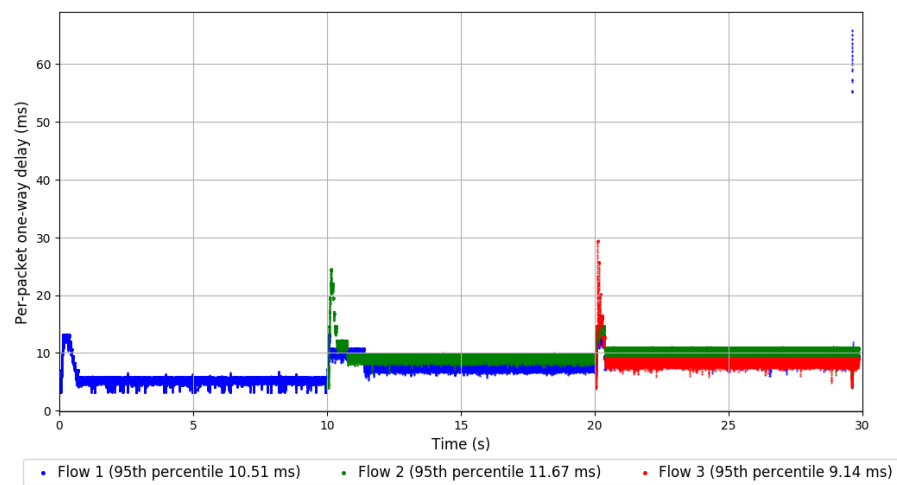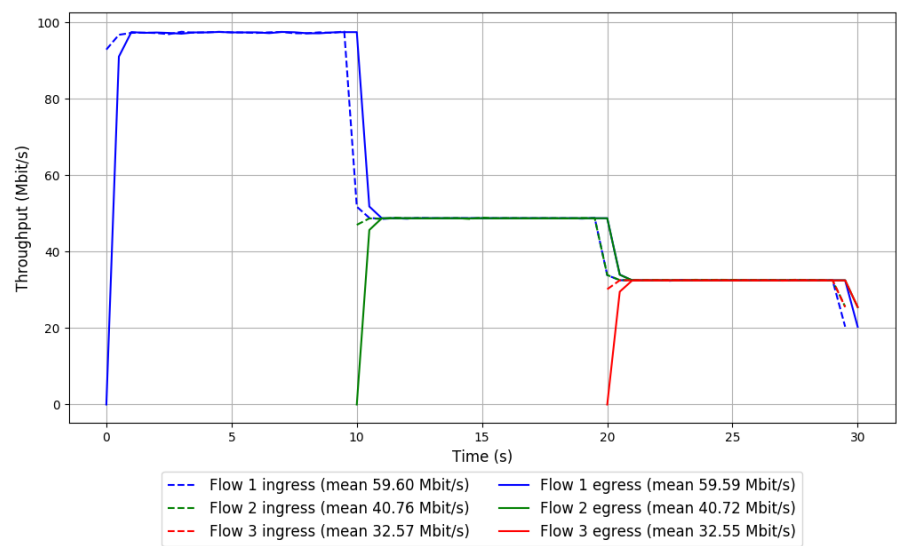
## Run 3: Report of Indigo — Data Link



- - - - Flow 1 ingress (mean 59.68 Mbit/s) ——— Flow 1 egress (mean 59.65 Mbit/s)
- - - - Flow 2 ingress (mean 40.74 Mbit/s) ——— Flow 2 egress (mean 40.68 Mbit/s)
- - - - Flow 3 ingress (mean 32.47 Mbit/s) ——— Flow 3 egress (mean 32.45 Mbit/s)



- Flow 1 (95th percentile 10.16 ms)    • Flow 2 (95th percentile 10.76 ms)    • Flow 3 (95th percentile 9.46 ms)

```
Run 4: Statistics of Indigo

Start at: 2018-06-06 03:55:44
End at: 2018-06-06 03:56:14
Local clock offset: -4.815 ms
Remote clock offset: -2.284 ms

# Below is generated by plot.py at 2018-06-06 06:00:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.33 Mbit/s
95th percentile per-packet one-way delay: 10.433 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 9.719 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 9.963 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 10.559 ms
Loss rate: 1.30%
```
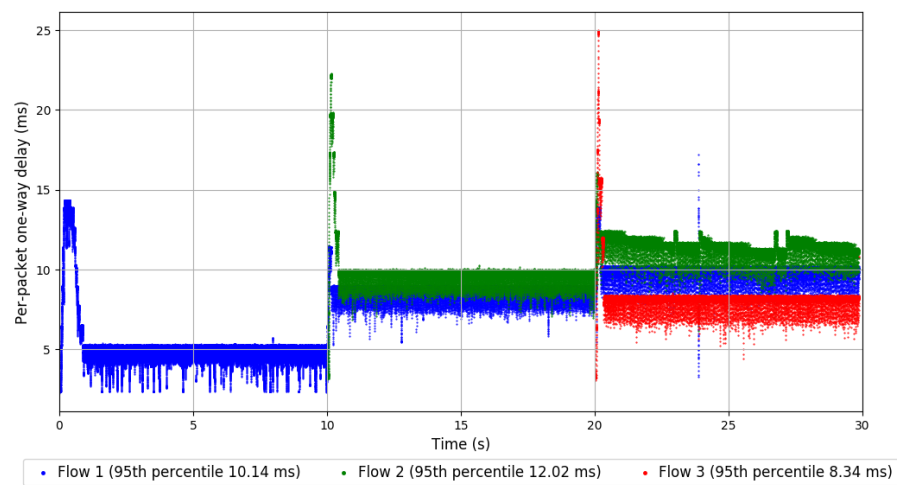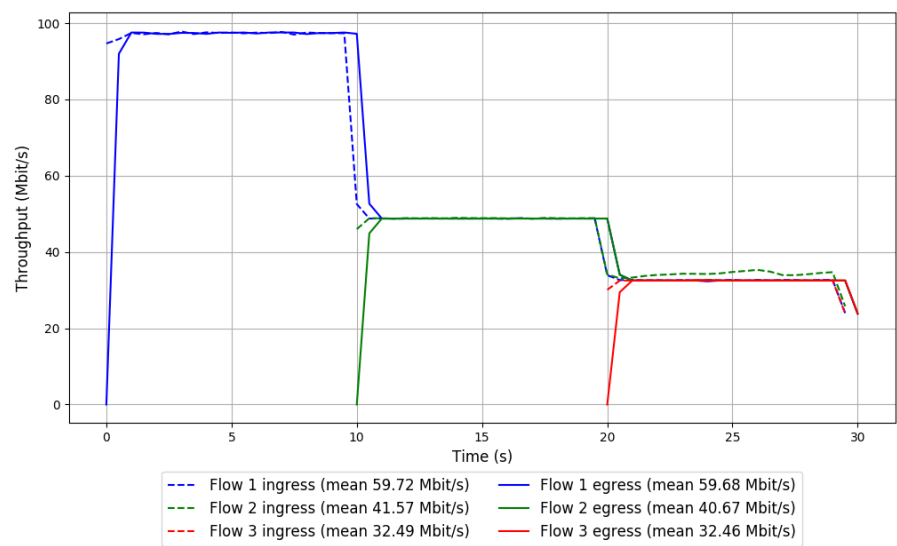
## Run 4: Report of Indigo — Data Link



- - - - Flow 1 ingress (mean 59.62 Mbit/s) ——— Flow 1 egress (mean 59.61 Mbit/s)
- - - - Flow 2 ingress (mean 40.73 Mbit/s) ——— Flow 2 egress (mean 40.68 Mbit/s)
- - - - Flow 3 ingress (mean 32.87 Mbit/s) ——— Flow 3 egress (mean 32.45 Mbit/s)



• Flow 1 (95th percentile 9.72 ms)    • Flow 2 (95th percentile 9.96 ms)    • Flow 3 (95th percentile 10.56 ms)

```
Run 5: Statistics of Indigo

Start at: 2018-06-06 04:13:46
End at: 2018-06-06 04:14:16
Local clock offset: -4.907 ms
Remote clock offset: -2.248 ms


# Below is generated by plot.py at 2018-06-06 06:00:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.37 Mbit/s
95th percentile per-packet one-way delay: 10.540 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 10.181 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 10.897 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 10.595 ms
Loss rate: 0.69%
```
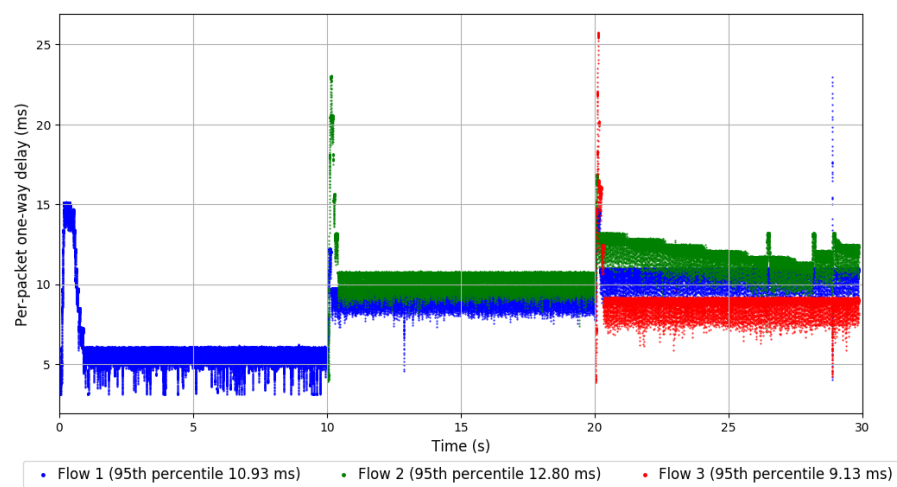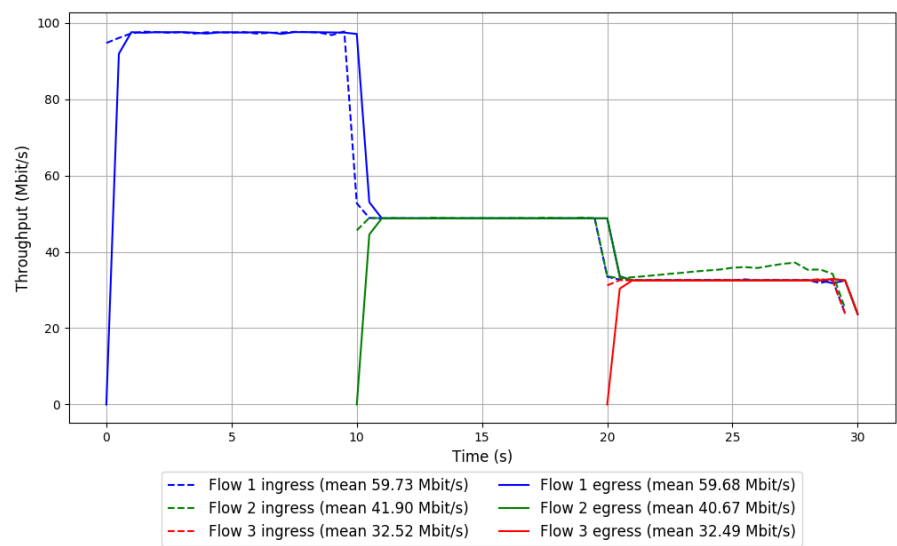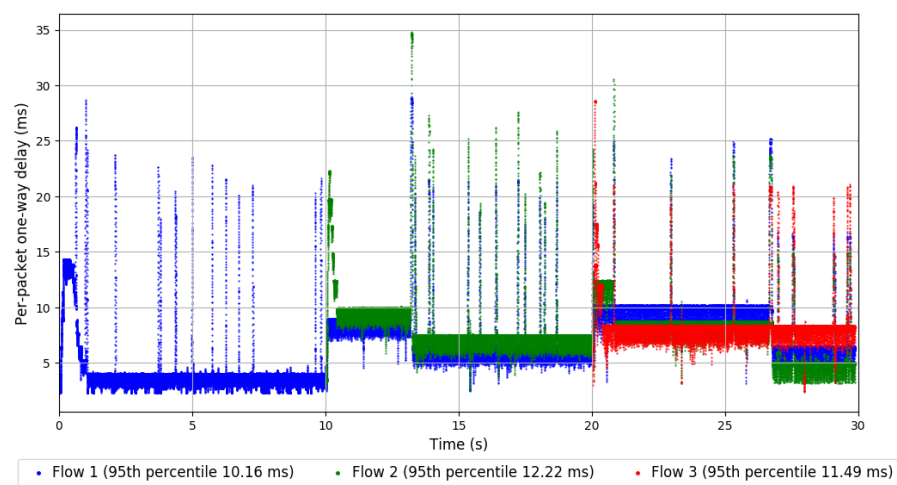
Run 5: Report of Indigo — Data Link



Flow 1 ingress (mean 59.67 Mbit/s)      Flow 1 egress (mean 59.64 Mbit/s)
Flow 2 ingress (mean 40.73 Mbit/s)      Flow 2 egress (mean 40.67 Mbit/s)
Flow 3 ingress (mean 32.65 Mbit/s)      Flow 3 egress (mean 32.44 Mbit/s)



Flow 1 (95th percentile 10.18 ms)      Flow 2 (95th percentile 10.90 ms)      Flow 3 (95th percentile 10.60 ms)

```
Run 6: Statistics of Indigo

Start at: 2018-06-06 04:31:48
End at: 2018-06-06 04:32:18
Local clock offset: -4.181 ms
Remote clock offset: -2.448 ms


# Below is generated by plot.py at 2018-06-06 06:00:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 11.035 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 11.013 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 11.097 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 11.040 ms
Loss rate: 0.42%
```
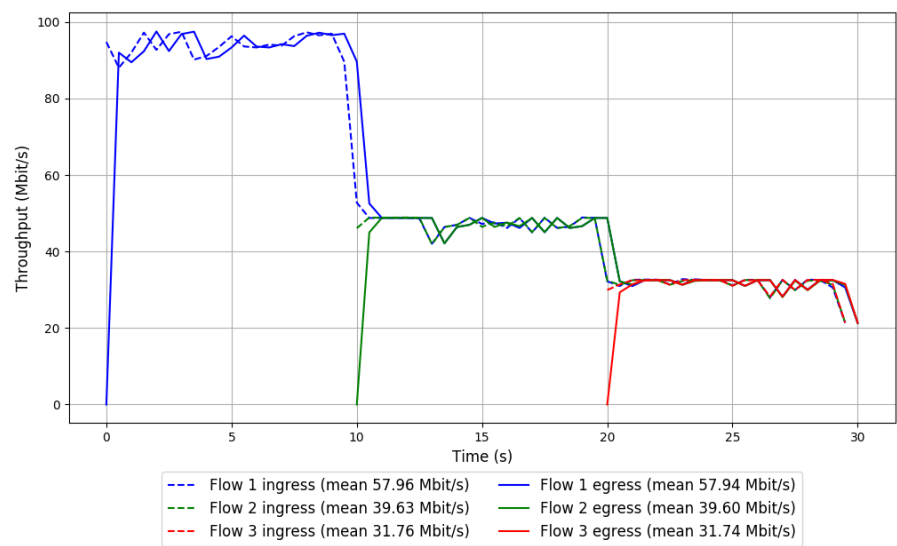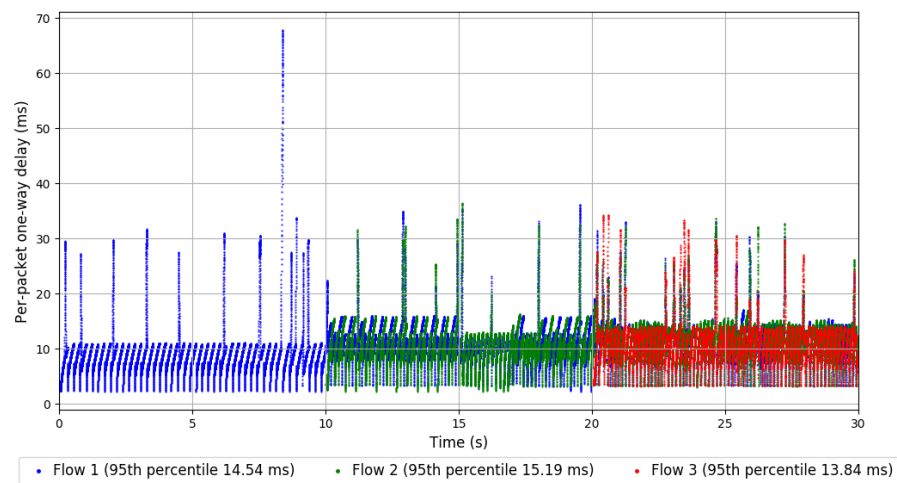
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-06-06 04:49:49
End at: 2018-06-06 04:50:19
Local clock offset: -4.406 ms
Remote clock offset: -2.504 ms


# Below is generated by plot.py at 2018-06-06 06:01:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 10.916 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 59.59 Mbit/s
95th percentile per-packet one-way delay: 10.514 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.72 Mbit/s
95th percentile per-packet one-way delay: 11.669 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.55 Mbit/s
95th percentile per-packet one-way delay: 9.141 ms
Loss rate: 0.10%
```
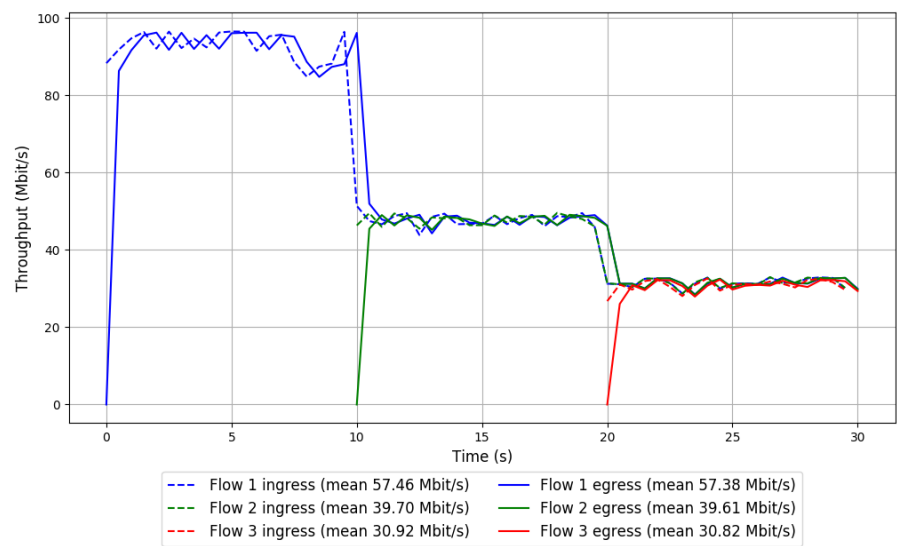
# Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-06-06 05:07:49
End at: 2018-06-06 05:08:19
Local clock offset: -5.178 ms
Remote clock offset: -2.535 ms

# Below is generated by plot.py at 2018-06-06 06:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 11.660 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 59.68 Mbit/s
95th percentile per-packet one-way delay: 10.138 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 12.020 ms
Loss rate: 2.17%
-- Flow 3:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 8.342 ms
Loss rate: 0.10%
```
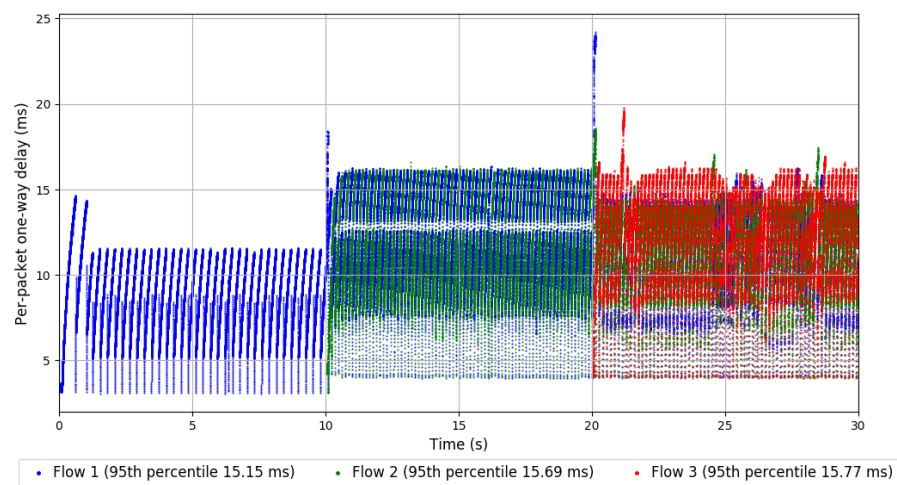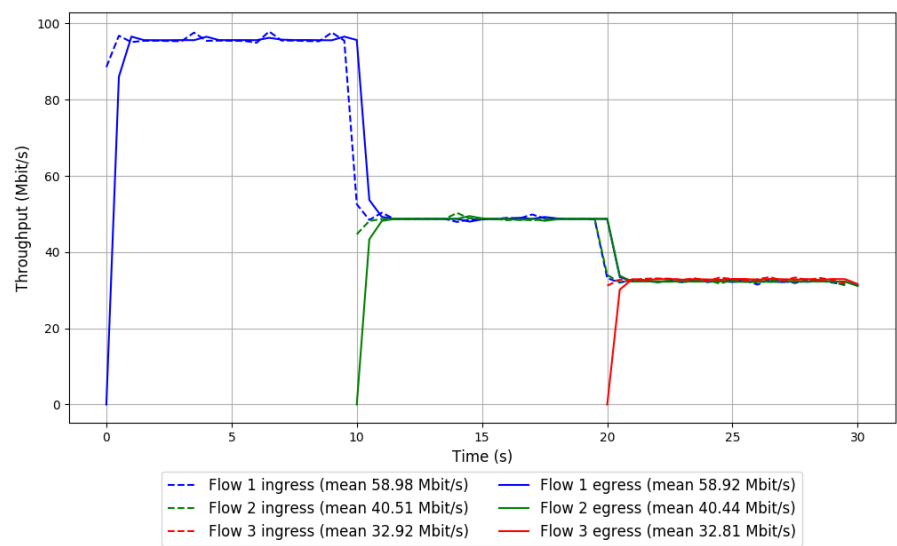
# Run 8: Report of Indigo — Data Link



- - - - Flow 1 ingress (mean 59.72 Mbit/s)    ——— Flow 1 egress (mean 59.68 Mbit/s)
- - - - Flow 2 ingress (mean 41.57 Mbit/s)    ——— Flow 2 egress (mean 40.67 Mbit/s)
- - - - Flow 3 ingress (mean 32.49 Mbit/s)    ——— Flow 3 egress (mean 32.46 Mbit/s)



• Flow 1 (95th percentile 10.14 ms)     • Flow 2 (95th percentile 12.02 ms)     • Flow 3 (95th percentile 8.34 ms)

```
Run 9: Statistics of Indigo

Start at: 2018-06-06 05:25:51
End at: 2018-06-06 05:26:21
Local clock offset: -4.304 ms
Remote clock offset: -2.582 ms

# Below is generated by plot.py at 2018-06-06 06:01:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 12.390 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 59.68 Mbit/s
95th percentile per-packet one-way delay: 10.930 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 12.799 ms
Loss rate: 2.96%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 9.134 ms
Loss rate: 0.14%
```
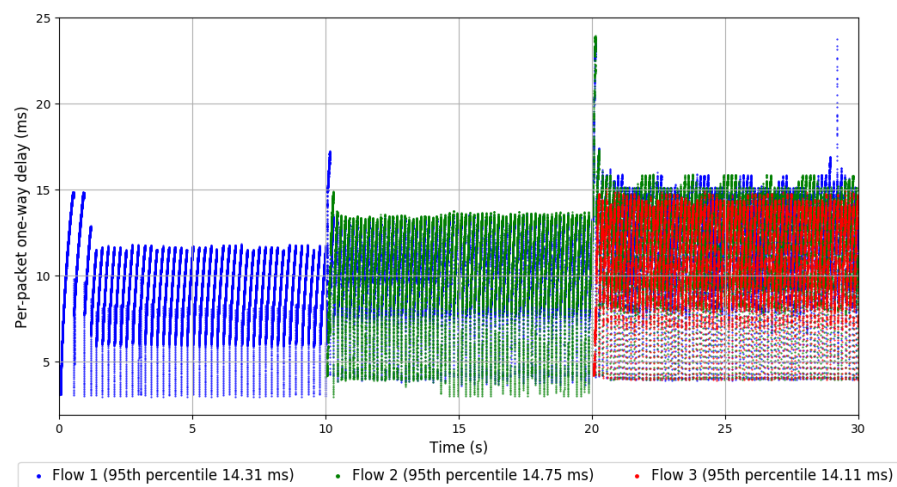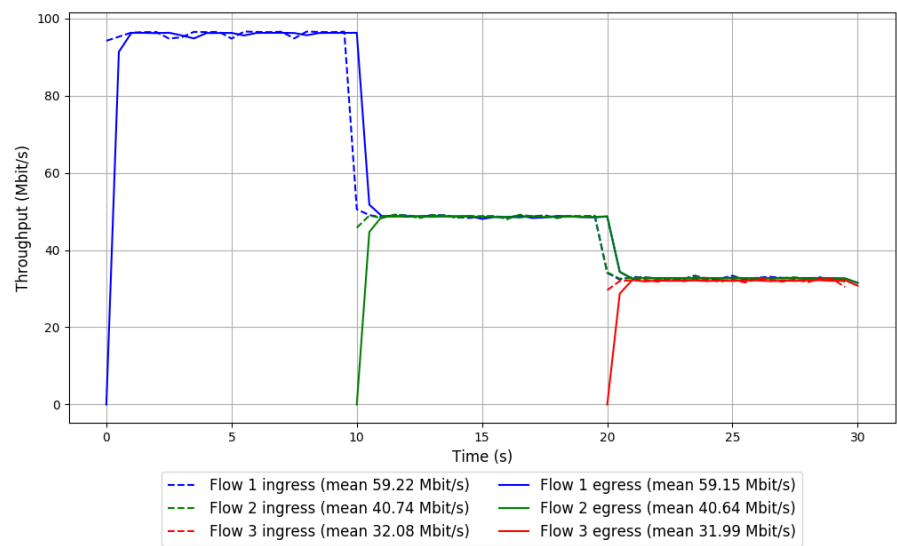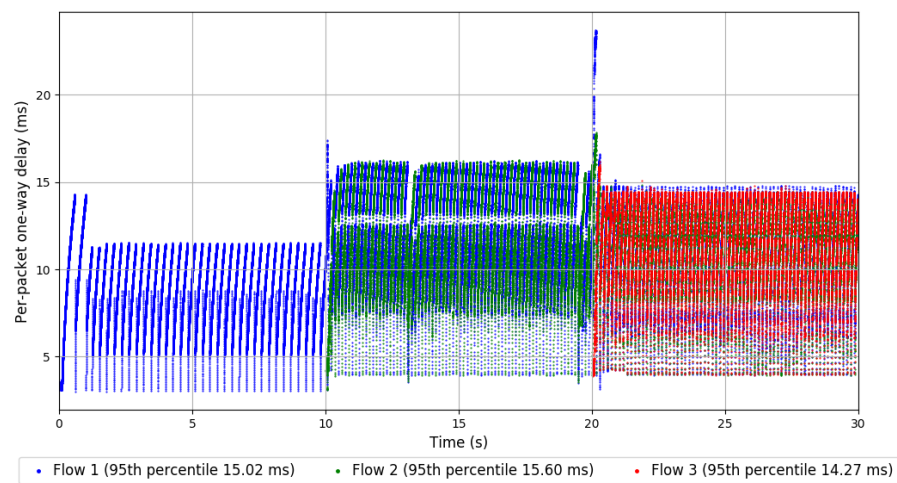
Run 9: Report of Indigo — Data Link



- - - Flow 1 ingress (mean 59.73 Mbit/s)     —— Flow 1 egress (mean 59.68 Mbit/s)
- - - Flow 2 ingress (mean 41.90 Mbit/s)     —— Flow 2 egress (mean 40.67 Mbit/s)
- - - Flow 3 ingress (mean 32.52 Mbit/s)     —— Flow 3 egress (mean 32.49 Mbit/s)



• Flow 1 (95th percentile 10.93 ms)     • Flow 2 (95th percentile 12.80 ms)     • Flow 3 (95th percentile 9.13 ms)

```
Run 10: Statistics of Indigo

Start at: 2018-06-06 05:43:54
End at: 2018-06-06 05:44:24
Local clock offset: -5.157 ms
Remote clock offset: -2.747 ms


# Below is generated by plot.py at 2018-06-06 06:01:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.72 Mbit/s
95th percentile per-packet one-way delay: 11.106 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 57.94 Mbit/s
95th percentile per-packet one-way delay: 10.163 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 39.60 Mbit/s
95th percentile per-packet one-way delay: 12.220 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 11.491 ms
Loss rate: 0.10%
```
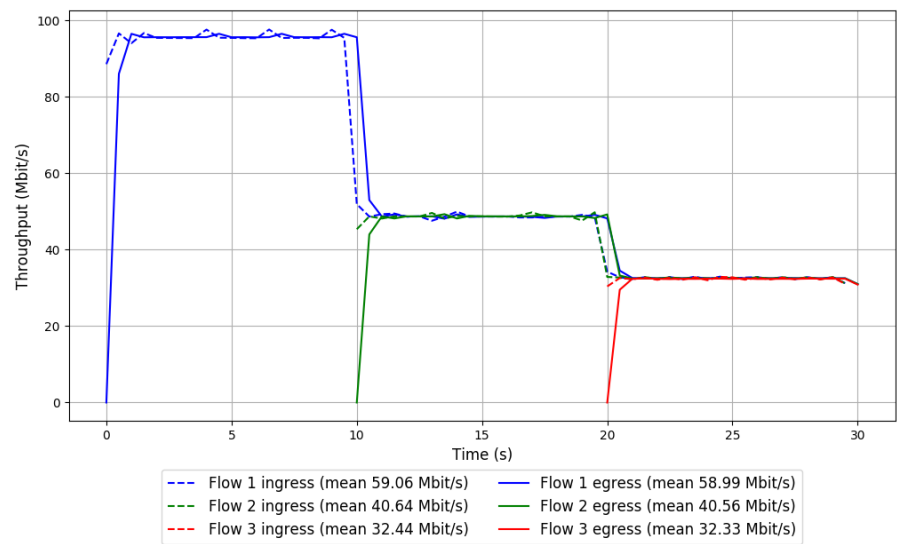
Run 10: Report of Indigo — Data Link



Flow 1 ingress (mean 57.96 Mbit/s)    Flow 1 egress (mean 57.94 Mbit/s)
Flow 2 ingress (mean 39.63 Mbit/s)    Flow 2 egress (mean 39.60 Mbit/s)
Flow 3 ingress (mean 31.76 Mbit/s)    Flow 3 egress (mean 31.74 Mbit/s)



Flow 1 (95th percentile 10.16 ms)    Flow 2 (95th percentile 12.22 ms)    Flow 3 (95th percentile 11.49 ms)
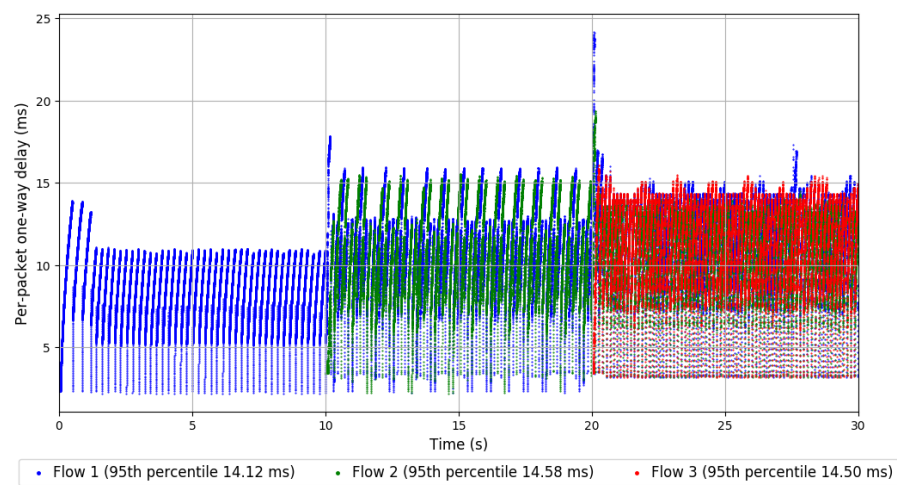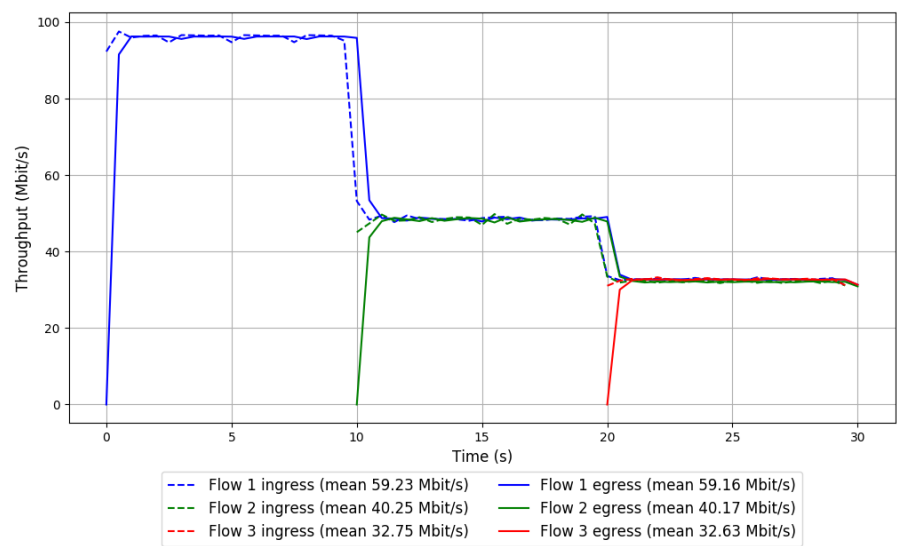
```
Run 1: Statistics of LEDBAT

Start at: 2018-06-06 03:05:05
End at: 2018-06-06 03:05:35
Local clock offset: -5.327 ms
Remote clock offset: -1.433 ms


# Below is generated by plot.py at 2018-06-06 06:01:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.01 Mbit/s
95th percentile per-packet one-way delay: 14.823 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 57.38 Mbit/s
95th percentile per-packet one-way delay: 14.537 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 39.61 Mbit/s
95th percentile per-packet one-way delay: 15.191 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 13.843 ms
Loss rate: 0.36%
```
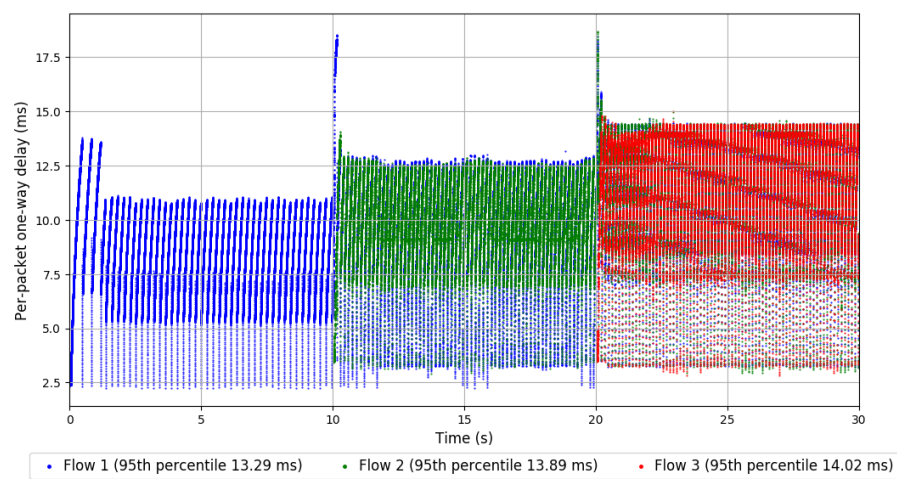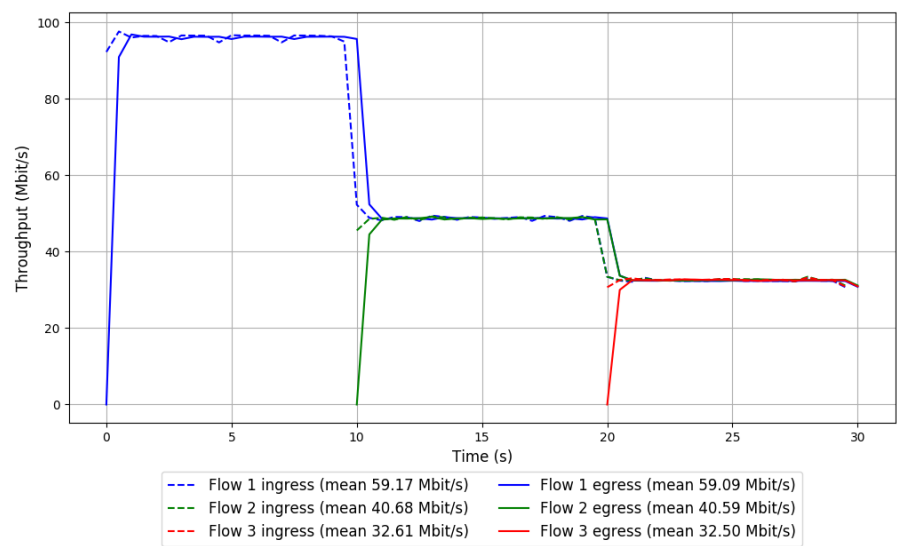
Run 1: Report of LEDBAT — Data Link



Flow 1 ingress (mean 57.46 Mbit/s) --- Flow 1 egress (mean 57.38 Mbit/s)
Flow 2 ingress (mean 39.70 Mbit/s) --- Flow 2 egress (mean 39.61 Mbit/s)
Flow 3 ingress (mean 30.92 Mbit/s) --- Flow 3 egress (mean 30.82 Mbit/s)



Flow 1 (95th percentile 14.54 ms)    Flow 2 (95th percentile 15.19 ms)    Flow 3 (95th percentile 13.84 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2018-06-06 03:23:04
End at: 2018-06-06 03:23:34
Local clock offset: -4.312 ms
Remote clock offset: -1.883 ms


# Below is generated by plot.py at 2018-06-06 06:01:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.75 Mbit/s
95th percentile per-packet one-way delay: 15.526 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 15.153 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.44 Mbit/s
95th percentile per-packet one-way delay: 15.686 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 32.81 Mbit/s
95th percentile per-packet one-way delay: 15.774 ms
Loss rate: 0.38%
```
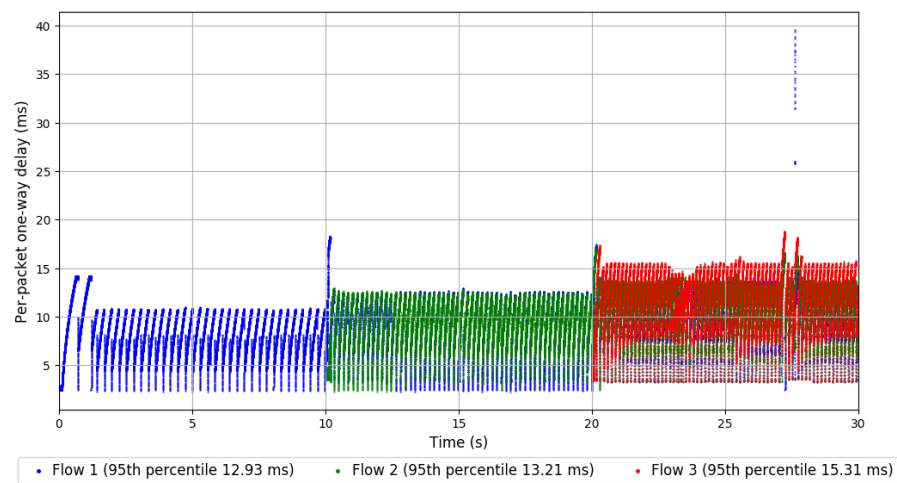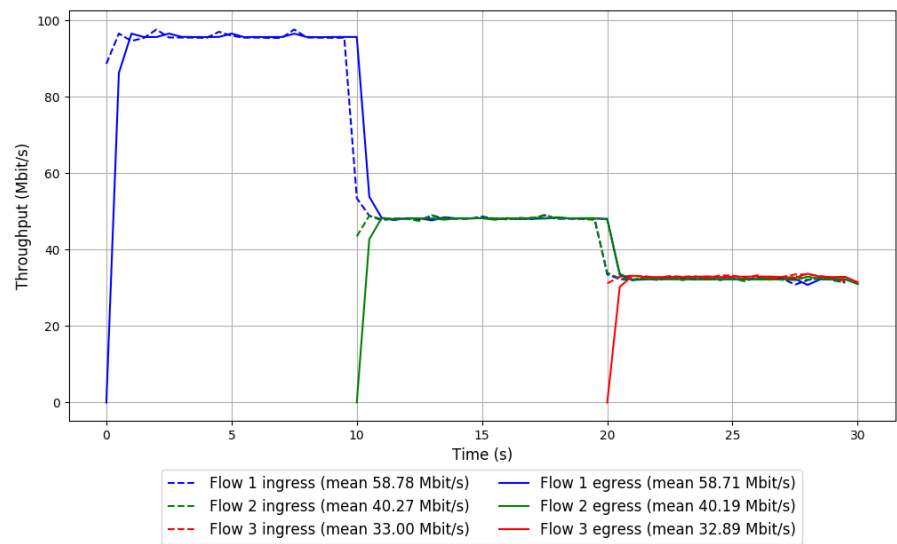
Run 2: Report of LEDBAT — Data Link



Flow 1 ingress (mean 58.98 Mbit/s) --- Flow 1 egress (mean 58.92 Mbit/s)
Flow 2 ingress (mean 40.51 Mbit/s) --- Flow 2 egress (mean 40.44 Mbit/s)
Flow 3 ingress (mean 32.92 Mbit/s) --- Flow 3 egress (mean 32.81 Mbit/s)



Flow 1 (95th percentile 15.15 ms)   Flow 2 (95th percentile 15.69 ms)   Flow 3 (95th percentile 15.77 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2018-06-06 03:41:07
End at: 2018-06-06 03:41:37
Local clock offset: -4.156 ms
Remote clock offset: -2.277 ms

# Below is generated by plot.py at 2018-06-06 06:01:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 14.476 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 59.15 Mbit/s
95th percentile per-packet one-way delay: 14.315 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 14.754 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 31.99 Mbit/s
95th percentile per-packet one-way delay: 14.112 ms
Loss rate: 0.33%
```
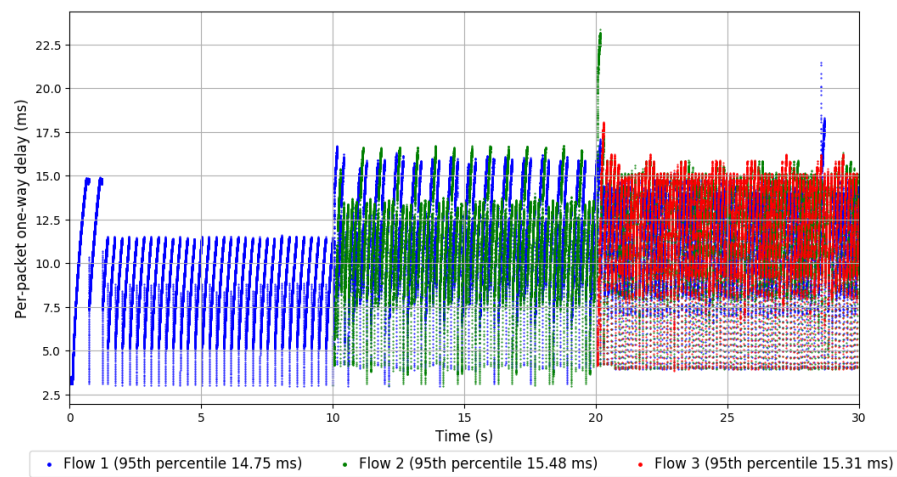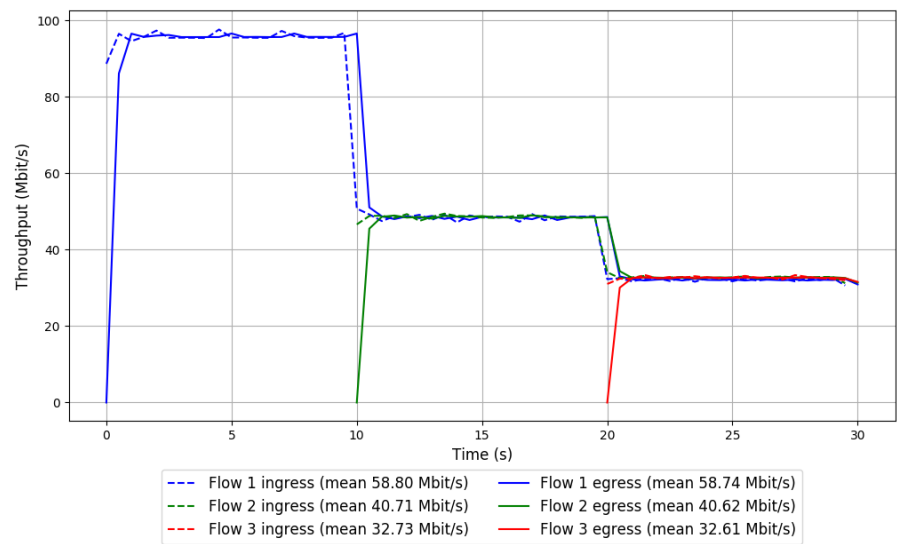
Run 3: Report of LEDBAT — Data Link



Flow 1 ingress (mean 59.22 Mbit/s)   Flow 1 egress (mean 59.15 Mbit/s)
Flow 2 ingress (mean 40.74 Mbit/s)   Flow 2 egress (mean 40.64 Mbit/s)
Flow 3 ingress (mean 32.08 Mbit/s)   Flow 3 egress (mean 31.99 Mbit/s)



Flow 1 (95th percentile 14.31 ms)   Flow 2 (95th percentile 14.75 ms)   Flow 3 (95th percentile 14.11 ms)
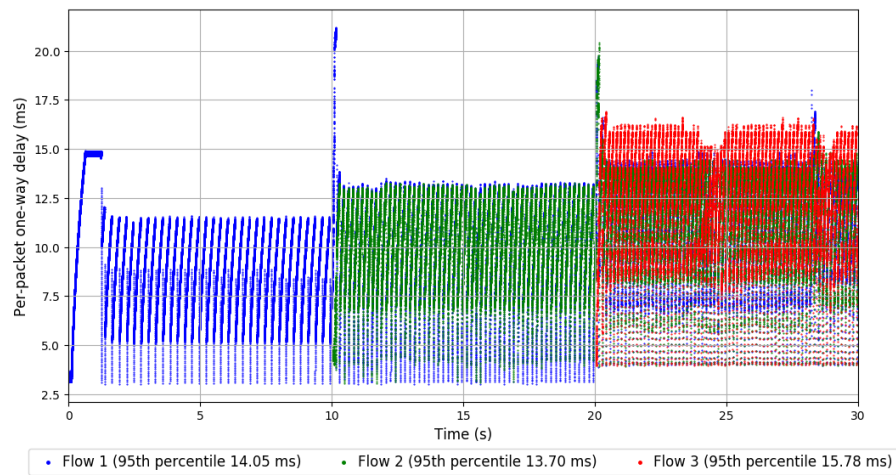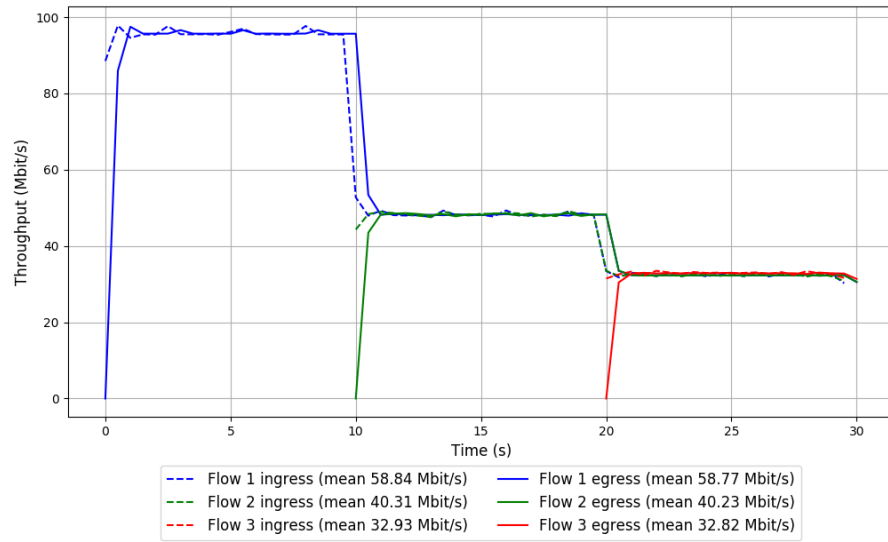
```
Run 4: Statistics of LEDBAT

Start at: 2018-06-06 03:59:10
End at: 2018-06-06 03:59:40
Local clock offset: -4.019 ms
Remote clock offset: -2.28 ms


# Below is generated by plot.py at 2018-06-06 06:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.75 Mbit/s
95th percentile per-packet one-way delay: 15.238 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 58.99 Mbit/s
95th percentile per-packet one-way delay: 15.017 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.56 Mbit/s
95th percentile per-packet one-way delay: 15.604 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 32.33 Mbit/s
95th percentile per-packet one-way delay: 14.273 ms
Loss rate: 0.39%
```

# Run 4: Report of LEDBAT — Data Link



- - - - Flow 1 ingress (mean 59.06 Mbit/s)     —— Flow 1 egress (mean 58.99 Mbit/s)
- - - - Flow 2 ingress (mean 40.64 Mbit/s)     —— Flow 2 egress (mean 40.56 Mbit/s)
- - - - Flow 3 ingress (mean 32.44 Mbit/s)     —— Flow 3 egress (mean 32.33 Mbit/s)



- Flow 1 (95th percentile 15.02 ms)     • Flow 2 (95th percentile 15.60 ms)     • Flow 3 (95th percentile 14.27 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-06-06 04:17:12
End at: 2018-06-06 04:17:42
Local clock offset: -4.939 ms
Remote clock offset: -2.231 ms

