Pantheon Report

Generated at 2018-01-17 07:33:00 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

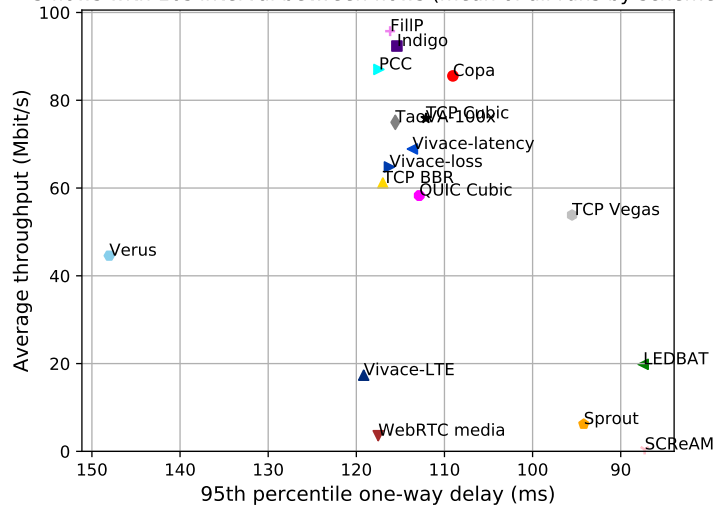Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

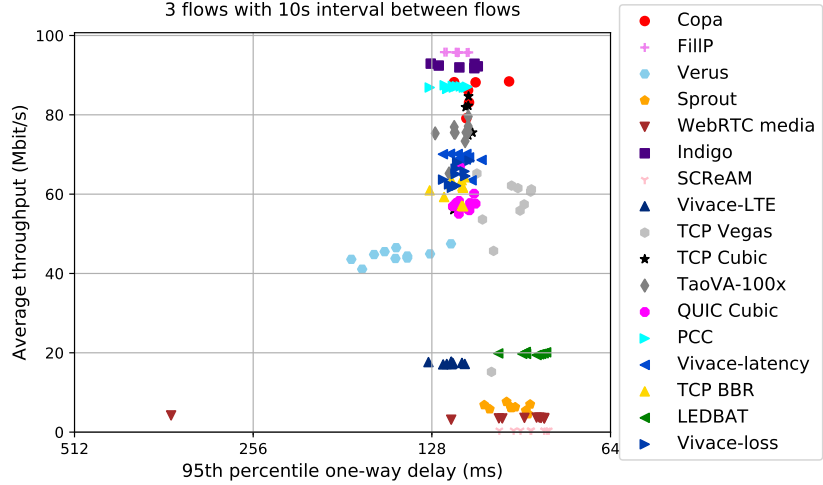NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 386976fcf771de1359acd909bfbb98a156d79009
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 423cbca3e8ea1d599e7b5cf725835e8a2b6bfac6
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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

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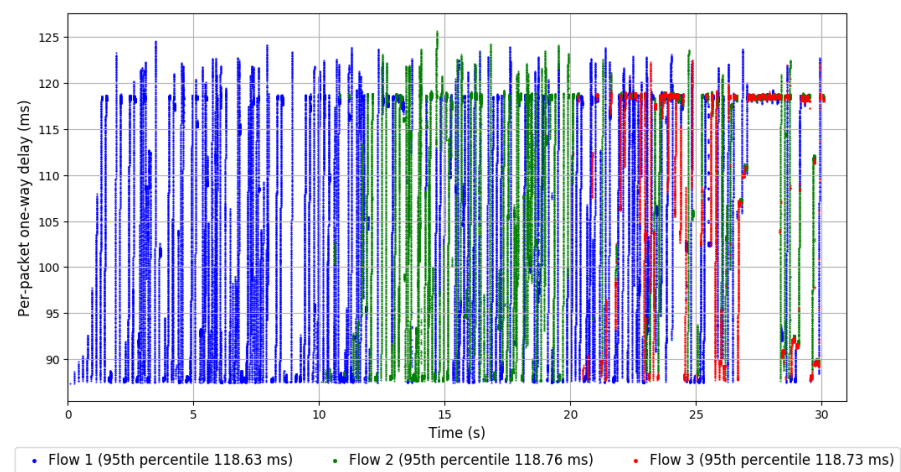