# Below is generated by plot.py at 2018-06-06 06:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.75 Mbit/s
95th percentile per-packet one-way delay: 14.327 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 59.16 Mbit/s
95th percentile per-packet one-way delay: 14.115 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 14.577 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 32.63 Mbit/s
95th percentile per-packet one-way delay: 14.498 ms
Loss rate: 0.35%
```
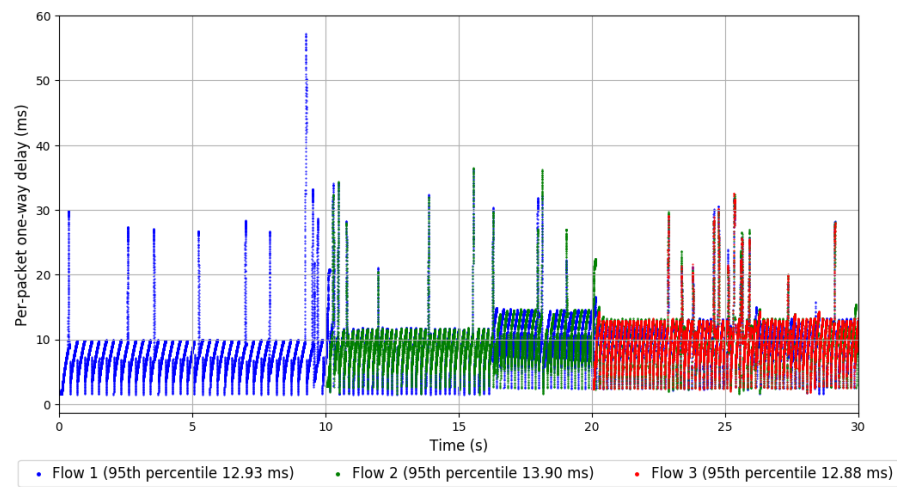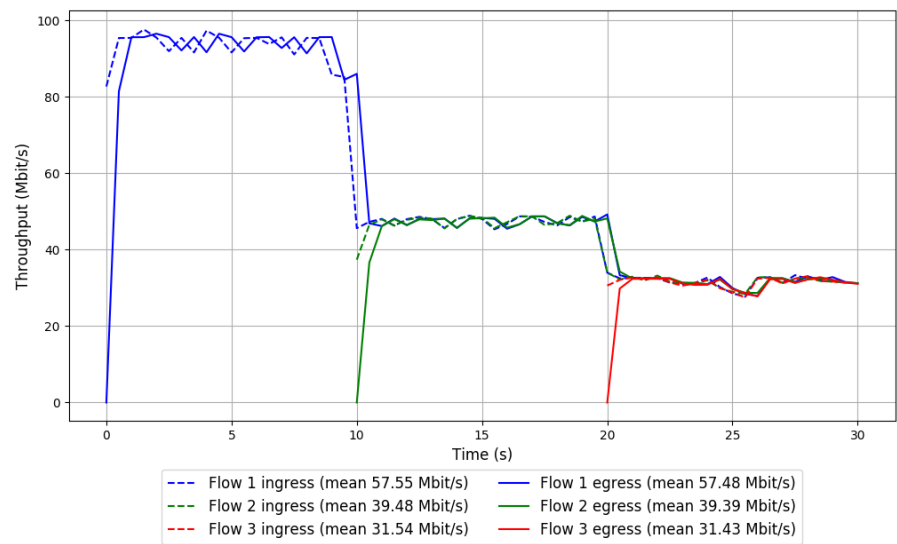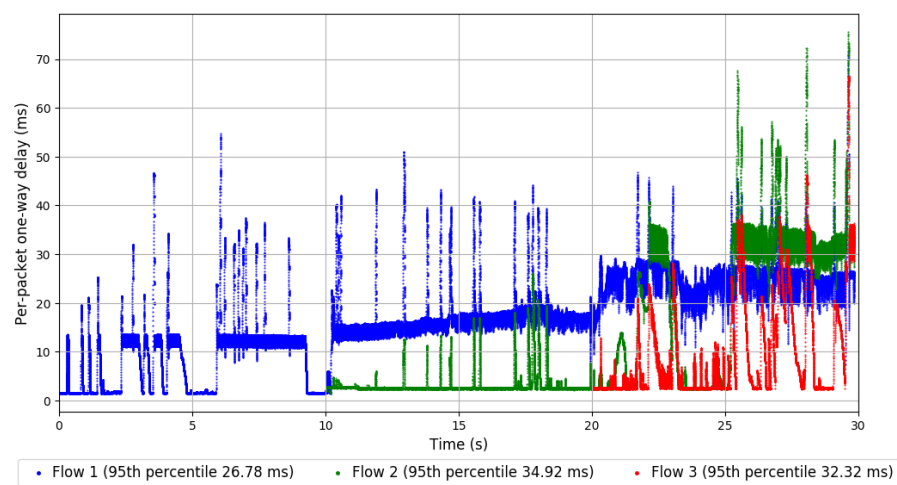
Run 5: Report of LEDBAT — Data Link



- - - - Flow 1 ingress (mean 59.23 Mbit/s) ——— Flow 1 egress (mean 59.16 Mbit/s)
- - - - Flow 2 ingress (mean 40.25 Mbit/s) ——— Flow 2 egress (mean 40.17 Mbit/s)
- - - - Flow 3 ingress (mean 32.75 Mbit/s) ——— Flow 3 egress (mean 32.63 Mbit/s)



- Flow 1 (95th percentile 14.12 ms)  • Flow 2 (95th percentile 14.58 ms)  • Flow 3 (95th percentile 14.50 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-06-06 04:35:14
End at: 2018-06-06 04:35:44
Local clock offset: -4.969 ms
Remote clock offset: -2.426 ms

# Below is generated by plot.py at 2018-06-06 06:02:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.91 Mbit/s
95th percentile per-packet one-way delay: 13.718 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 13.289 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 13.886 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 32.50 Mbit/s
95th percentile per-packet one-way delay: 14.022 ms
Loss rate: 0.38%
```
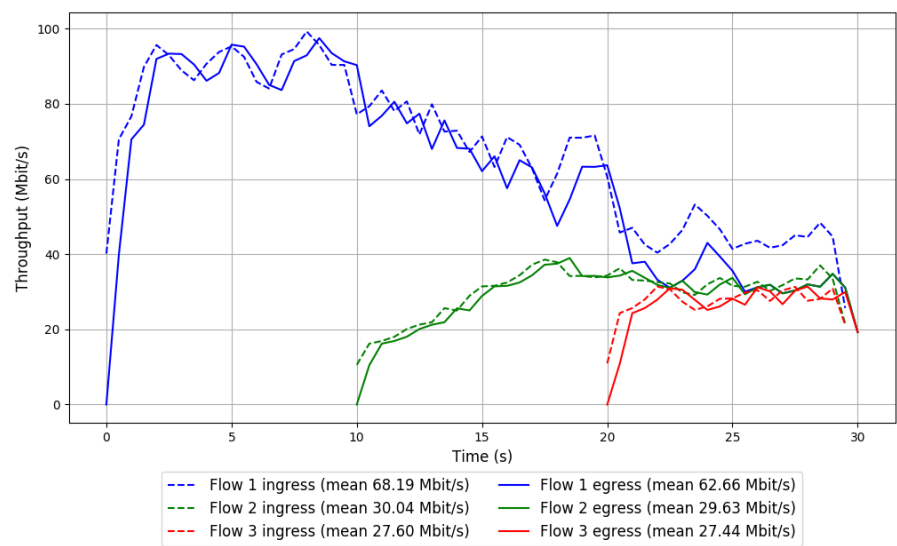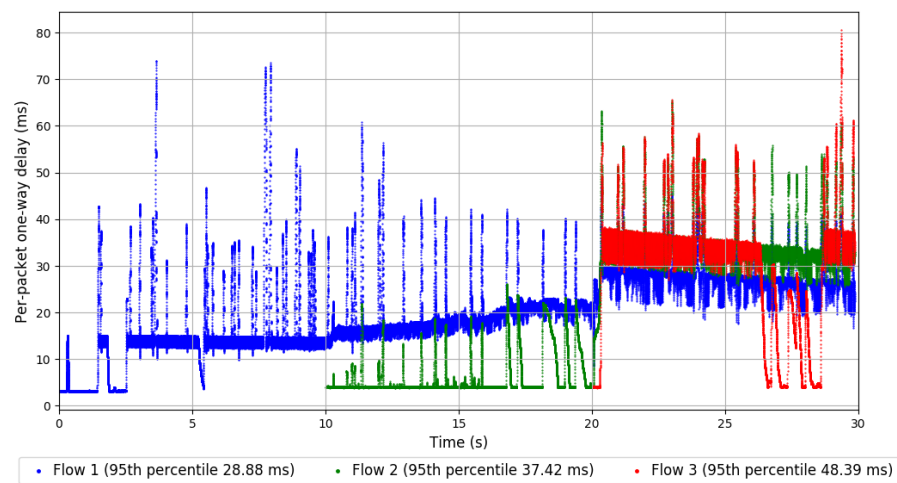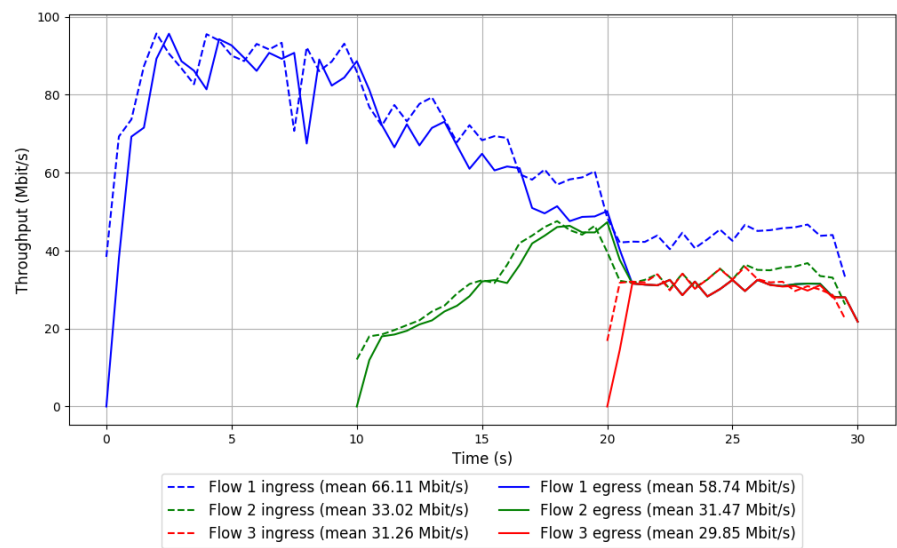
## Run 6: Report of LEDBAT — Data Link



Flow 1 ingress (mean 59.17 Mbit/s)    Flow 1 egress (mean 59.09 Mbit/s)
Flow 2 ingress (mean 40.68 Mbit/s)    Flow 2 egress (mean 40.59 Mbit/s)
Flow 3 ingress (mean 32.61 Mbit/s)    Flow 3 egress (mean 32.50 Mbit/s)



Flow 1 (95th percentile 13.29 ms)    Flow 2 (95th percentile 13.89 ms)    Flow 3 (95th percentile 14.02 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-06-06 04:53:15
End at: 2018-06-06 04:53:45
Local clock offset: -5.193 ms
Remote clock offset: -2.602 ms

# Below is generated by plot.py at 2018-06-06 06:02:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 13.750 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 58.71 Mbit/s
95th percentile per-packet one-way delay: 12.934 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.19 Mbit/s
95th percentile per-packet one-way delay: 13.210 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 32.89 Mbit/s
95th percentile per-packet one-way delay: 15.307 ms
Loss rate: 0.38%
```

Run 7: Report of LEDBAT — Data Link



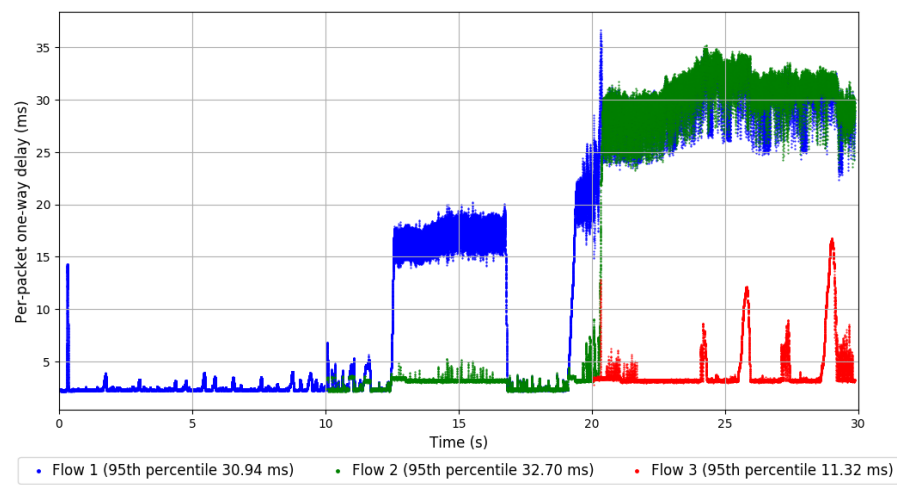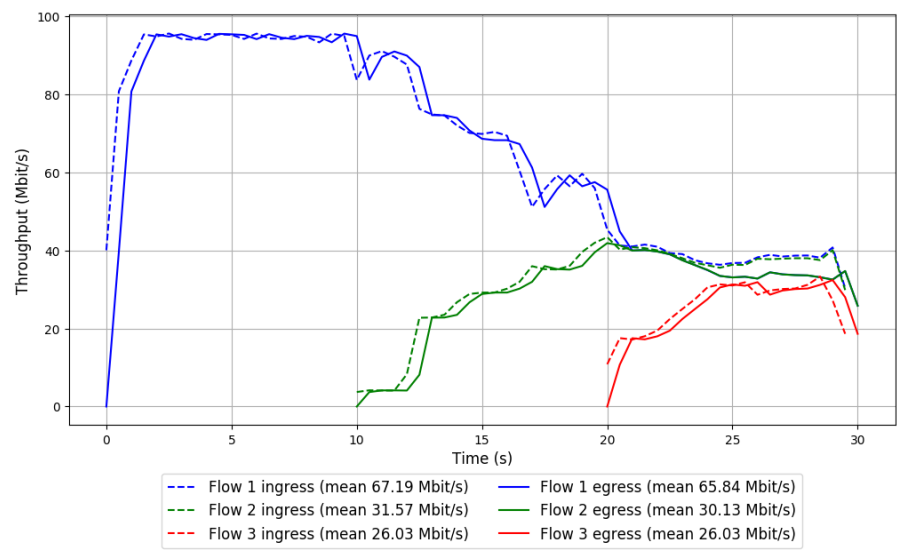Flow 1 ingress (mean 58.78 Mbit/s) --- Flow 1 egress (mean 58.71 Mbit/s)
Flow 2 ingress (mean 40.27 Mbit/s) --- Flow 2 egress (mean 40.19 Mbit/s)
Flow 3 ingress (mean 33.00 Mbit/s) --- Flow 3 egress (mean 32.89 Mbit/s)



Flow 1 (95th percentile 12.93 ms)  Flow 2 (95th percentile 13.21 ms)  Flow 3 (95th percentile 15.31 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-06-06 05:11:15
End at: 2018-06-06 05:11:45
Local clock offset: -4.362 ms
Remote clock offset: -2.543 ms


# Below is generated by plot.py at 2018-06-06 06:02:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.63 Mbit/s
95th percentile per-packet one-way delay: 15.092 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 58.74 Mbit/s
95th percentile per-packet one-way delay: 14.754 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 15.482 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 15.309 ms
Loss rate: 0.40%
```
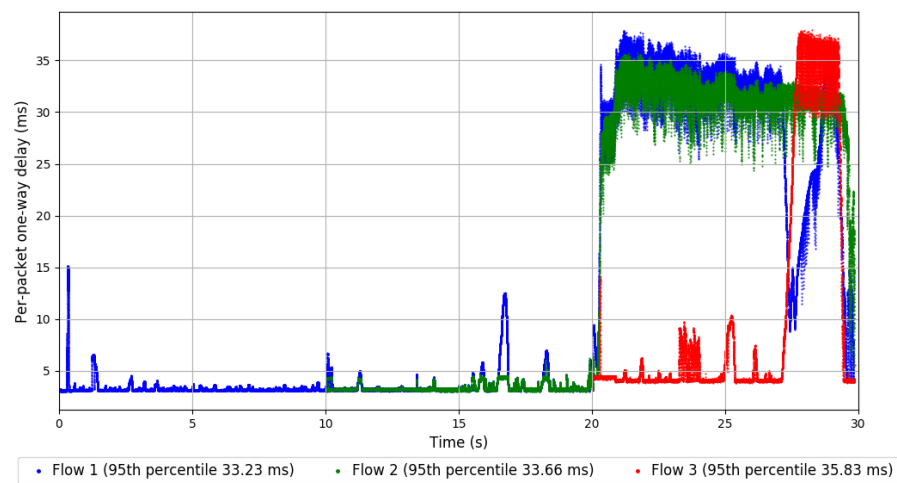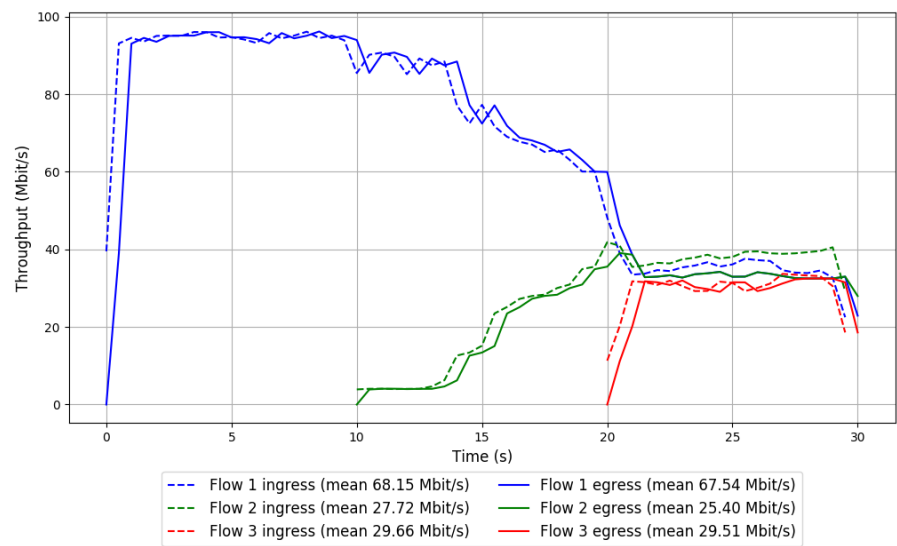
## Run 8: Report of LEDBAT — Data Link



Flow 1 ingress (mean 58.80 Mbit/s) --- Flow 1 egress (mean 58.74 Mbit/s)
Flow 2 ingress (mean 40.71 Mbit/s) --- Flow 2 egress (mean 40.62 Mbit/s)
Flow 3 ingress (mean 32.73 Mbit/s) --- Flow 3 egress (mean 32.61 Mbit/s)



Flow 1 (95th percentile 14.75 ms) • Flow 2 (95th percentile 15.48 ms) • Flow 3 (95th percentile 15.31 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-06-06 05:29:17
End at: 2018-06-06 05:29:47
Local clock offset: -4.285 ms
Remote clock offset: -2.605 ms

# Below is generated by plot.py at 2018-06-06 06:02:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 14.714 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 58.77 Mbit/s
95th percentile per-packet one-way delay: 14.051 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 13.698 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 32.82 Mbit/s
95th percentile per-packet one-way delay: 15.782 ms
Loss rate: 0.37%
```
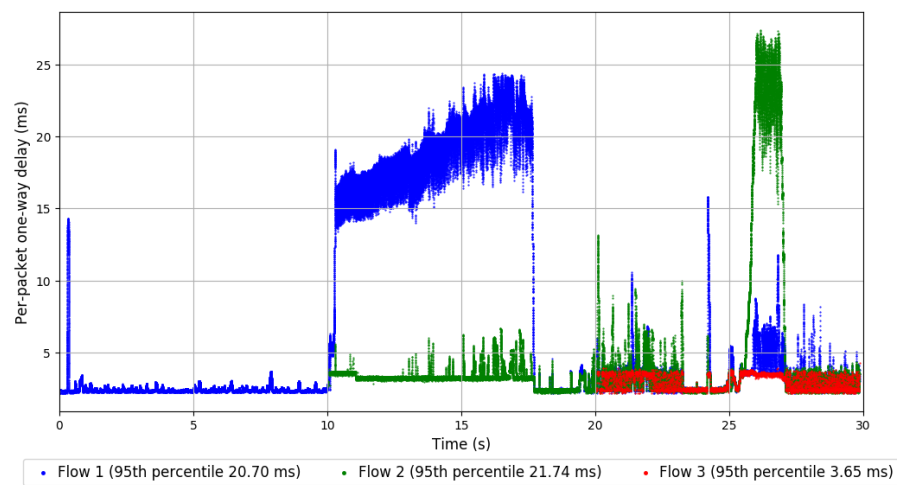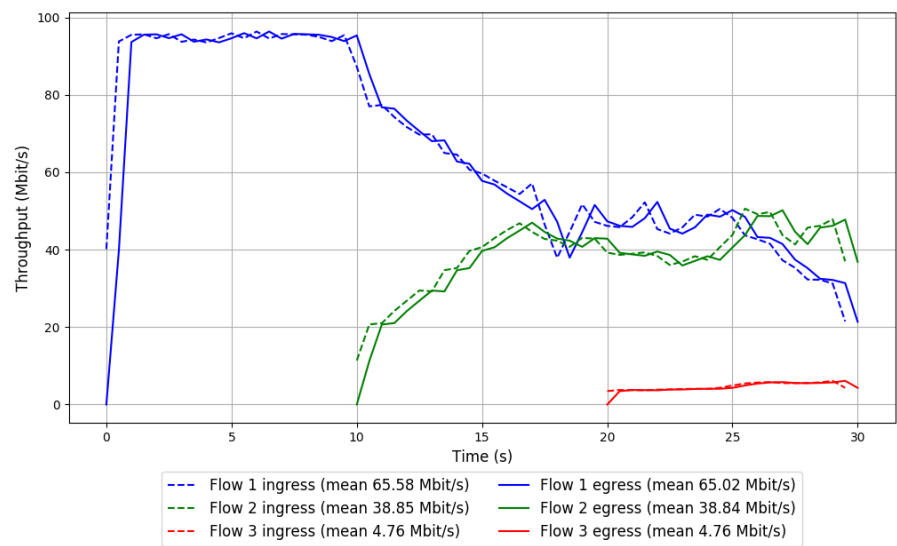
Run 9: Report of LEDBAT — Data Link



- - - Flow 1 ingress (mean 58.84 Mbit/s) —— Flow 1 egress (mean 58.77 Mbit/s)
- - - Flow 2 ingress (mean 40.31 Mbit/s) —— Flow 2 egress (mean 40.23 Mbit/s)
- - - Flow 3 ingress (mean 32.93 Mbit/s) —— Flow 3 egress (mean 32.82 Mbit/s)



- Flow 1 (95th percentile 14.05 ms)   · Flow 2 (95th percentile 13.70 ms)   · Flow 3 (95th percentile 15.78 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-06-06 05:47:20
End at: 2018-06-06 05:47:50
Local clock offset: -5.923 ms
Remote clock offset: -2.776 ms

# Below is generated by plot.py at 2018-06-06 06:02:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.16 Mbit/s
95th percentile per-packet one-way delay: 13.350 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 57.48 Mbit/s
95th percentile per-packet one-way delay: 12.932 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 13.897 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 12.883 ms
Loss rate: 0.40%
```
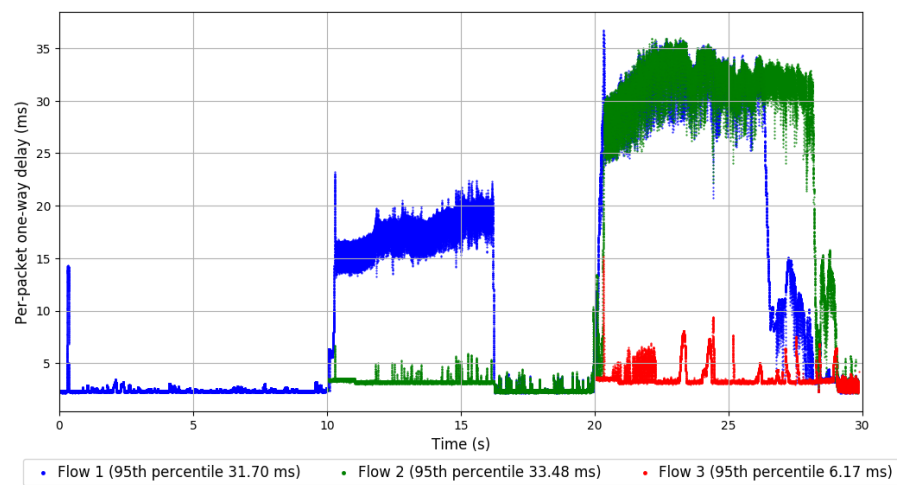
# Run 10: Report of LEDBAT — Data Link



Flow 1 ingress (mean 57.55 Mbit/s) --- Flow 1 egress (mean 57.48 Mbit/s)
Flow 2 ingress (mean 39.48 Mbit/s) --- Flow 2 egress (mean 39.39 Mbit/s)
Flow 3 ingress (mean 31.54 Mbit/s) --- Flow 3 egress (mean 31.43 Mbit/s)



Flow 1 (95th percentile 12.93 ms) · Flow 2 (95th percentile 13.90 ms) · Flow 3 (95th percentile 12.88 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-06 02:52:47
End at: 2018-06-06 02:53:17
Local clock offset: -6.199 ms
Remote clock offset: -1.954 ms

# Below is generated by plot.py at 2018-06-06 06:02:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.37 Mbit/s
95th percentile per-packet one-way delay: 32.169 ms
Loss rate: 6.07%
-- Flow 1:
Average throughput: 62.66 Mbit/s
95th percentile per-packet one-way delay: 26.783 ms
Loss rate: 8.12%
-- Flow 2:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 34.916 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 27.44 Mbit/s
95th percentile per-packet one-way delay: 32.319 ms
Loss rate: 0.76%
```
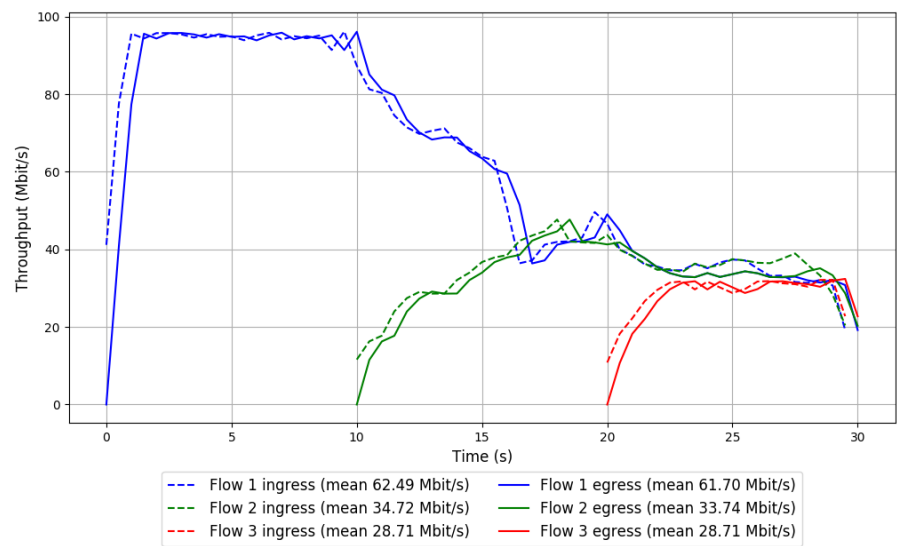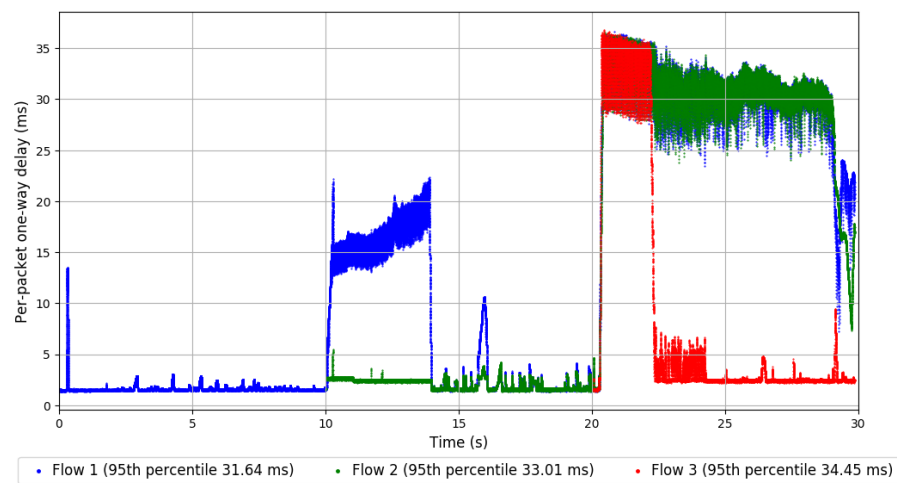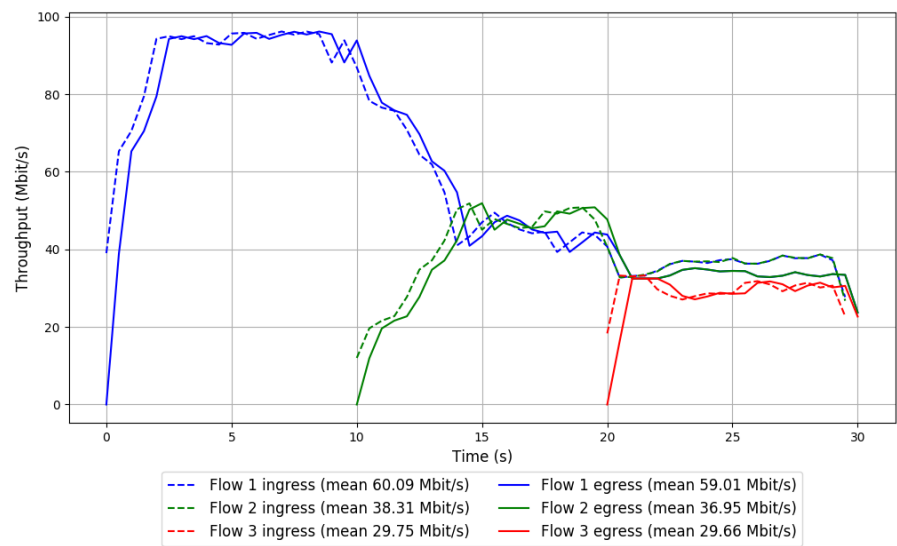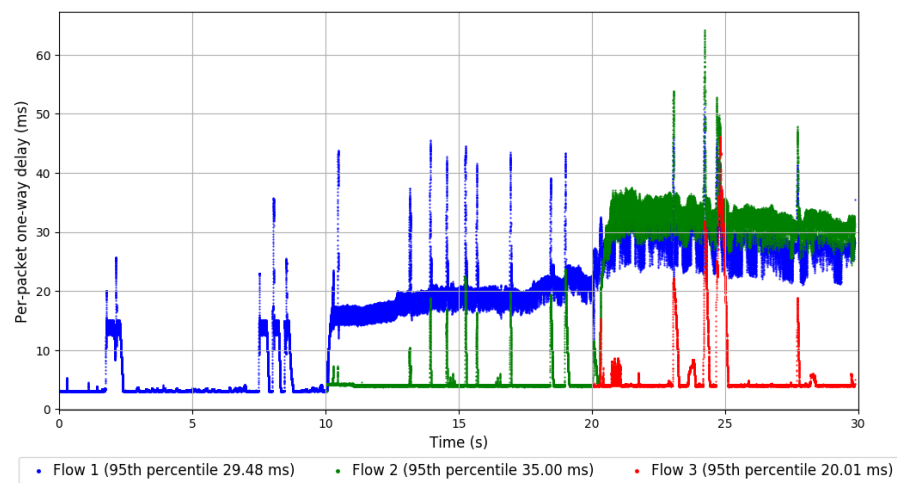
Run 1: Report of PCC-Allegro — Data Link



- - - Flow 1 ingress (mean 68.19 Mbit/s)   —— Flow 1 egress (mean 62.66 Mbit/s)
- - - Flow 2 ingress (mean 30.04 Mbit/s)   —— Flow 2 egress (mean 29.63 Mbit/s)
- - - Flow 3 ingress (mean 27.60 Mbit/s)   —— Flow 3 egress (mean 27.44 Mbit/s)



- Flow 1 (95th percentile 26.78 ms)   - Flow 2 (95th percentile 34.92 ms)   - Flow 3 (95th percentile 32.32 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-06 03:10:45
End at: 2018-06-06 03:11:15
Local clock offset: -4.44 ms
Remote clock offset: -1.233 ms


# Below is generated by plot.py at 2018-06-06 06:02:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.49 Mbit/s
95th percentile per-packet one-way delay: 36.056 ms
Loss rate: 9.05%
-- Flow 1:
Average throughput: 58.74 Mbit/s
95th percentile per-packet one-way delay: 28.881 ms
Loss rate: 11.18%
-- Flow 2:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 37.420 ms
Loss rate: 4.69%
-- Flow 3:
Average throughput: 29.85 Mbit/s
95th percentile per-packet one-way delay: 48.386 ms
Loss rate: 4.69%
```
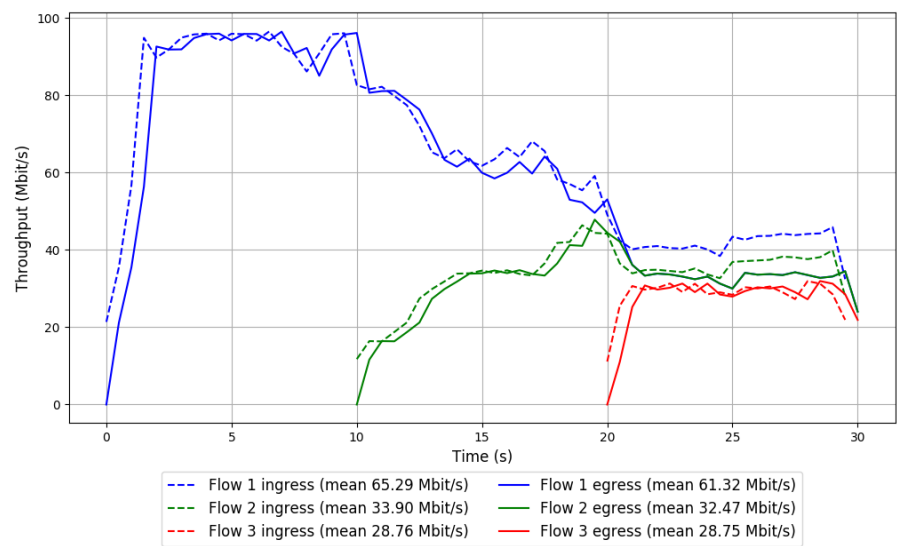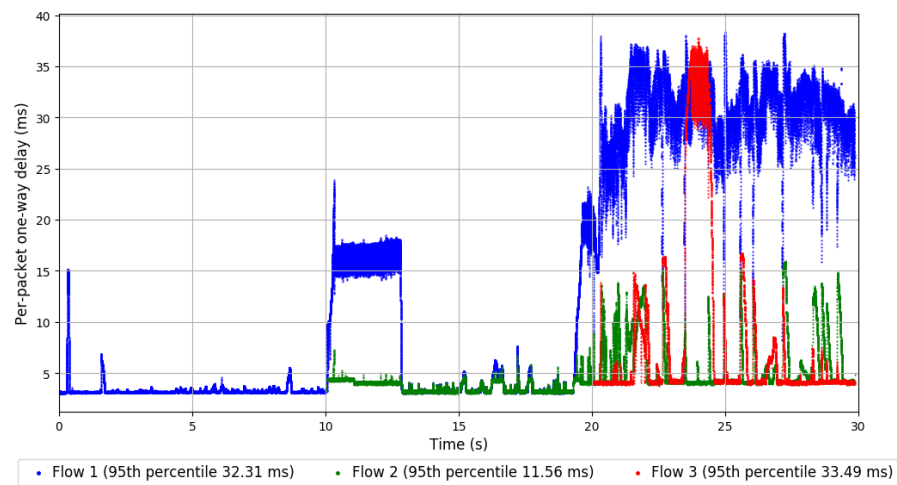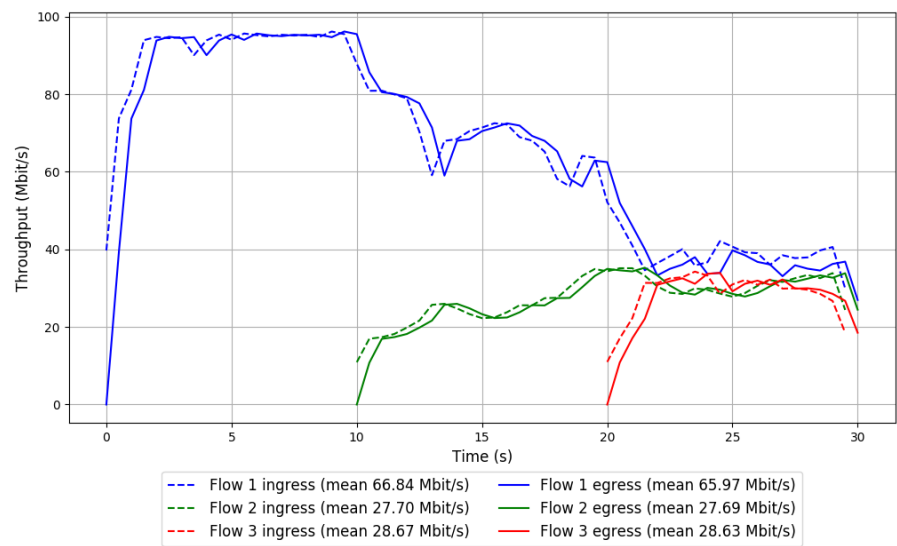
Run 2: Report of PCC-Allegro — Data Link



Flow 1 ingress (mean 66.11 Mbit/s)     Flow 1 egress (mean 58.74 Mbit/s)
Flow 2 ingress (mean 33.02 Mbit/s)     Flow 2 egress (mean 31.47 Mbit/s)
Flow 3 ingress (mean 31.26 Mbit/s)     Flow 3 egress (mean 29.85 Mbit/s)



Flow 1 (95th percentile 28.88 ms)     Flow 2 (95th percentile 37.42 ms)     Flow 3 (95th percentile 48.39 ms)

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```
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-06 03:28:47
End at: 2018-06-06 03:29:17
Local clock offset: -5.063 ms
Remote clock offset: -2.104 ms


# Below is generated by plot.py at 2018-06-06 06:03:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.44 Mbit/s
95th percentile per-packet one-way delay: 31.635 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 65.84 Mbit/s
95th percentile per-packet one-way delay: 30.943 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 32.703 ms
Loss rate: 4.59%
-- Flow 3:
Average throughput: 26.03 Mbit/s
95th percentile per-packet one-way delay: 11.318 ms
Loss rate: 0.07%
```
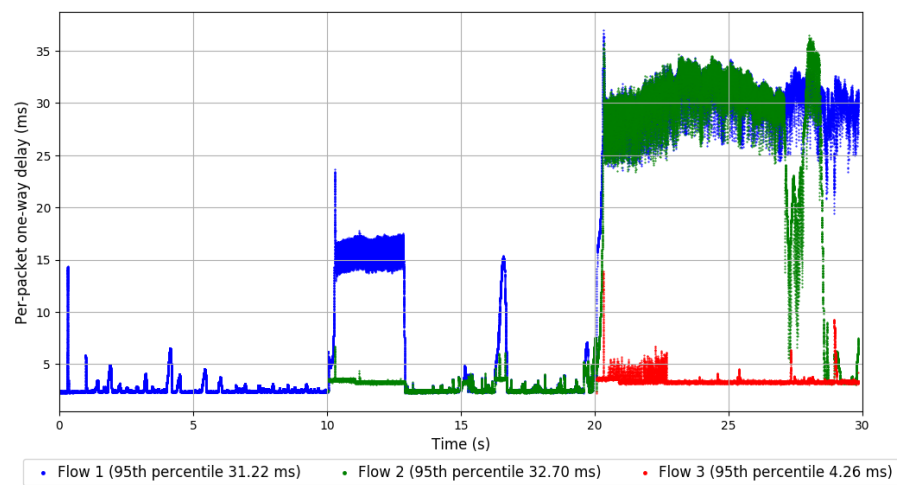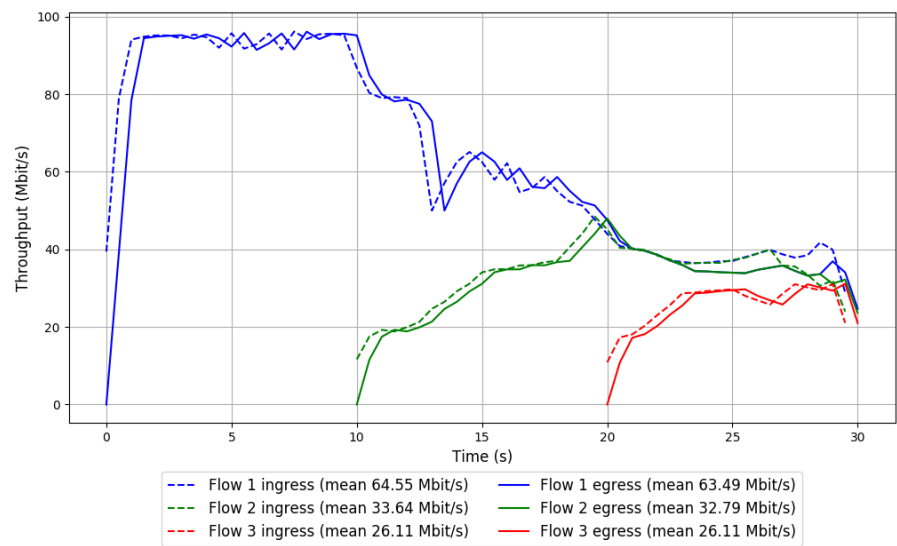
Run 3: Report of PCC-Allegro — Data Link



Flow 1 ingress (mean 67.19 Mbit/s)    Flow 1 egress (mean 65.84 Mbit/s)
Flow 2 ingress (mean 31.57 Mbit/s)    Flow 2 egress (mean 30.13 Mbit/s)
Flow 3 ingress (mean 26.03 Mbit/s)    Flow 3 egress (mean 26.03 Mbit/s)



Flow 1 (95th percentile 30.94 ms)    Flow 2 (95th percentile 32.70 ms)    Flow 3 (95th percentile 11.32 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-06 03:46:50
End at: 2018-06-06 03:47:20
Local clock offset: -4.095 ms
Remote clock offset: -2.318 ms


# Below is generated by plot.py at 2018-06-06 06:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.14 Mbit/s
95th percentile per-packet one-way delay: 33.658 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 67.54 Mbit/s
95th percentile per-packet one-way delay: 33.233 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 25.40 Mbit/s
95th percentile per-packet one-way delay: 33.655 ms
Loss rate: 8.36%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 35.825 ms
Loss rate: 0.54%
```
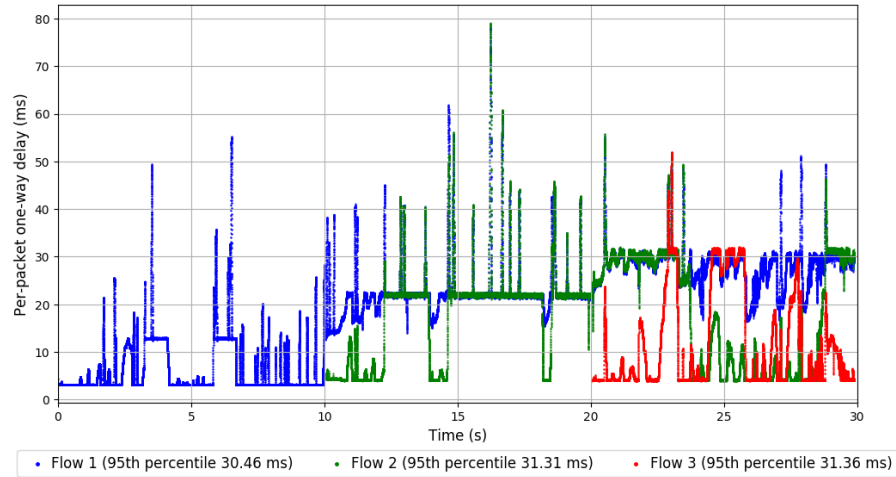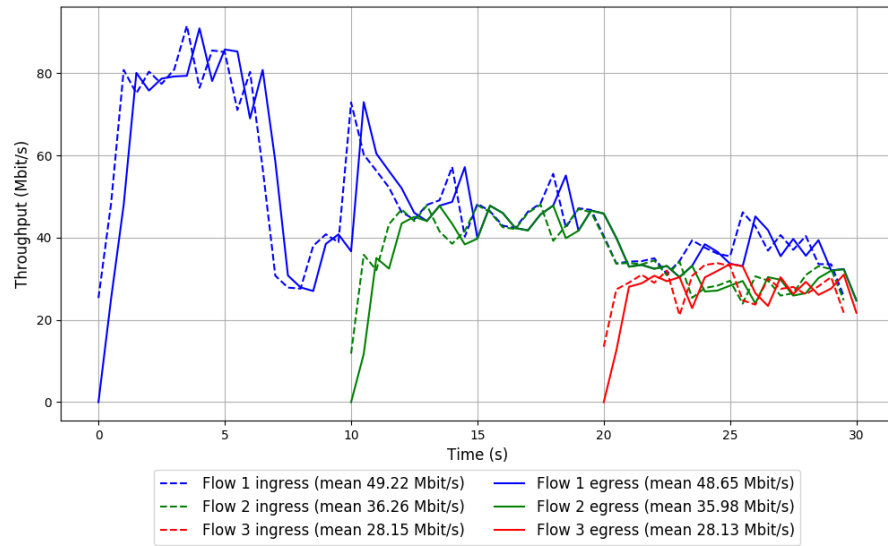
Run 4: Report of PCC-Allegro — Data Link



Flow 1 ingress (mean 68.15 Mbit/s)          Flow 1 egress (mean 67.54 Mbit/s)
Flow 2 ingress (mean 27.72 Mbit/s)          Flow 2 egress (mean 25.40 Mbit/s)
Flow 3 ingress (mean 29.66 Mbit/s)          Flow 3 egress (mean 29.51 Mbit/s)



Flow 1 (95th percentile 33.23 ms)     Flow 2 (95th percentile 33.66 ms)     Flow 3 (95th percentile 35.83 ms)

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```
Run 5: Statistics of PCC-Allegro

Start at: 2018-06-06 04:04:53
End at: 2018-06-06 04:05:23
Local clock offset: -4.801 ms
Remote clock offset: -2.264 ms


# Below is generated by plot.py at 2018-06-06 06:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.41 Mbit/s
95th percentile per-packet one-way delay: 20.758 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 65.02 Mbit/s
95th percentile per-packet one-way delay: 20.698 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 21.743 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 3.655 ms
Loss rate: 0.03%
```
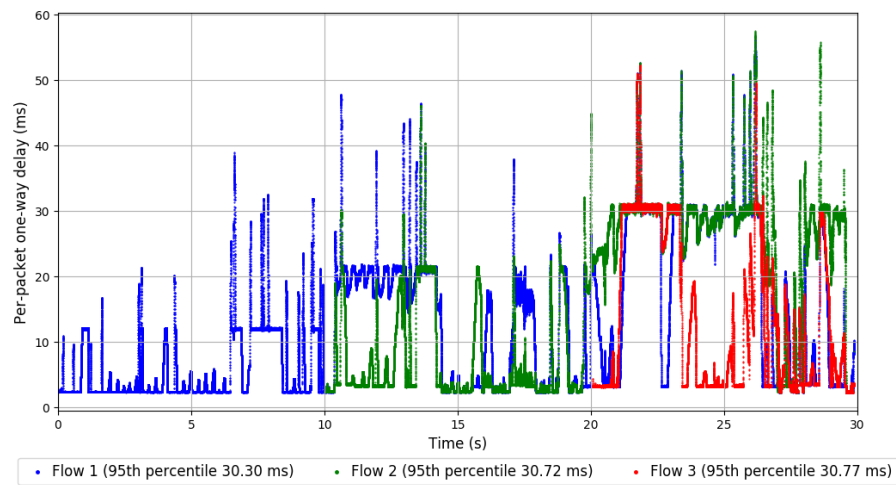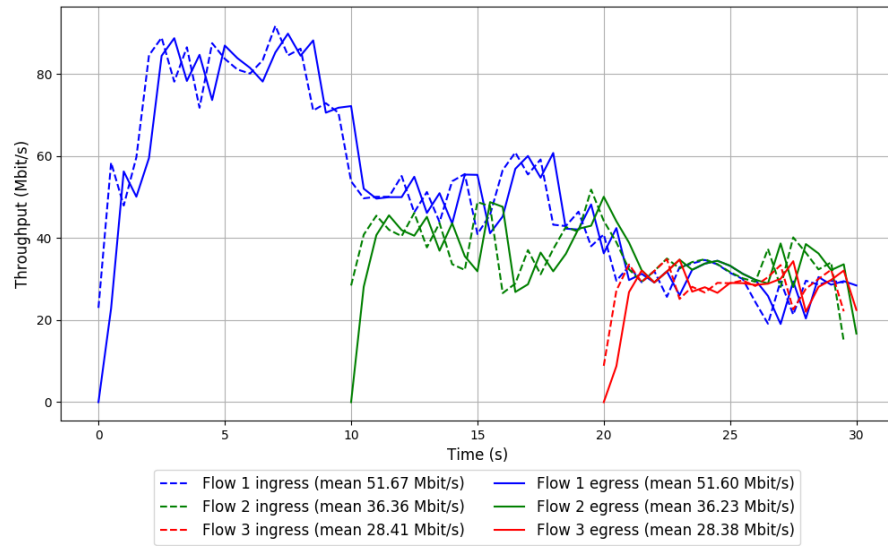
Run 5: Report of PCC-Allegro — Data Link

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-06 04:22:55
End at: 2018-06-06 04:23:25
Local clock offset: -5.021 ms
Remote clock offset: -2.27 ms


# Below is generated by plot.py at 2018-06-06 06:03:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.57 Mbit/s
95th percentile per-packet one-way delay: 32.479 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 61.70 Mbit/s
95th percentile per-packet one-way delay: 31.698 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 33.74 Mbit/s
95th percentile per-packet one-way delay: 33.481 ms
Loss rate: 2.83%
-- Flow 3:
Average throughput: 28.71 Mbit/s
95th percentile per-packet one-way delay: 6.165 ms
Loss rate: 0.03%
```
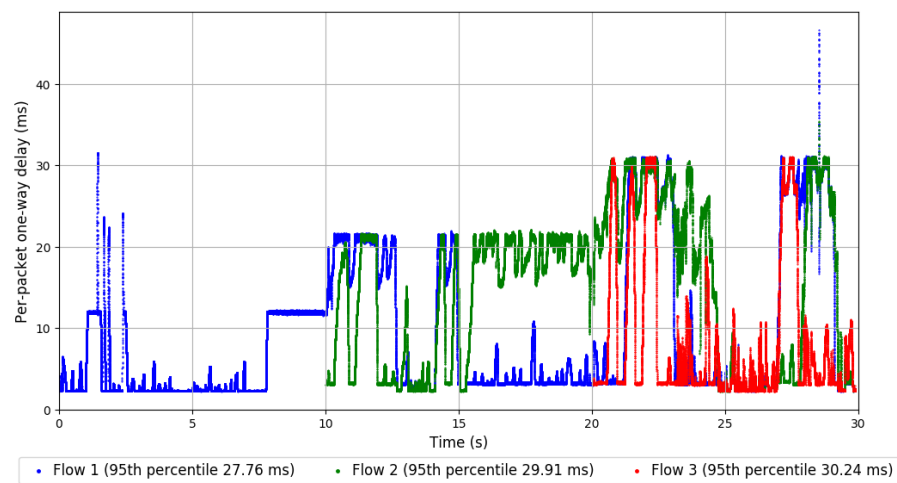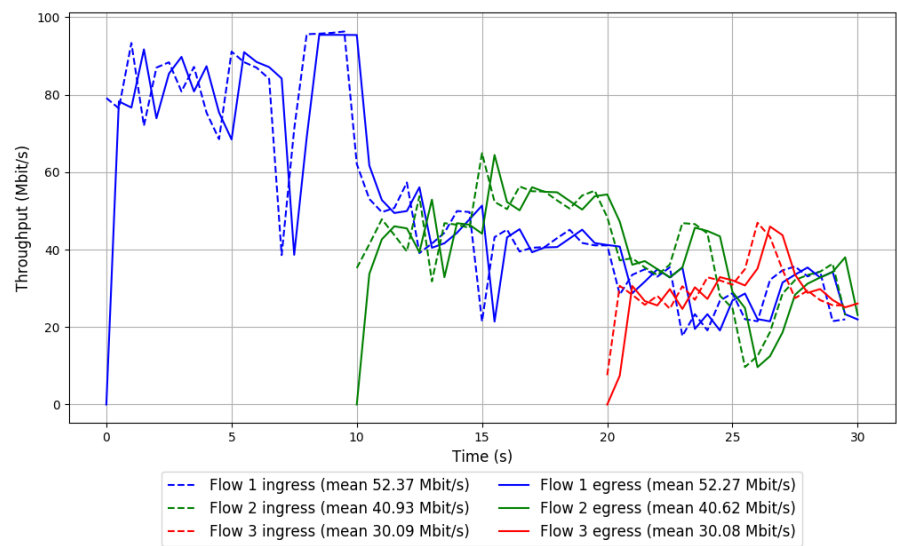
Run 6: Report of PCC-Allegro — Data Link



Flow 1 ingress (mean 62.49 Mbit/s) —— Flow 1 egress (mean 61.70 Mbit/s)
Flow 2 ingress (mean 34.72 Mbit/s) —— Flow 2 egress (mean 33.74 Mbit/s)
Flow 3 ingress (mean 28.71 Mbit/s) —— Flow 3 egress (mean 28.71 Mbit/s)



Flow 1 (95th percentile 31.70 ms)   Flow 2 (95th percentile 33.48 ms)   Flow 3 (95th percentile 6.17 ms)

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-06 04:40:57
End at: 2018-06-06 04:41:27
Local clock offset: -5.924 ms
Remote clock offset: -2.456 ms


# Below is generated by plot.py at 2018-06-06 06:03:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.33 Mbit/s
95th percentile per-packet one-way delay: 32.426 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 31.645 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 36.95 Mbit/s
95th percentile per-packet one-way delay: 33.014 ms
Loss rate: 3.63%
-- Flow 3:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 34.454 ms
Loss rate: 0.48%
```
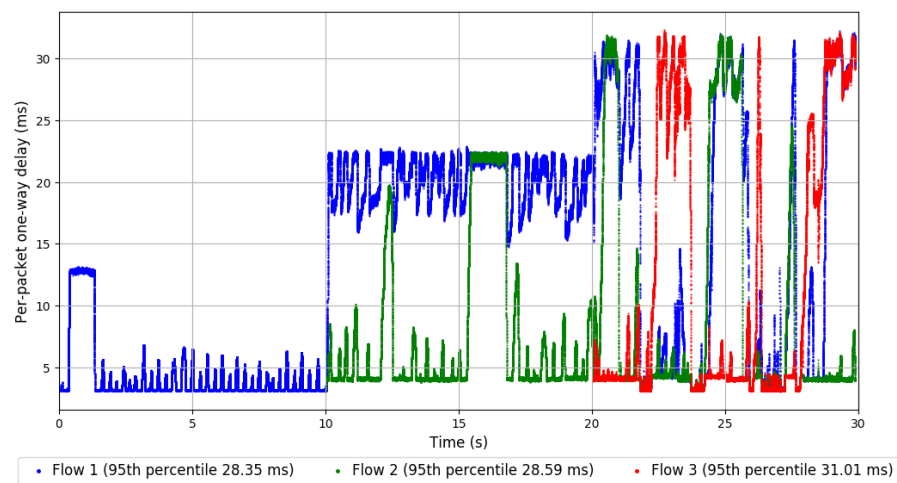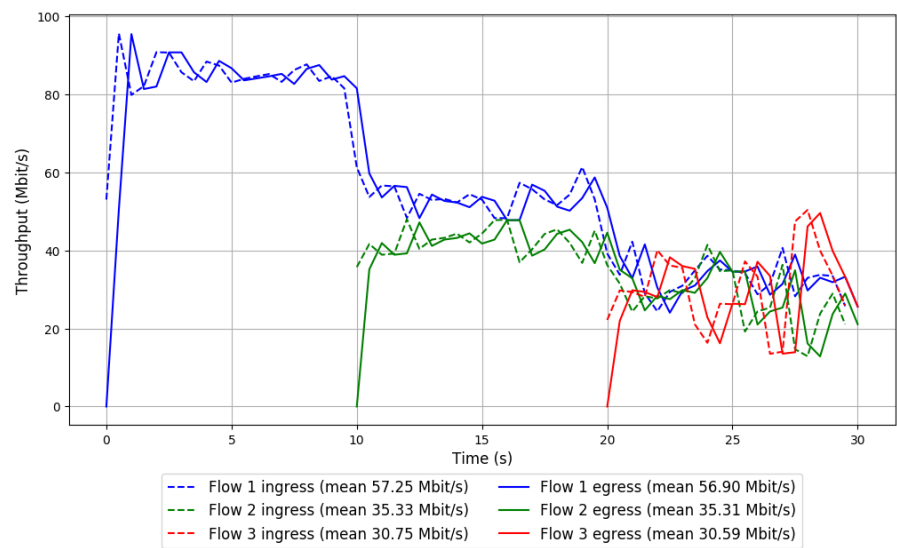
Run 7: Report of PCC-Allegro — Data Link

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-06 04:58:57
End at: 2018-06-06 04:59:27
Local clock offset: -4.456 ms
Remote clock offset: -2.515 ms


# Below is generated by plot.py at 2018-06-06 06:03:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.36 Mbit/s
95th percentile per-packet one-way delay: 32.782 ms
Loss rate: 5.07%
-- Flow 1:
Average throughput: 61.32 Mbit/s
95th percentile per-packet one-way delay: 29.478 ms
Loss rate: 6.07%
-- Flow 2:
Average throughput: 32.47 Mbit/s
95th percentile per-packet one-way delay: 34.998 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 28.75 Mbit/s
95th percentile per-packet one-way delay: 20.008 ms
Loss rate: 0.08%
```
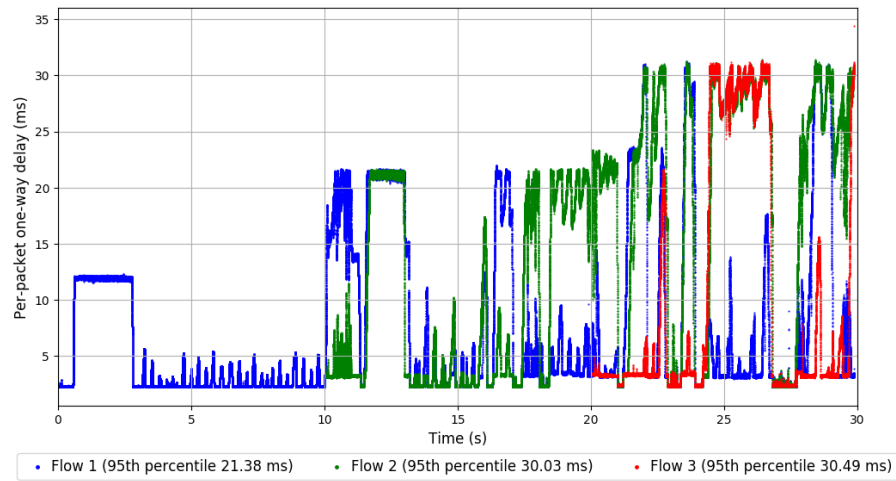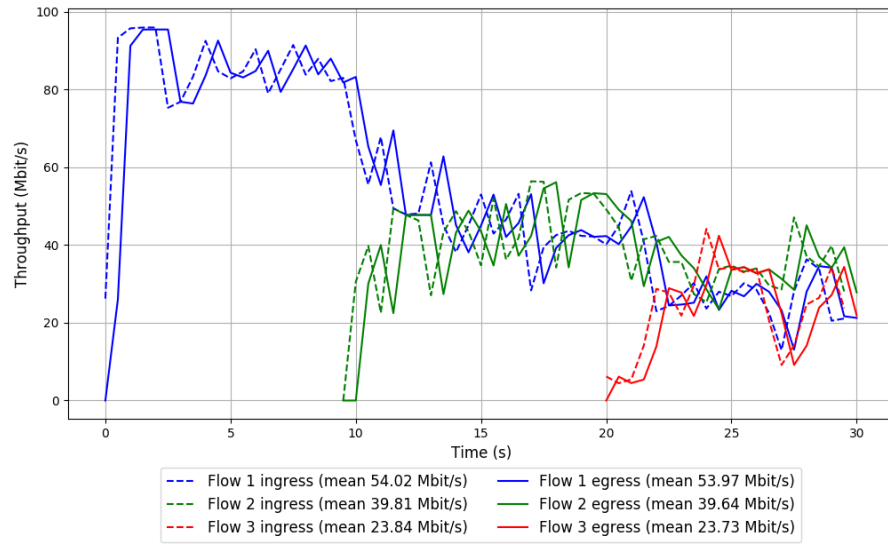
## Run 8: Report of PCC-Allegro — Data Link



Flow 1 ingress (mean 65.29 Mbit/s)  ---  Flow 1 egress (mean 61.32 Mbit/s)
Flow 2 ingress (mean 33.90 Mbit/s)  ---  Flow 2 egress (mean 32.47 Mbit/s)
Flow 3 ingress (mean 28.76 Mbit/s)  ---  Flow 3 egress (mean 28.75 Mbit/s)



Flow 1 (95th percentile 29.48 ms)  ·  Flow 2 (95th percentile 35.00 ms)  ·  Flow 3 (95th percentile 20.01 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-06 05:16:58
End at: 2018-06-06 05:17:28
Local clock offset: -4.323 ms
Remote clock offset: -2.617 ms


# Below is generated by plot.py at 2018-06-06 06:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 31.798 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 65.97 Mbit/s
95th percentile per-packet one-way delay: 32.311 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 27.69 Mbit/s
95th percentile per-packet one-way delay: 11.556 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 28.63 Mbit/s
95th percentile per-packet one-way delay: 33.490 ms
Loss rate: 0.20%
```
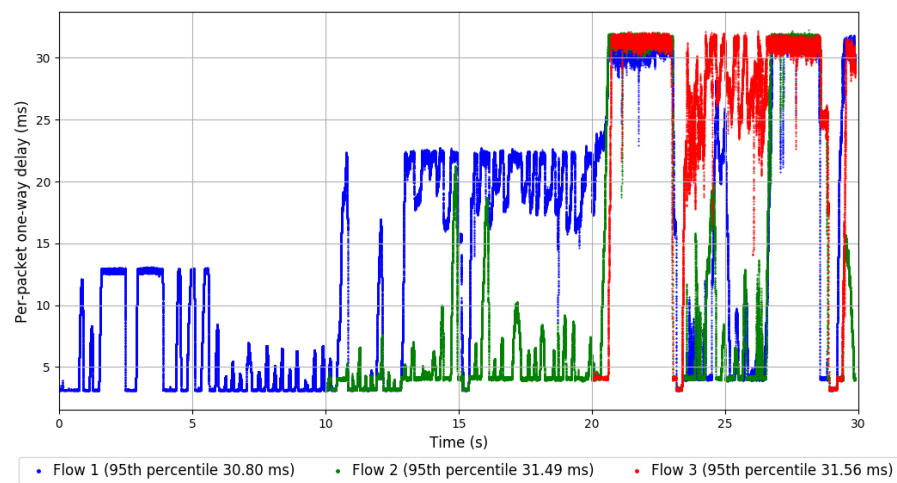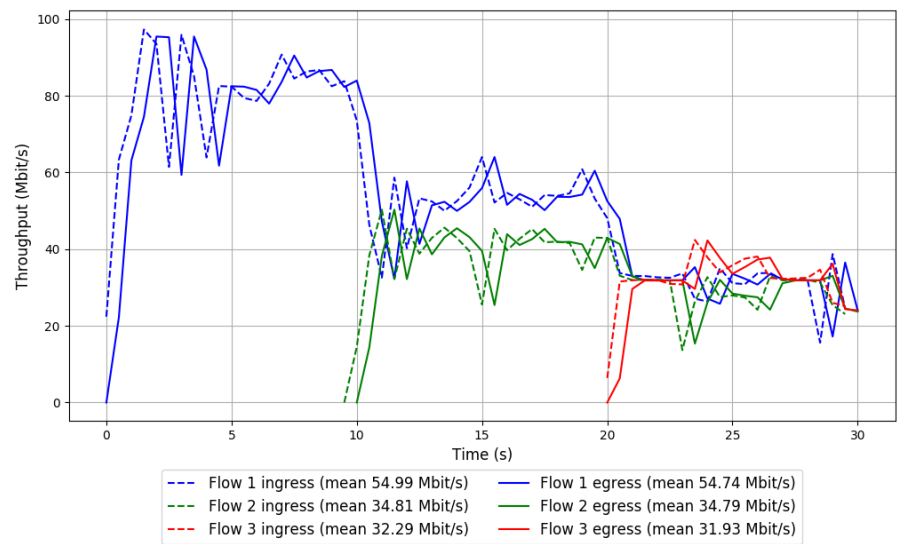
## Run 9: Report of PCC-Allegro — Data Link



Flow 1 ingress (mean 66.84 Mbit/s) --- Flow 1 egress (mean 65.97 Mbit/s)
Flow 2 ingress (mean 27.70 Mbit/s) --- Flow 2 egress (mean 27.69 Mbit/s)
Flow 3 ingress (mean 28.67 Mbit/s) --- Flow 3 egress (mean 28.63 Mbit/s)



Flow 1 (95th percentile 32.31 ms) • Flow 2 (95th percentile 11.56 ms) • Flow 3 (95th percentile 33.49 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-06 05:35:00
End at: 2018-06-06 05:35:30
Local clock offset: -5.071 ms
Remote clock offset: -2.679 ms


# Below is generated by plot.py at 2018-06-06 06:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 31.634 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 63.49 Mbit/s
95th percentile per-packet one-way delay: 31.222 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 32.697 ms
Loss rate: 2.53%
-- Flow 3:
Average throughput: 26.11 Mbit/s
95th percentile per-packet one-way delay: 4.262 ms
Loss rate: 0.05%
```
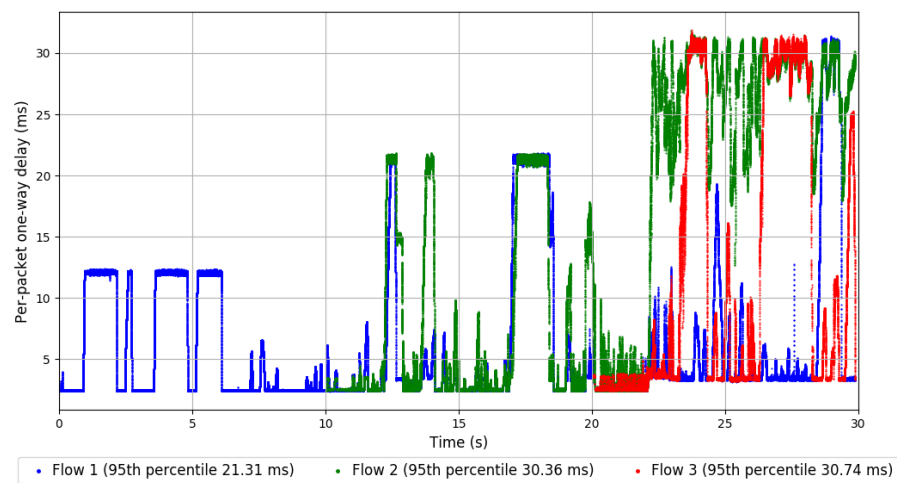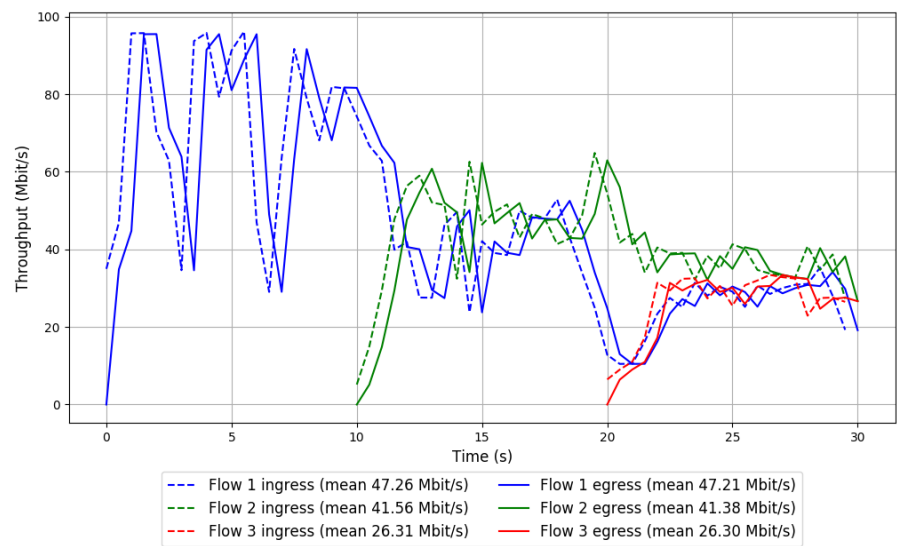
## Run 10: Report of PCC-Allegro — Data Link



- - - - Flow 1 ingress (mean 64.55 Mbit/s)      —— Flow 1 egress (mean 63.49 Mbit/s)
- - - - Flow 2 ingress (mean 33.64 Mbit/s)      —— Flow 2 egress (mean 32.79 Mbit/s)
- - - - Flow 3 ingress (mean 26.11 Mbit/s)      —— Flow 3 egress (mean 26.11 Mbit/s)



- Flow 1 (95th percentile 31.22 ms)      • Flow 2 (95th percentile 32.70 ms)      • Flow 3 (95th percentile 4.26 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-06 03:00:30
End at: 2018-06-06 03:01:00
Local clock offset: -4.588 ms
Remote clock offset: -1.615 ms


# Below is generated by plot.py at 2018-06-06 06:05:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.85 Mbit/s
95th percentile per-packet one-way delay: 30.987 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 48.65 Mbit/s
95th percentile per-packet one-way delay: 30.461 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 35.98 Mbit/s
95th percentile per-packet one-way delay: 31.307 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 28.13 Mbit/s
95th percentile per-packet one-way delay: 31.357 ms
Loss rate: 0.13%
```
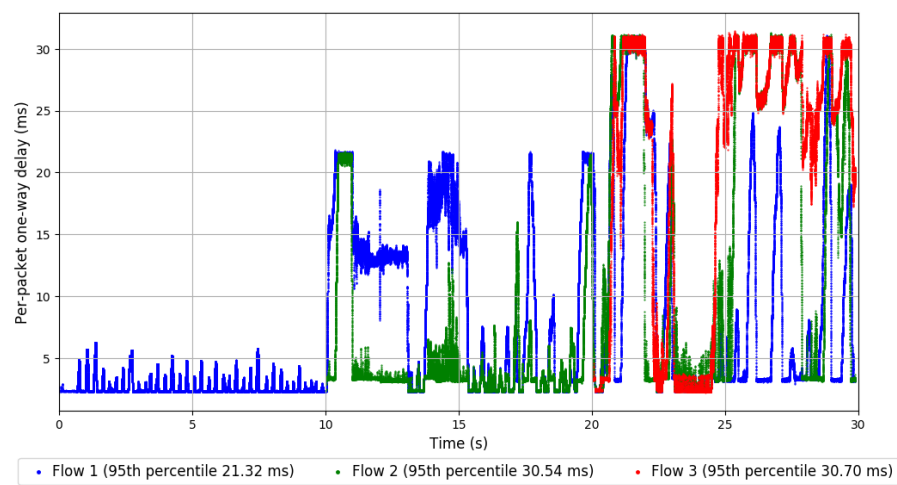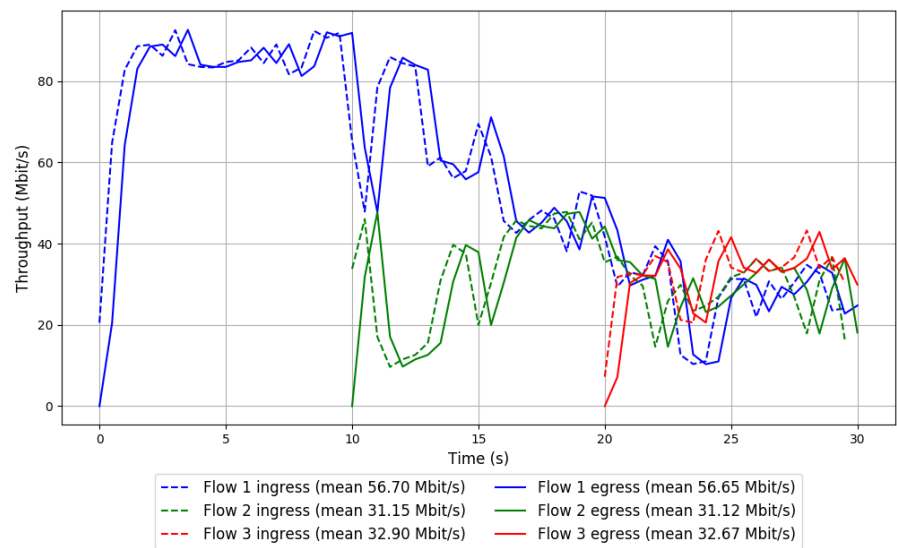
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-06-06 03:18:28
End at: 2018-06-06 03:18:58
Local clock offset: -5.123 ms
Remote clock offset: -1.445 ms


# Below is generated by plot.py at 2018-06-06 06:05:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 30.560 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 51.60 Mbit/s
95th percentile per-packet one-way delay: 30.295 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 30.716 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 28.38 Mbit/s
95th percentile per-packet one-way delay: 30.766 ms
Loss rate: 0.16%
```
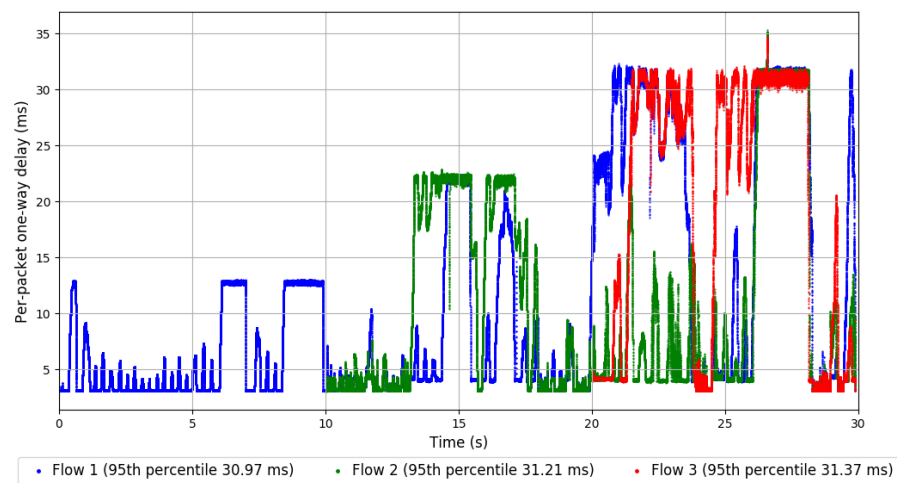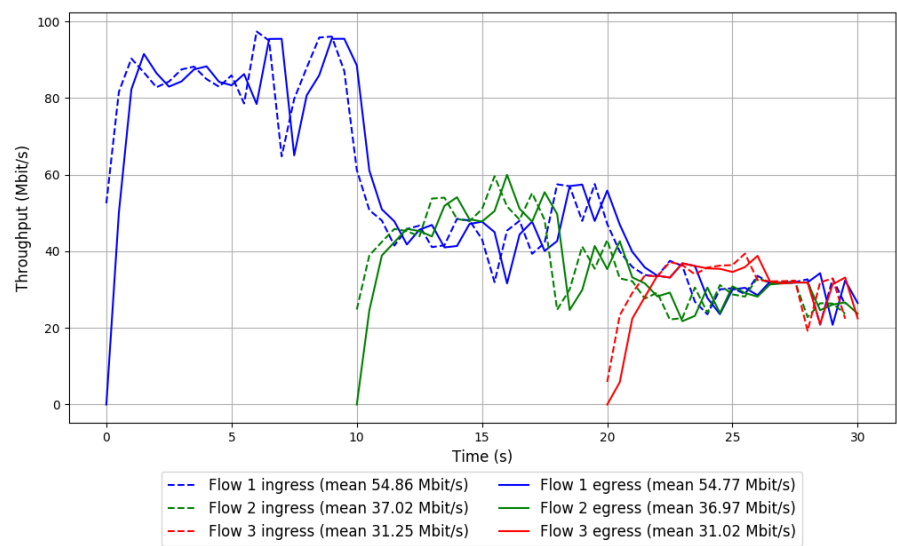
## Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-06-06 03:36:30
End at: 2018-06-06 03:37:00
Local clock offset: -5.006 ms
Remote clock offset: -2.263 ms


# Below is generated by plot.py at 2018-06-06 06:05:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.21 Mbit/s
95th percentile per-packet one-way delay: 29.430 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 52.27 Mbit/s
95th percentile per-packet one-way delay: 27.758 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 29.915 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 30.08 Mbit/s
95th percentile per-packet one-way delay: 30.239 ms
Loss rate: 0.06%
```
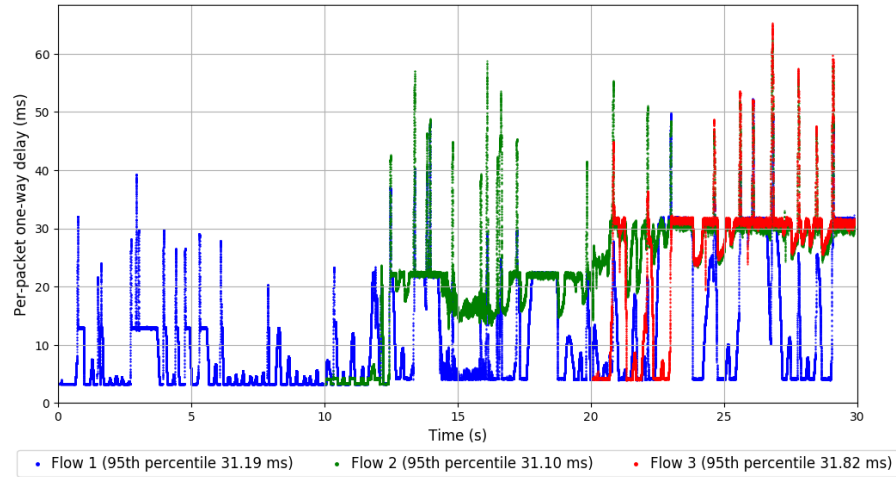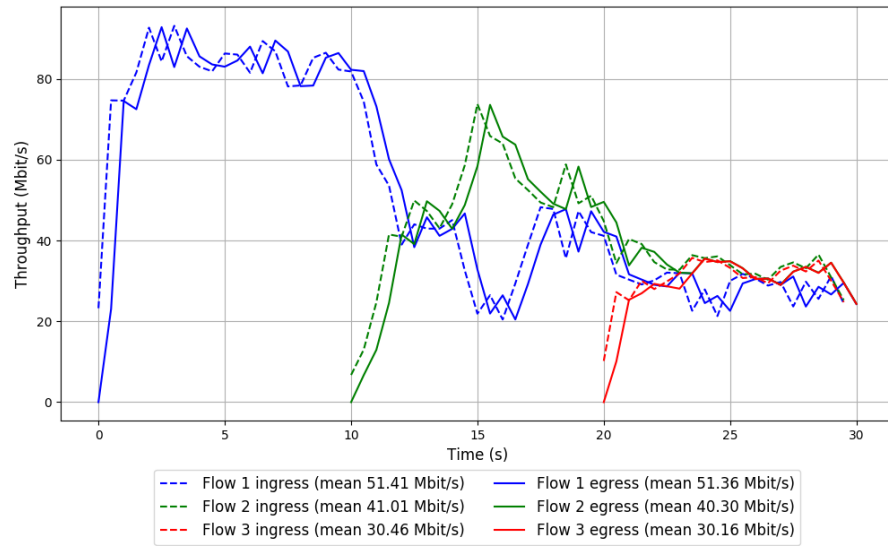
Run 3: Report of PCC-Expr — Data Link



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```
Run 4: Statistics of PCC-Expr

Start at: 2018-06-06 03:54:34
End at: 2018-06-06 03:55:04
Local clock offset: -4.05 ms
Remote clock offset: -2.307 ms


# Below is generated by plot.py at 2018-06-06 06:05:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.47 Mbit/s
95th percentile per-packet one-way delay: 29.438 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 56.90 Mbit/s
95th percentile per-packet one-way delay: 28.351 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 35.31 Mbit/s
95th percentile per-packet one-way delay: 28.590 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 31.008 ms
Loss rate: 0.58%
```
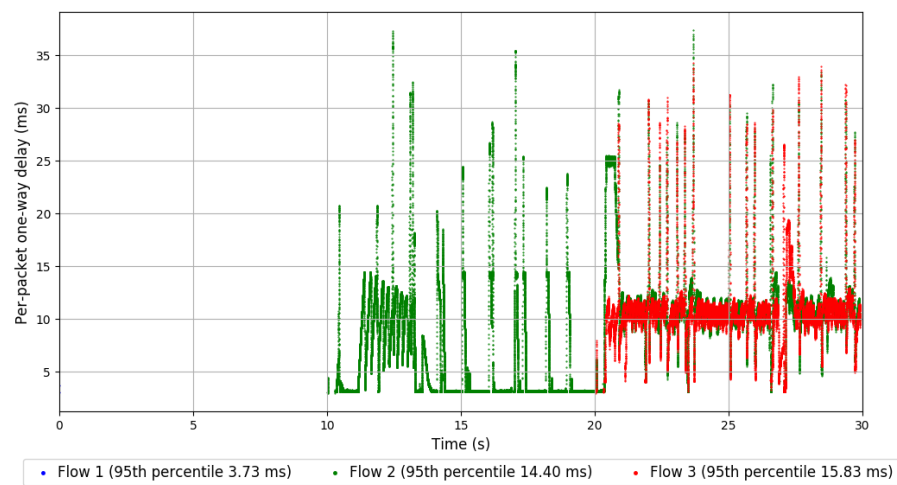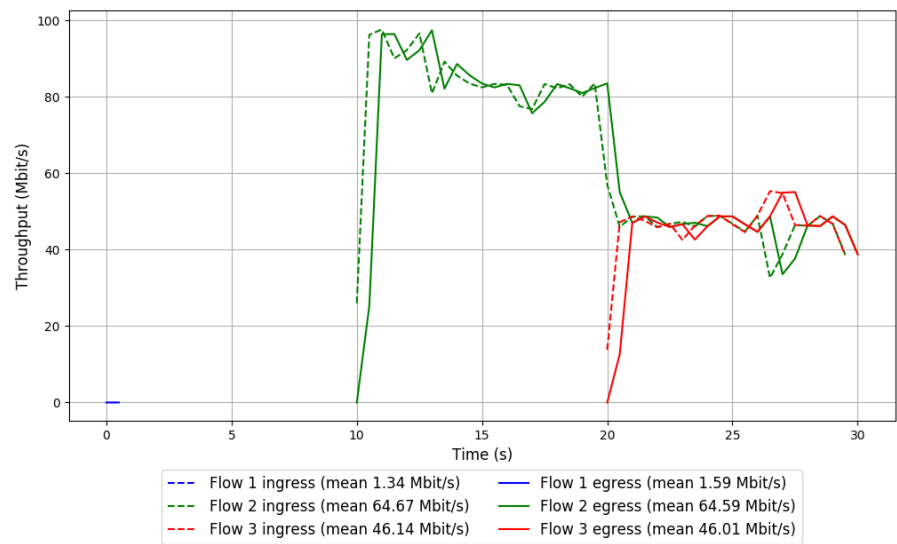
# Run 4: Report of PCC-Expr — Data Link



Flow 1 ingress (mean 57.25 Mbit/s) — Flow 1 egress (mean 56.90 Mbit/s)
Flow 2 ingress (mean 35.33 Mbit/s) — Flow 2 egress (mean 35.31 Mbit/s)
Flow 3 ingress (mean 30.75 Mbit/s) — Flow 3 egress (mean 30.59 Mbit/s)



Flow 1 (95th percentile 28.35 ms)   Flow 2 (95th percentile 28.59 ms)   Flow 3 (95th percentile 31.01 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-06-06 04:12:36
End at: 2018-06-06 04:13:06
Local clock offset: -4.969 ms
Remote clock offset: -2.254 ms


# Below is generated by plot.py at 2018-06-06 06:05:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.16 Mbit/s
95th percentile per-packet one-way delay: 29.226 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 53.97 Mbit/s
95th percentile per-packet one-way delay: 21.381 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.64 Mbit/s
95th percentile per-packet one-way delay: 30.034 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 23.73 Mbit/s
95th percentile per-packet one-way delay: 30.494 ms
Loss rate: 0.58%
```
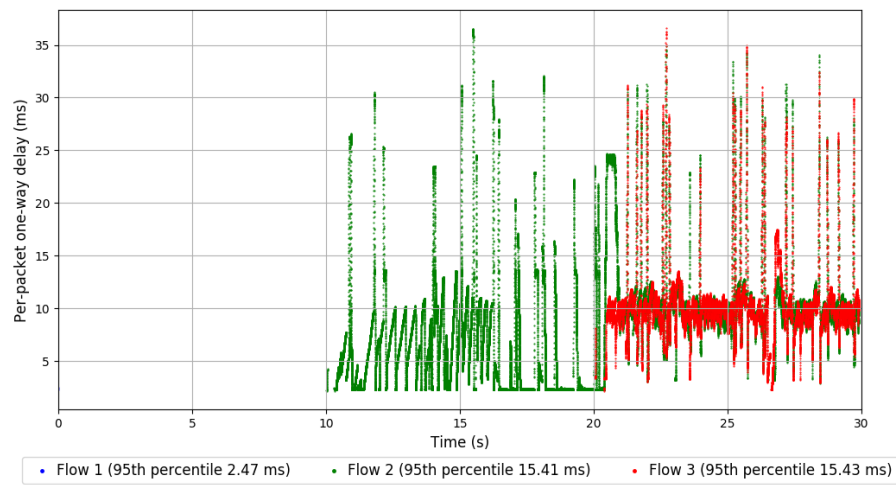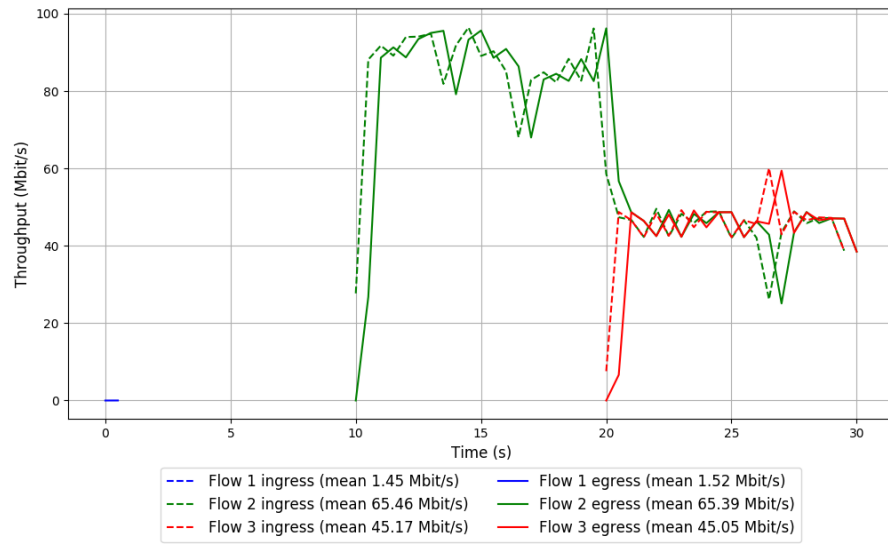
Run 5: Report of PCC-Expr — Data Link



Flow 1 ingress (mean 54.02 Mbit/s) --- Flow 1 egress (mean 53.97 Mbit/s)
Flow 2 ingress (mean 39.81 Mbit/s) --- Flow 2 egress (mean 39.64 Mbit/s)
Flow 3 ingress (mean 23.84 Mbit/s) --- Flow 3 egress (mean 23.73 Mbit/s)



Flow 1 (95th percentile 21.38 ms)  Flow 2 (95th percentile 30.03 ms)  Flow 3 (95th percentile 30.49 ms)

```
Run 6: Statistics of PCC-Expr

Start at: 2018-06-06 04:30:38
End at: 2018-06-06 04:31:08
Local clock offset: -4.176 ms
Remote clock offset: -2.404 ms


# Below is generated by plot.py at 2018-06-06 06:05:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.41 Mbit/s
95th percentile per-packet one-way delay: 31.334 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 54.74 Mbit/s
95th percentile per-packet one-way delay: 30.798 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 31.488 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 31.93 Mbit/s
95th percentile per-packet one-way delay: 31.556 ms
Loss rate: 1.15%
```

Run 6: Report of PCC-Expr — Data Link



Flow 1 ingress (mean 54.99 Mbit/s) --- Flow 1 egress (mean 54.74 Mbit/s)
Flow 2 ingress (mean 34.81 Mbit/s) --- Flow 2 egress (mean 34.79 Mbit/s)
Flow 3 ingress (mean 32.29 Mbit/s) --- Flow 3 egress (mean 31.93 Mbit/s)



Flow 1 (95th percentile 30.80 ms) • Flow 2 (95th percentile 31.49 ms) • Flow 3 (95th percentile 31.56 ms)

```
Run 7: Statistics of PCC-Expr

Start at: 2018-06-06 04:48:39
End at: 2018-06-06 04:49:09
Local clock offset: -5.167 ms
Remote clock offset: -2.6 ms

# Below is generated by plot.py at 2018-06-06 06:05:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.41 Mbit/s
95th percentile per-packet one-way delay: 29.989 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 47.21 Mbit/s
95th percentile per-packet one-way delay: 21.310 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 41.38 Mbit/s
95th percentile per-packet one-way delay: 30.362 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 26.30 Mbit/s
95th percentile per-packet one-way delay: 30.740 ms
Loss rate: 0.10%
```
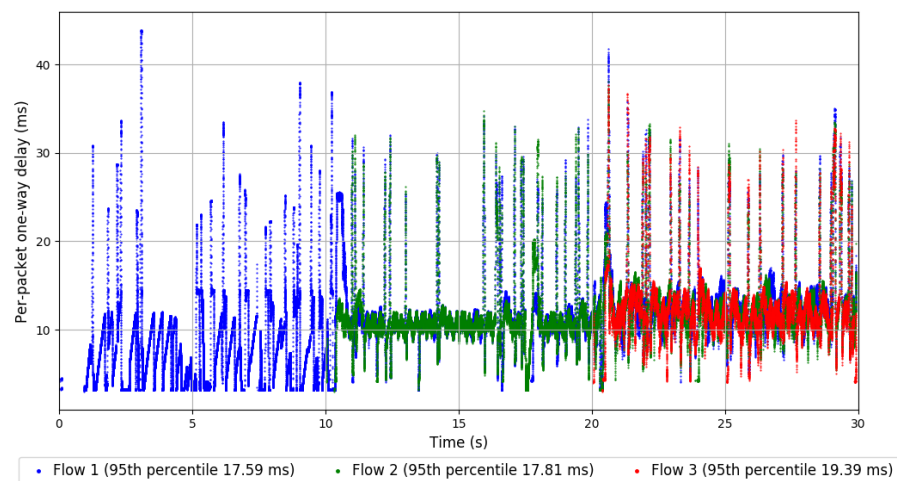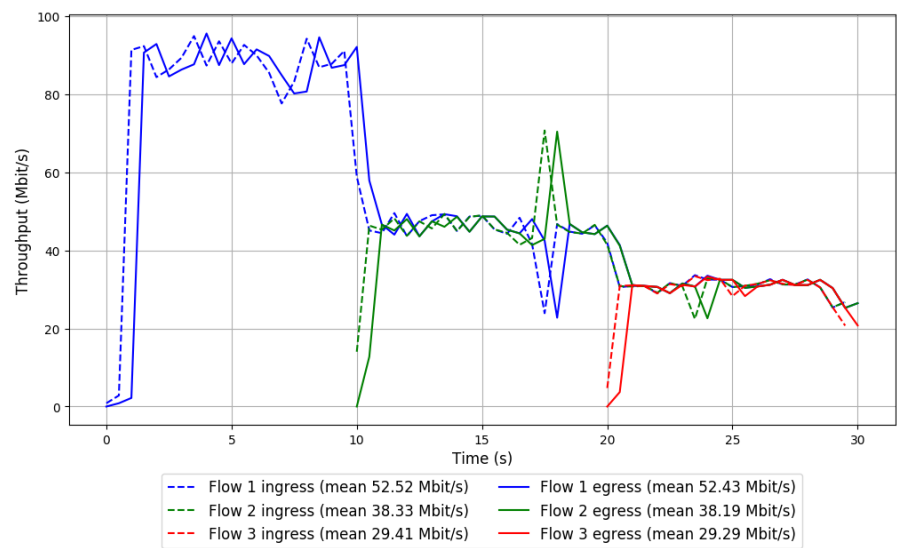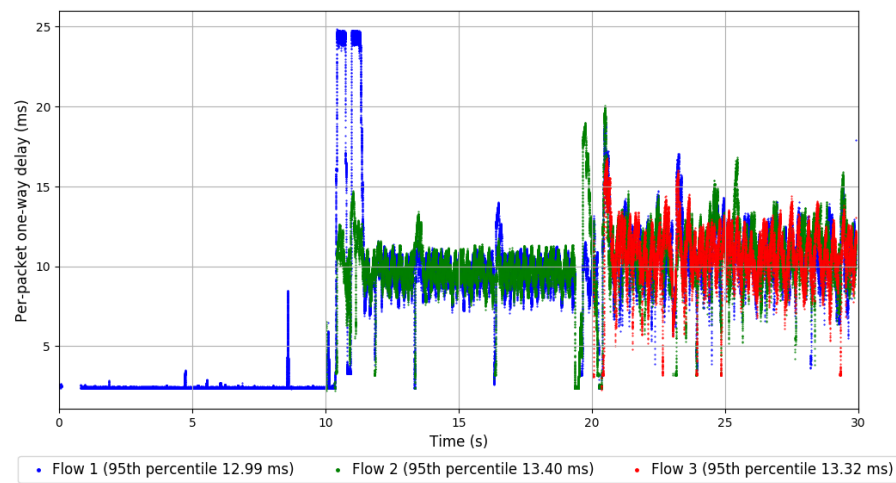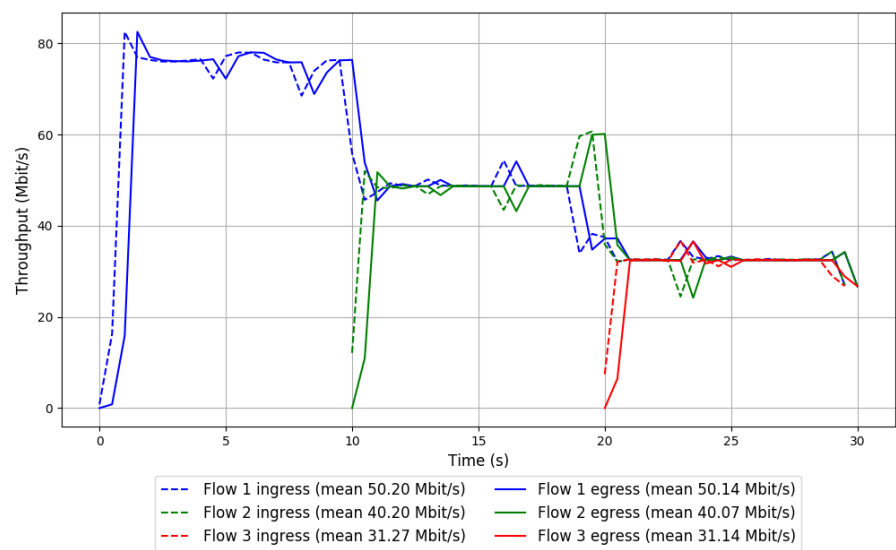
Run 7: Report of PCC-Expr — Data Link

```
Run 8: Statistics of PCC-Expr

Start at: 2018-06-06 05:06:39
End at: 2018-06-06 05:07:09
Local clock offset: -5.184 ms
Remote clock offset: -2.534 ms

# Below is generated by plot.py at 2018-06-06 06:06:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.12 Mbit/s
95th percentile per-packet one-way delay: 30.334 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 56.65 Mbit/s
95th percentile per-packet one-way delay: 21.321 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 30.538 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.67 Mbit/s
95th percentile per-packet one-way delay: 30.699 ms
Loss rate: 0.74%
```
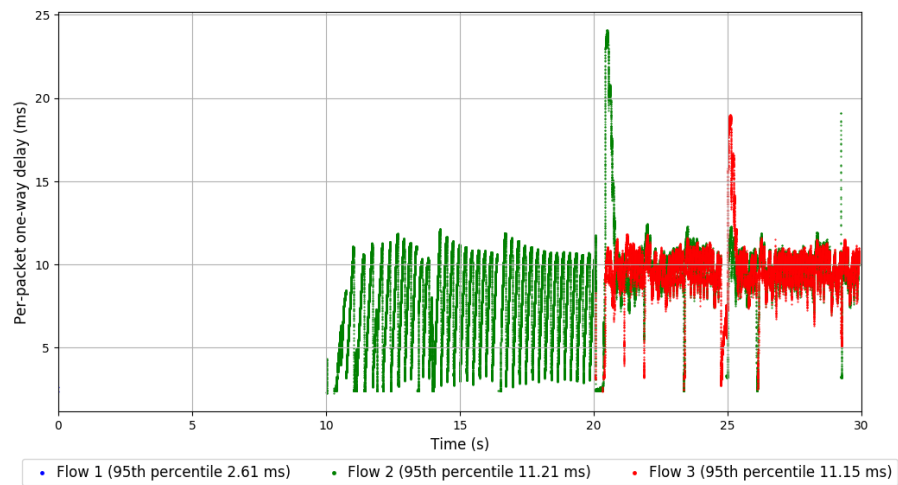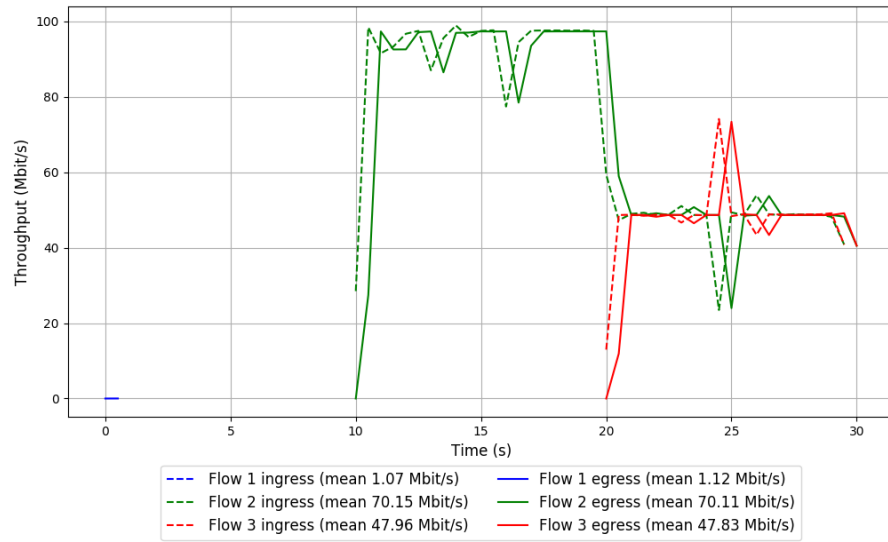
Run 8: Report of PCC-Expr — Data Link

```
Run 9: Statistics of PCC-Expr

Start at: 2018-06-06 05:24:41
End at: 2018-06-06 05:25:11
Local clock offset: -4.294 ms
Remote clock offset: -2.576 ms


# Below is generated by plot.py at 2018-06-06 06:07:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.58 Mbit/s
95th percentile per-packet one-way delay: 31.190 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 54.77 Mbit/s
95th percentile per-packet one-way delay: 30.968 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 36.97 Mbit/s
95th percentile per-packet one-way delay: 31.210 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 31.371 ms
Loss rate: 0.77%
```
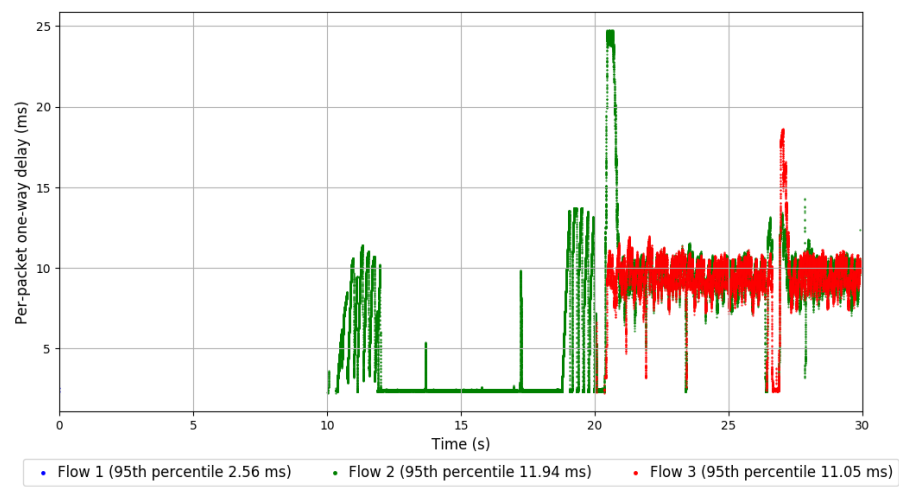
Run 9: Report of PCC-Expr — Data Link

```
Run 10: Statistics of PCC-Expr

Start at: 2018-06-06 05:42:44
End at: 2018-06-06 05:43:14
Local clock offset: -4.359 ms
Remote clock offset: -2.857 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.12 Mbit/s
95th percentile per-packet one-way delay: 31.400 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 51.36 Mbit/s
95th percentile per-packet one-way delay: 31.193 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.30 Mbit/s
95th percentile per-packet one-way delay: 31.102 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 30.16 Mbit/s
95th percentile per-packet one-way delay: 31.820 ms
Loss rate: 1.02%
```

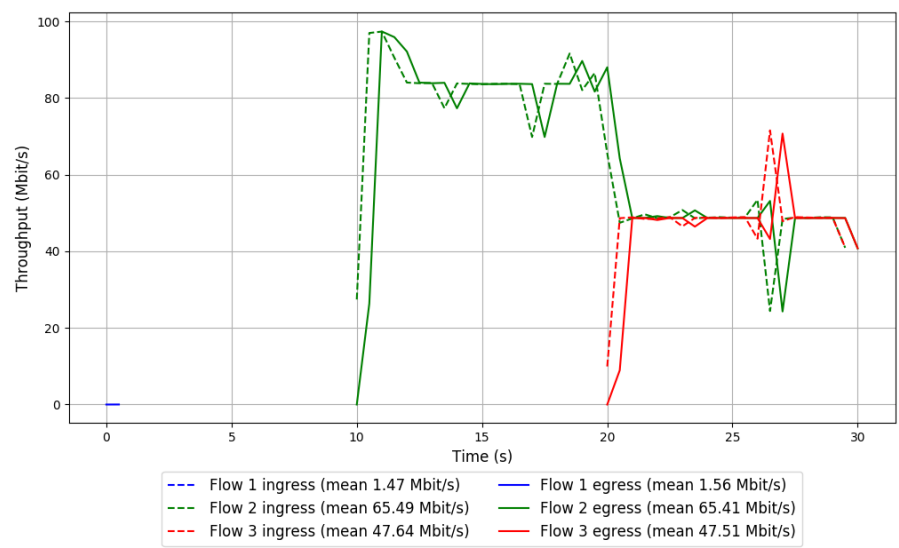# Run 10: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-06-06 02:58:20
End at: 2018-06-06 02:58:50
Local clock offset: -4.581 ms
Remote clock offset: -1.645 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.21 Mbit/s
95th percentile per-packet one-way delay: 14.419 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 3.725 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.59 Mbit/s
95th percentile per-packet one-way delay: 14.398 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 46.01 Mbit/s
95th percentile per-packet one-way delay: 15.829 ms
Loss rate: 0.31%
```
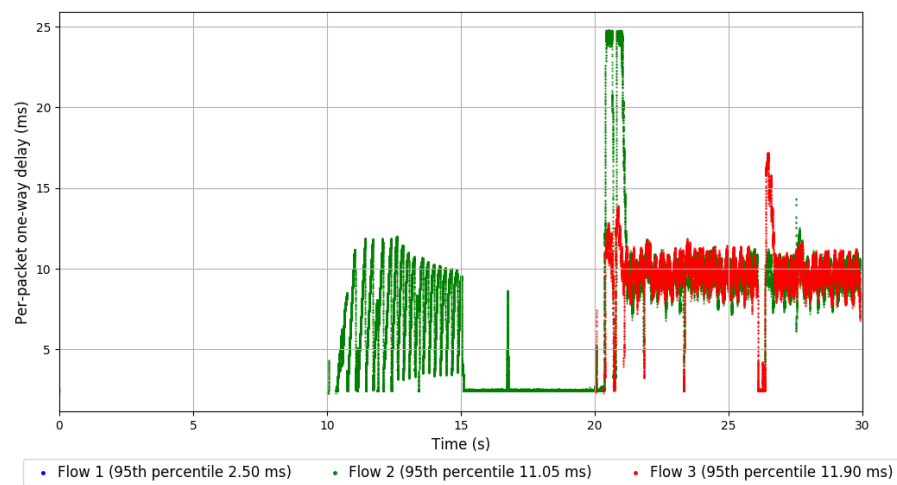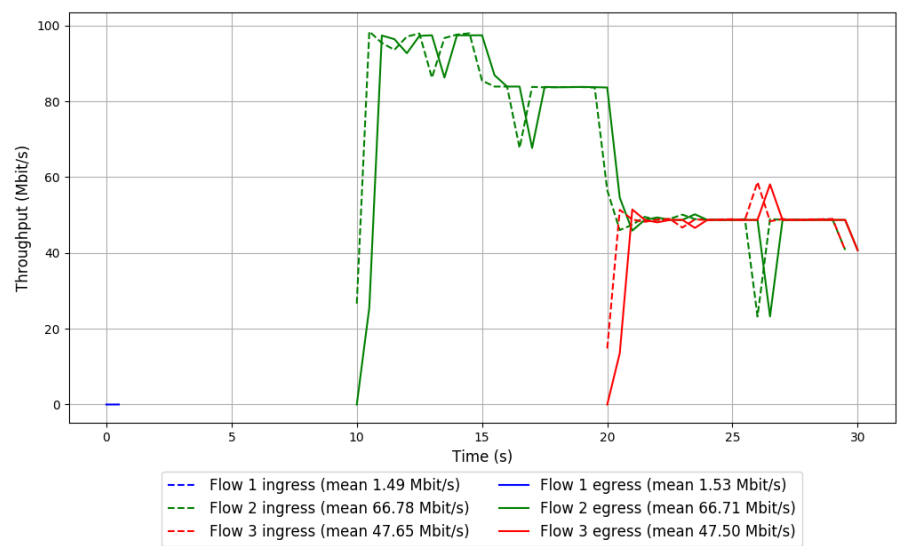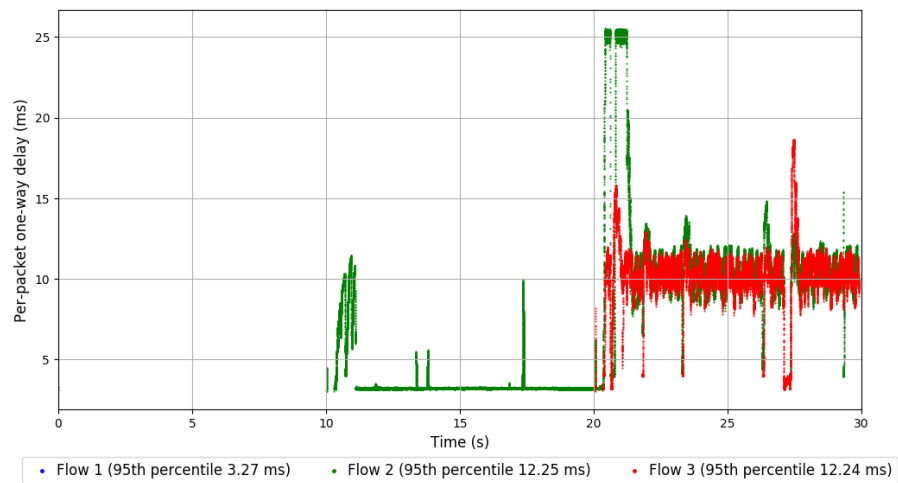
# Run 1: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 1.34 Mbit/s) --- Flow 1 egress (mean 1.59 Mbit/s)
Flow 2 ingress (mean 64.67 Mbit/s) --- Flow 2 egress (mean 64.59 Mbit/s)
Flow 3 ingress (mean 46.14 Mbit/s) --- Flow 3 egress (mean 46.01 Mbit/s)



Flow 1 (95th percentile 3.73 ms) • Flow 2 (95th percentile 14.40 ms) • Flow 3 (95th percentile 15.83 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-06-06 03:16:18
End at: 2018-06-06 03:16:48
Local clock offset: -5.147 ms
Remote clock offset: -1.099 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 15.418 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 2.474 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.39 Mbit/s
95th percentile per-packet one-way delay: 15.414 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 45.05 Mbit/s
95th percentile per-packet one-way delay: 15.426 ms
Loss rate: 0.30%
```
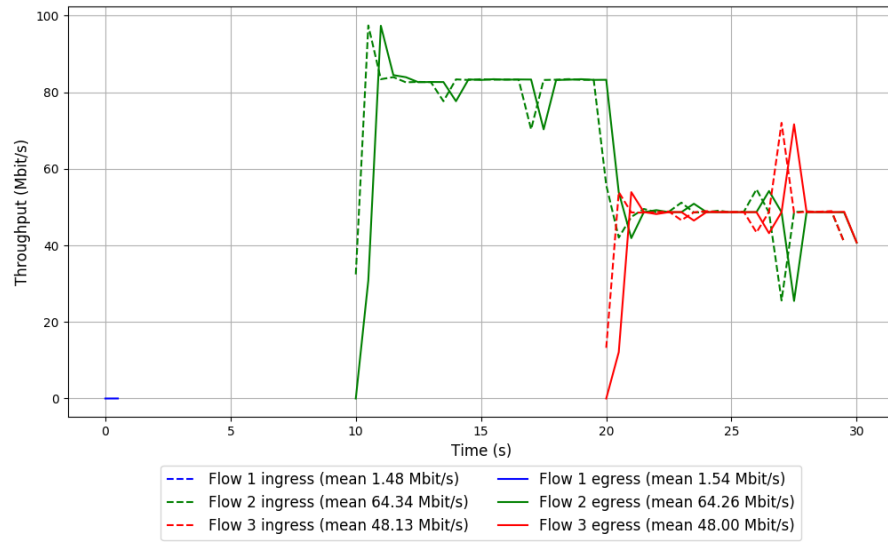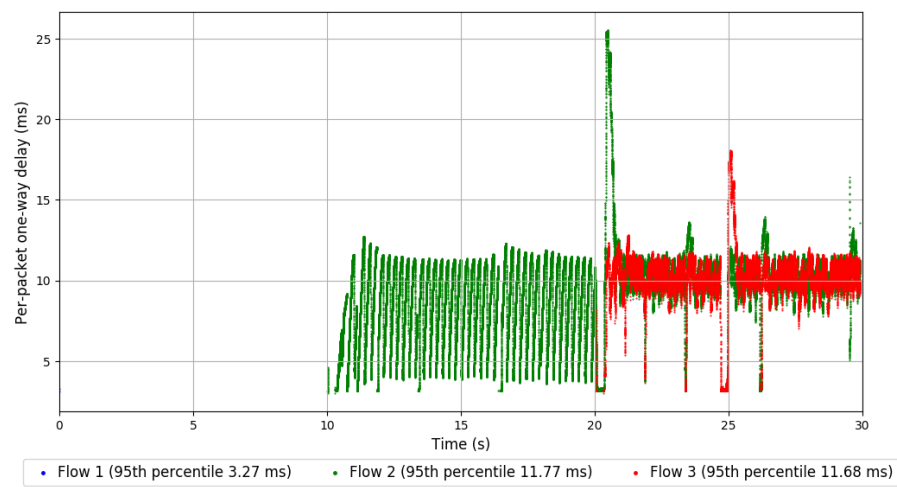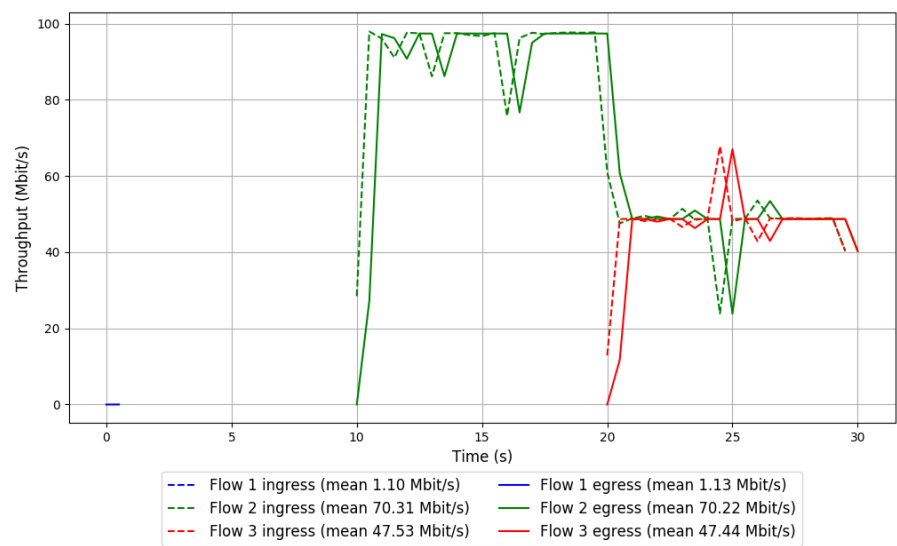
Run 2: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 1.45 Mbit/s) --- Flow 1 egress (mean 1.52 Mbit/s)
Flow 2 ingress (mean 65.46 Mbit/s) --- Flow 2 egress (mean 65.39 Mbit/s)
Flow 3 ingress (mean 45.17 Mbit/s) --- Flow 3 egress (mean 45.05 Mbit/s)



• Flow 1 (95th percentile 2.47 ms)    • Flow 2 (95th percentile 15.41 ms)    • Flow 3 (95th percentile 15.43 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-06 03:34:19
End at: 2018-06-06 03:34:49
Local clock offset: -4.262 ms
Remote clock offset: -2.28 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.52 Mbit/s
95th percentile per-packet one-way delay: 17.852 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 52.43 Mbit/s
95th percentile per-packet one-way delay: 17.588 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 38.19 Mbit/s
95th percentile per-packet one-way delay: 17.808 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 29.29 Mbit/s
95th percentile per-packet one-way delay: 19.392 ms
Loss rate: 0.45%
```

# Run 3: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 52.52 Mbit/s)   Flow 1 egress (mean 52.43 Mbit/s)
Flow 2 ingress (mean 38.33 Mbit/s)   Flow 2 egress (mean 38.19 Mbit/s)
Flow 3 ingress (mean 29.41 Mbit/s)   Flow 3 egress (mean 29.29 Mbit/s)



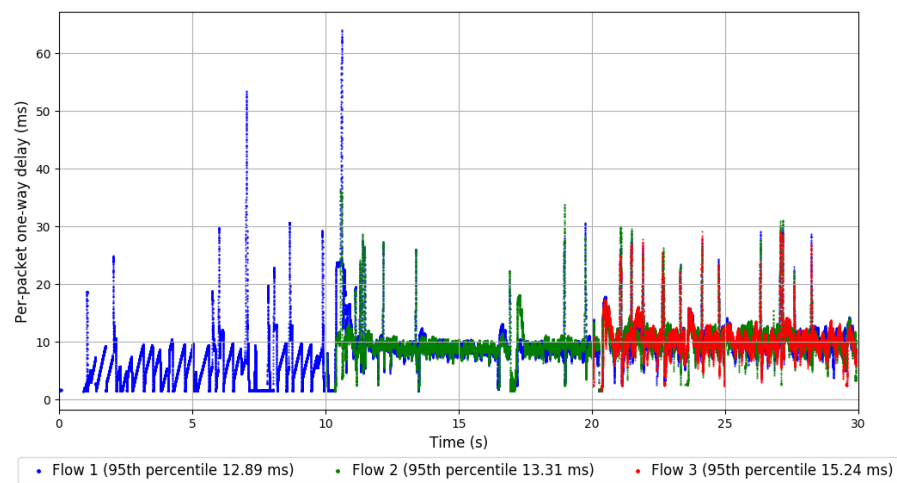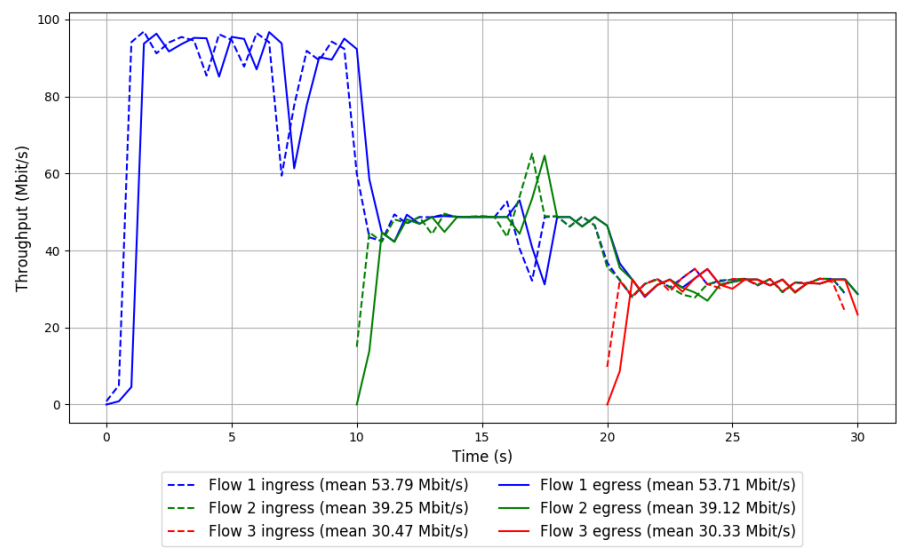Flow 1 (95th percentile 17.59 ms)   Flow 2 (95th percentile 17.81 ms)   Flow 3 (95th percentile 19.39 ms)

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```
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-06 03:52:23
End at: 2018-06-06 03:52:53
Local clock offset: -4.835 ms
Remote clock offset: -2.328 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.08 Mbit/s
95th percentile per-packet one-way delay: 13.229 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 50.14 Mbit/s
95th percentile per-packet one-way delay: 12.991 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 40.07 Mbit/s
95th percentile per-packet one-way delay: 13.402 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 13.323 ms
Loss rate: 0.46%
```
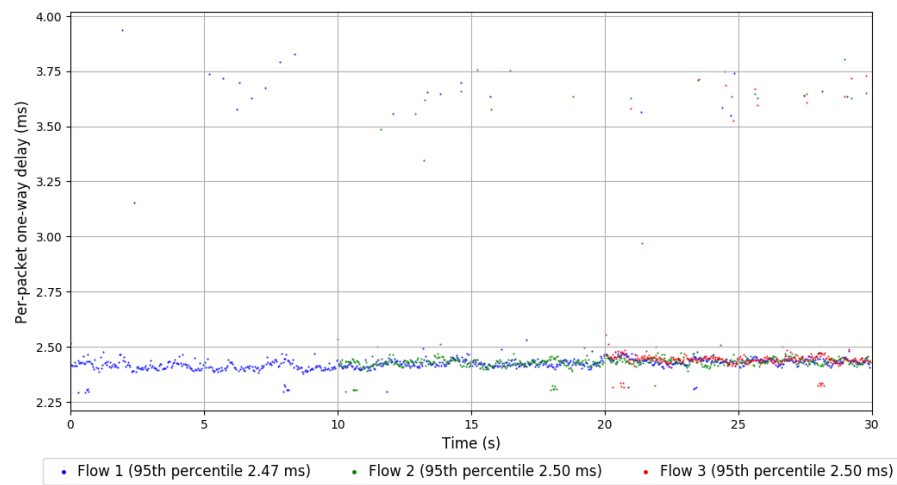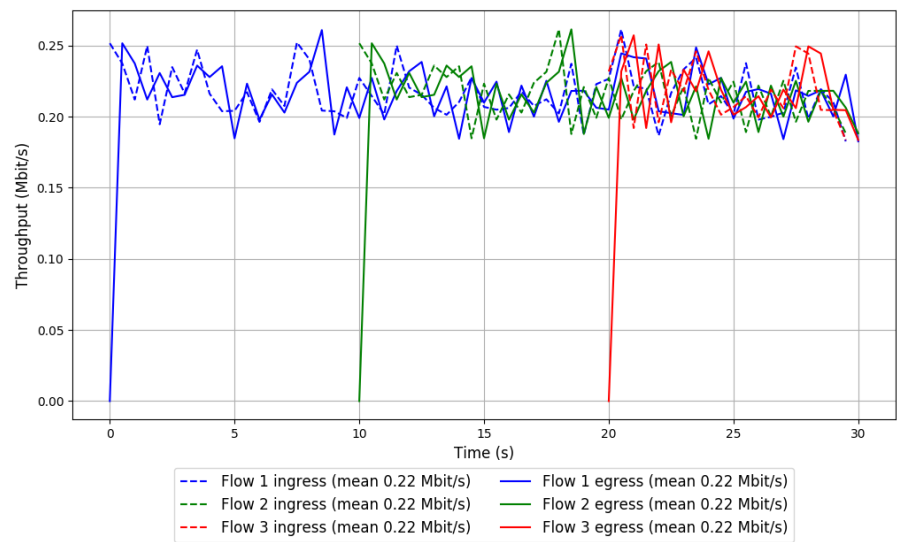
# Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-06 04:10:26
End at: 2018-06-06 04:10:56
Local clock offset: -4.884 ms
Remote clock offset: -2.293 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.47 Mbit/s
95th percentile per-packet one-way delay: 11.201 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 2.609 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 11.215 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 47.83 Mbit/s
95th percentile per-packet one-way delay: 11.146 ms
Loss rate: 0.31%
```
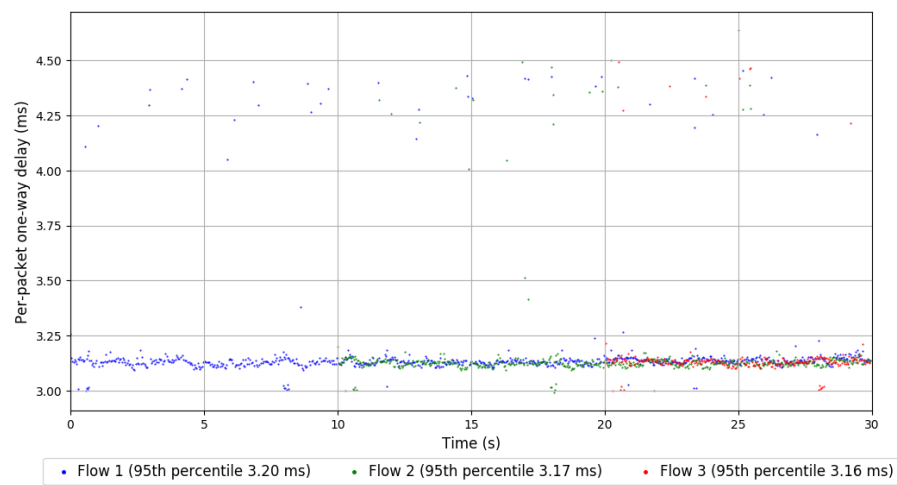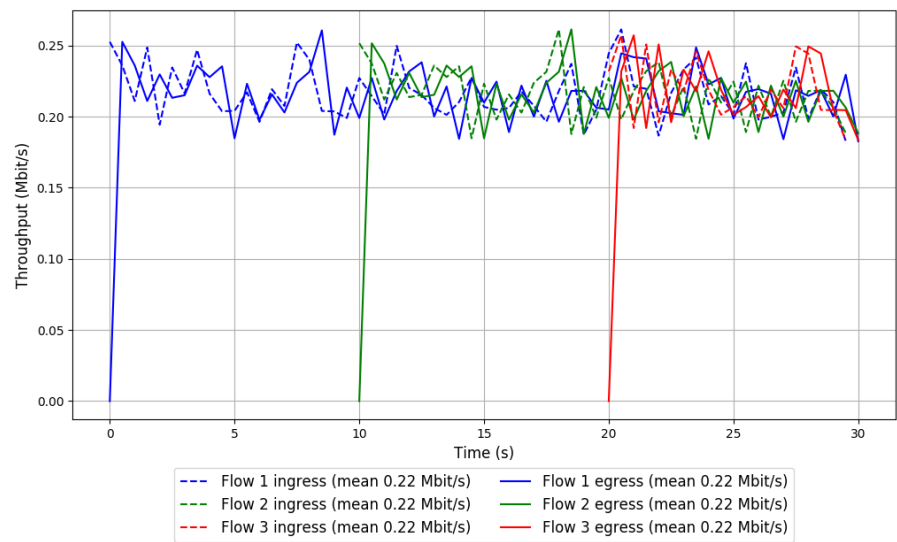
Run 5: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 1.07 Mbit/s) — — — Flow 1 egress (mean 1.12 Mbit/s)
Flow 2 ingress (mean 70.15 Mbit/s) — — — Flow 2 egress (mean 70.11 Mbit/s)
Flow 3 ingress (mean 47.96 Mbit/s) — — — Flow 3 egress (mean 47.83 Mbit/s)



Flow 1 (95th percentile 2.61 ms)    Flow 2 (95th percentile 11.21 ms)    Flow 3 (95th percentile 11.15 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-06 04:28:28
End at: 2018-06-06 04:28:58
Local clock offset: -4.947 ms
Remote clock offset: -2.345 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 11.615 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 2.558 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.41 Mbit/s
95th percentile per-packet one-way delay: 11.938 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 47.51 Mbit/s
95th percentile per-packet one-way delay: 11.050 ms
Loss rate: 0.31%
```
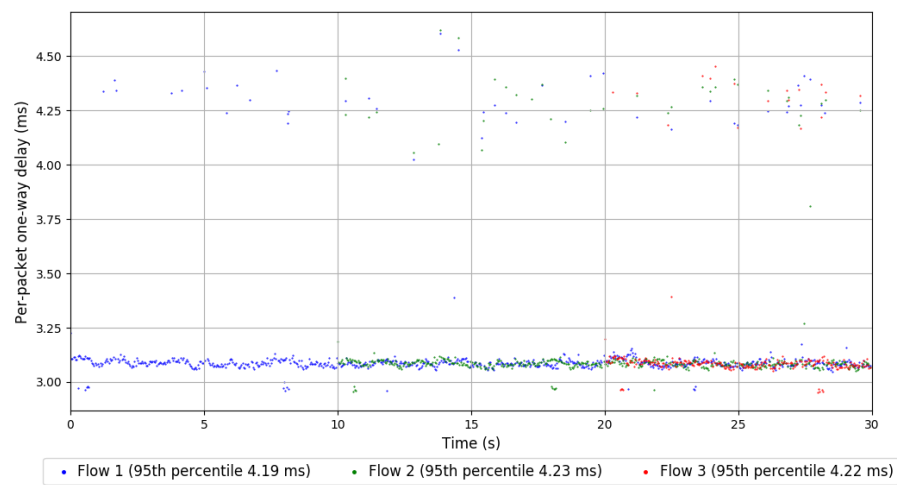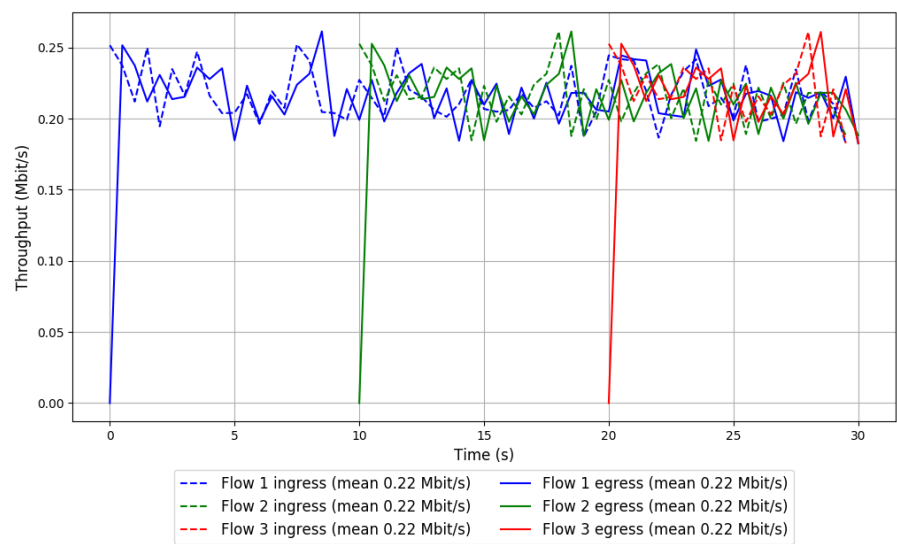
Run 6: Report of QUIC Cubic — Data Link



Flow 1 ingress (mean 1.47 Mbit/s) --- Flow 1 egress (mean 1.56 Mbit/s)
Flow 2 ingress (mean 65.49 Mbit/s) --- Flow 2 egress (mean 65.41 Mbit/s)
Flow 3 ingress (mean 47.64 Mbit/s) --- Flow 3 egress (mean 47.51 Mbit/s)



Flow 1 (95th percentile 2.56 ms)    Flow 2 (95th percentile 11.94 ms)    Flow 3 (95th percentile 11.05 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-06 04:46:29
End at: 2018-06-06 04:46:59
Local clock offset: -5.155 ms
Remote clock offset: -2.553 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.09 Mbit/s
95th percentile per-packet one-way delay: 11.297 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 2.501 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.71 Mbit/s
95th percentile per-packet one-way delay: 11.055 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 47.50 Mbit/s
95th percentile per-packet one-way delay: 11.904 ms
Loss rate: 0.35%
```

# Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-06 05:04:29
End at: 2018-06-06 05:04:59
Local clock offset: -4.454 ms
Remote clock offset: -2.579 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.63 Mbit/s
95th percentile per-packet one-way delay: 12.251 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 3.268 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.26 Mbit/s
95th percentile per-packet one-way delay: 12.254 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 48.00 Mbit/s
95th percentile per-packet one-way delay: 12.241 ms
Loss rate: 0.30%
```
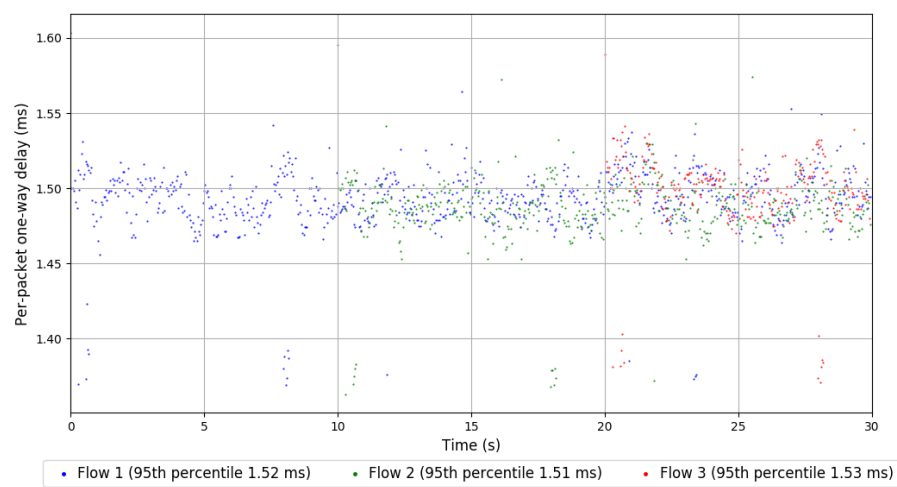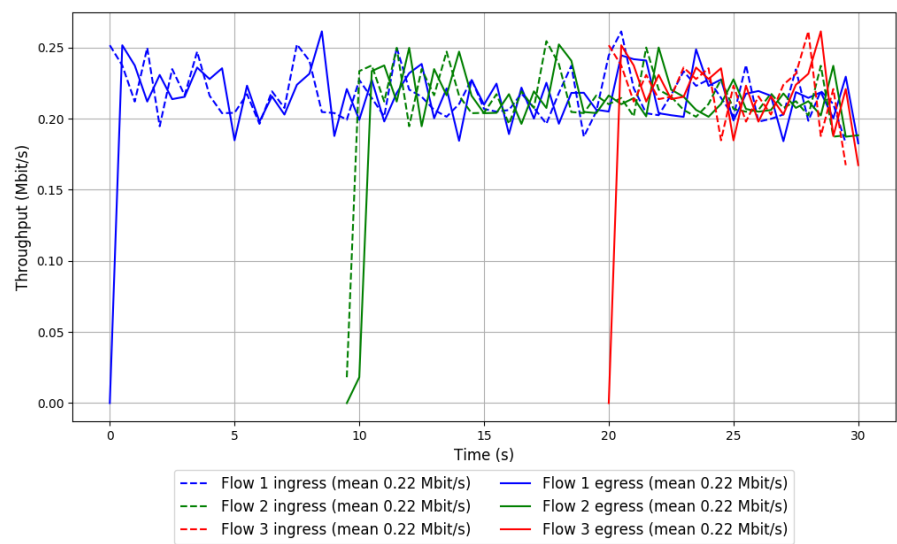
Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-06 05:22:31
End at: 2018-06-06 05:23:01
Local clock offset: -4.313 ms
Remote clock offset: -2.626 ms


# Below is generated by plot.py at 2018-06-06 06:07:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.41 Mbit/s
95th percentile per-packet one-way delay: 11.748 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 3.268 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.22 Mbit/s
95th percentile per-packet one-way delay: 11.770 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 47.44 Mbit/s
95th percentile per-packet one-way delay: 11.675 ms
Loss rate: 0.30%
```
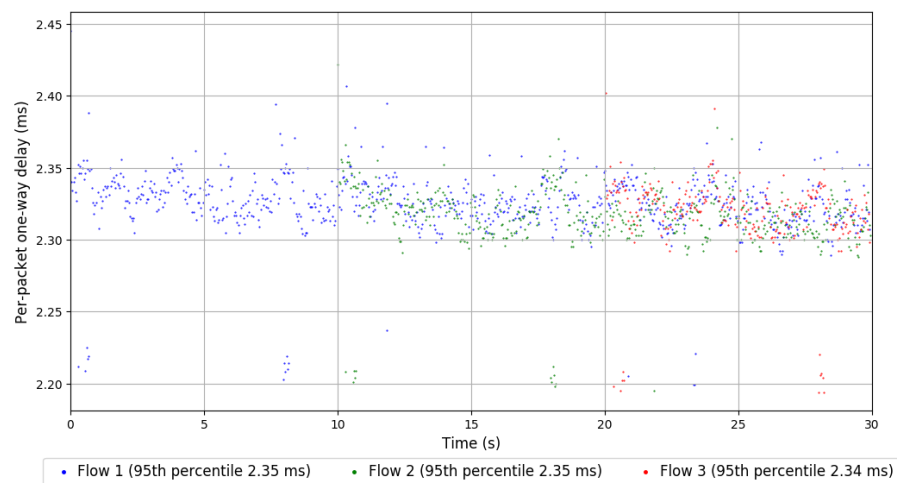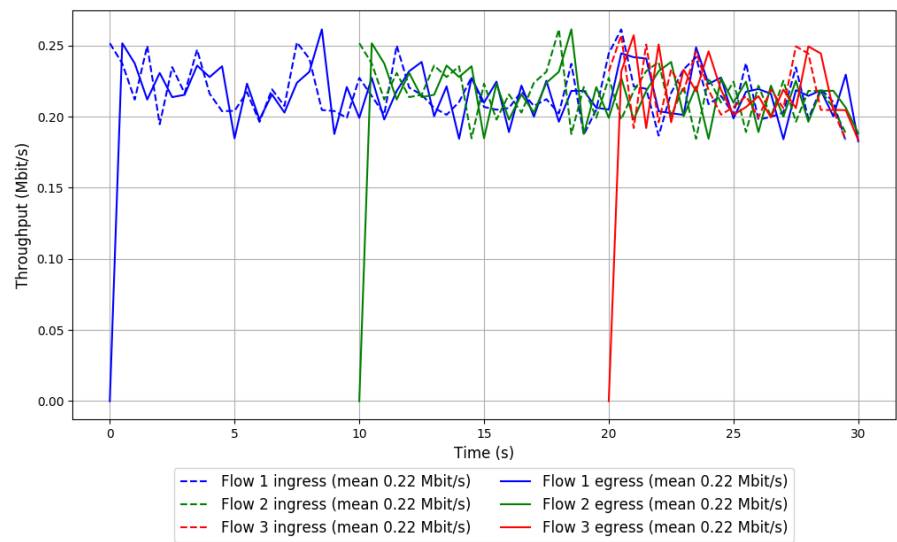
Run 9: Report of QUIC Cubic — Data Link



- - - Flow 1 ingress (mean 1.10 Mbit/s) —— Flow 1 egress (mean 1.13 Mbit/s)
- - - Flow 2 ingress (mean 70.31 Mbit/s) —— Flow 2 egress (mean 70.22 Mbit/s)
- - - Flow 3 ingress (mean 47.53 Mbit/s) —— Flow 3 egress (mean 47.44 Mbit/s)



• Flow 1 (95th percentile 3.27 ms)    • Flow 2 (95th percentile 11.77 ms)    • Flow 3 (95th percentile 11.68 ms)

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```
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-06 05:40:33
End at: 2018-06-06 05:41:03
Local clock offset: -5.888 ms
Remote clock offset: -2.704 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.76 Mbit/s
95th percentile per-packet one-way delay: 13.469 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 53.71 Mbit/s
95th percentile per-packet one-way delay: 12.893 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 13.306 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 30.33 Mbit/s
95th percentile per-packet one-way delay: 15.243 ms
Loss rate: 0.50%
```

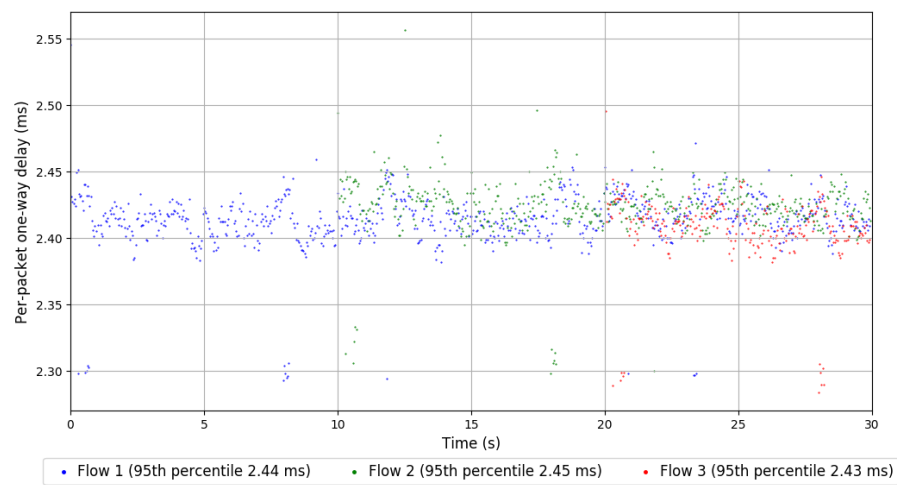# Run 10: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-06-06 02:57:16
End at: 2018-06-06 02:57:46
Local clock offset: -5.345 ms
Remote clock offset: -1.789 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.476 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.468 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.501 ms
Loss rate: 0.00%
```
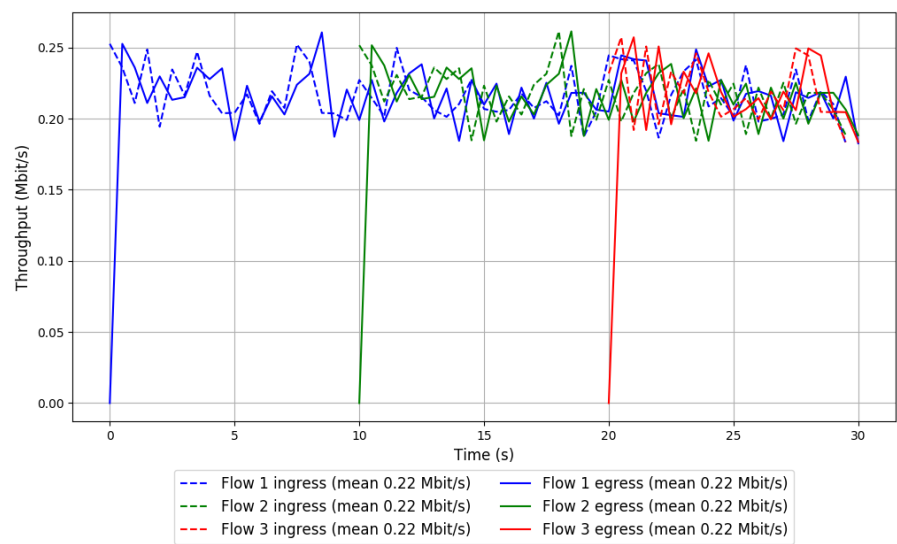
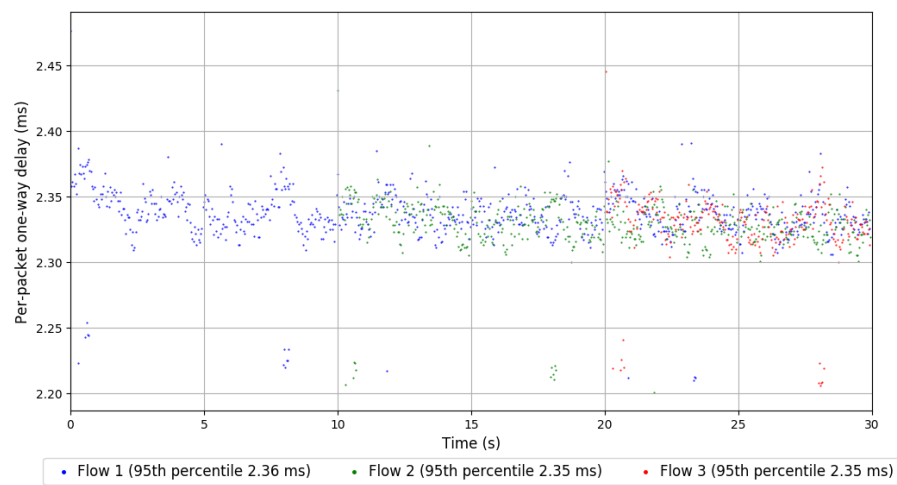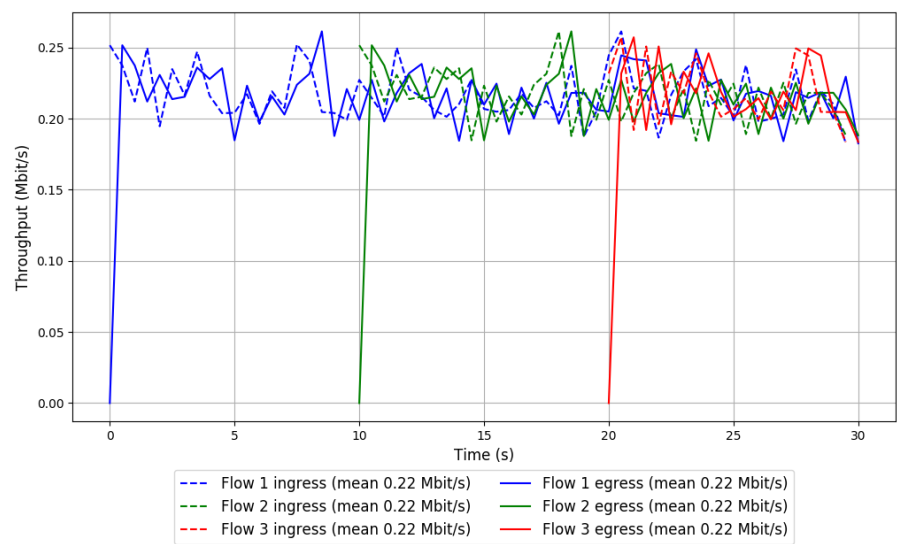# Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-06-06 03:15:15
End at: 2018-06-06 03:15:45
Local clock offset: -4.441 ms
Remote clock offset: -1.2 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.203 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.170 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.164 ms
Loss rate: 0.00%
```

# Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-06-06 03:33:16
End at: 2018-06-06 03:33:46
Local clock offset: -4.265 ms
Remote clock offset: -2.215 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 4.219 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.232 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.221 ms
Loss rate: 0.00%
```
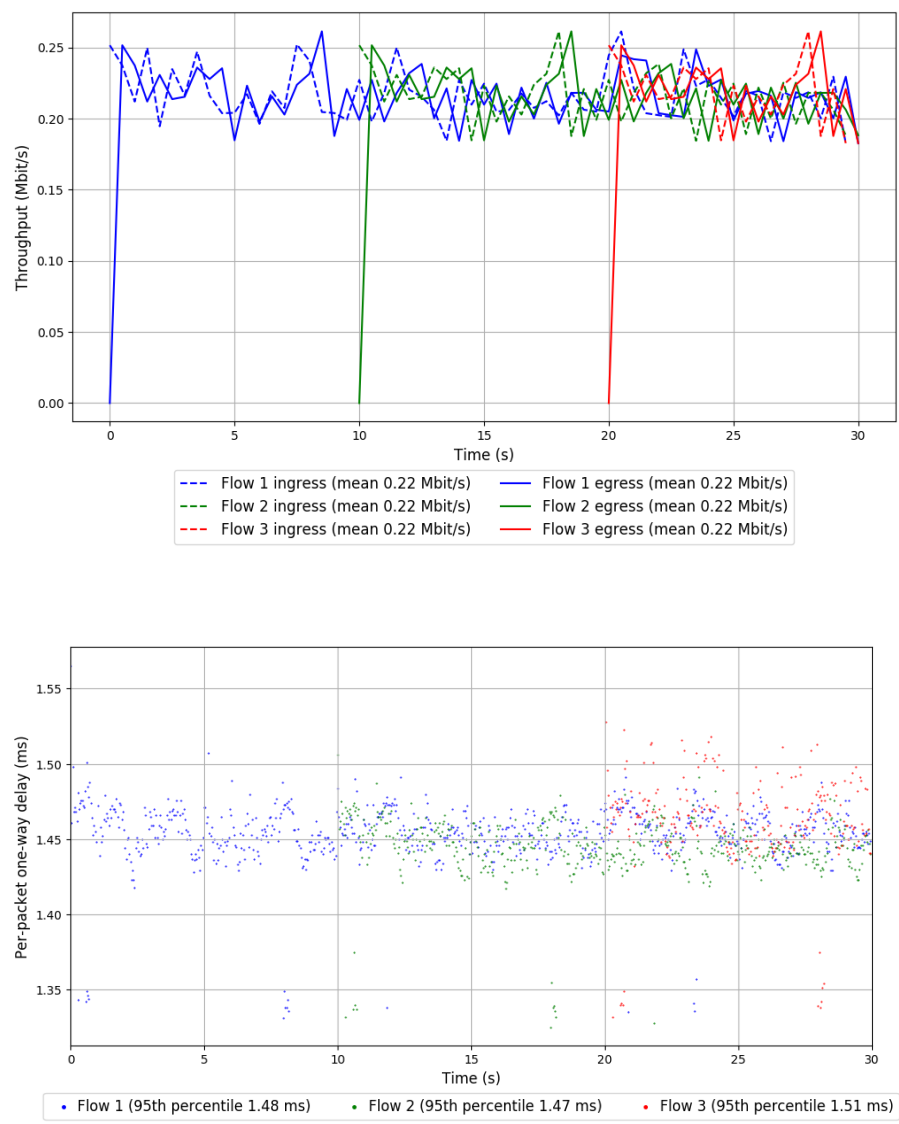
## Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-06-06 03:51:19
End at: 2018-06-06 03:51:49
Local clock offset: -5.602 ms
Remote clock offset: -2.274 ms

# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.562 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.563 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.555 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.568 ms
Loss rate: 0.00%
```
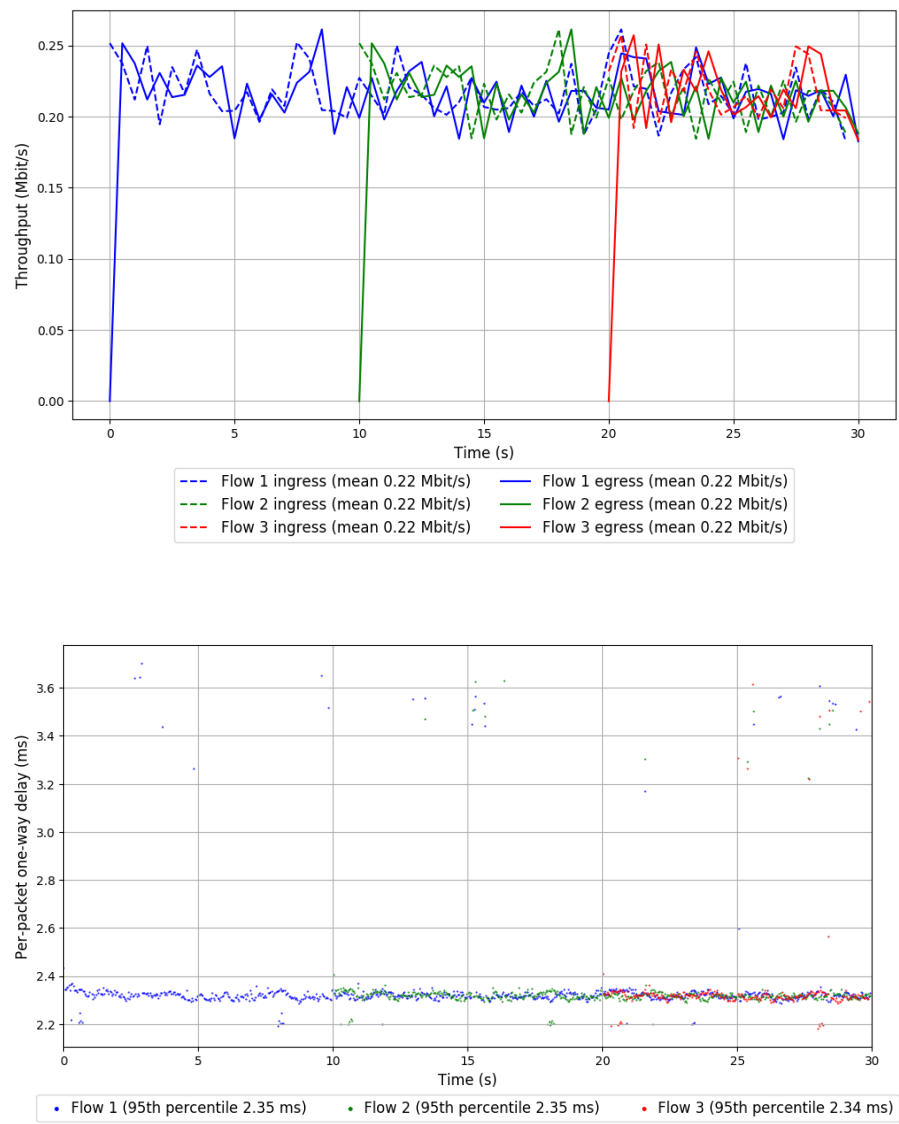
## Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-06-06 04:09:22
End at: 2018-06-06 04:09:52
Local clock offset: -5.698 ms
Remote clock offset: -2.236 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.520 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.518 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.513 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.530 ms
Loss rate: 0.00%
```
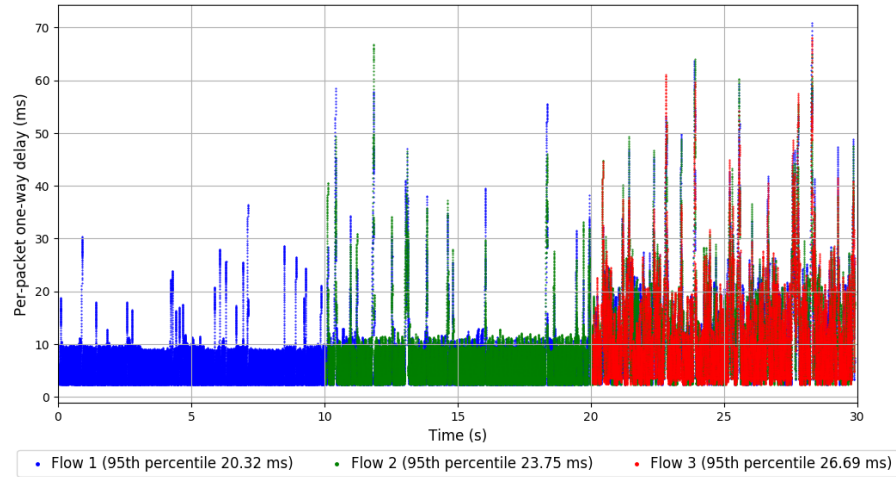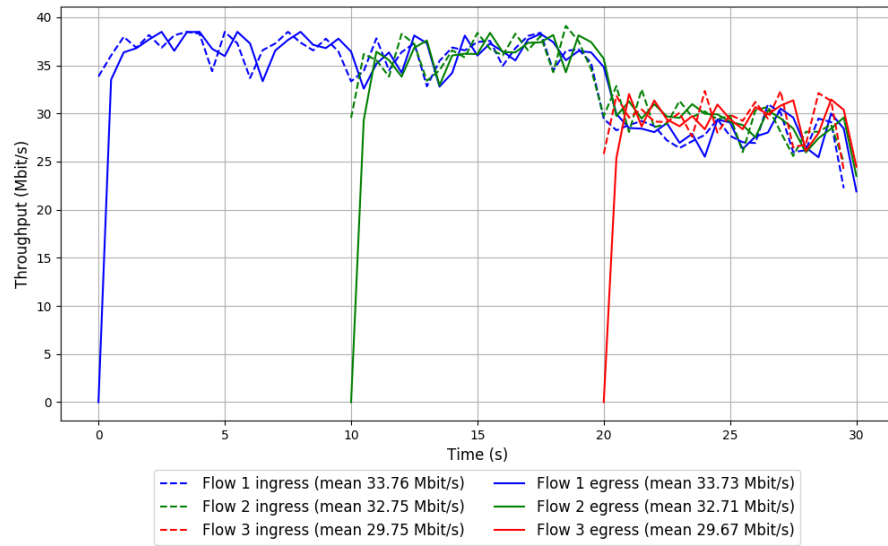
## Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-06-06 04:27:24
End at: 2018-06-06 04:27:54
Local clock offset: -4.955 ms
Remote clock offset: -2.303 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.349 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.352 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.345 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.343 ms
Loss rate: 0.00%
```
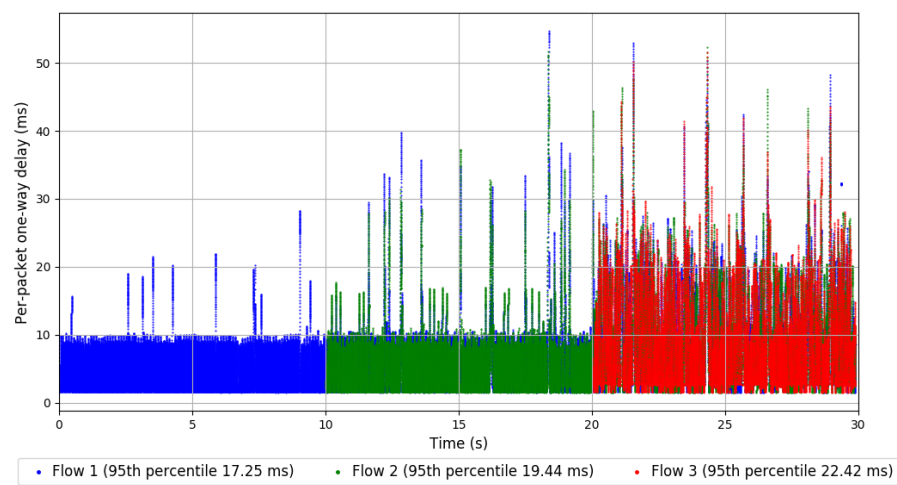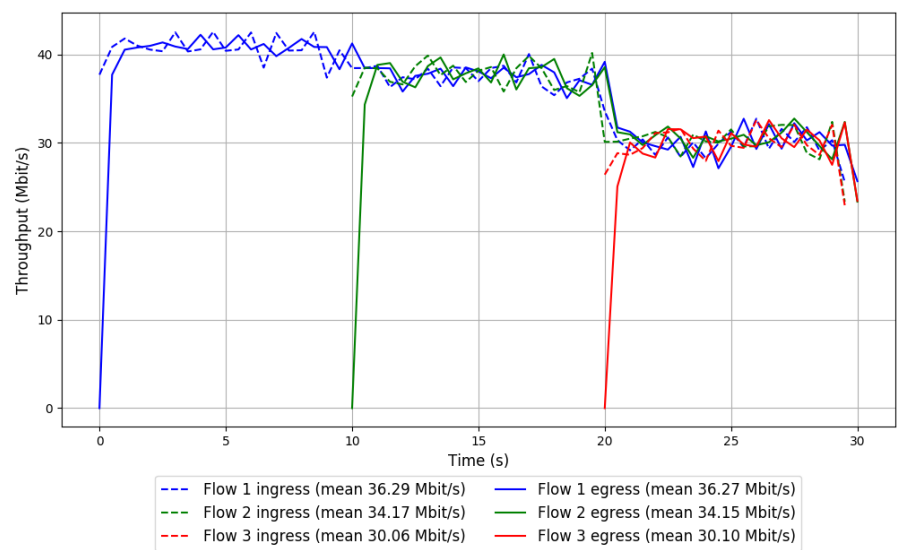
# Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2018-06-06 04:45:25
End at: 2018-06-06 04:45:55
Local clock offset: -5.136 ms
Remote clock offset: -2.569 ms

# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.439 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.450 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.433 ms
Loss rate: 0.00%
```
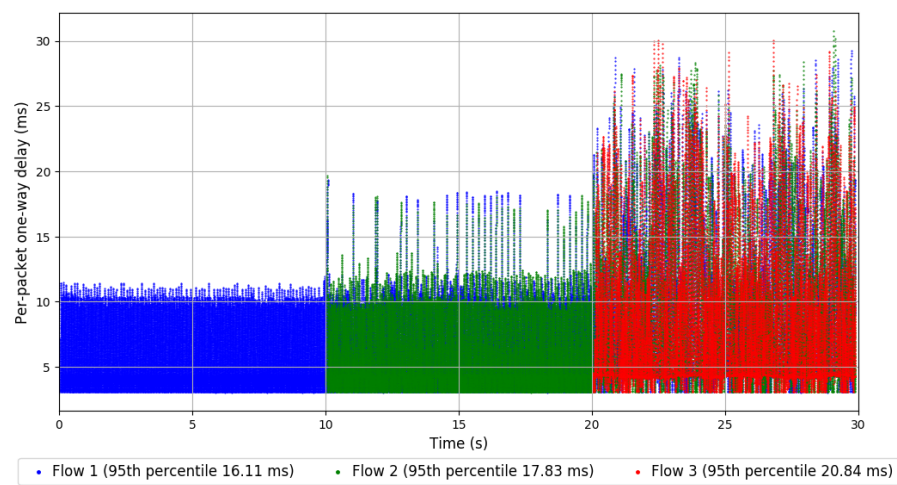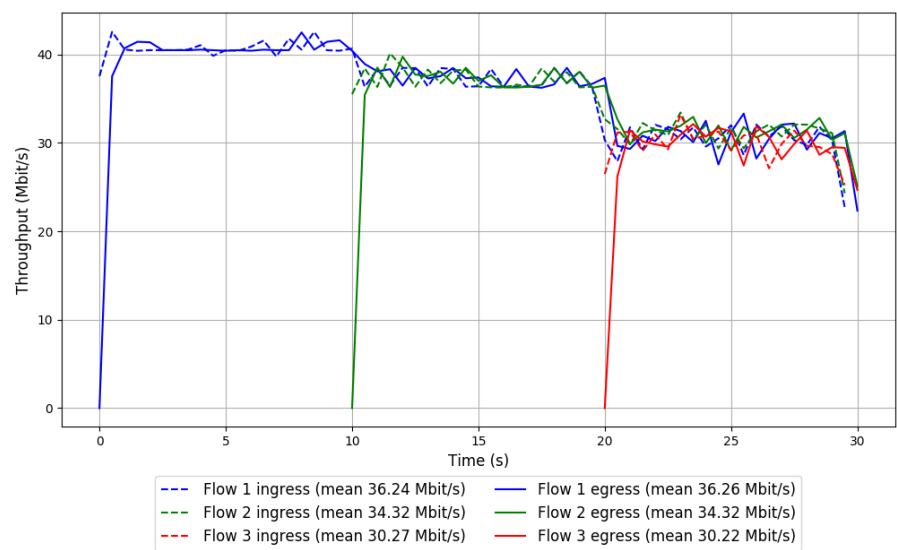
# Run 7: Report of SCReAM — Data Link





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```
Run 8: Statistics of SCReAM

Start at: 2018-06-06 05:03:25
End at: 2018-06-06 05:03:55
Local clock offset: -5.297 ms
Remote clock offset: -2.605 ms

# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.358 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.363 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.352 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.355 ms
Loss rate: 0.00%
```
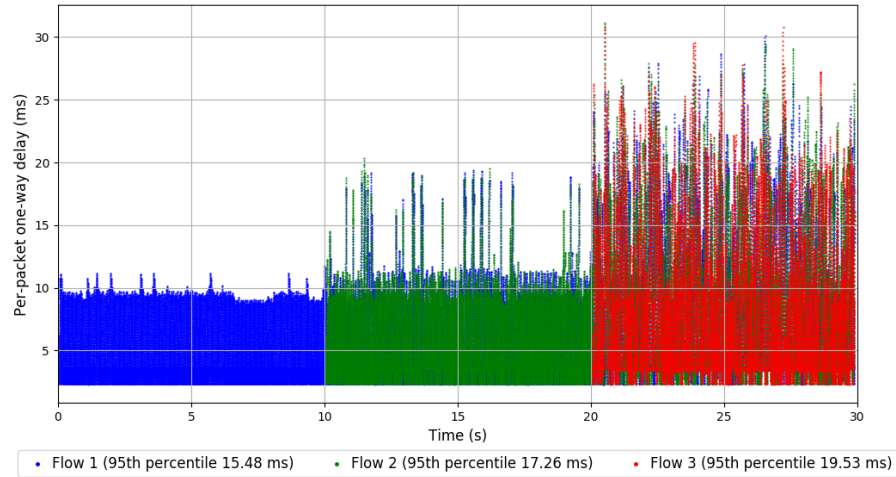
# Run 8: Report of SCReAM — Data Link





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```
Run 9: Statistics of SCReAM

Start at: 2018-06-06 05:21:27
End at: 2018-06-06 05:21:57
Local clock offset: -5.912 ms
Remote clock offset: -2.545 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.481 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.476 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.469 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.506 ms
Loss rate: 0.00%
```
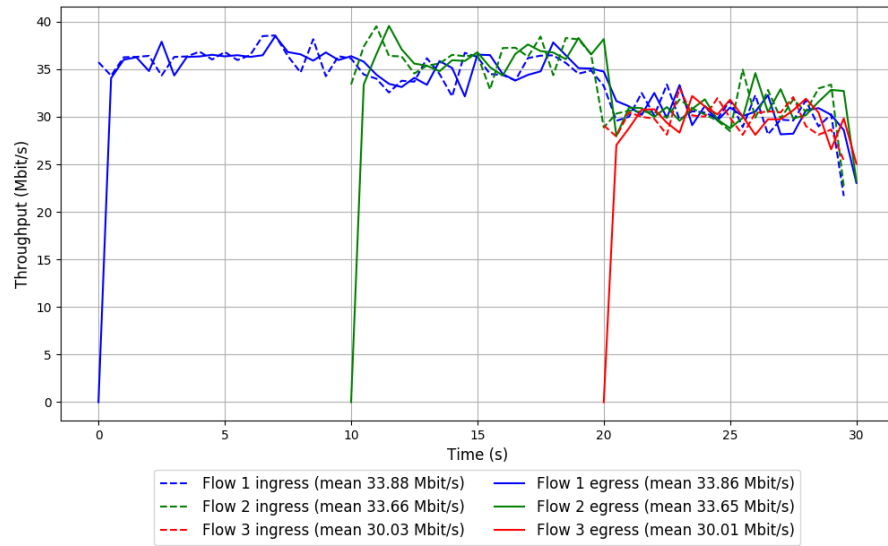
# Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-06-06 05:39:29
End at: 2018-06-06 05:39:59
Local clock offset: -5.108 ms
Remote clock offset: -2.688 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.346 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.350 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.345 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.344 ms
Loss rate: 0.35%
```
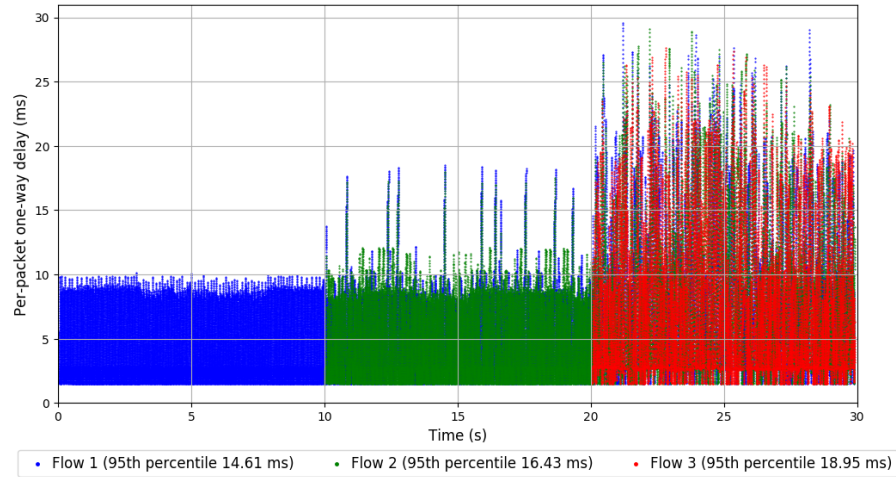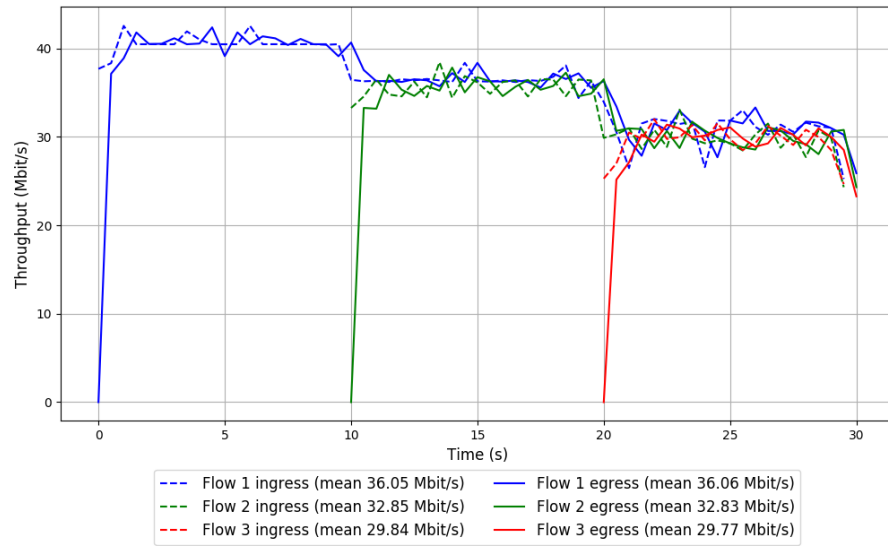
# Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-06-06 03:02:47
End at: 2018-06-06 03:03:17
Local clock offset: -5.359 ms
Remote clock offset: -1.521 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.27 Mbit/s
95th percentile per-packet one-way delay: 22.768 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 33.73 Mbit/s
95th percentile per-packet one-way delay: 20.323 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 32.71 Mbit/s
95th percentile per-packet one-way delay: 23.748 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 29.67 Mbit/s
95th percentile per-packet one-way delay: 26.688 ms
Loss rate: 0.24%
```
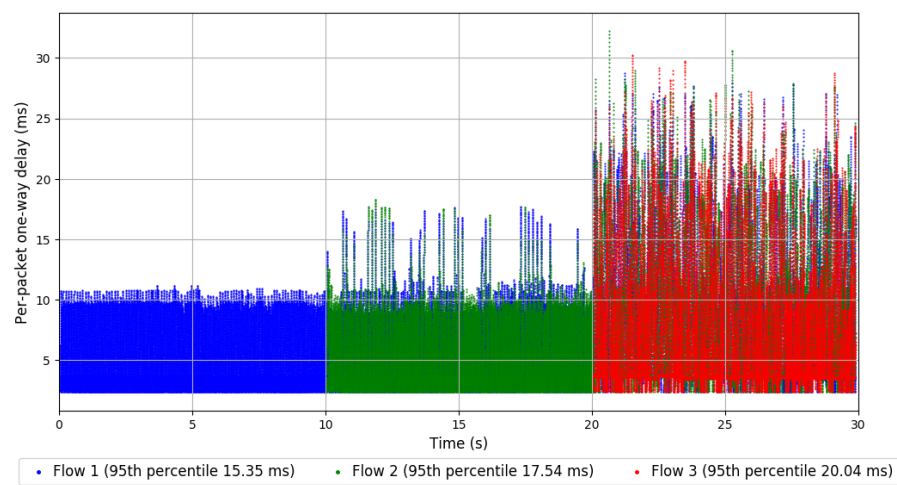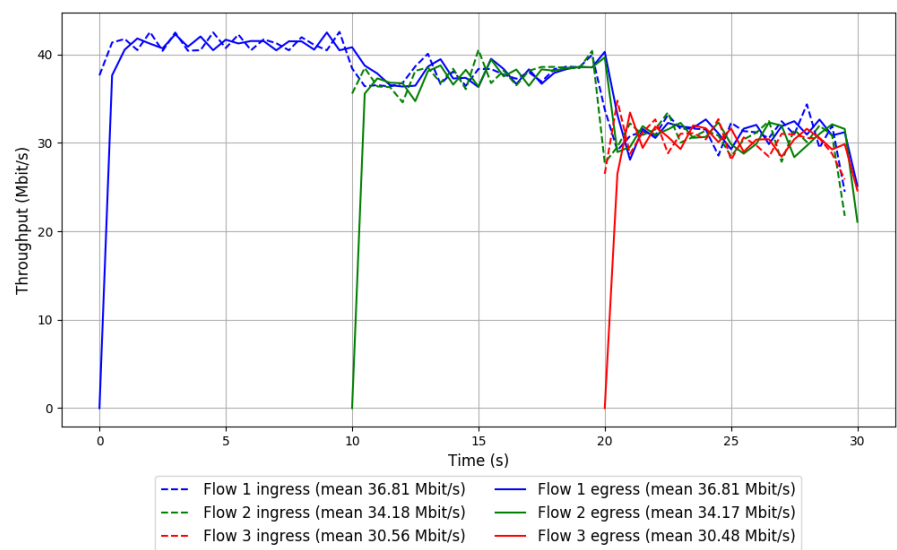
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-06-06 03:20:47
End at: 2018-06-06 03:21:17
Local clock offset: -5.877 ms
Remote clock offset: -1.656 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.90 Mbit/s
95th percentile per-packet one-way delay: 19.223 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 36.27 Mbit/s
95th percentile per-packet one-way delay: 17.249 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.15 Mbit/s
95th percentile per-packet one-way delay: 19.437 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.10 Mbit/s
95th percentile per-packet one-way delay: 22.423 ms
Loss rate: 0.06%
```
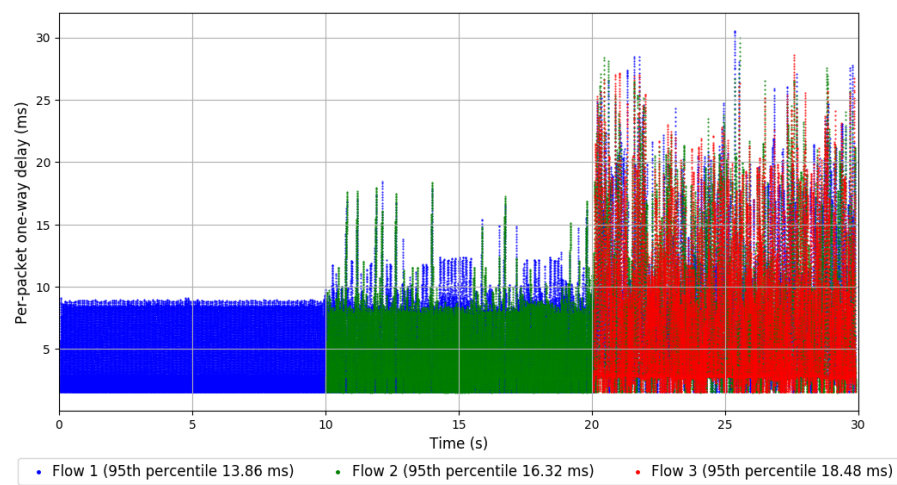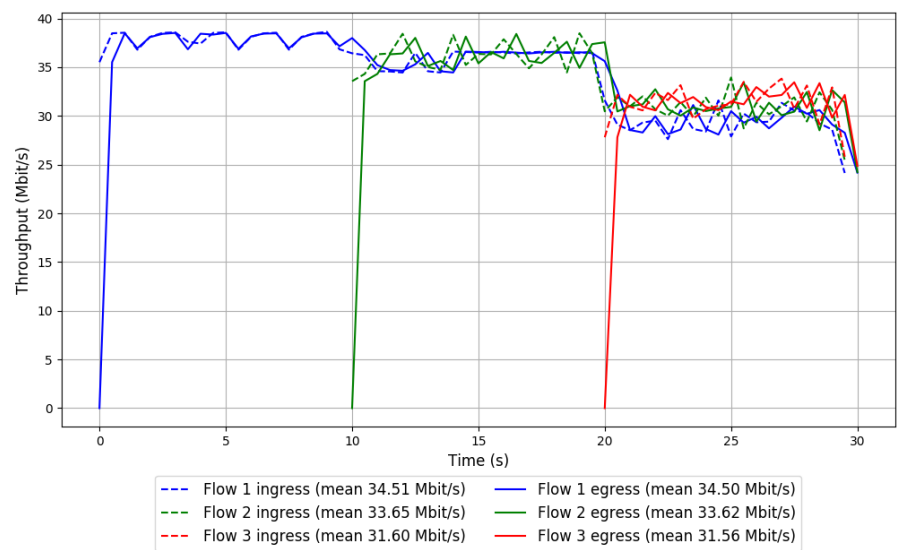
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-06-06 03:38:49
End at: 2018-06-06 03:39:19
Local clock offset: -4.191 ms
Remote clock offset: -2.28 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.03 Mbit/s
95th percentile per-packet one-way delay: 17.887 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 16.110 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 34.32 Mbit/s
95th percentile per-packet one-way delay: 17.828 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 20.843 ms
Loss rate: 0.14%
```
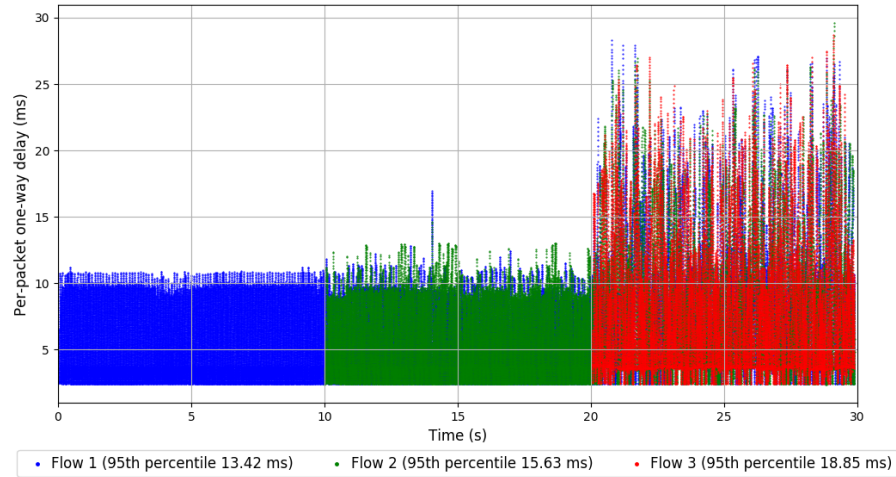
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-06-06 03:56:53
End at: 2018-06-06 03:57:23
Local clock offset: -4.809 ms
Remote clock offset: -2.293 ms


# Below is generated by plot.py at 2018-06-06 06:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.14 Mbit/s
95th percentile per-packet one-way delay: 17.117 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 33.86 Mbit/s
95th percentile per-packet one-way delay: 15.480 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 33.65 Mbit/s
95th percentile per-packet one-way delay: 17.259 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 30.01 Mbit/s
95th percentile per-packet one-way delay: 19.529 ms
Loss rate: 0.12%
```
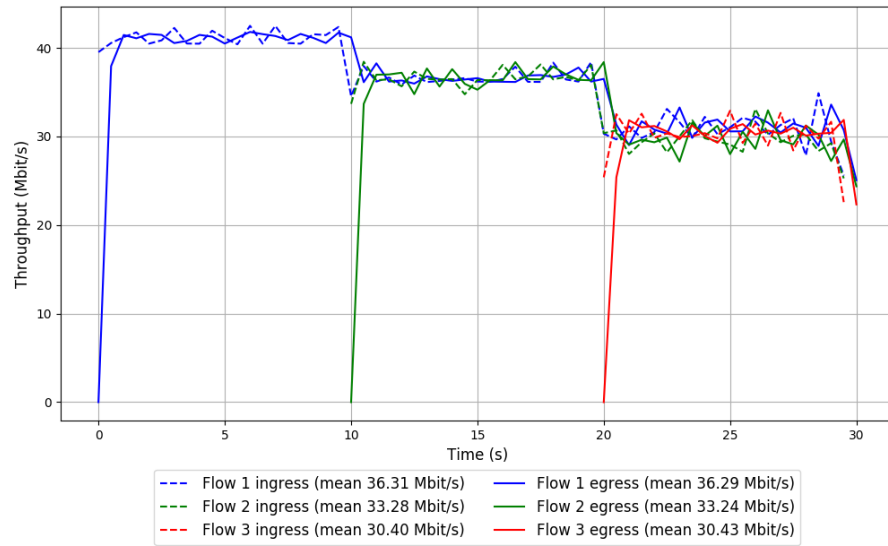
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-06-06 04:14:55
End at: 2018-06-06 04:15:25
Local clock offset: -5.756 ms
Remote clock offset: -2.247 ms


# Below is generated by plot.py at 2018-06-06 06:08:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.71 Mbit/s
95th percentile per-packet one-way delay: 16.425 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 14.607 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 32.83 Mbit/s
95th percentile per-packet one-way delay: 16.433 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.77 Mbit/s
95th percentile per-packet one-way delay: 18.946 ms
Loss rate: 0.24%
```
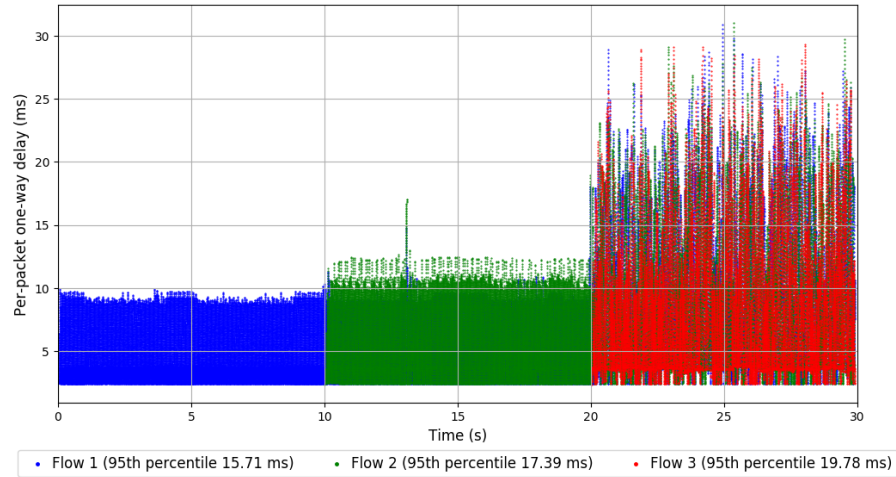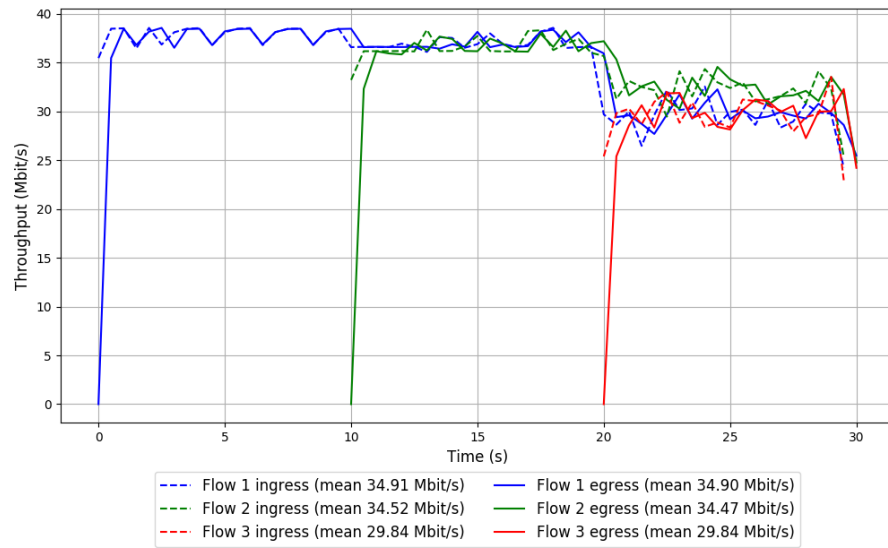
Run 5: Report of Sprout — Data Link

Run 6: Statistics of Sprout

Start at: 2018-06-06 04:32:57
End at: 2018-06-06 04:33:27
Local clock offset: -4.949 ms
Remote clock offset: -2.451 ms


# Below is generated by plot.py at 2018-06-06 06:08:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.59 Mbit/s
95th percentile per-packet one-way delay: 17.317 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 36.81 Mbit/s
95th percentile per-packet one-way delay: 15.351 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.17 Mbit/s
95th percentile per-packet one-way delay: 17.543 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 30.48 Mbit/s
95th percentile per-packet one-way delay: 20.043 ms
Loss rate: 0.23%
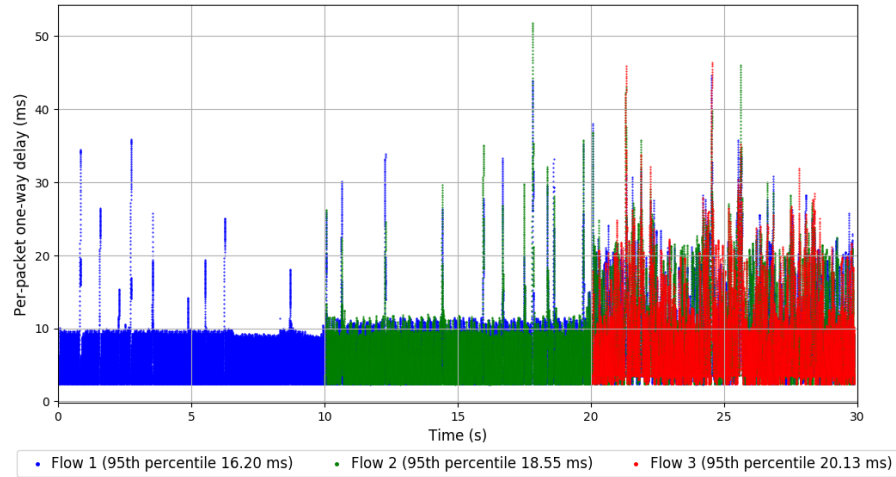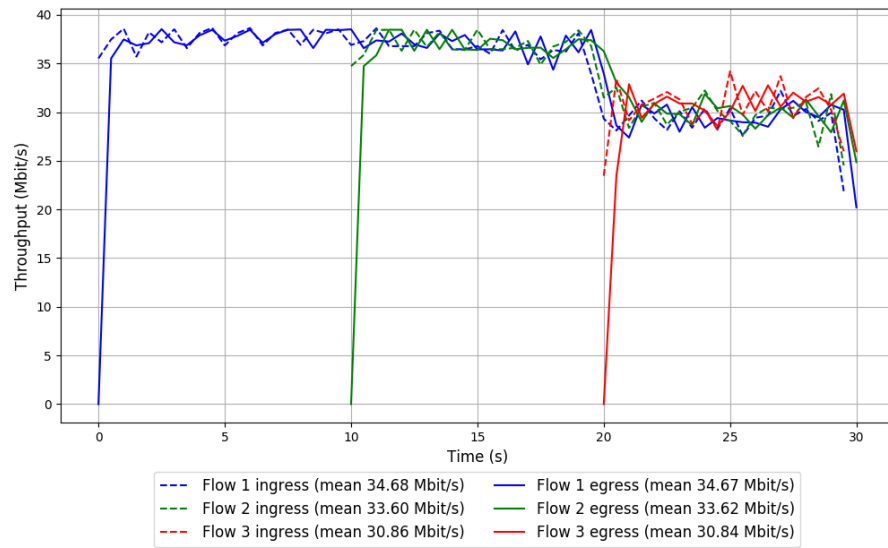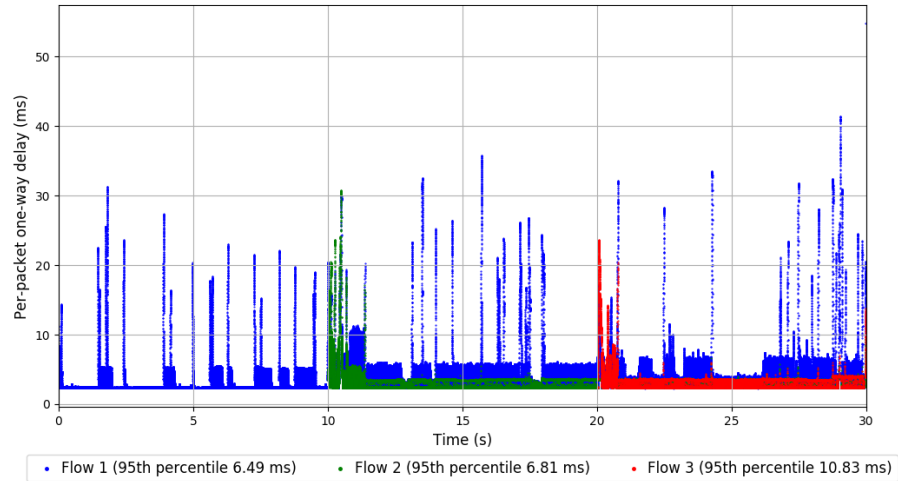
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-06-06 04:50:57
End at: 2018-06-06 04:51:27
Local clock offset: -5.955 ms
Remote clock offset: -2.505 ms

# Below is generated by plot.py at 2018-06-06 06:08:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.27 Mbit/s
95th percentile per-packet one-way delay: 16.007 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 34.50 Mbit/s
95th percentile per-packet one-way delay: 13.861 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.62 Mbit/s
95th percentile per-packet one-way delay: 16.319 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 31.56 Mbit/s
95th percentile per-packet one-way delay: 18.485 ms
Loss rate: 0.27%
```
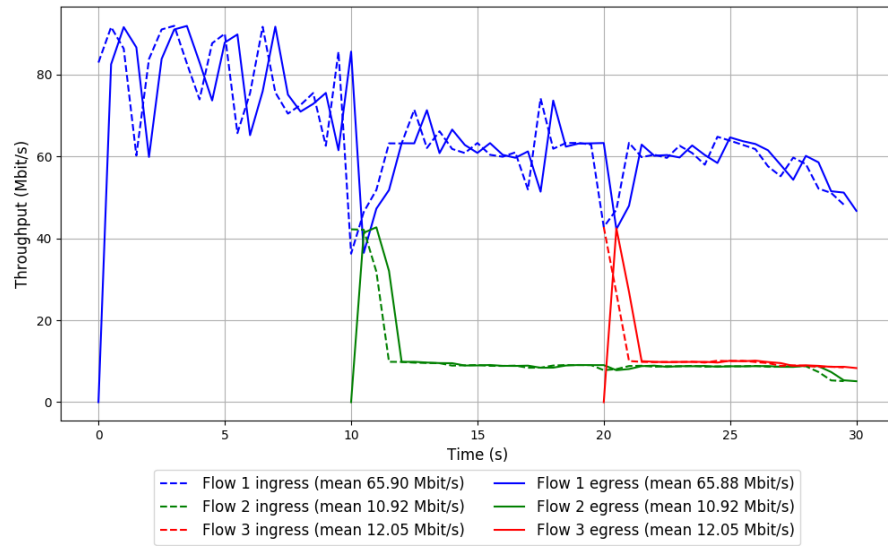
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-06-06 05:08:58
End at: 2018-06-06 05:09:28
Local clock offset: -5.159 ms
Remote clock offset: -2.627 ms


# Below is generated by plot.py at 2018-06-06 06:08:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.43 Mbit/s
95th percentile per-packet one-way delay: 15.824 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 36.29 Mbit/s
95th percentile per-packet one-way delay: 13.418 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 33.24 Mbit/s
95th percentile per-packet one-way delay: 15.628 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 30.43 Mbit/s
95th percentile per-packet one-way delay: 18.854 ms
Loss rate: 0.05%
```
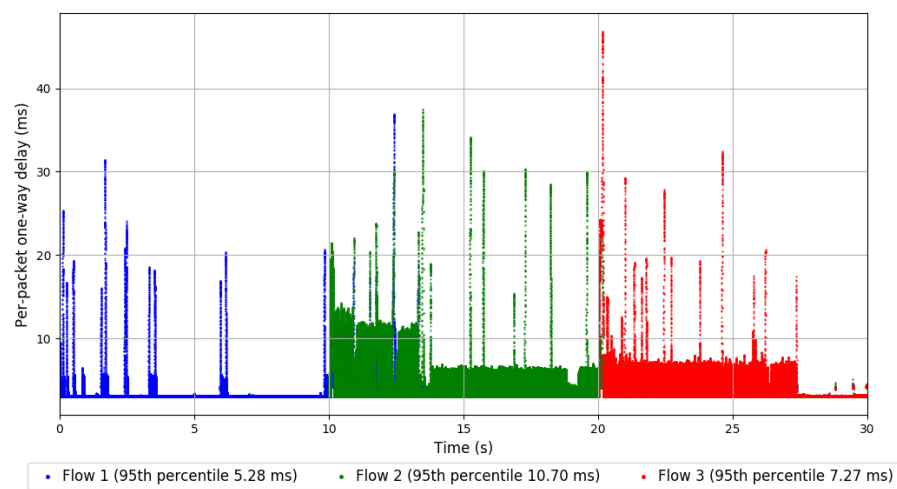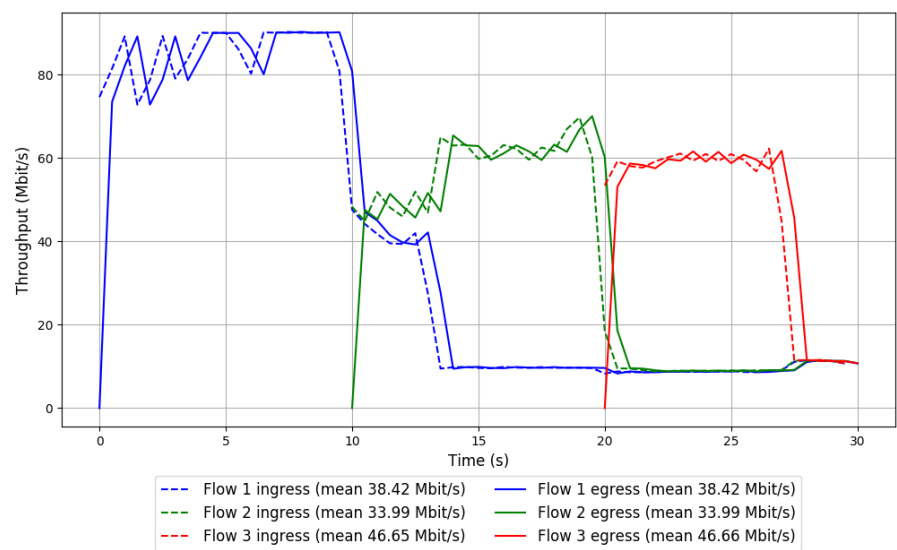
Run 8: Report of Sprout — Data Link



Flow 1 ingress (mean 36.31 Mbit/s)   Flow 1 egress (mean 36.29 Mbit/s)
Flow 2 ingress (mean 33.28 Mbit/s)   Flow 2 egress (mean 33.24 Mbit/s)
Flow 3 ingress (mean 30.40 Mbit/s)   Flow 3 egress (mean 30.43 Mbit/s)



Flow 1 (95th percentile 13.42 ms)   Flow 2 (95th percentile 15.63 ms)   Flow 3 (95th percentile 18.85 ms)

```
Run 9: Statistics of Sprout

Start at: 2018-06-06 05:27:00
End at: 2018-06-06 05:27:30
Local clock offset: -5.064 ms
Remote clock offset: -2.645 ms


# Below is generated by plot.py at 2018-06-06 06:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.68 Mbit/s
95th percentile per-packet one-way delay: 17.296 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 15.705 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.47 Mbit/s
95th percentile per-packet one-way delay: 17.385 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 29.84 Mbit/s
95th percentile per-packet one-way delay: 19.778 ms
Loss rate: 0.00%
```
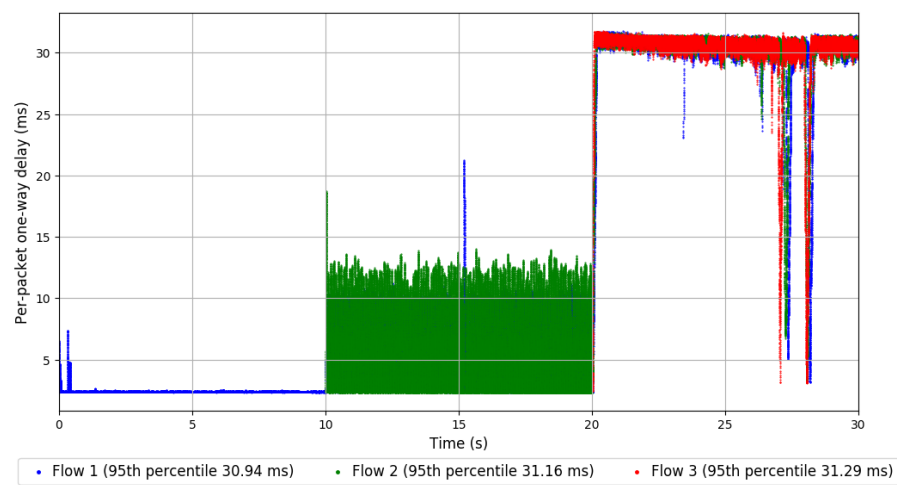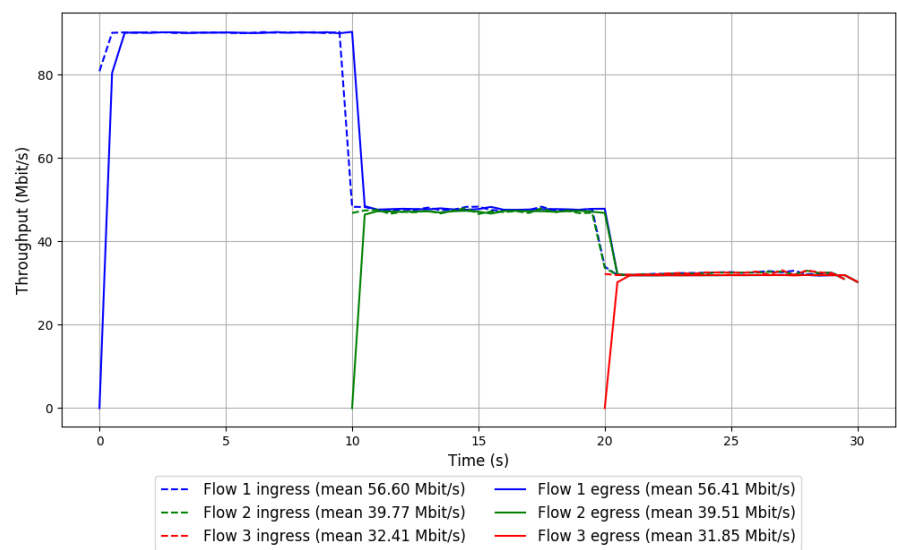
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-06-06 05:45:03
End at: 2018-06-06 05:45:33
Local clock offset: -5.19 ms
Remote clock offset: -2.848 ms


# Below is generated by plot.py at 2018-06-06 06:08:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.18 Mbit/s
95th percentile per-packet one-way delay: 17.959 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 34.67 Mbit/s
95th percentile per-packet one-way delay: 16.204 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 33.62 Mbit/s
95th percentile per-packet one-way delay: 18.545 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 20.129 ms
Loss rate: 0.00%
```

Run 10: Report of Sprout — Data Link



Flow 1 ingress (mean 34.68 Mbit/s)    Flow 1 egress (mean 34.67 Mbit/s)
Flow 2 ingress (mean 33.60 Mbit/s)    Flow 2 egress (mean 33.62 Mbit/s)
Flow 3 ingress (mean 30.86 Mbit/s)    Flow 3 egress (mean 30.84 Mbit/s)



Flow 1 (95th percentile 16.20 ms)    Flow 2 (95th percentile 18.55 ms)    Flow 3 (95th percentile 20.13 ms)
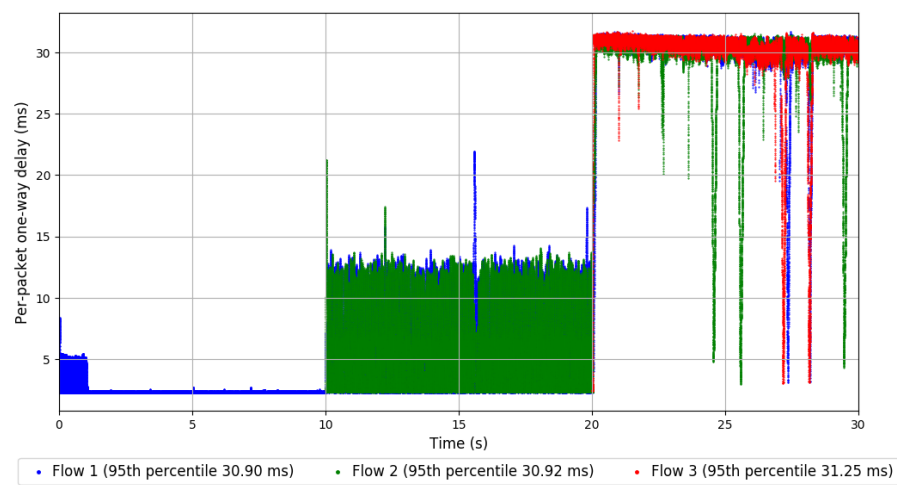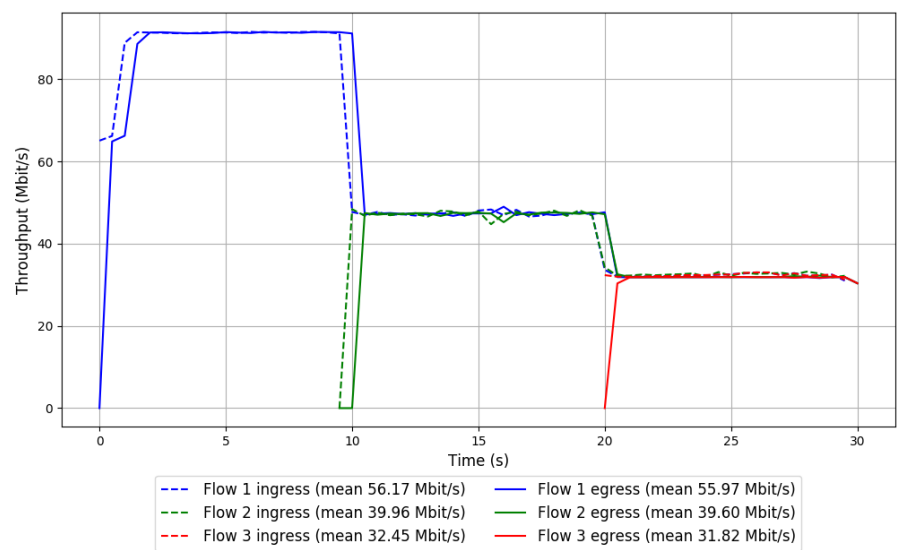
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-06-06 02:49:22
End at: 2018-06-06 02:49:52
Local clock offset: -5.388 ms
Remote clock offset: -2.012 ms

# Below is generated by plot.py at 2018-06-06 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.15 Mbit/s
95th percentile per-packet one-way delay: 6.556 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 65.88 Mbit/s
95th percentile per-packet one-way delay: 6.487 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 6.809 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 10.827 ms
Loss rate: 0.10%
```

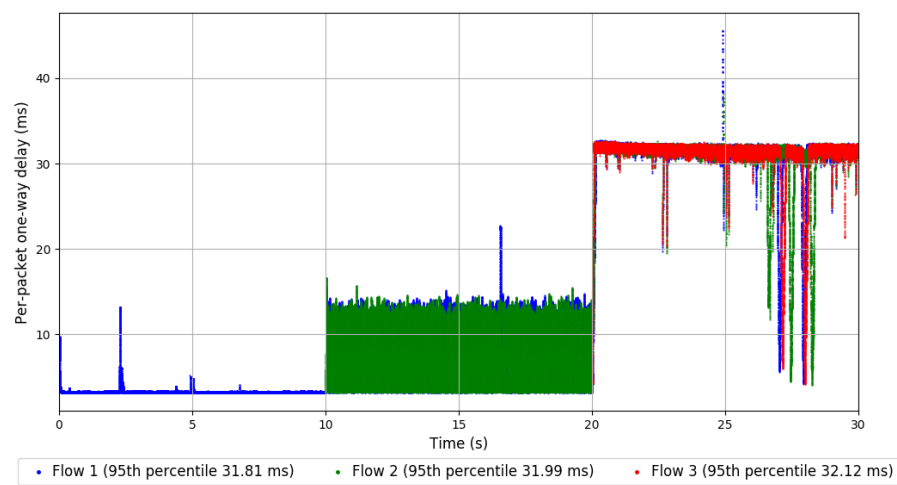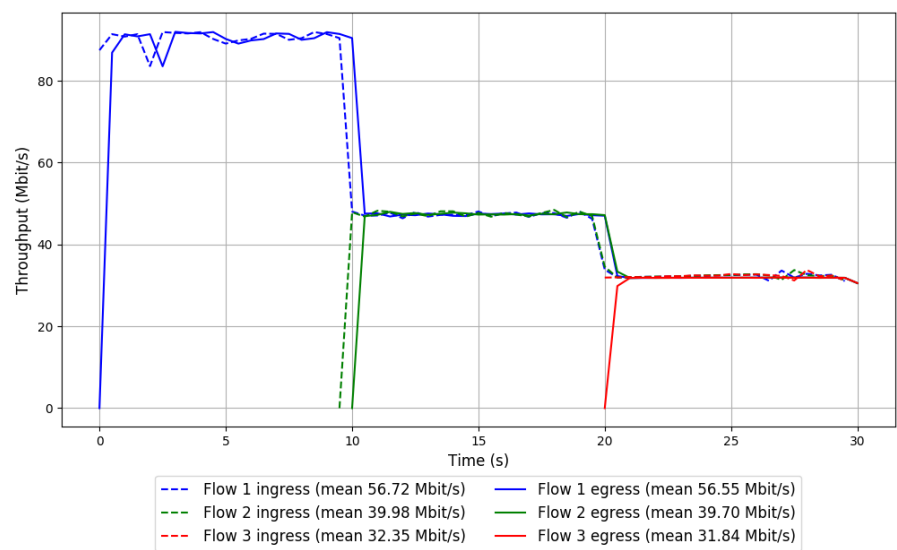# Run 1: Report of TaoVA-100x — Data Link





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

Start at: 2018-06-06 03:07:21
End at: 2018-06-06 03:07:51
Local clock offset: -4.571 ms
Remote clock offset: -1.367 ms


# Below is generated by plot.py at 2018-06-06 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.57 Mbit/s
95th percentile per-packet one-way delay: 7.902 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.42 Mbit/s
95th percentile per-packet one-way delay: 5.278 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 10.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.66 Mbit/s
95th percentile per-packet one-way delay: 7.274 ms
Loss rate: 0.01%
```
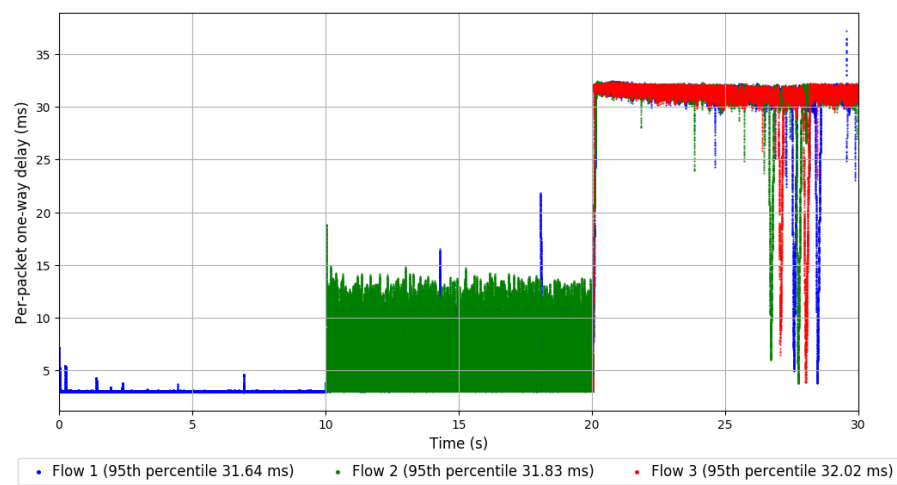
Run 2: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 38.42 Mbit/s) --- Flow 1 egress (mean 38.42 Mbit/s)
Flow 2 ingress (mean 33.99 Mbit/s) --- Flow 2 egress (mean 33.99 Mbit/s)
Flow 3 ingress (mean 46.65 Mbit/s) --- Flow 3 egress (mean 46.66 Mbit/s)



Flow 1 (95th percentile 5.28 ms)    Flow 2 (95th percentile 10.70 ms)    Flow 3 (95th percentile 7.27 ms)

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

Start at: 2018-06-06 03:25:20
End at: 2018-06-06 03:25:50
Local clock offset: -5.075 ms
Remote clock offset: -1.996 ms


# Below is generated by plot.py at 2018-06-06 06:10:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.31 Mbit/s
95th percentile per-packet one-way delay: 31.104 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 56.41 Mbit/s
95th percentile per-packet one-way delay: 30.938 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 31.155 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 31.286 ms
Loss rate: 1.77%
```
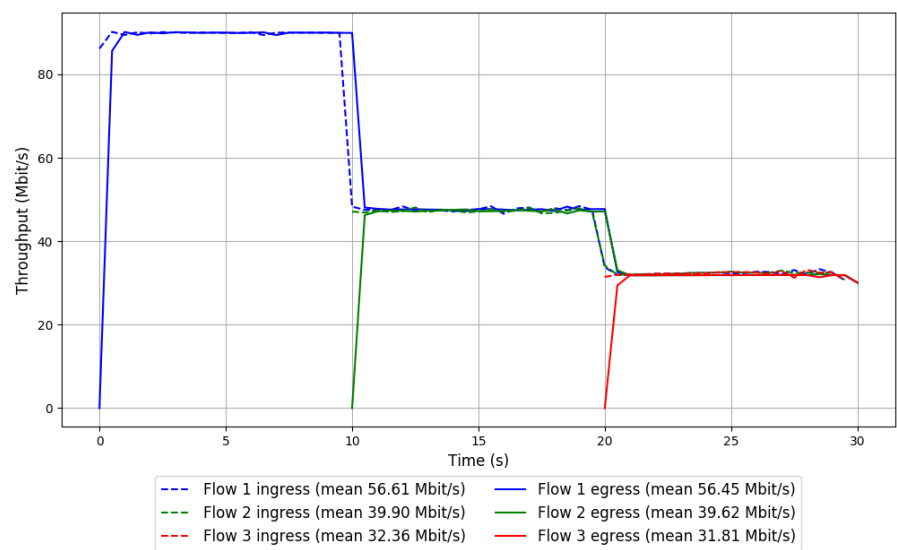
# Run 3: Report of TaoVA-100x — Data Link



- - - Flow 1 ingress (mean 56.60 Mbit/s) —— Flow 1 egress (mean 56.41 Mbit/s)
- - - Flow 2 ingress (mean 39.77 Mbit/s) —— Flow 2 egress (mean 39.51 Mbit/s)
- - - Flow 3 ingress (mean 32.41 Mbit/s) —— Flow 3 egress (mean 31.85 Mbit/s)



• Flow 1 (95th percentile 30.94 ms)   • Flow 2 (95th percentile 31.16 ms)   • Flow 3 (95th percentile 31.29 ms)
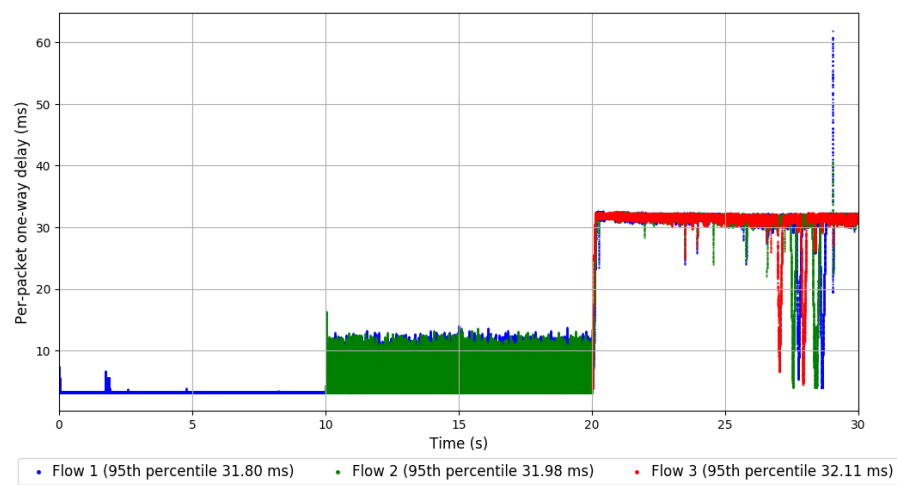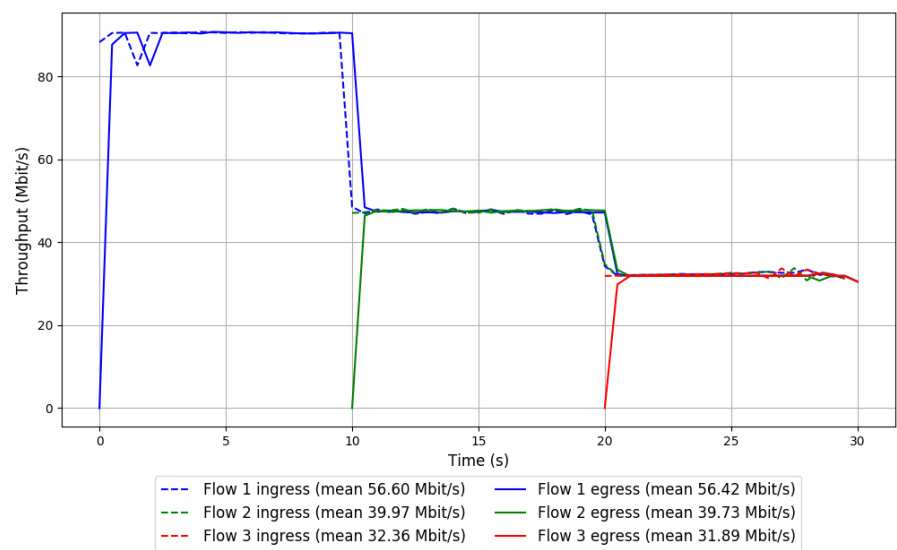
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-06-06 03:43:23
End at: 2018-06-06 03:43:53
Local clock offset: -4.913 ms
Remote clock offset: -2.257 ms

# Below is generated by plot.py at 2018-06-06 06:10:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.93 Mbit/s
95th percentile per-packet one-way delay: 31.016 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 30.900 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 39.60 Mbit/s
95th percentile per-packet one-way delay: 30.919 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 31.251 ms
Loss rate: 1.97%
```

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



Flow 1 ingress (mean 56.17 Mbit/s) --- Flow 1 egress (mean 55.97 Mbit/s)
Flow 2 ingress (mean 39.96 Mbit/s) --- Flow 2 egress (mean 39.60 Mbit/s)
Flow 3 ingress (mean 32.45 Mbit/s) --- Flow 3 egress (mean 31.82 Mbit/s)



Flow 1 (95th percentile 30.90 ms)   Flow 2 (95th percentile 30.92 ms)   Flow 3 (95th percentile 31.25 ms)

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

Start at: 2018-06-06 04:01:26
End at: 2018-06-06 04:01:56
Local clock offset: -4.008 ms
Remote clock offset: -2.362 ms


# Below is generated by plot.py at 2018-06-06 06:10:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.58 Mbit/s
95th percentile per-packet one-way delay: 31.956 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 56.55 Mbit/s
95th percentile per-packet one-way delay: 31.812 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 31.992 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 31.84 Mbit/s
95th percentile per-packet one-way delay: 32.119 ms
Loss rate: 1.75%
```
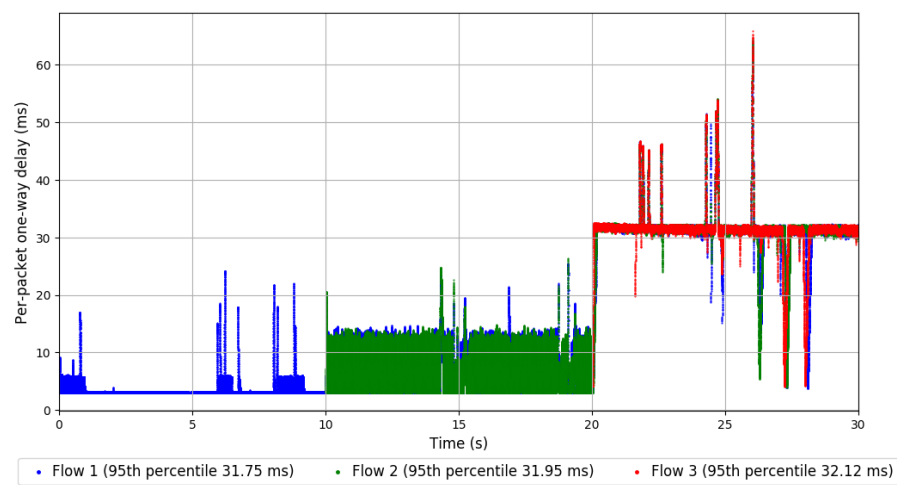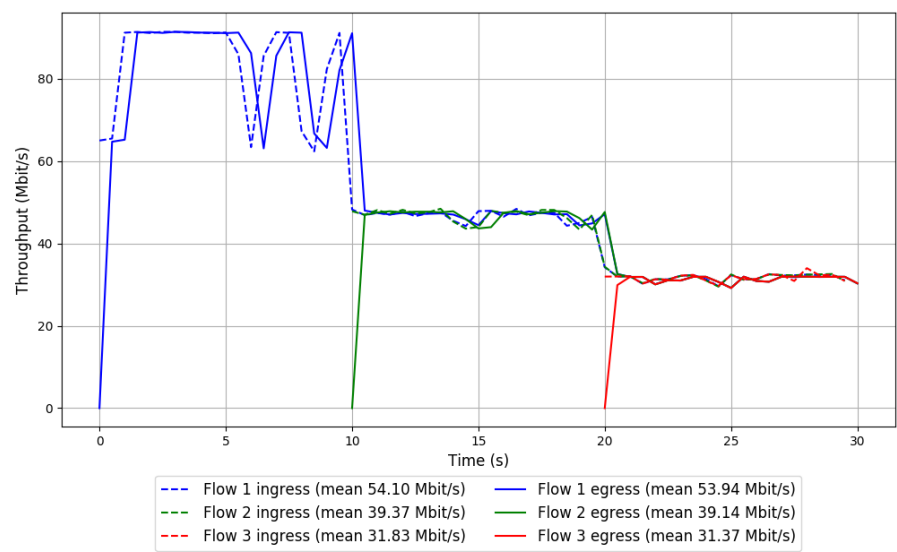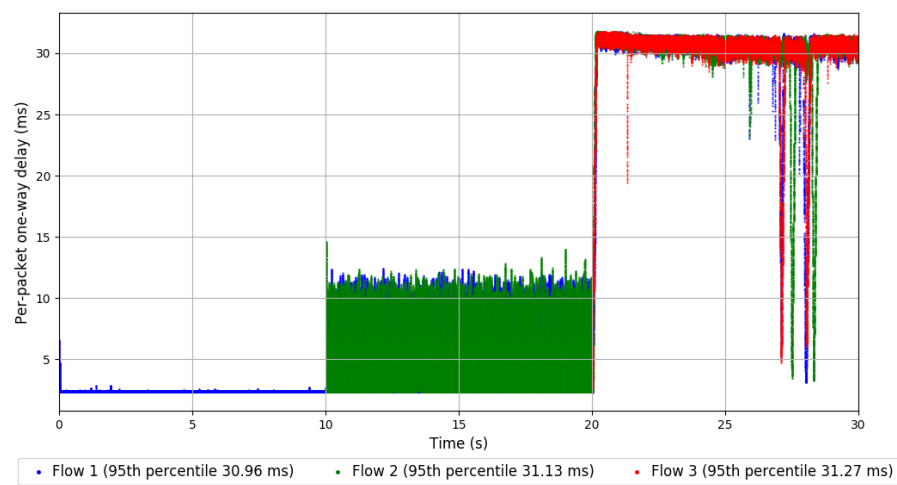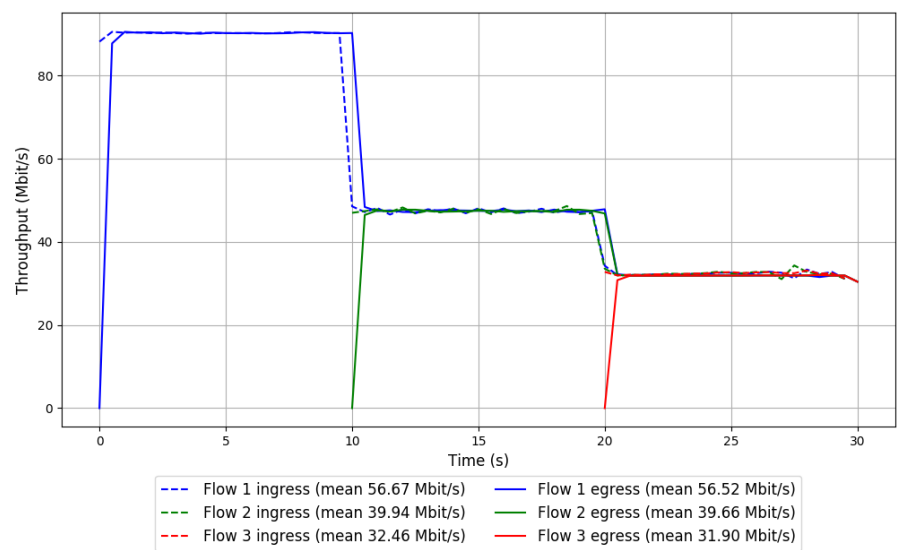
## Run 5: Report of TaoVA-100x — Data Link



- - - - Flow 1 ingress (mean 56.72 Mbit/s)      —— Flow 1 egress (mean 56.55 Mbit/s)
- - - - Flow 2 ingress (mean 39.98 Mbit/s)      —— Flow 2 egress (mean 39.70 Mbit/s)
- - - - Flow 3 ingress (mean 32.35 Mbit/s)      —— Flow 3 egress (mean 31.84 Mbit/s)



- Flow 1 (95th percentile 31.81 ms)    • Flow 2 (95th percentile 31.99 ms)    • Flow 3 (95th percentile 32.12 ms)

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

Start at: 2018-06-06 04:19:29
End at: 2018-06-06 04:19:59
Local clock offset: -4.23 ms
Remote clock offset: -2.223 ms


# Below is generated by plot.py at 2018-06-06 06:10:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.39 Mbit/s
95th percentile per-packet one-way delay: 31.807 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 31.643 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 39.62 Mbit/s
95th percentile per-packet one-way delay: 31.828 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 31.81 Mbit/s
95th percentile per-packet one-way delay: 32.017 ms
Loss rate: 1.79%
```
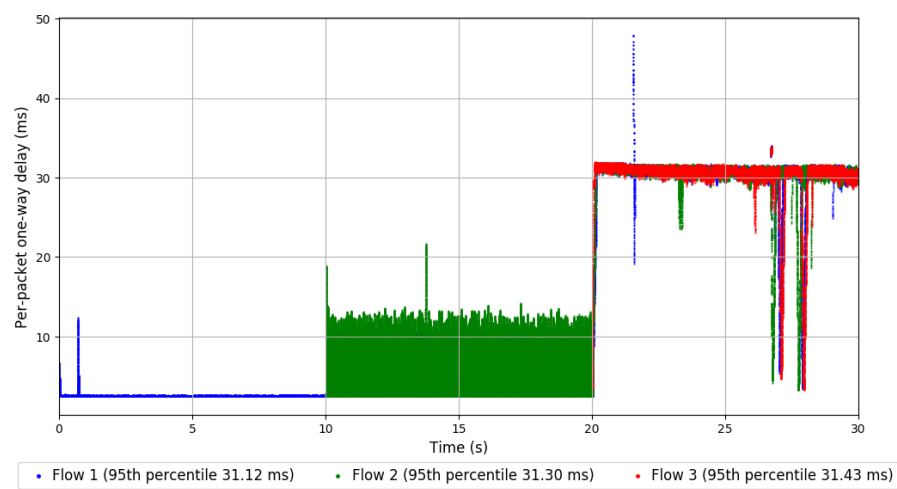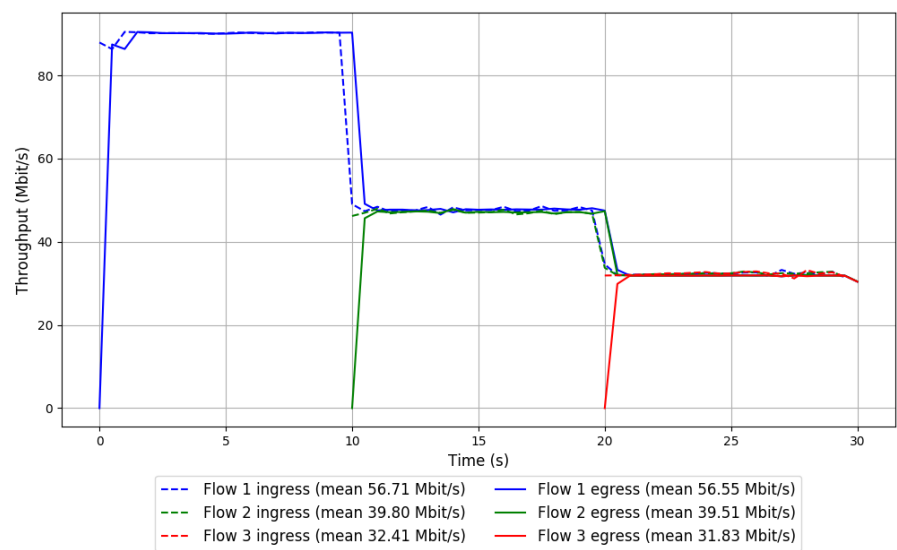
Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-06 04:37:31
End at: 2018-06-06 04:38:01
Local clock offset: -4.262 ms
Remote clock offset: -2.508 ms


# Below is generated by plot.py at 2018-06-06 06:10:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.48 Mbit/s
95th percentile per-packet one-way delay: 31.949 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 31.796 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 31.985 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 32.113 ms
Loss rate: 1.61%
```
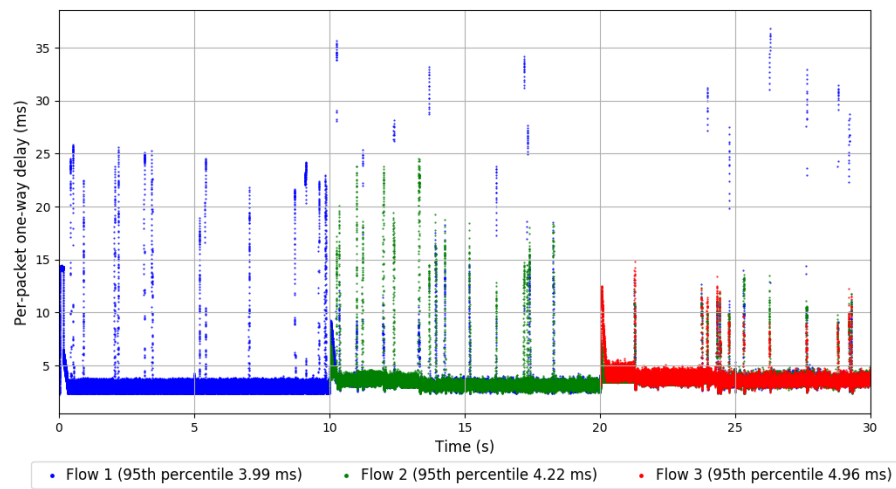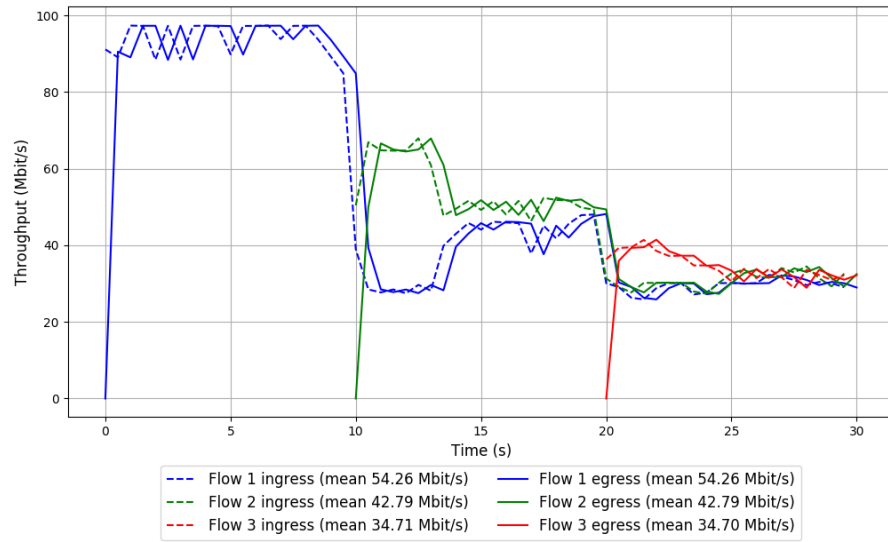
Run 7: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 56.60 Mbit/s)  Flow 1 egress (mean 56.42 Mbit/s)
Flow 2 ingress (mean 39.97 Mbit/s)  Flow 2 egress (mean 39.73 Mbit/s)
Flow 3 ingress (mean 32.36 Mbit/s)  Flow 3 egress (mean 31.89 Mbit/s)



Flow 1 (95th percentile 31.80 ms)   Flow 2 (95th percentile 31.98 ms)   Flow 3 (95th percentile 32.11 ms)
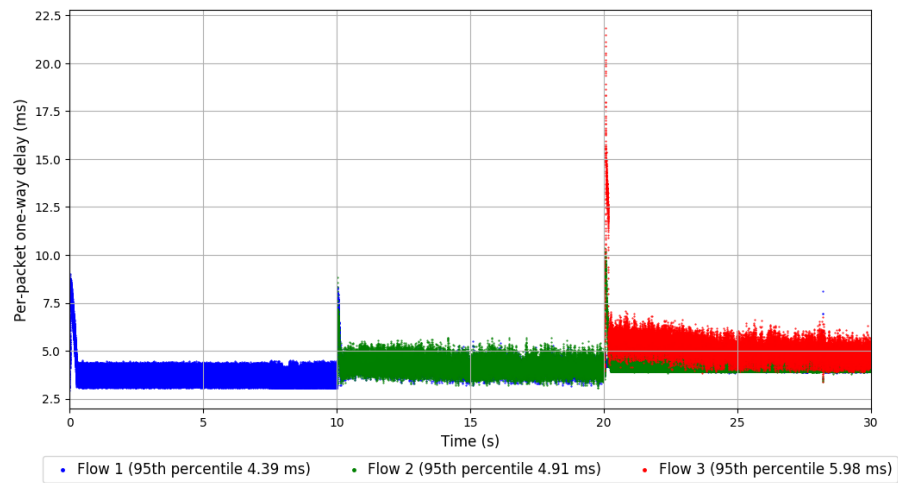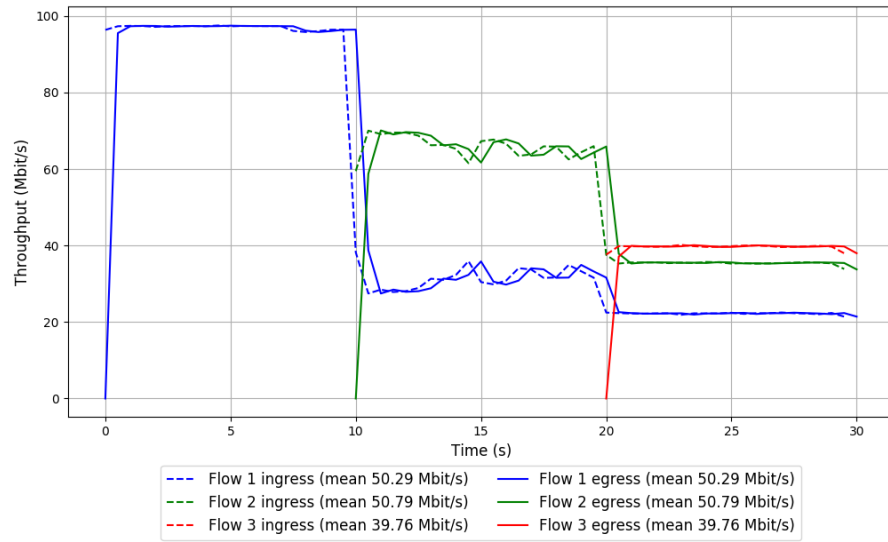
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-06-06 04:55:31
End at: 2018-06-06 04:56:01
Local clock offset: -4.443 ms
Remote clock offset: -2.49 ms


# Below is generated by plot.py at 2018-06-06 06:10:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.44 Mbit/s
95th percentile per-packet one-way delay: 31.910 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 53.94 Mbit/s
95th percentile per-packet one-way delay: 31.750 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 31.953 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 32.118 ms
Loss rate: 1.49%
```

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



Flow 1 ingress (mean 54.10 Mbit/s) — — — Flow 1 egress (mean 53.94 Mbit/s)
Flow 2 ingress (mean 39.37 Mbit/s) — — — Flow 2 egress (mean 39.14 Mbit/s)
Flow 3 ingress (mean 31.83 Mbit/s) — — — Flow 3 egress (mean 31.37 Mbit/s)



Flow 1 (95th percentile 31.75 ms) • Flow 2 (95th percentile 31.95 ms) • Flow 3 (95th percentile 32.12 ms)
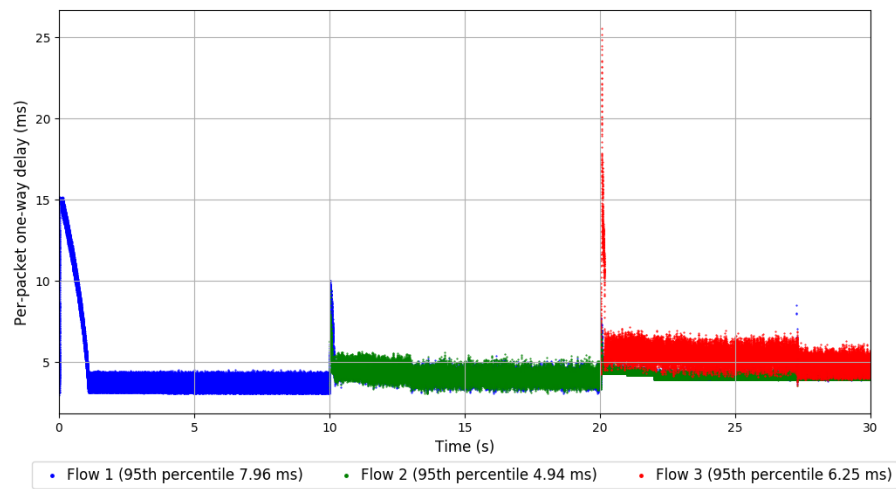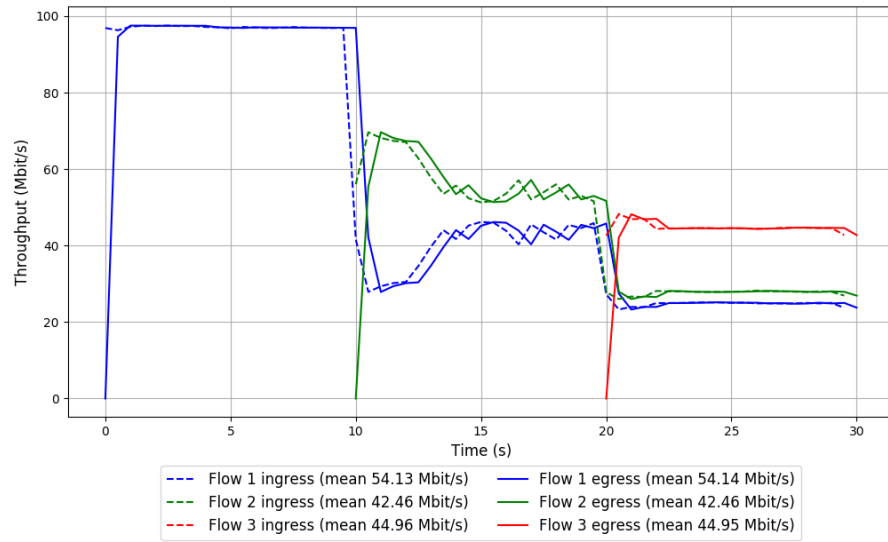
```
Run 9: Statistics of TaoVA-100x

Start at: 2018-06-06 05:13:32
End at: 2018-06-06 05:14:02
Local clock offset: -5.173 ms
Remote clock offset: -2.637 ms


# Below is generated by plot.py at 2018-06-06 06:11:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.52 Mbit/s
95th percentile per-packet one-way delay: 31.101 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 56.52 Mbit/s
95th percentile per-packet one-way delay: 30.963 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 31.134 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 31.268 ms
Loss rate: 1.87%
```

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



Flow 1 ingress (mean 56.67 Mbit/s)      Flow 1 egress (mean 56.52 Mbit/s)
Flow 2 ingress (mean 39.94 Mbit/s)      Flow 2 egress (mean 39.66 Mbit/s)
Flow 3 ingress (mean 32.46 Mbit/s)      Flow 3 egress (mean 31.90 Mbit/s)



Flow 1 (95th percentile 30.96 ms)      Flow 2 (95th percentile 31.13 ms)      Flow 3 (95th percentile 31.27 ms)

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

Start at: 2018-06-06 05:31:34
End at: 2018-06-06 05:32:04
Local clock offset: -5.051 ms
Remote clock offset: -2.762 ms


# Below is generated by plot.py at 2018-06-06 06:11:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.43 Mbit/s
95th percentile per-packet one-way delay: 31.256 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 56.55 Mbit/s
95th percentile per-packet one-way delay: 31.119 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 31.298 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 31.429 ms
Loss rate: 1.95%
```

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



Flow 1 ingress (mean 56.71 Mbit/s) --- Flow 1 egress (mean 56.55 Mbit/s)
Flow 2 ingress (mean 39.80 Mbit/s) --- Flow 2 egress (mean 39.51 Mbit/s)
Flow 3 ingress (mean 32.41 Mbit/s) --- Flow 3 egress (mean 31.83 Mbit/s)



Flow 1 (95th percentile 31.12 ms) • Flow 2 (95th percentile 31.30 ms) • Flow 3 (95th percentile 31.43 ms)
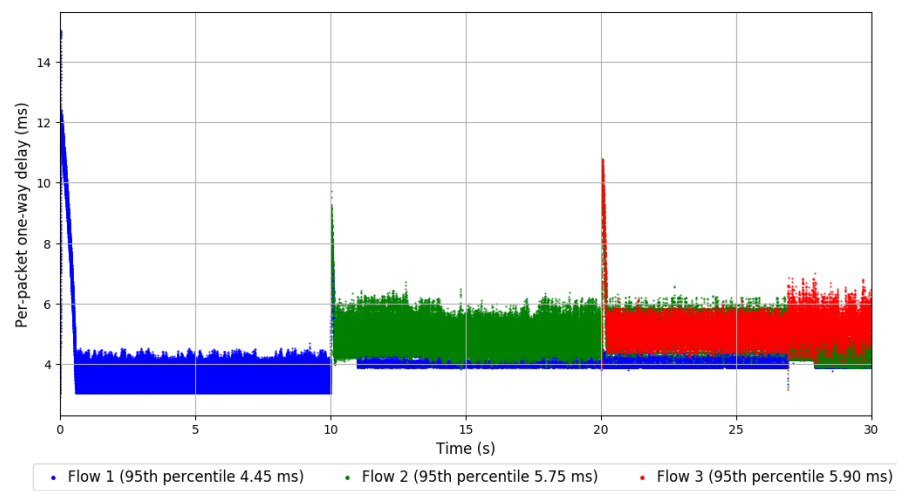
Run 1: Statistics of TCP Vegas

Start at: 2018-06-06 03:06:13
End at: 2018-06-06 03:06:43
Local clock offset: -5.303 ms
Remote clock offset: -1.401 ms


# Below is generated by plot.py at 2018-06-06 06:11:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.29 Mbit/s
95th percentile per-packet one-way delay: 4.399 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 54.26 Mbit/s
95th percentile per-packet one-way delay: 3.989 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.79 Mbit/s
95th percentile per-packet one-way delay: 4.224 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 34.70 Mbit/s
95th percentile per-packet one-way delay: 4.955 ms
Loss rate: 0.04%
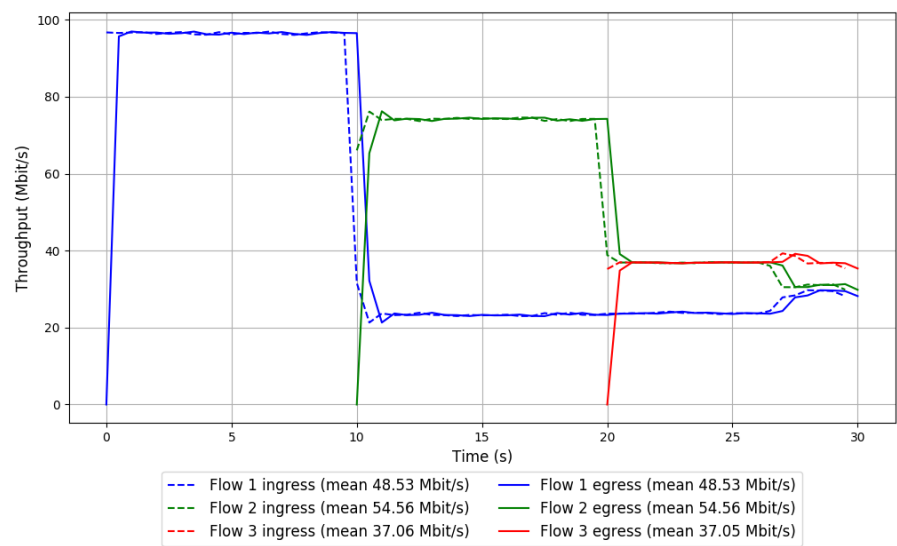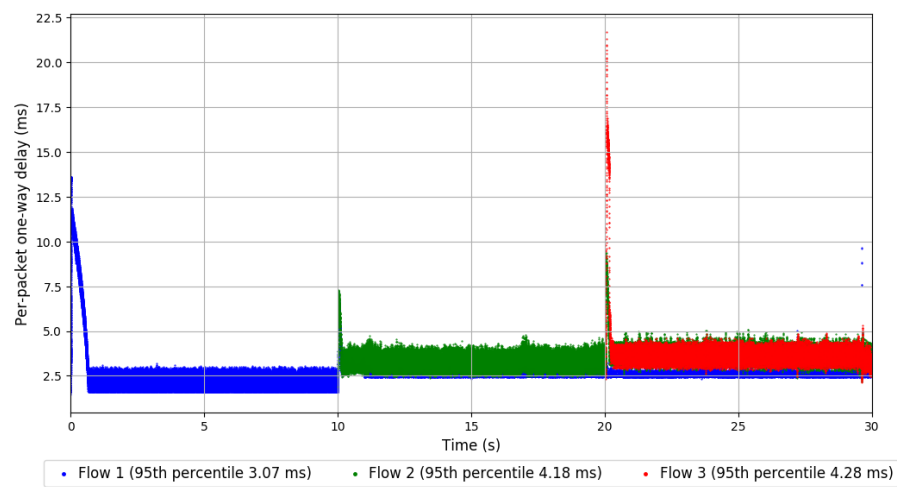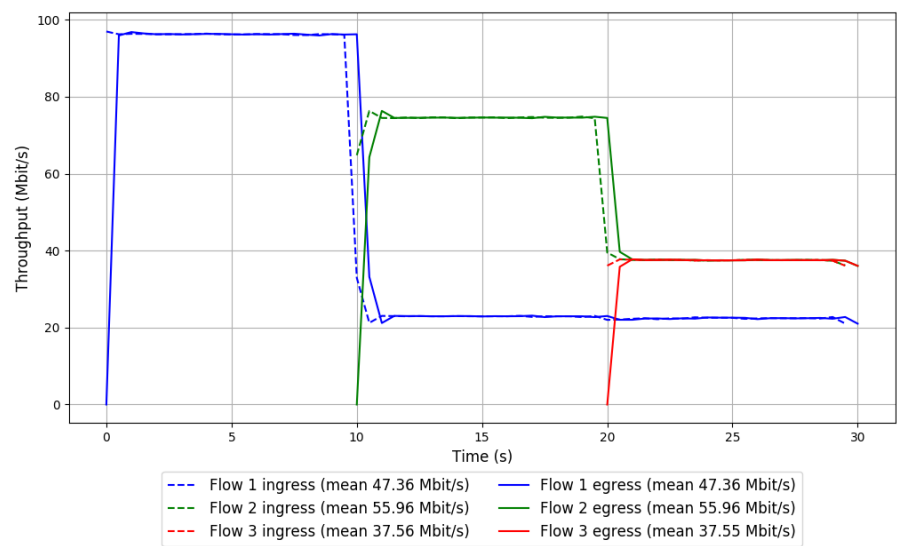
## Run 1: Report of TCP Vegas — Data Link



Flow 1 ingress (mean 54.26 Mbit/s)    Flow 1 egress (mean 54.26 Mbit/s)
Flow 2 ingress (mean 42.79 Mbit/s)    Flow 2 egress (mean 42.79 Mbit/s)
Flow 3 ingress (mean 34.71 Mbit/s)    Flow 3 egress (mean 34.70 Mbit/s)



Flow 1 (95th percentile 3.99 ms)    Flow 2 (95th percentile 4.22 ms)    Flow 3 (95th percentile 4.96 ms)

```
Run 2: Statistics of TCP Vegas

Start at: 2018-06-06 03:24:13
End at: 2018-06-06 03:24:43
Local clock offset: -4.391 ms
Remote clock offset: -1.963 ms


# Below is generated by plot.py at 2018-06-06 06:11:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.33 Mbit/s
95th percentile per-packet one-way delay: 5.371 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.29 Mbit/s
95th percentile per-packet one-way delay: 4.395 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.79 Mbit/s
95th percentile per-packet one-way delay: 4.906 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 39.76 Mbit/s
95th percentile per-packet one-way delay: 5.983 ms
Loss rate: 0.05%
```
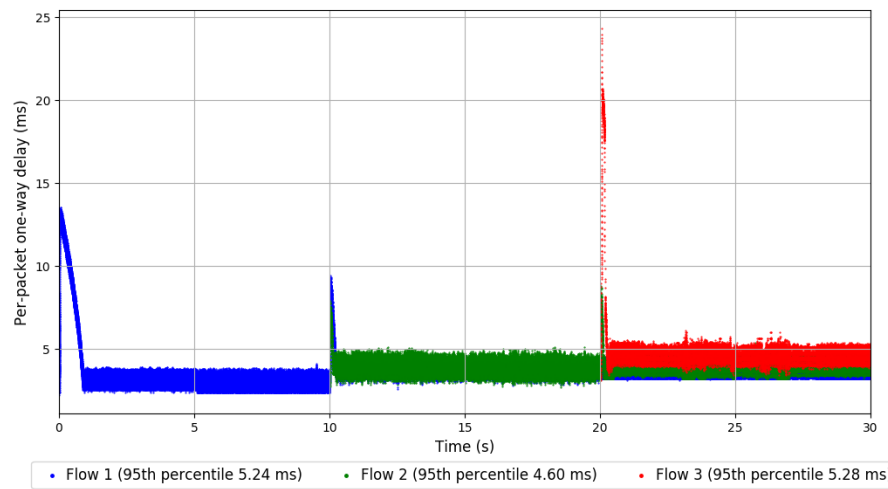
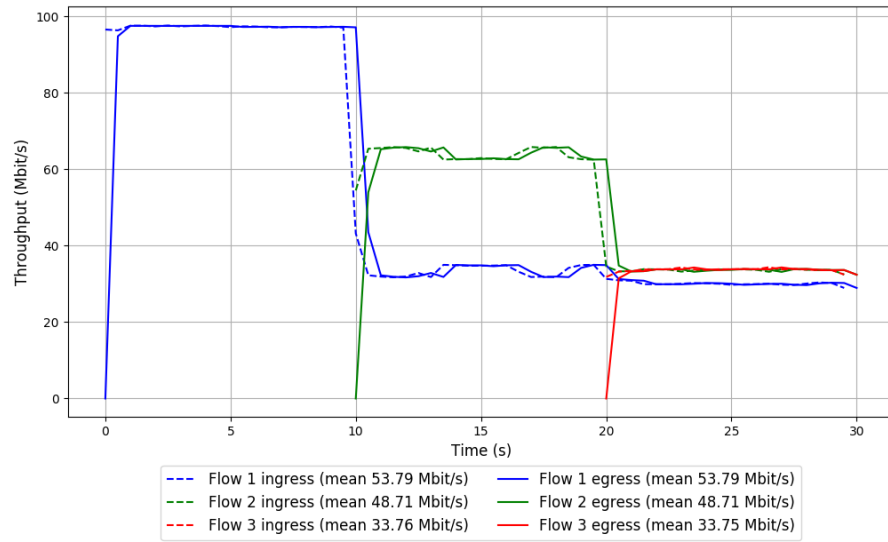## Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-06-06 03:42:16
End at: 2018-06-06 03:42:46
Local clock offset: -4.148 ms
Remote clock offset: -2.287 ms


# Below is generated by plot.py at 2018-06-06 06:11:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 6.074 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 54.14 Mbit/s
95th percentile per-packet one-way delay: 7.958 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.46 Mbit/s
95th percentile per-packet one-way delay: 4.944 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 44.95 Mbit/s
95th percentile per-packet one-way delay: 6.255 ms
Loss rate: 0.05%
```
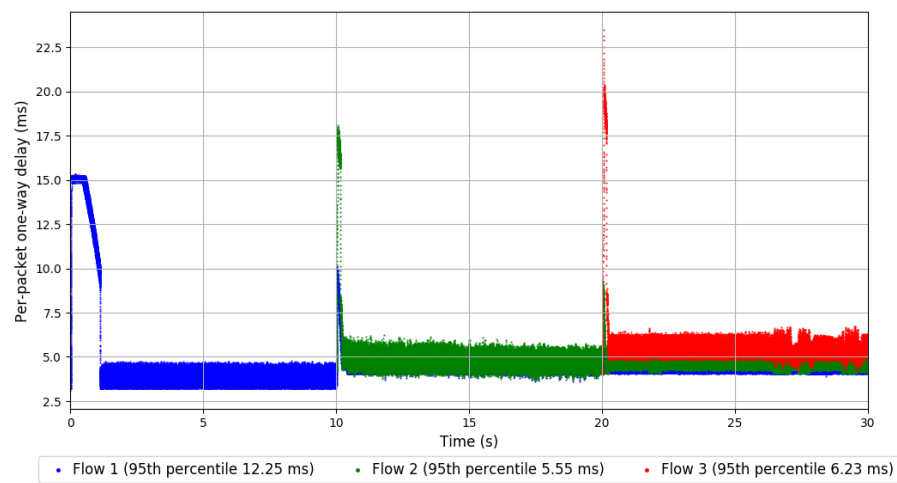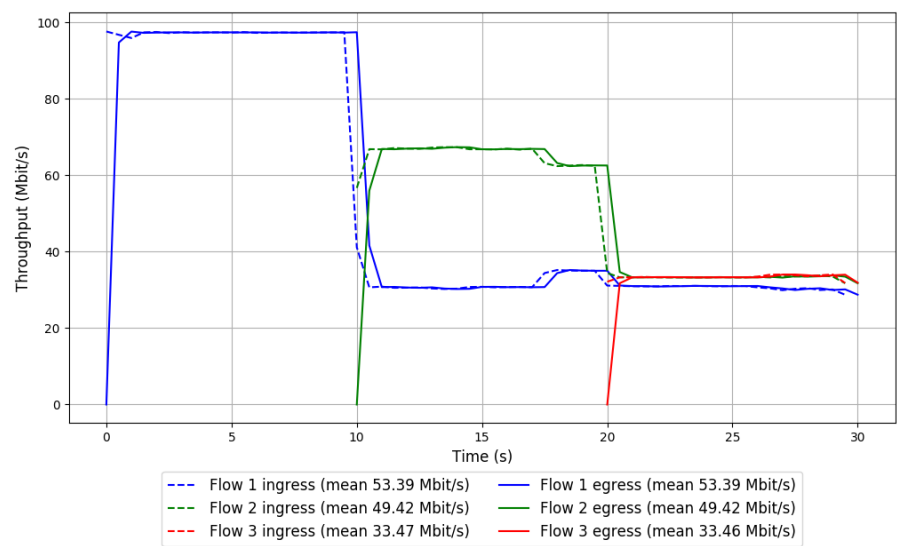
# Run 3: Report of TCP Vegas — Data Link



- - - - Flow 1 ingress (mean 54.13 Mbit/s) ——— Flow 1 egress (mean 54.14 Mbit/s)
- - - - Flow 2 ingress (mean 42.46 Mbit/s) ——— Flow 2 egress (mean 42.46 Mbit/s)
- - - - Flow 3 ingress (mean 44.96 Mbit/s) ——— Flow 3 egress (mean 44.95 Mbit/s)



- Flow 1 (95th percentile 7.96 ms)    • Flow 2 (95th percentile 4.94 ms)    • Flow 3 (95th percentile 6.25 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-06-06 04:00:19
End at: 2018-06-06 04:00:49
Local clock offset: -4.788 ms
Remote clock offset: -2.343 ms


# Below is generated by plot.py at 2018-06-06 06:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 4.867 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.23 Mbit/s
95th percentile per-packet one-way delay: 3.636 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 56.12 Mbit/s
95th percentile per-packet one-way delay: 4.514 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 5.414 ms
Loss rate: 0.05%
```
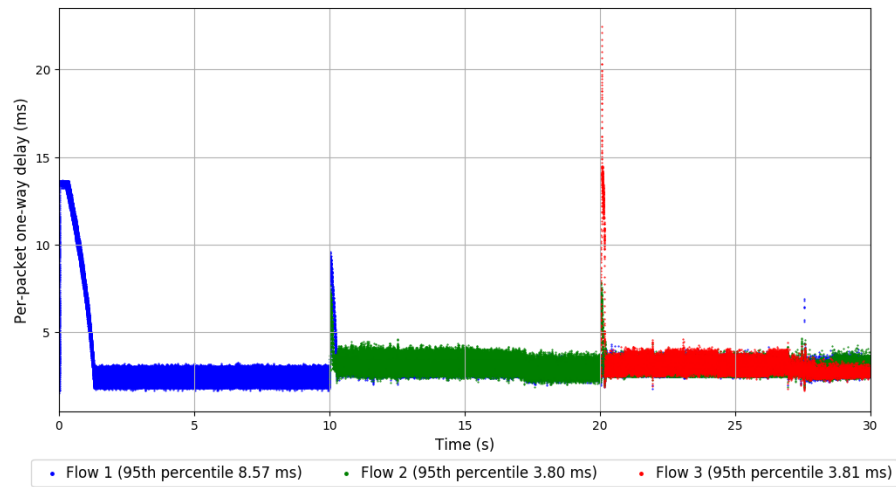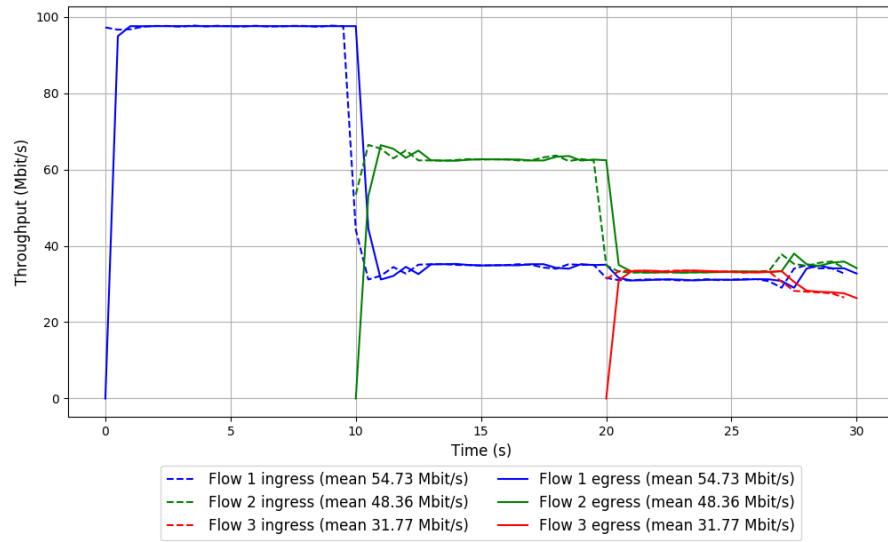
Run 4: Report of TCP Vegas — Data Link



Flow 1 ingress (mean 47.22 Mbit/s)   Flow 1 egress (mean 47.23 Mbit/s)
Flow 2 ingress (mean 56.12 Mbit/s)   Flow 2 egress (mean 56.12 Mbit/s)
Flow 3 ingress (mean 37.68 Mbit/s)   Flow 3 egress (mean 37.67 Mbit/s)



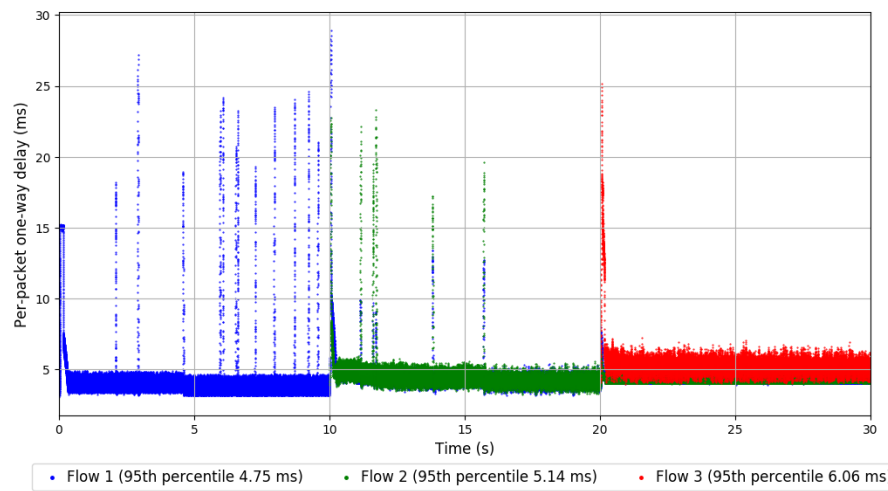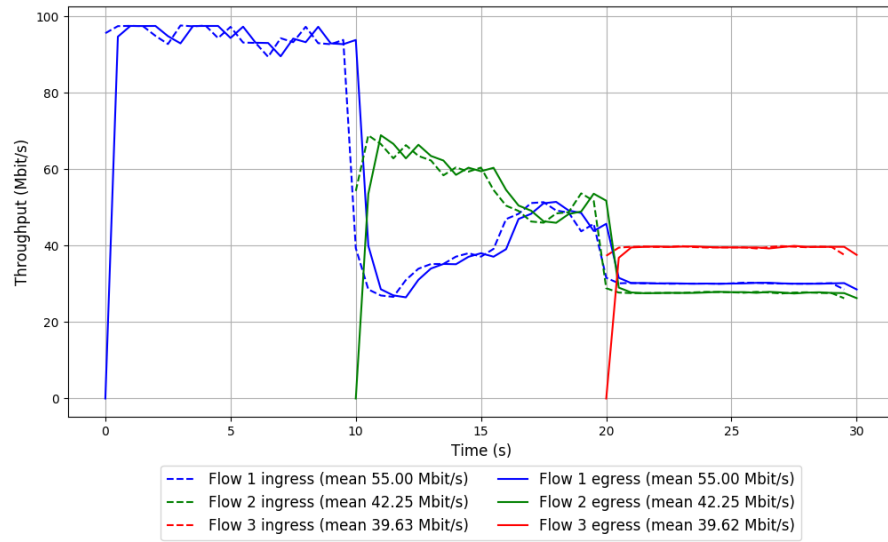Flow 1 (95th percentile 3.64 ms)   Flow 2 (95th percentile 4.51 ms)   Flow 3 (95th percentile 5.41 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2018-06-06 04:18:21
End at: 2018-06-06 04:18:51
Local clock offset: -4.231 ms
Remote clock offset: -2.227 ms


# Below is generated by plot.py at 2018-06-06 06:11:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 5.715 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 48.53 Mbit/s
95th percentile per-packet one-way delay: 4.447 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 54.56 Mbit/s
95th percentile per-packet one-way delay: 5.753 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 37.05 Mbit/s
95th percentile per-packet one-way delay: 5.902 ms
Loss rate: 0.06%
```

# Run 5: Report of TCP Vegas — Data Link



Flow 1 ingress (mean 48.53 Mbit/s) --- Flow 1 egress (mean 48.53 Mbit/s)
Flow 2 ingress (mean 54.56 Mbit/s) --- Flow 2 egress (mean 54.56 Mbit/s)
Flow 3 ingress (mean 37.06 Mbit/s) --- Flow 3 egress (mean 37.05 Mbit/s)



Flow 1 (95th percentile 4.45 ms)    Flow 2 (95th percentile 5.75 ms)    Flow 3 (95th percentile 5.90 ms)

```
Run 6: Statistics of TCP Vegas

Start at: 2018-06-06 04:36:23
End at: 2018-06-06 04:36:53
Local clock offset: -5.845 ms
Remote clock offset: -2.491 ms


# Below is generated by plot.py at 2018-06-06 06:11:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.11 Mbit/s
95th percentile per-packet one-way delay: 4.191 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 47.36 Mbit/s
95th percentile per-packet one-way delay: 3.071 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 55.96 Mbit/s
95th percentile per-packet one-way delay: 4.176 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 4.283 ms
Loss rate: 0.04%
```
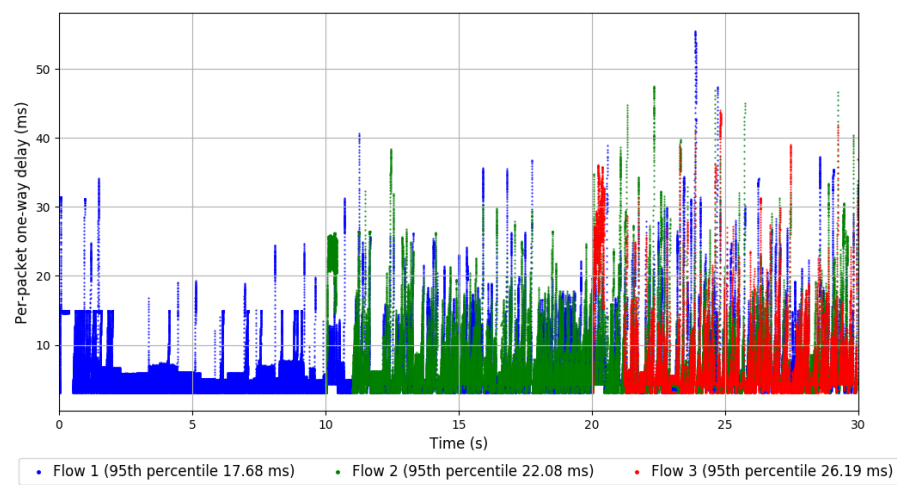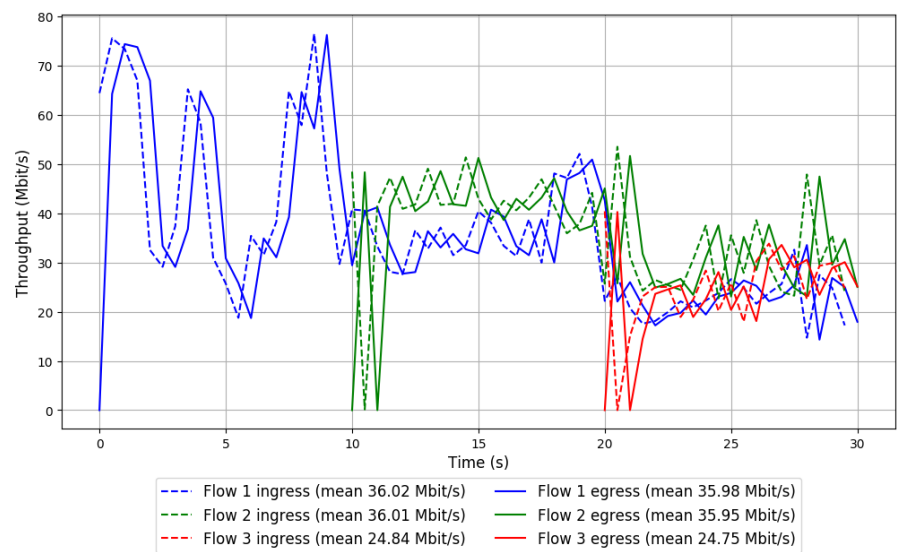
# Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-06-06 04:54:24
End at: 2018-06-06 04:54:54
Local clock offset: -5.268 ms
Remote clock offset: -2.593 ms


# Below is generated by plot.py at 2018-06-06 06:12:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 5.073 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.79 Mbit/s
95th percentile per-packet one-way delay: 5.241 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 48.71 Mbit/s
95th percentile per-packet one-way delay: 4.597 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.75 Mbit/s
95th percentile per-packet one-way delay: 5.279 ms
Loss rate: 0.05%
```

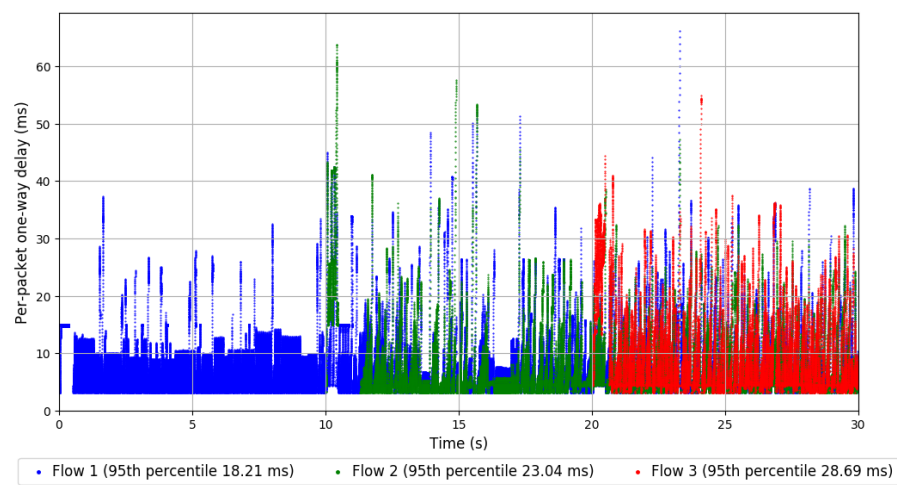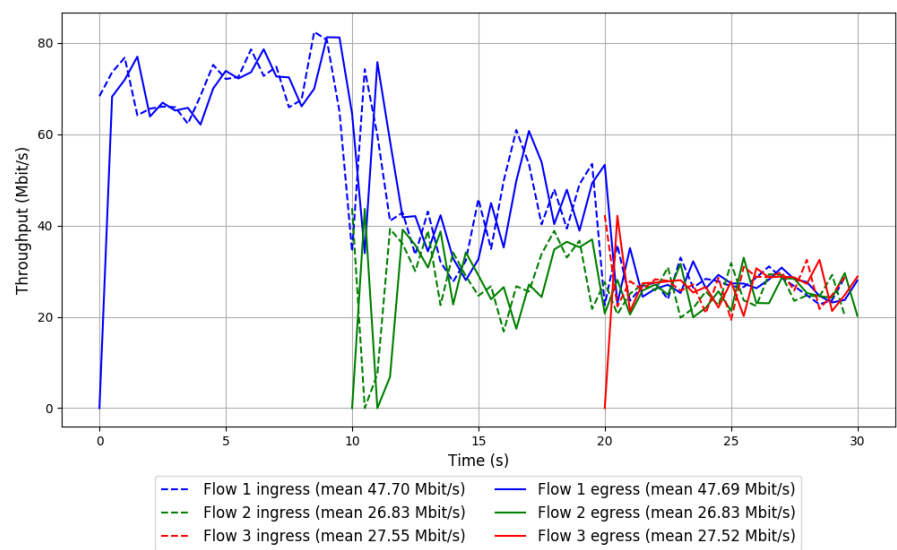# Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-06-06 05:12:24
End at: 2018-06-06 05:12:54
Local clock offset: -4.354 ms
Remote clock offset: -2.666 ms


# Below is generated by plot.py at 2018-06-06 06:12:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.42 Mbit/s
95th percentile per-packet one-way delay: 6.176 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.39 Mbit/s
95th percentile per-packet one-way delay: 12.246 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 49.42 Mbit/s
95th percentile per-packet one-way delay: 5.546 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.46 Mbit/s
95th percentile per-packet one-way delay: 6.226 ms
Loss rate: 0.05%
```
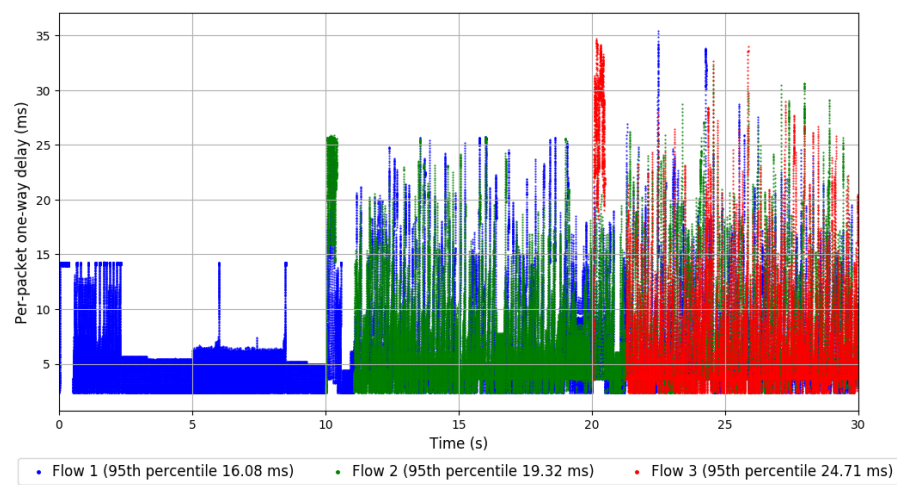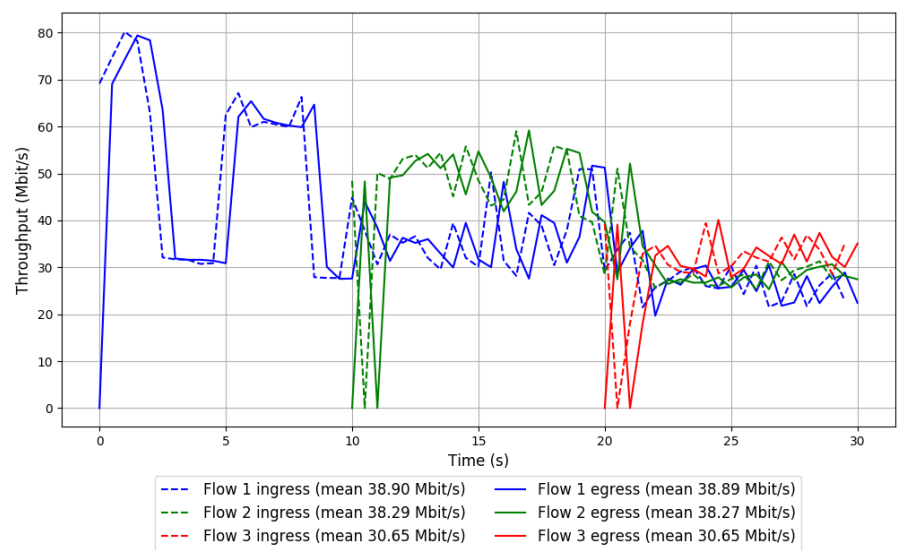
Run 8: Report of TCP Vegas — Data Link



Flow 1 ingress (mean 53.39 Mbit/s) --- Flow 1 egress (mean 53.39 Mbit/s)
Flow 2 ingress (mean 49.42 Mbit/s) --- Flow 2 egress (mean 49.42 Mbit/s)
Flow 3 ingress (mean 33.47 Mbit/s) --- Flow 3 egress (mean 33.46 Mbit/s)

Flow 1 (95th percentile 12.25 ms)    Flow 2 (95th percentile 5.55 ms)    Flow 3 (95th percentile 6.23 ms)

259

```
Run 9: Statistics of TCP Vegas

Start at: 2018-06-06 05:30:26
End at: 2018-06-06 05:30:56
Local clock offset: -5.828 ms
Remote clock offset: -2.643 ms


# Below is generated by plot.py at 2018-06-06 06:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 4.032 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 54.73 Mbit/s
95th percentile per-packet one-way delay: 8.570 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 48.36 Mbit/s
95th percentile per-packet one-way delay: 3.803 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 31.77 Mbit/s
95th percentile per-packet one-way delay: 3.805 ms
Loss rate: 0.05%
```

Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-06-06 05:48:29
End at: 2018-06-06 05:48:59
Local clock offset: -4.391 ms
Remote clock offset: -2.854 ms


# Below is generated by plot.py at 2018-06-06 06:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 5.597 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 4.752 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 5.145 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 39.62 Mbit/s
95th percentile per-packet one-way delay: 6.063 ms
Loss rate: 0.06%
```
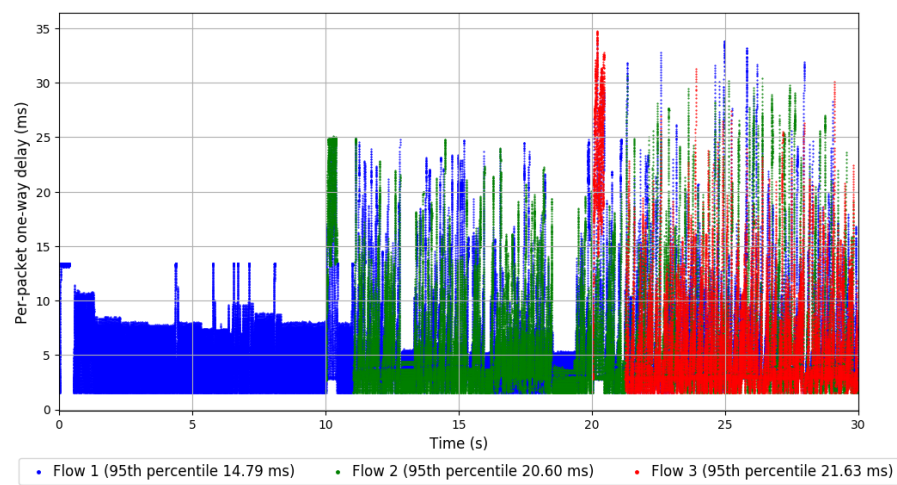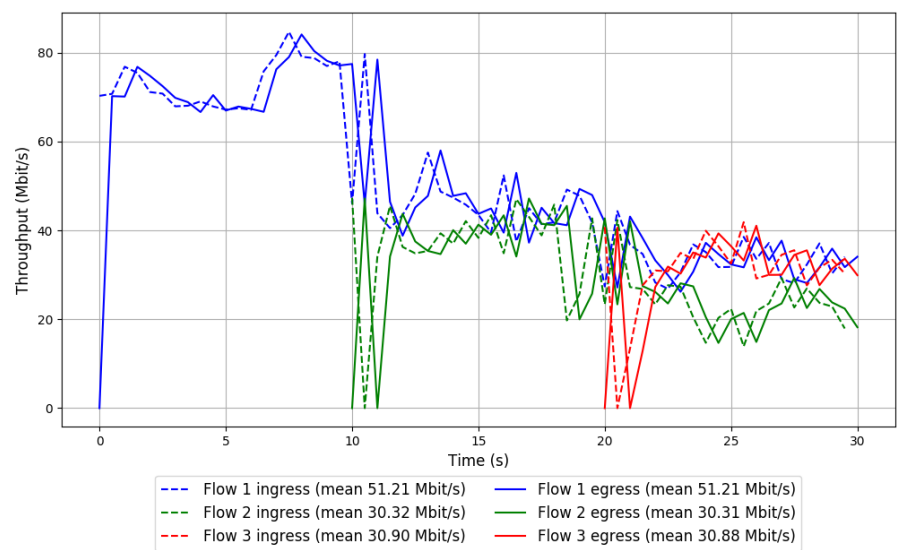
# Run 10: Report of TCP Vegas — Data Link



Flow 1 ingress (mean 55.00 Mbit/s) --- Flow 1 egress (mean 55.00 Mbit/s)
Flow 2 ingress (mean 42.25 Mbit/s) --- Flow 2 egress (mean 42.25 Mbit/s)
Flow 3 ingress (mean 39.63 Mbit/s) --- Flow 3 egress (mean 39.62 Mbit/s)



Flow 1 (95th percentile 4.75 ms) • Flow 2 (95th percentile 5.14 ms) • Flow 3 (95th percentile 6.06 ms)
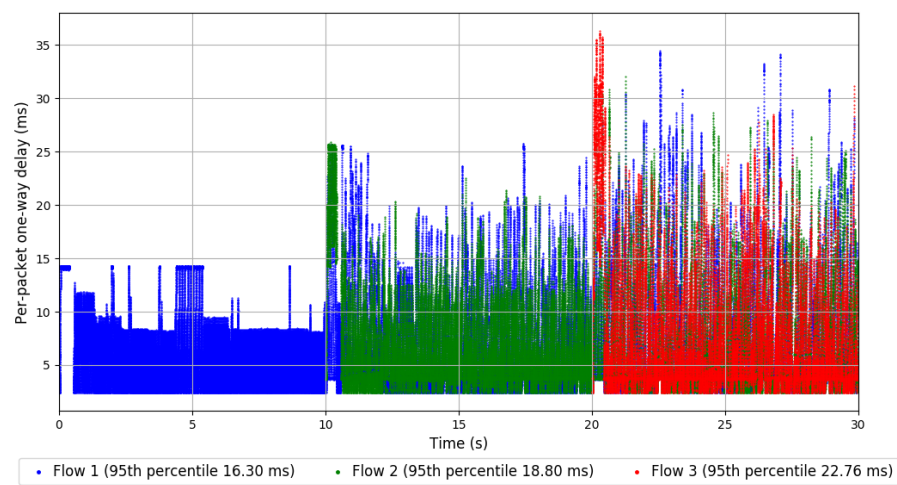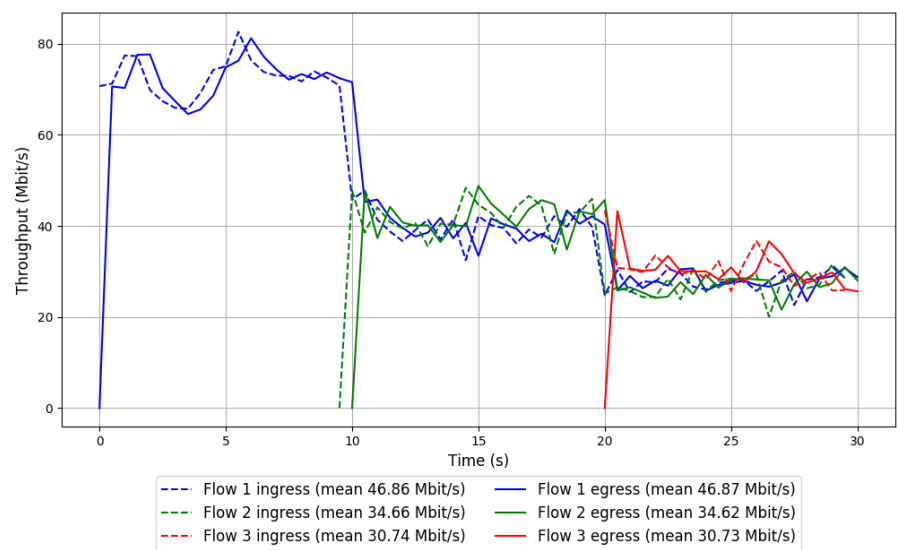
263

```
Run 1: Statistics of Verus

Start at: 2018-06-06 02:53:54
End at: 2018-06-06 02:54:24
Local clock offset: -4.595 ms
Remote clock offset: -1.833 ms


# Below is generated by plot.py at 2018-06-06 06:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.13 Mbit/s
95th percentile per-packet one-way delay: 21.103 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 35.98 Mbit/s
95th percentile per-packet one-way delay: 17.684 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 35.95 Mbit/s
95th percentile per-packet one-way delay: 22.082 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 26.192 ms
Loss rate: 0.03%
```
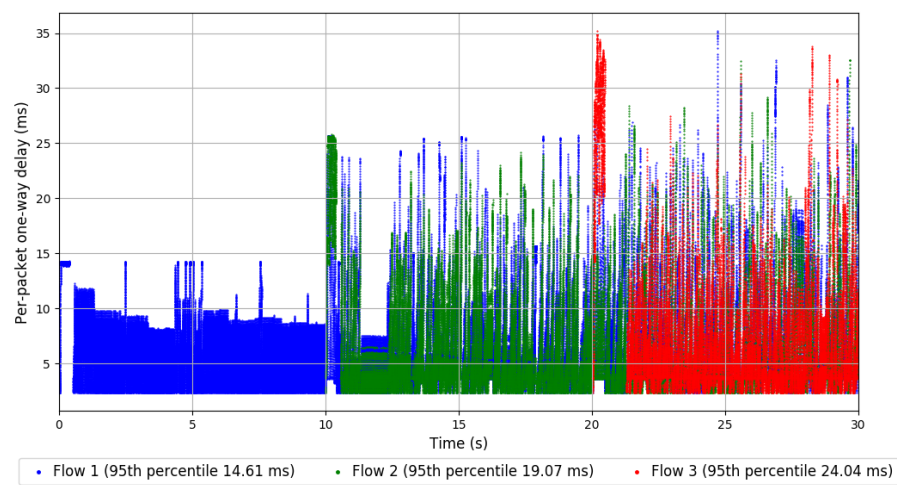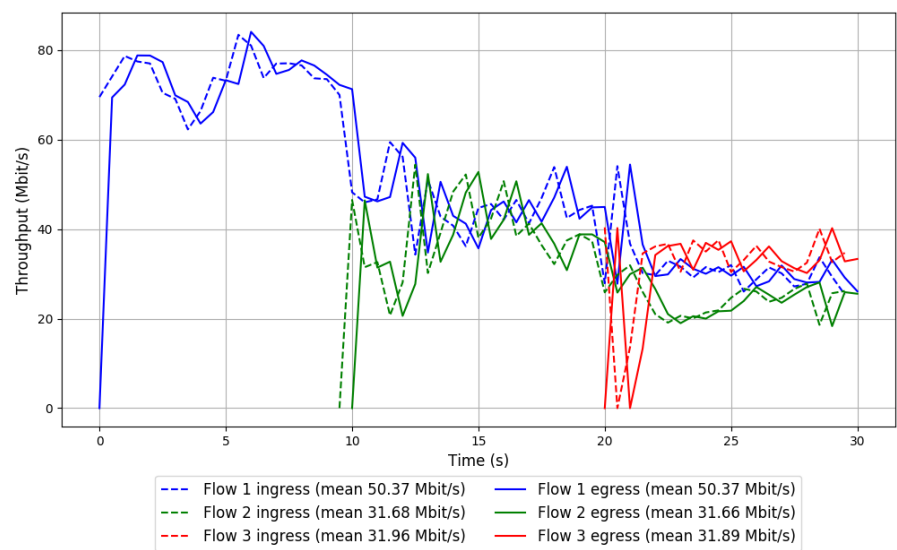
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-06-06 03:11:52
End at: 2018-06-06 03:12:22
Local clock offset: -4.424 ms
Remote clock offset: -1.278 ms


# Below is generated by plot.py at 2018-06-06 06:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.68 Mbit/s
95th percentile per-packet one-way delay: 22.186 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 47.69 Mbit/s
95th percentile per-packet one-way delay: 18.208 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 26.83 Mbit/s
95th percentile per-packet one-way delay: 23.035 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 27.52 Mbit/s
95th percentile per-packet one-way delay: 28.693 ms
Loss rate: 0.10%
```
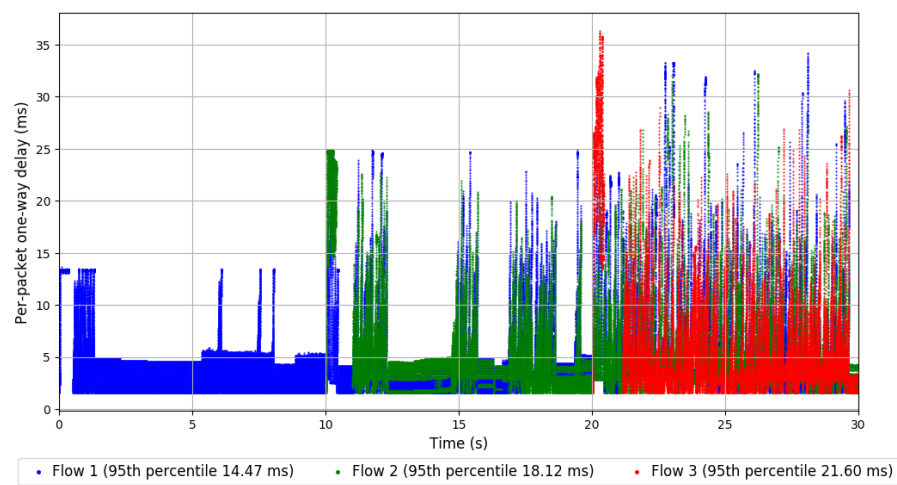
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-06-06 03:29:53
End at: 2018-06-06 03:30:23
Local clock offset: -5.05 ms
Remote clock offset: -2.217 ms


# Below is generated by plot.py at 2018-06-06 06:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.57 Mbit/s
95th percentile per-packet one-way delay: 18.436 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 38.89 Mbit/s
95th percentile per-packet one-way delay: 16.078 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.27 Mbit/s
95th percentile per-packet one-way delay: 19.321 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 30.65 Mbit/s
95th percentile per-packet one-way delay: 24.714 ms
Loss rate: 0.03%
```
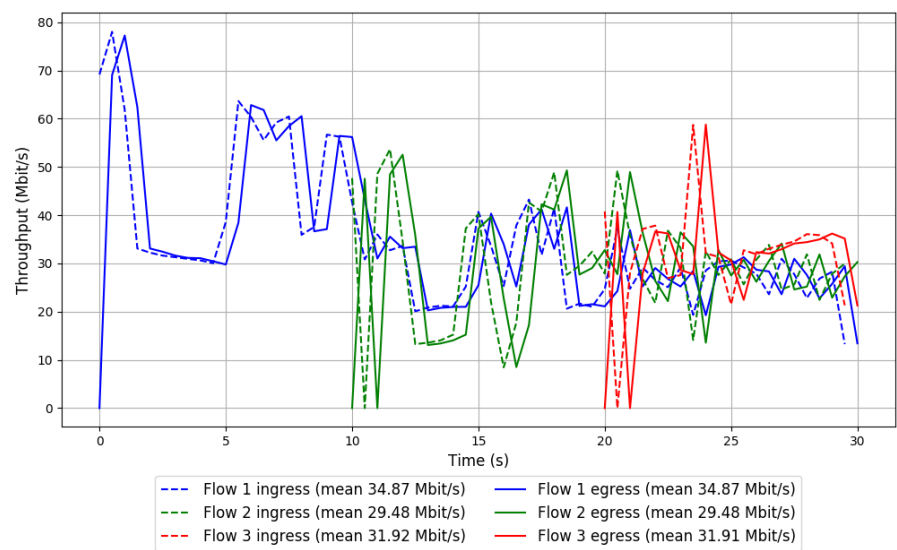
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-06-06 03:47:56
End at: 2018-06-06 03:48:26
Local clock offset: -5.632 ms
Remote clock offset: -2.29 ms


# Below is generated by plot.py at 2018-06-06 06:12:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.64 Mbit/s
95th percentile per-packet one-way delay: 17.826 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 51.21 Mbit/s
95th percentile per-packet one-way delay: 14.786 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 30.31 Mbit/s
95th percentile per-packet one-way delay: 20.596 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 21.632 ms
Loss rate: 0.09%
```
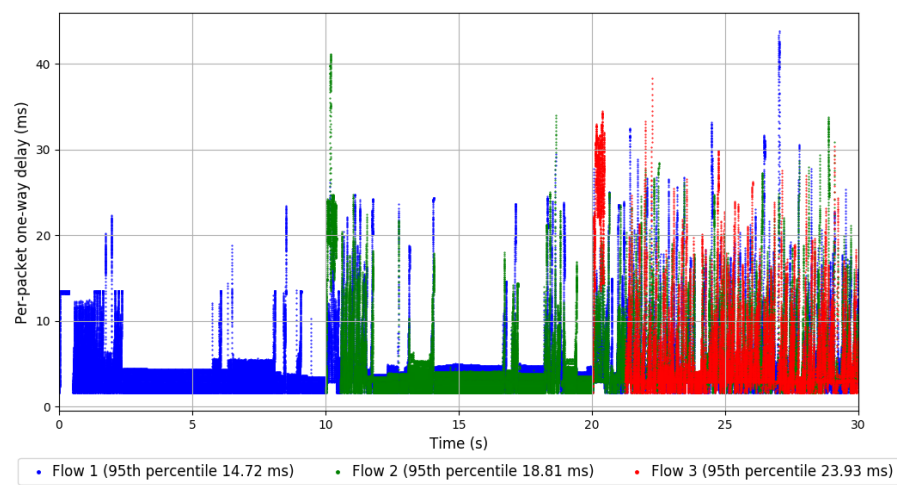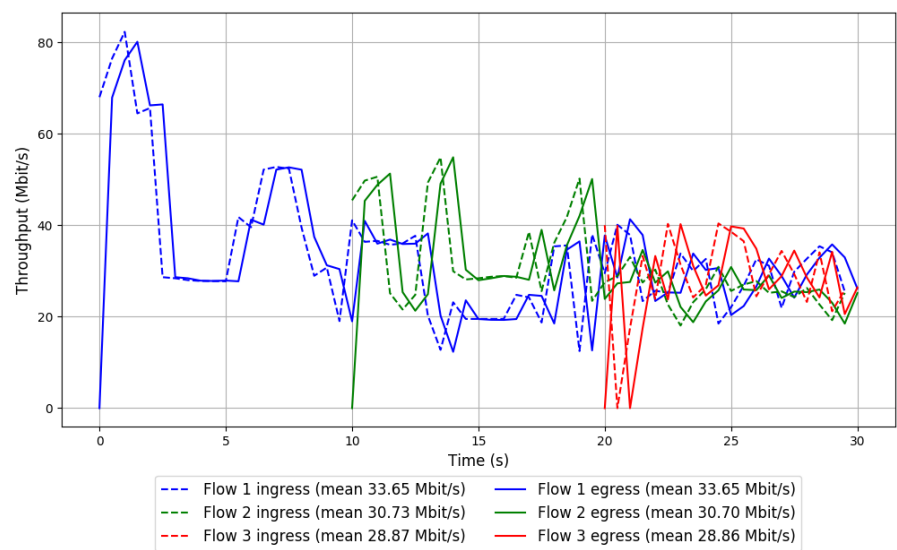
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-06-06 04:05:59
End at: 2018-06-06 04:06:29
Local clock offset: -4.829 ms
Remote clock offset: -2.317 ms


# Below is generated by plot.py at 2018-06-06 06:13:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.15 Mbit/s
95th percentile per-packet one-way delay: 18.061 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 16.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 18.797 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 22.756 ms
Loss rate: 0.07%
```

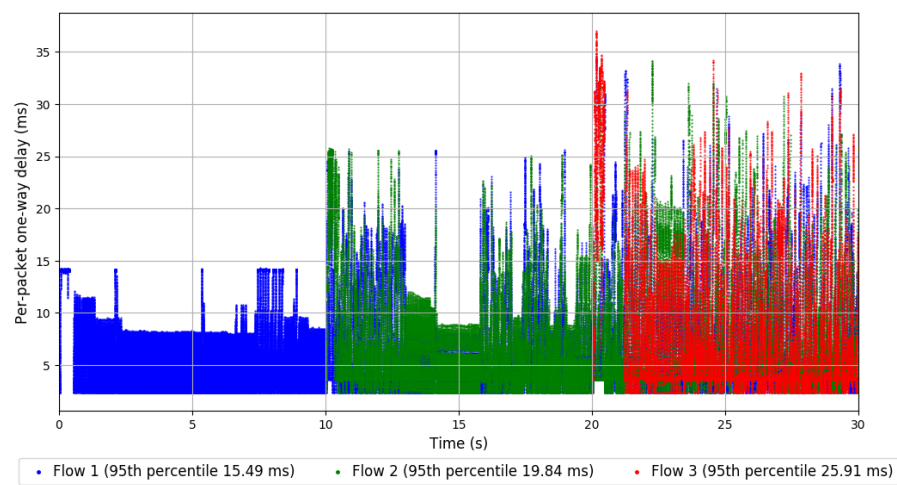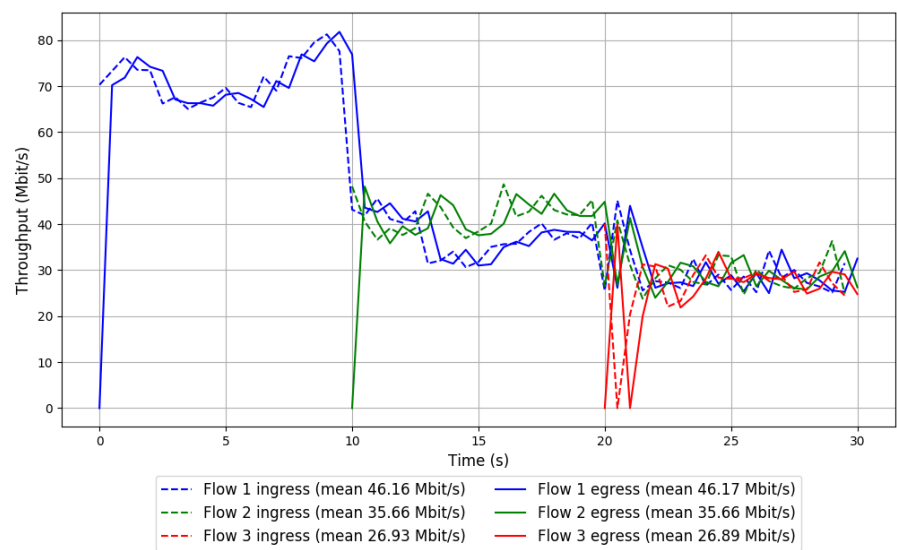## Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-06-06 04:24:02
End at: 2018-06-06 04:24:32
Local clock offset: -4.956 ms
Remote clock offset: -2.234 ms


# Below is generated by plot.py at 2018-06-06 06:13:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.06 Mbit/s
95th percentile per-packet one-way delay: 17.088 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 50.37 Mbit/s
95th percentile per-packet one-way delay: 14.607 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.66 Mbit/s
95th percentile per-packet one-way delay: 19.072 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 24.042 ms
Loss rate: 0.25%
```
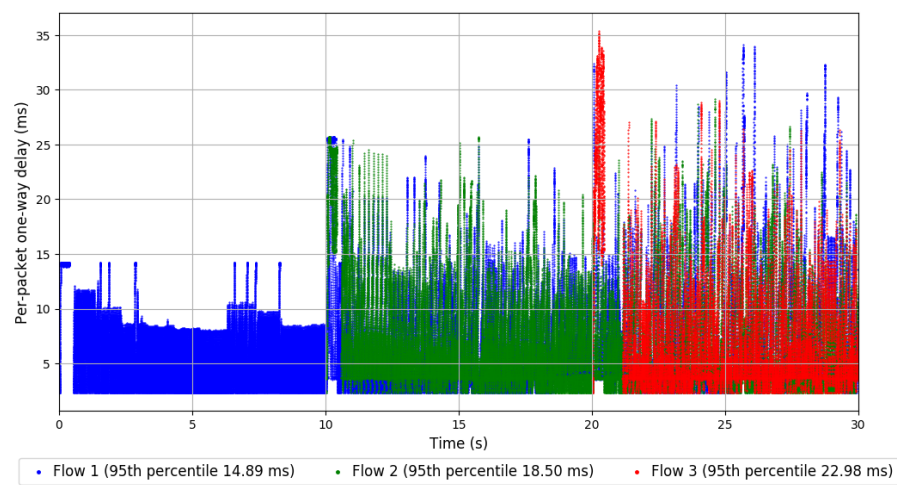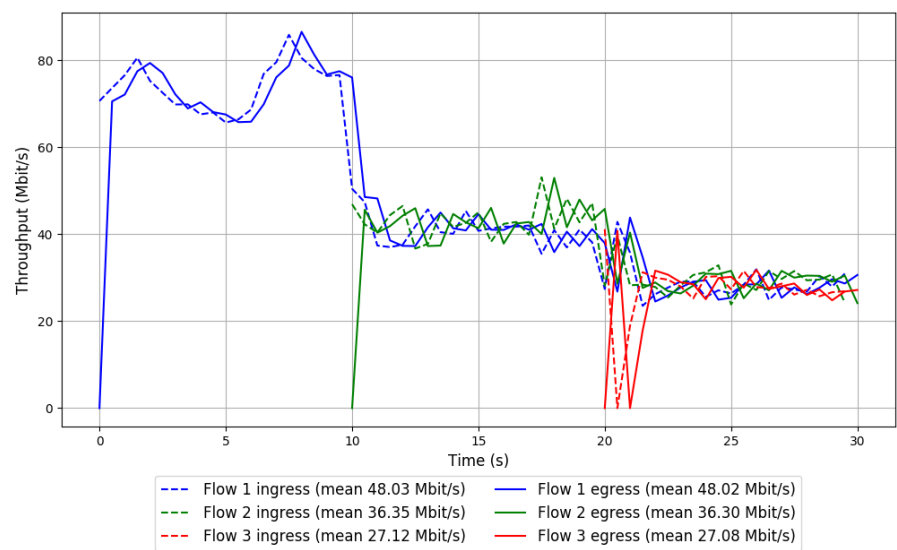
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-06-06 04:42:03
End at: 2018-06-06 04:42:33
Local clock offset: -5.874 ms
Remote clock offset: -2.472 ms

# Below is generated by plot.py at 2018-06-06 06:13:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.10 Mbit/s
95th percentile per-packet one-way delay: 16.893 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 34.87 Mbit/s
95th percentile per-packet one-way delay: 14.467 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.48 Mbit/s
95th percentile per-packet one-way delay: 18.121 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 21.601 ms
Loss rate: 0.03%
```

## Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-06-06 05:00:04
End at: 2018-06-06 05:00:34
Local clock offset: -5.977 ms
Remote clock offset: -2.581 ms

# Below is generated by plot.py at 2018-06-06 06:13:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.68 Mbit/s
95th percentile per-packet one-way delay: 17.733 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 33.65 Mbit/s
95th percentile per-packet one-way delay: 14.718 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 18.812 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 28.86 Mbit/s
95th percentile per-packet one-way delay: 23.935 ms
Loss rate: 0.07%
```
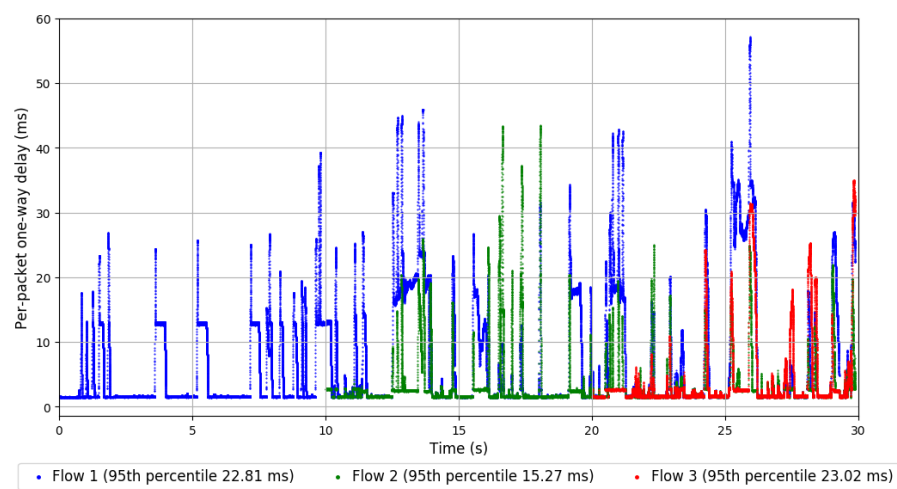
Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-06-06 05:18:05
End at: 2018-06-06 05:18:35
Local clock offset: -5.146 ms
Remote clock offset: -2.624 ms


# Below is generated by plot.py at 2018-06-06 06:13:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.83 Mbit/s
95th percentile per-packet one-way delay: 18.631 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 46.17 Mbit/s
95th percentile per-packet one-way delay: 15.488 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.66 Mbit/s
95th percentile per-packet one-way delay: 19.836 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 26.89 Mbit/s
95th percentile per-packet one-way delay: 25.910 ms
Loss rate: 0.02%
```
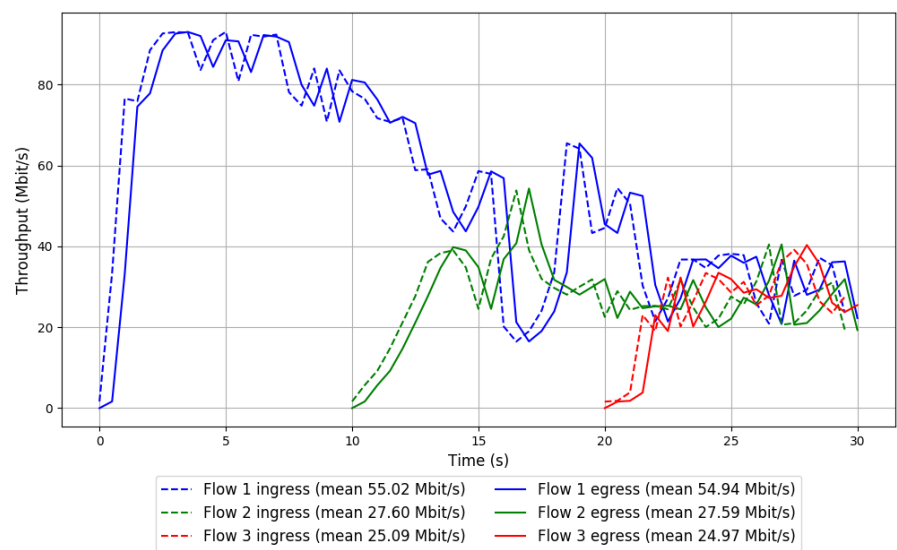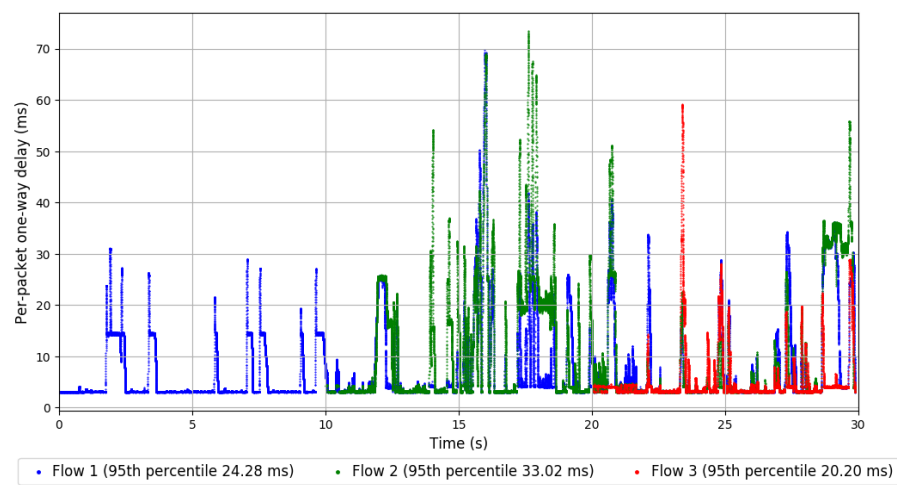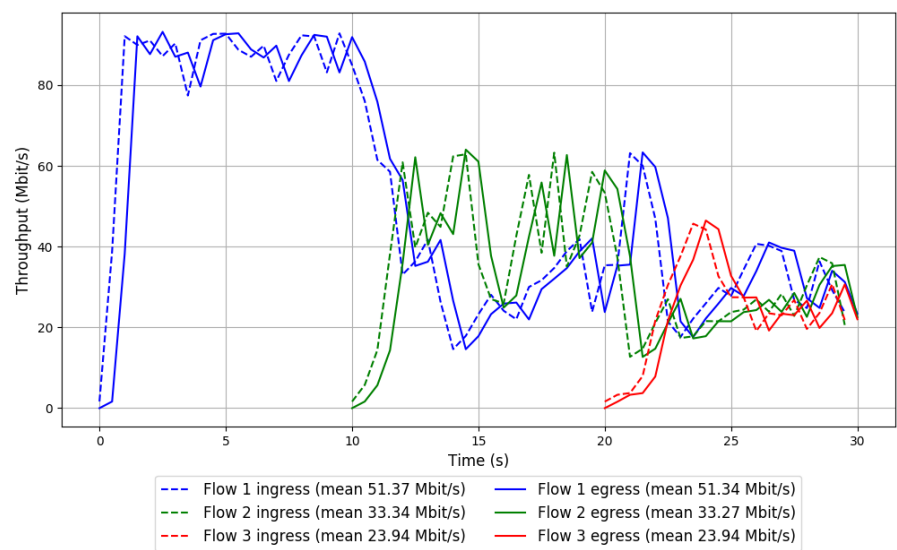
Run 9: Report of Verus — Data Link



- - - - Flow 1 ingress (mean 46.16 Mbit/s) —— Flow 1 egress (mean 46.17 Mbit/s)
- - - - Flow 2 ingress (mean 35.66 Mbit/s) —— Flow 2 egress (mean 35.66 Mbit/s)
- - - - Flow 3 ingress (mean 26.93 Mbit/s) —— Flow 3 egress (mean 26.89 Mbit/s)



• Flow 1 (95th percentile 15.49 ms)     • Flow 2 (95th percentile 19.84 ms)     • Flow 3 (95th percentile 25.91 ms)

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```
Run 10: Statistics of Verus

Start at: 2018-06-06 05:36:07
End at: 2018-06-06 05:36:37
Local clock offset: -5.08 ms
Remote clock offset: -2.649 ms


# Below is generated by plot.py at 2018-06-06 06:13:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.20 Mbit/s
95th percentile per-packet one-way delay: 17.435 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 48.02 Mbit/s
95th percentile per-packet one-way delay: 14.889 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 36.30 Mbit/s
95th percentile per-packet one-way delay: 18.498 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 27.08 Mbit/s
95th percentile per-packet one-way delay: 22.981 ms
Loss rate: 0.15%
```

## Run 10: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-06 02:50:32
End at: 2018-06-06 02:51:02
Local clock offset: -6.155 ms
Remote clock offset: -1.98 ms


# Below is generated by plot.py at 2018-06-06 06:13:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.53 Mbit/s
95th percentile per-packet one-way delay: 20.274 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 22.807 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 15.266 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 24.97 Mbit/s
95th percentile per-packet one-way delay: 23.023 ms
Loss rate: 0.51%
```
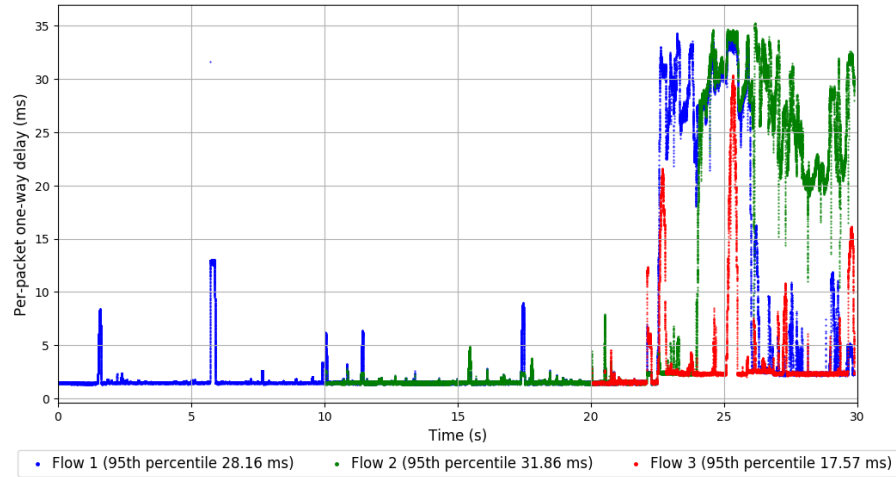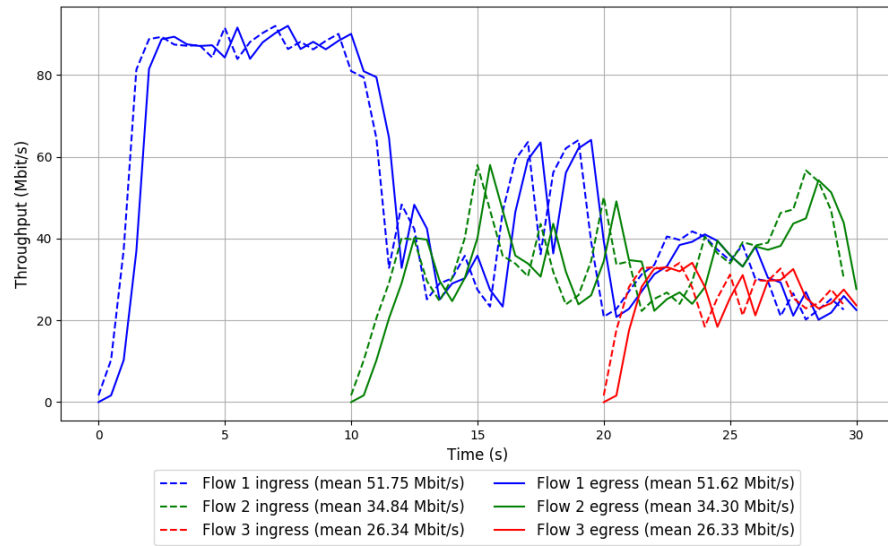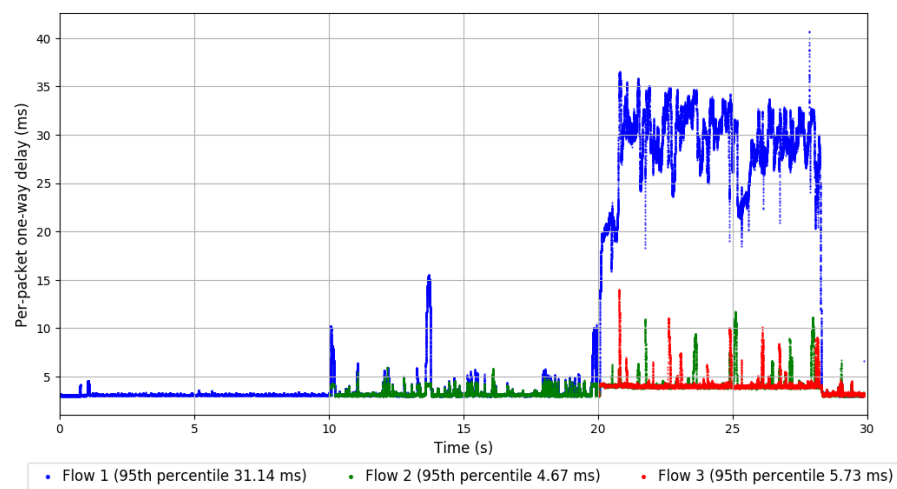
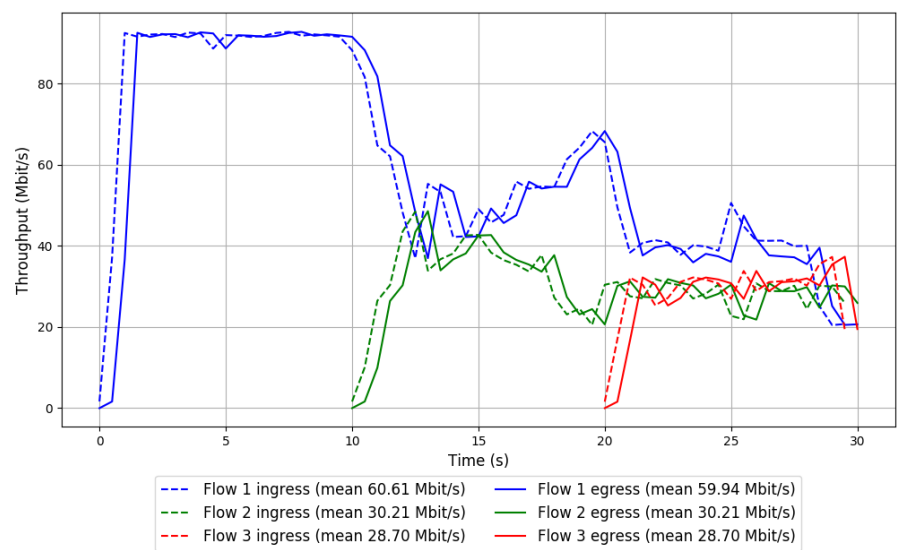Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-06-06 03:08:30
End at: 2018-06-06 03:09:00
Local clock offset: -4.483 ms
Remote clock offset: -1.324 ms


# Below is generated by plot.py at 2018-06-06 06:14:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.37 Mbit/s
95th percentile per-packet one-way delay: 26.184 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 51.34 Mbit/s
95th percentile per-packet one-way delay: 24.282 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.27 Mbit/s
95th percentile per-packet one-way delay: 33.022 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 20.197 ms
Loss rate: 0.03%
```

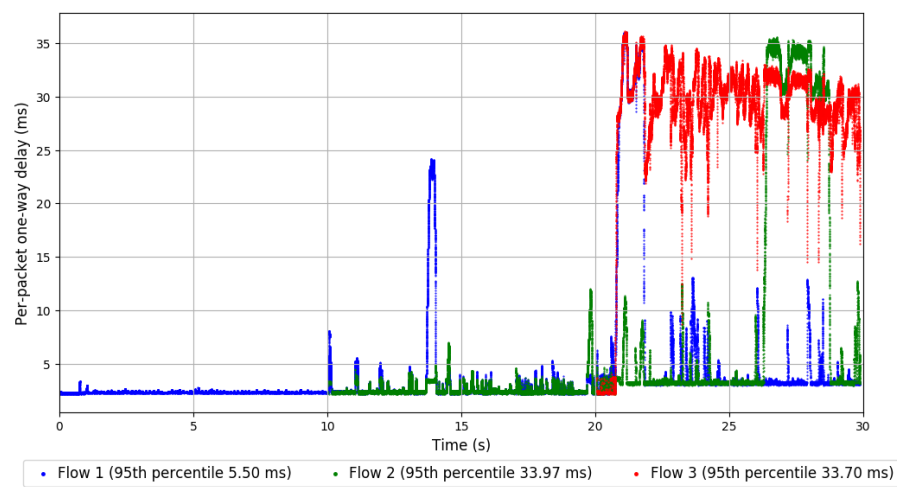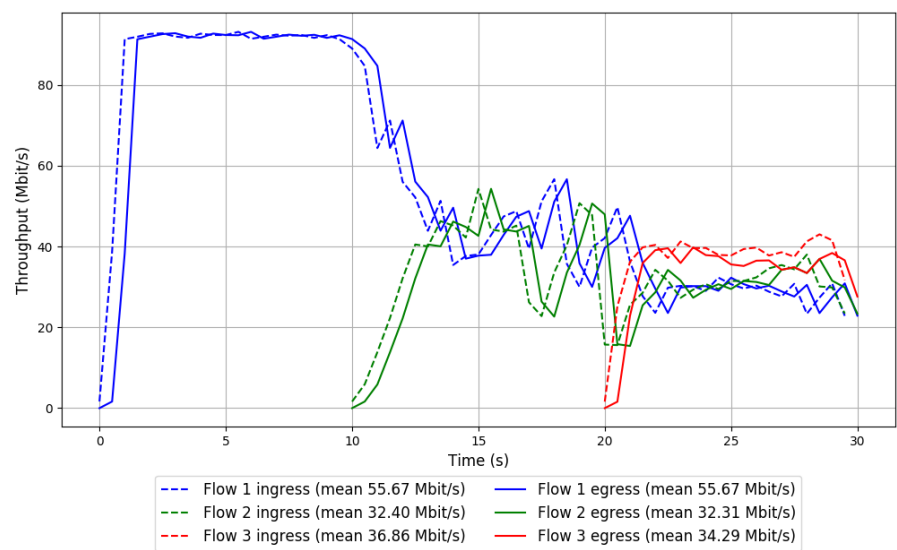## Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-06 03:26:31
End at: 2018-06-06 03:27:01
Local clock offset: -5.905 ms
Remote clock offset: -2.035 ms


# Below is generated by plot.py at 2018-06-06 06:14:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.13 Mbit/s
95th percentile per-packet one-way delay: 29.861 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 51.62 Mbit/s
95th percentile per-packet one-way delay: 28.163 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 34.30 Mbit/s
95th percentile per-packet one-way delay: 31.861 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 26.33 Mbit/s
95th percentile per-packet one-way delay: 17.573 ms
Loss rate: 0.08%
```
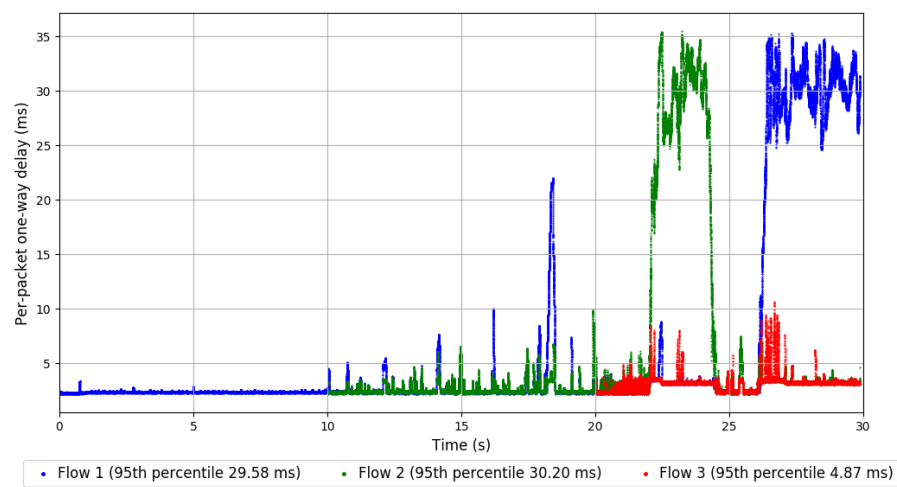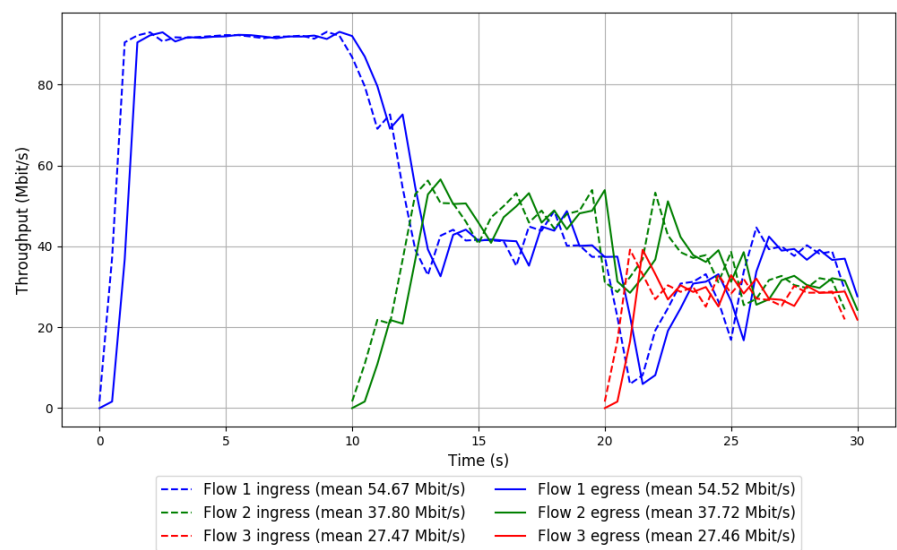
Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-06 03:44:33
End at: 2018-06-06 03:45:03
Local clock offset: -4.12 ms
Remote clock offset: -2.297 ms


# Below is generated by plot.py at 2018-06-06 06:14:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.50 Mbit/s
95th percentile per-packet one-way delay: 30.077 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 59.94 Mbit/s
95th percentile per-packet one-way delay: 31.143 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 30.21 Mbit/s
95th percentile per-packet one-way delay: 4.671 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 28.70 Mbit/s
95th percentile per-packet one-way delay: 5.733 ms
Loss rate: 0.02%
```

Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-06 04:02:37
End at: 2018-06-06 04:03:07
Local clock offset: -4.783 ms
Remote clock offset: -2.266 ms


# Below is generated by plot.py at 2018-06-06 06:14:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.46 Mbit/s
95th percentile per-packet one-way delay: 31.887 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 55.67 Mbit/s
95th percentile per-packet one-way delay: 5.504 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 32.31 Mbit/s
95th percentile per-packet one-way delay: 33.968 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 34.29 Mbit/s
95th percentile per-packet one-way delay: 33.703 ms
Loss rate: 7.00%
```
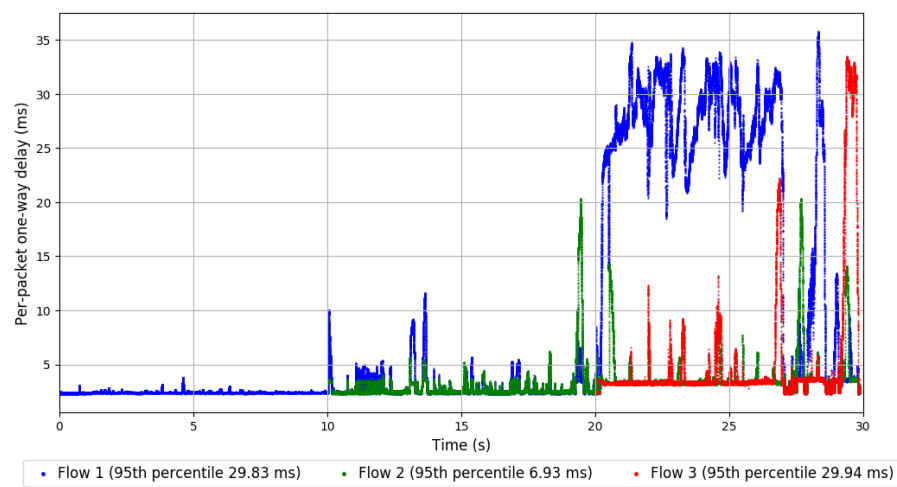
Run 5: Report of PCC-Vivace — Data Link

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-06 04:20:39
End at: 2018-06-06 04:21:09
Local clock offset: -4.944 ms
Remote clock offset: -2.224 ms


# Below is generated by plot.py at 2018-06-06 06:14:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.67 Mbit/s
95th percentile per-packet one-way delay: 29.317 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 54.52 Mbit/s
95th percentile per-packet one-way delay: 29.584 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 30.200 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 4.868 ms
Loss rate: 0.04%
```
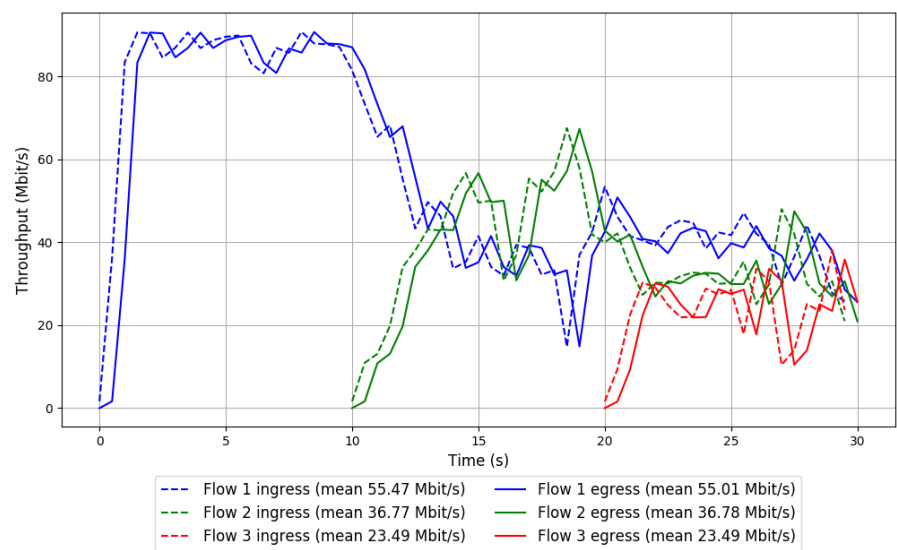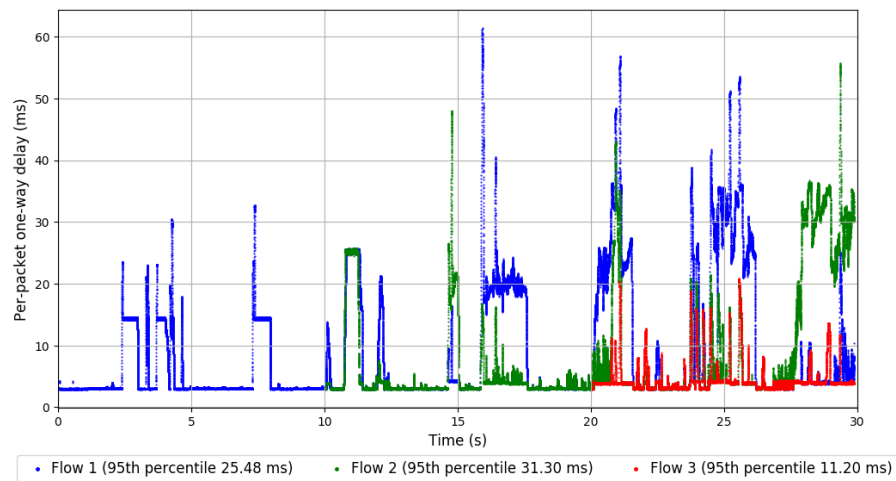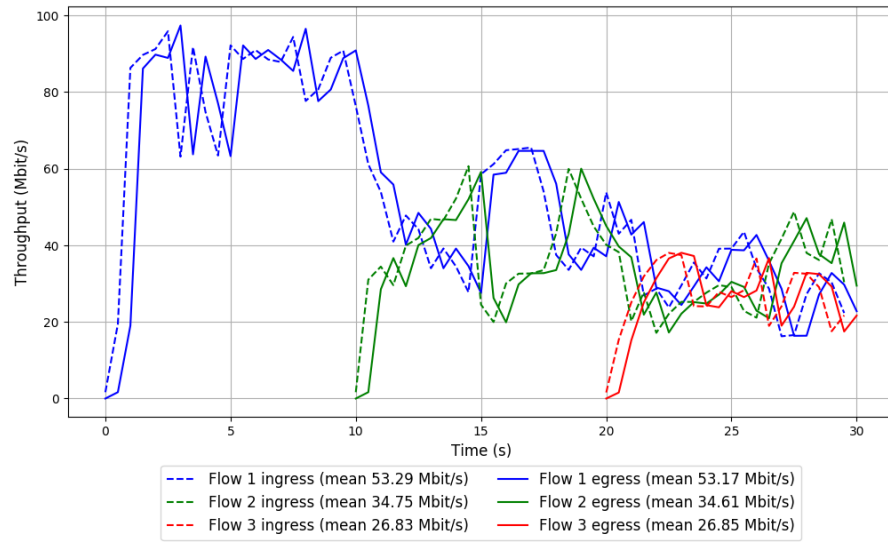
# Run 6: Report of PCC-Vivace — Data Link

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-06 04:38:41
End at: 2018-06-06 04:39:11
Local clock offset: -5.056 ms
Remote clock offset: -2.51 ms


# Below is generated by plot.py at 2018-06-06 06:14:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.22 Mbit/s
95th percentile per-packet one-way delay: 28.610 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 55.01 Mbit/s
95th percentile per-packet one-way delay: 29.829 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 36.78 Mbit/s
95th percentile per-packet one-way delay: 6.929 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 23.49 Mbit/s
95th percentile per-packet one-way delay: 29.937 ms
Loss rate: 0.09%
```

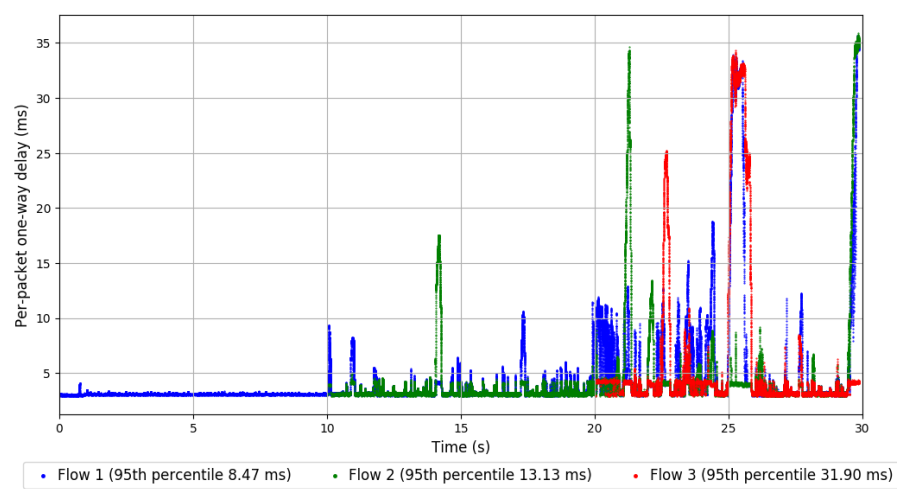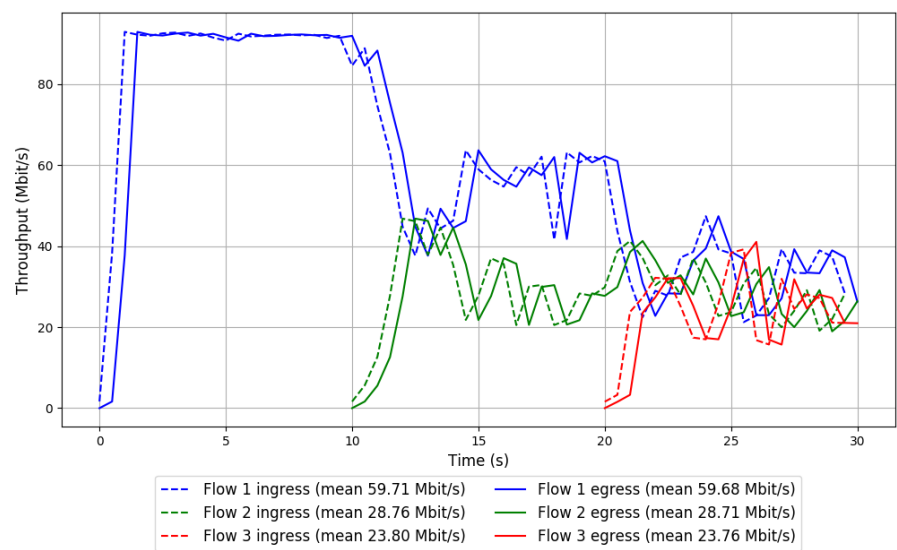Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-06 04:56:41
End at: 2018-06-06 04:57:11
Local clock offset: -4.519 ms
Remote clock offset: -2.518 ms


# Below is generated by plot.py at 2018-06-06 06:14:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 26.748 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 53.17 Mbit/s
95th percentile per-packet one-way delay: 25.478 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 31.301 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 26.85 Mbit/s
95th percentile per-packet one-way delay: 11.202 ms
Loss rate: 0.06%
```

## Run 8: Report of PCC-Vivace — Data Link



Flow 1 ingress (mean 53.29 Mbit/s) ----- Flow 1 egress (mean 53.17 Mbit/s)
Flow 2 ingress (mean 34.75 Mbit/s) ----- Flow 2 egress (mean 34.61 Mbit/s)
Flow 3 ingress (mean 26.83 Mbit/s) ----- Flow 3 egress (mean 26.85 Mbit/s)



Flow 1 (95th percentile 25.48 ms)  •  Flow 2 (95th percentile 31.30 ms)  •  Flow 3 (95th percentile 11.20 ms)

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-06 05:14:42
End at: 2018-06-06 05:15:12
Local clock offset: -4.39 ms
Remote clock offset: -2.575 ms


# Below is generated by plot.py at 2018-06-06 06:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.61 Mbit/s
95th percentile per-packet one-way delay: 10.675 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.68 Mbit/s
95th percentile per-packet one-way delay: 8.471 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 28.71 Mbit/s
95th percentile per-packet one-way delay: 13.131 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 31.904 ms
Loss rate: 0.17%
```
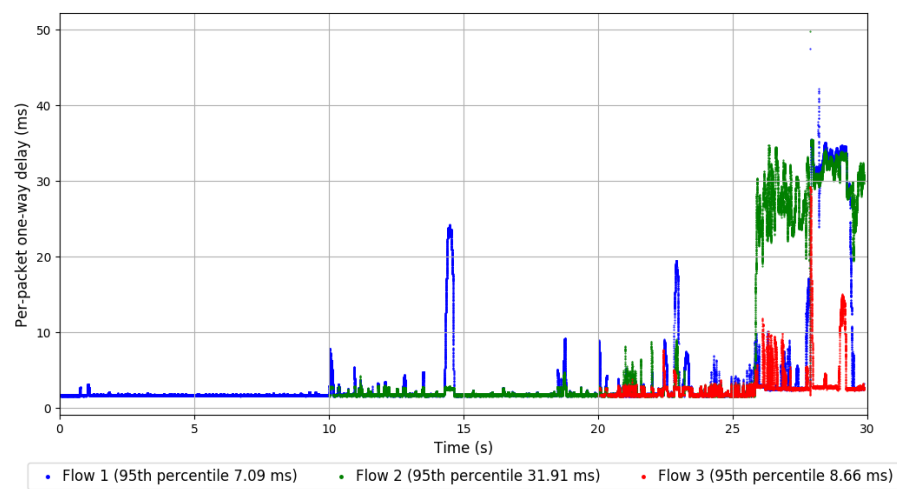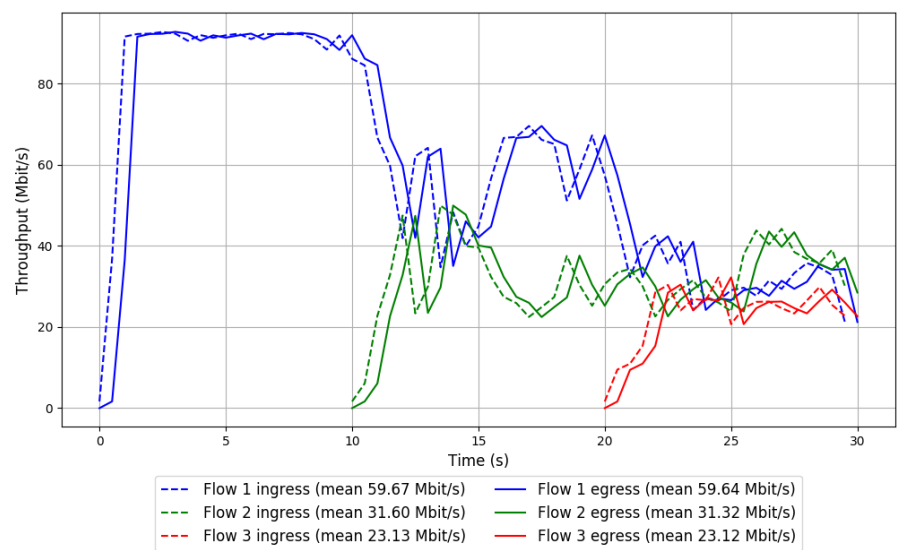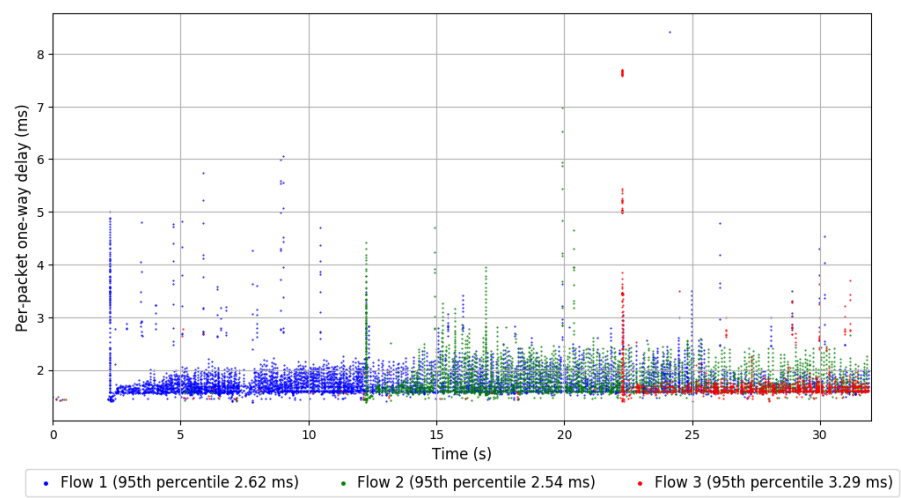
# Run 9: Report of PCC-Vivace — Data Link



Flow 1 ingress (mean 59.71 Mbit/s)   Flow 1 egress (mean 59.68 Mbit/s)
Flow 2 ingress (mean 28.76 Mbit/s)   Flow 2 egress (mean 28.71 Mbit/s)
Flow 3 ingress (mean 23.80 Mbit/s)   Flow 3 egress (mean 23.76 Mbit/s)



Flow 1 (95th percentile 8.47 ms)   Flow 2 (95th percentile 13.13 ms)   Flow 3 (95th percentile 31.90 ms)

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-06 05:32:44
End at: 2018-06-06 05:33:14
Local clock offset: -5.841 ms
Remote clock offset: -2.75 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.11 Mbit/s
95th percentile per-packet one-way delay: 28.324 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 7.087 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 31.32 Mbit/s
95th percentile per-packet one-way delay: 31.909 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 23.12 Mbit/s
95th percentile per-packet one-way delay: 8.662 ms
Loss rate: 0.07%
```
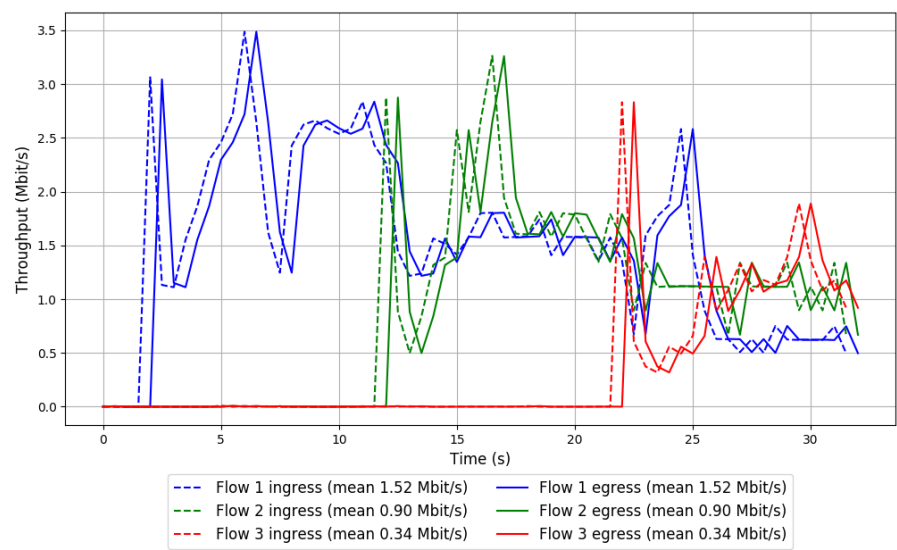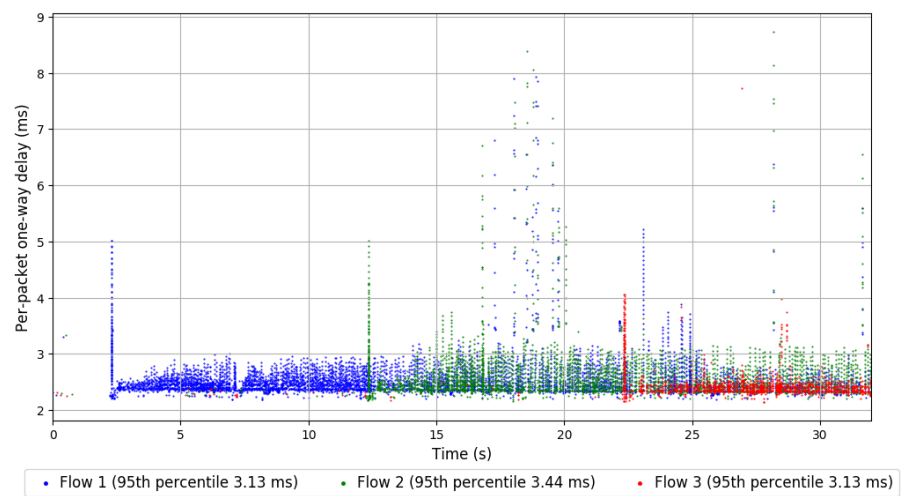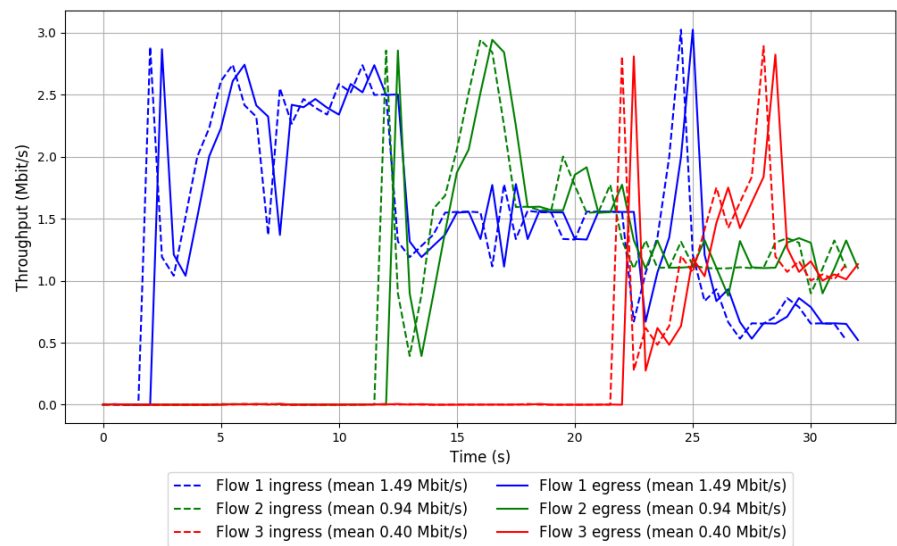
Run 10: Report of PCC-Vivace — Data Link





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```
Run 1: Statistics of WebRTC media

Start at: 2018-06-06 02:59:26
End at: 2018-06-06 02:59:56
Local clock offset: -6.185 ms
Remote clock offset: -1.66 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 2.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 2.615 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 2.536 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 3.288 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-06-06 03:17:24
End at: 2018-06-06 03:17:54
Local clock offset: -5.131 ms
Remote clock offset: -1.293 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 3.223 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 3.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 3.441 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 3.126 ms
Loss rate: 0.00%
```
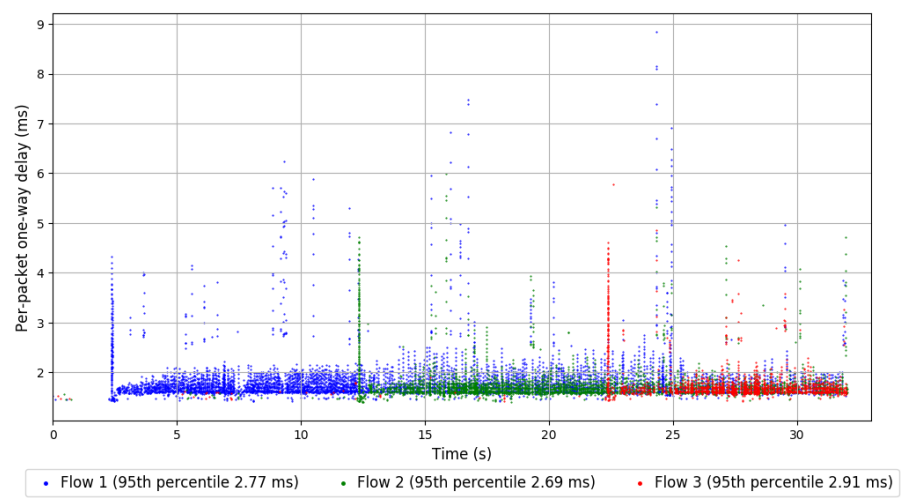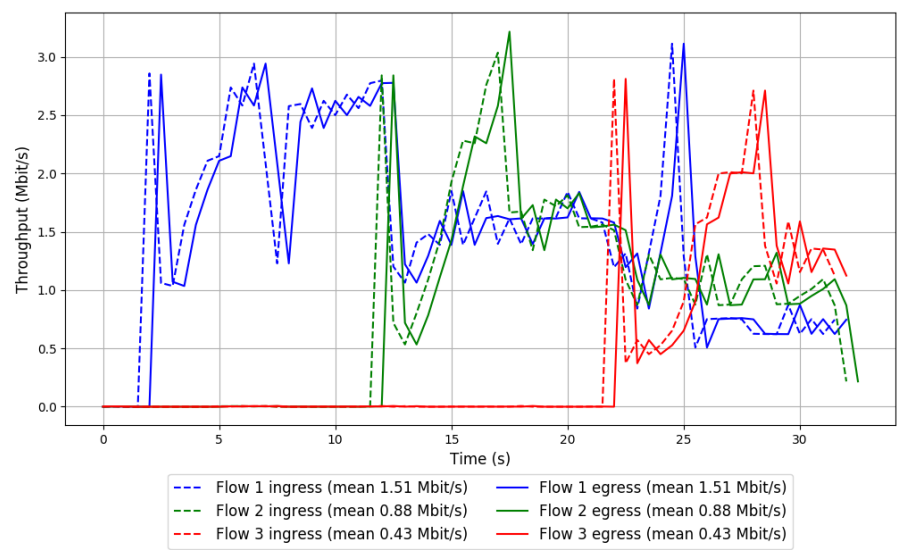
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-06-06 03:35:27
End at: 2018-06-06 03:35:57
Local clock offset: -5.844 ms
Remote clock offset: -2.32 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 2.768 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 2.773 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 2.688 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.910 ms
Loss rate: 0.00%
```

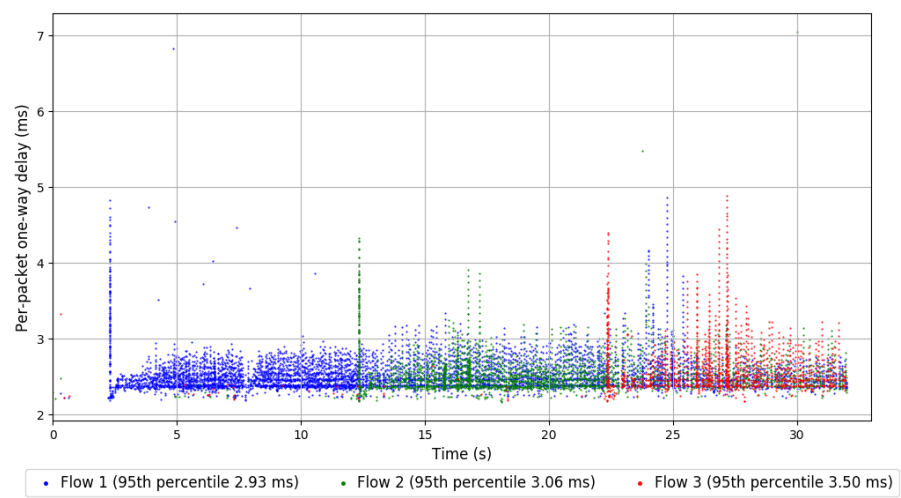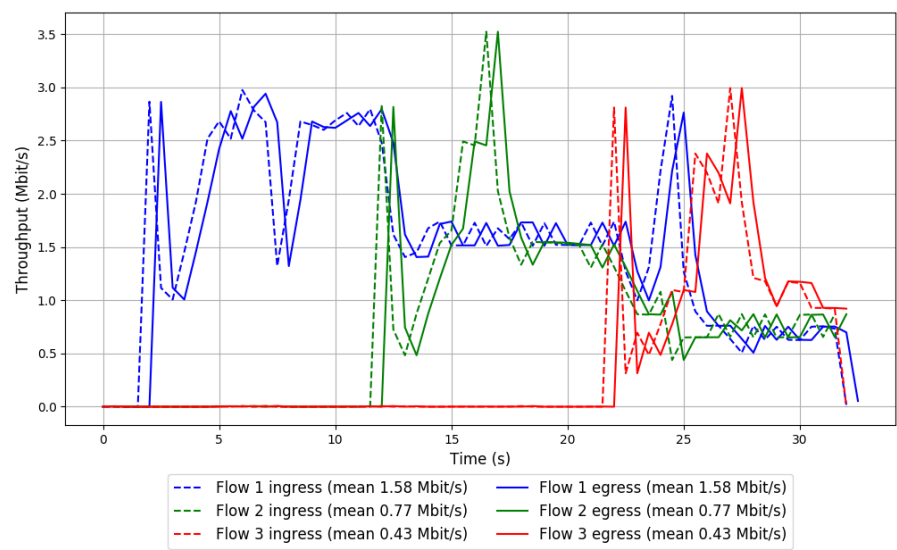Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-06-06 03:53:30
End at: 2018-06-06 03:54:00
Local clock offset: -4.842 ms
Remote clock offset: -2.292 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.76 Mbit/s
95th percentile per-packet one-way delay: 3.075 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 2.929 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 3.065 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.497 ms
Loss rate: 0.01%
```

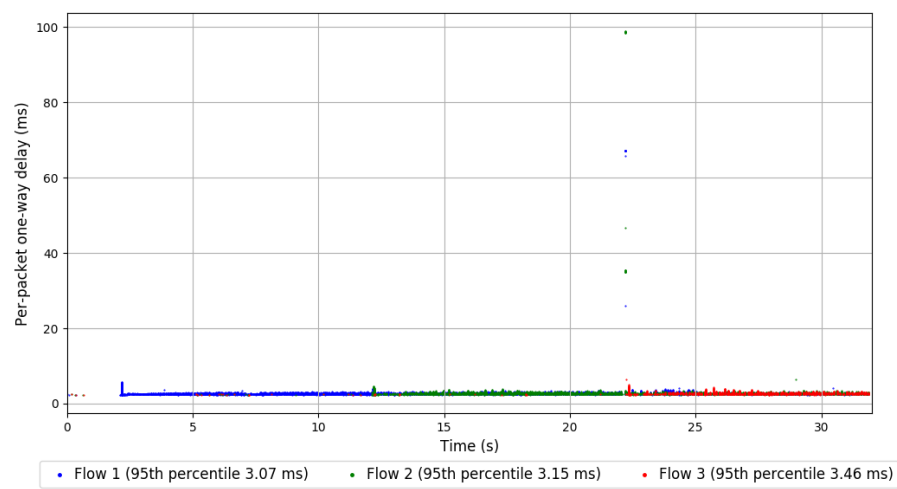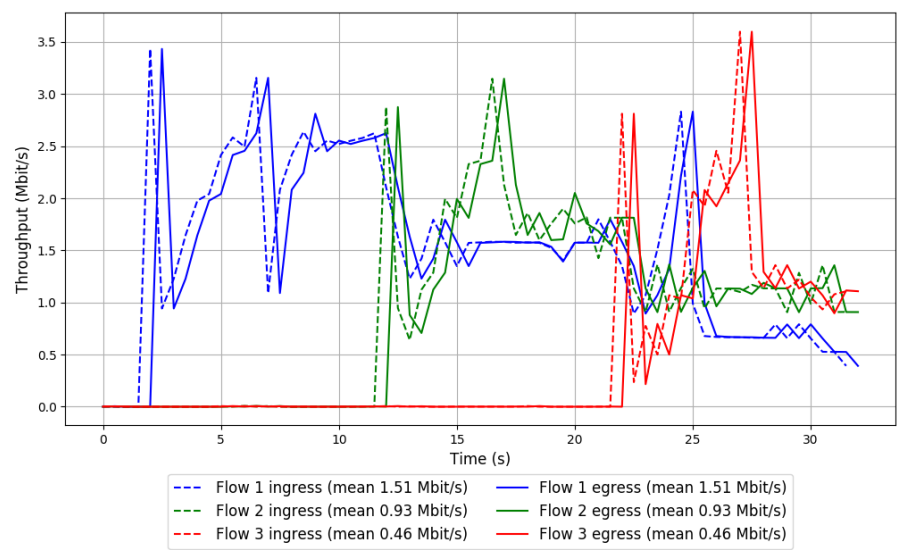Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-06-06 04:11:32
End at: 2018-06-06 04:12:02
Local clock offset: -4.907 ms
Remote clock offset: -2.305 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 3.162 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 3.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 3.154 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 3.456 ms
Loss rate: 0.00%
```
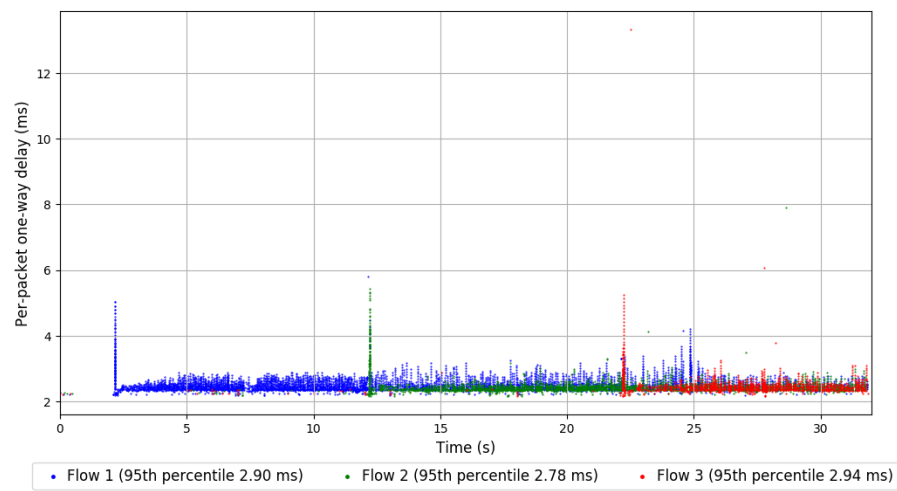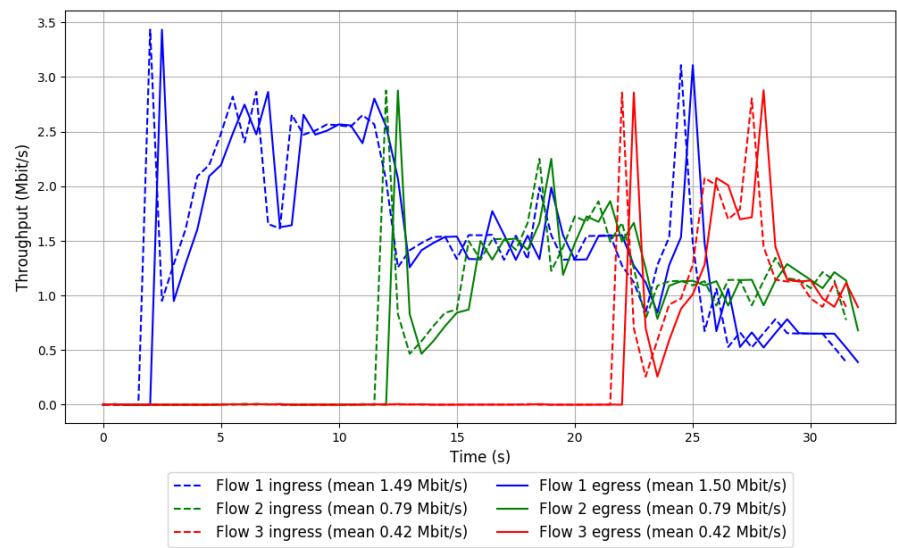
Run 5: Report of WebRTC media — Data Link



Flow 1 ingress (mean 1.51 Mbit/s) — — —  Flow 1 egress (mean 1.51 Mbit/s)
Flow 2 ingress (mean 0.93 Mbit/s) — — —  Flow 2 egress (mean 0.93 Mbit/s)
Flow 3 ingress (mean 0.46 Mbit/s) — — —  Flow 3 egress (mean 0.46 Mbit/s)



Flow 1 (95th percentile 3.07 ms)    Flow 2 (95th percentile 3.15 ms)    Flow 3 (95th percentile 3.46 ms)

```
Run 6: Statistics of WebRTC media

Start at: 2018-06-06 04:29:34
End at: 2018-06-06 04:30:04
Local clock offset: -4.959 ms
Remote clock offset: -2.324 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.70 Mbit/s
95th percentile per-packet one-way delay: 2.886 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 2.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 2.784 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 2.935 ms
Loss rate: 0.00%
```

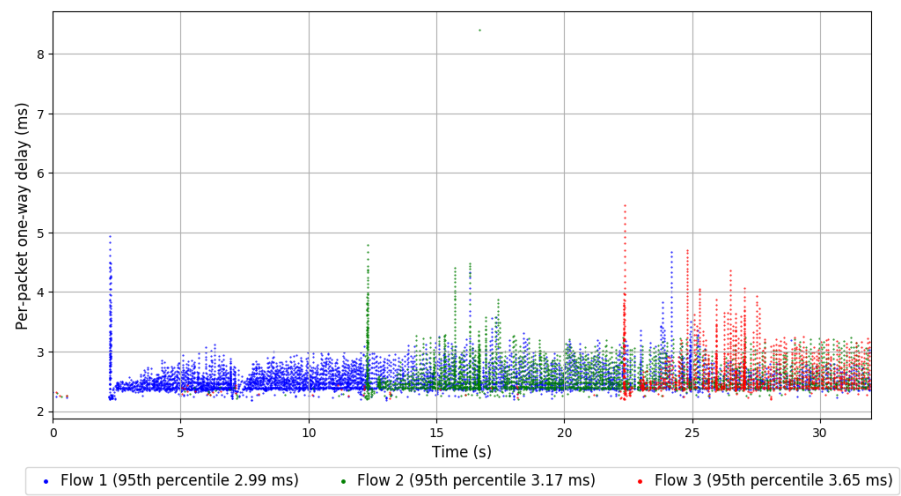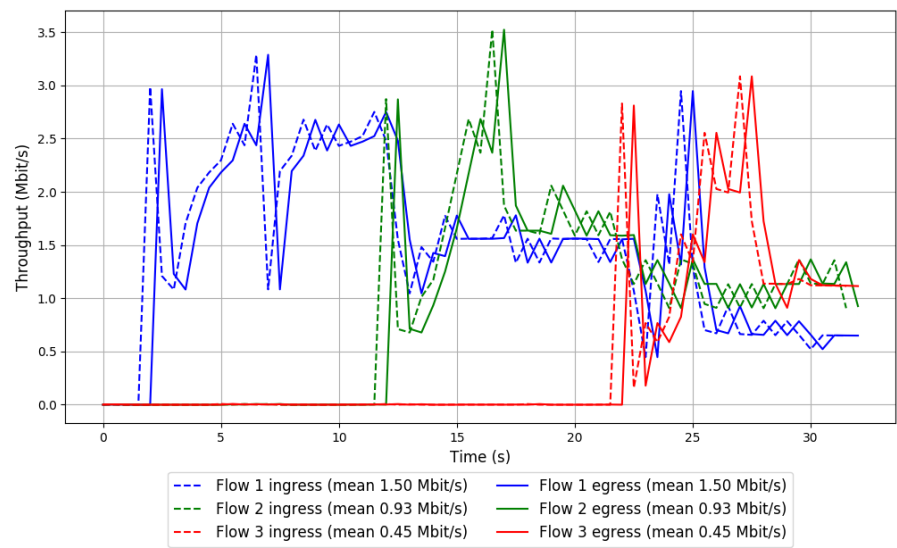Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-06-06 04:47:35
End at: 2018-06-06 04:48:05
Local clock offset: -5.16 ms
Remote clock offset: -2.495 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 3.187 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 2.990 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 3.166 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 3.647 ms
Loss rate: 0.00%
```

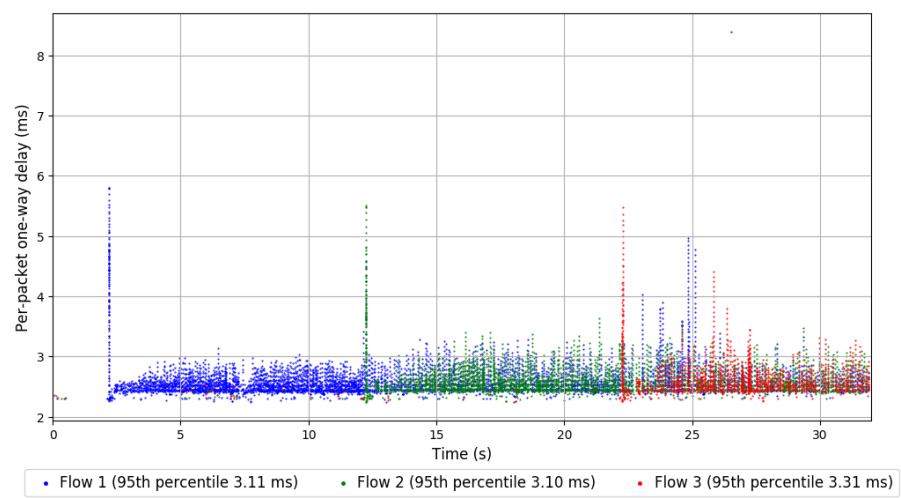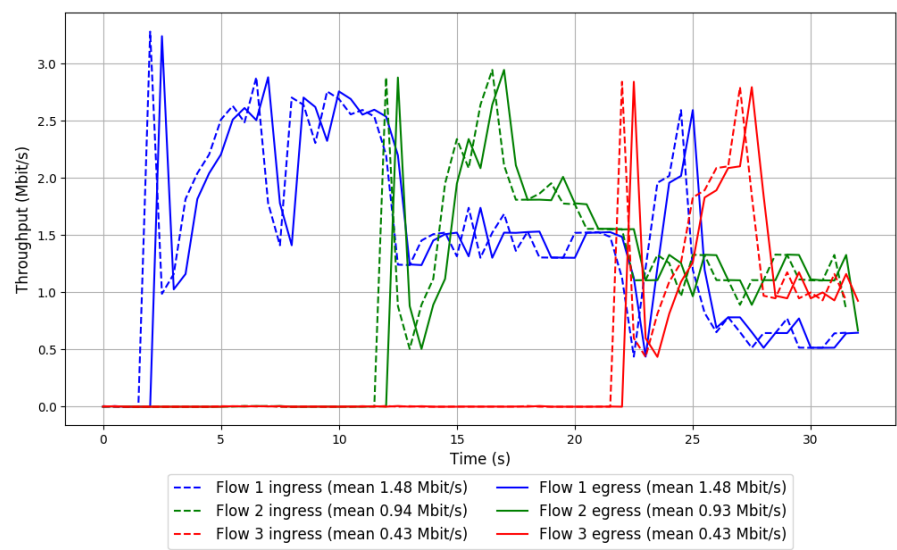Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-06-06 05:05:35
End at: 2018-06-06 05:06:05
Local clock offset: -5.213 ms
Remote clock offset: -2.616 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 3.137 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 3.110 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 3.102 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.305 ms
Loss rate: 0.01%
```

Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-06-06 05:23:37
End at: 2018-06-06 05:24:07
Local clock offset: -4.297 ms
Remote clock offset: -2.56 ms

# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 3.779 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 3.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 3.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 4.251 ms
Loss rate: 0.00%
```
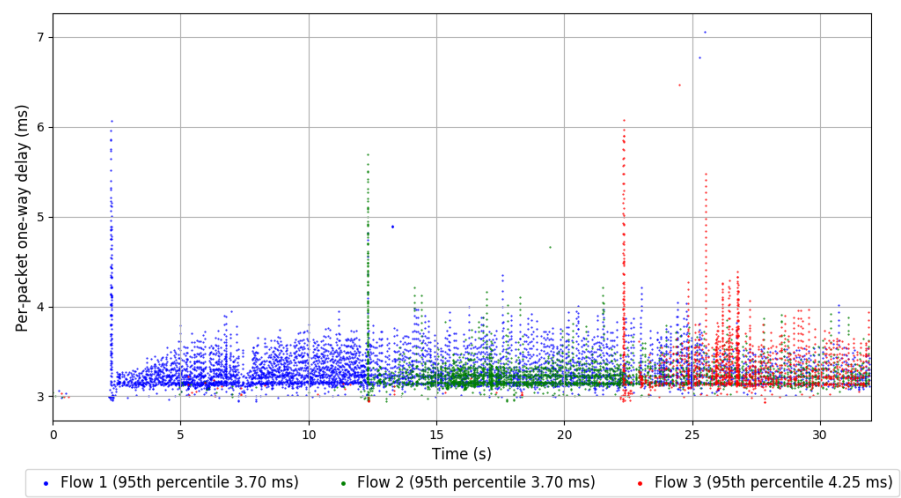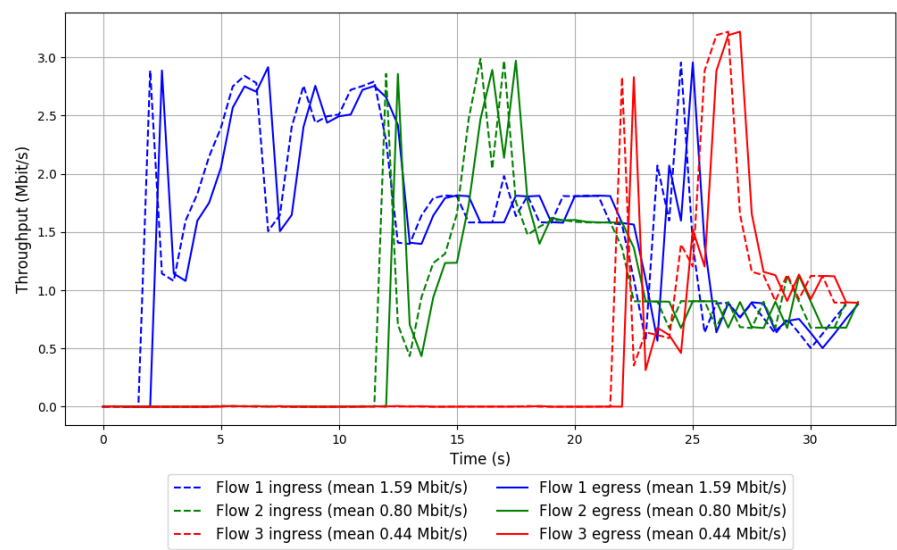
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-06-06 05:41:40
End at: 2018-06-06 05:42:10
Local clock offset: -5.132 ms
Remote clock offset: -2.791 ms


# Below is generated by plot.py at 2018-06-06 06:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.76 Mbit/s
95th percentile per-packet one-way delay: 3.483 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 3.539 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 3.423 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 3.467 ms
Loss rate: 0.00%
```

## Run 10: Report of WebRTC media — Data Link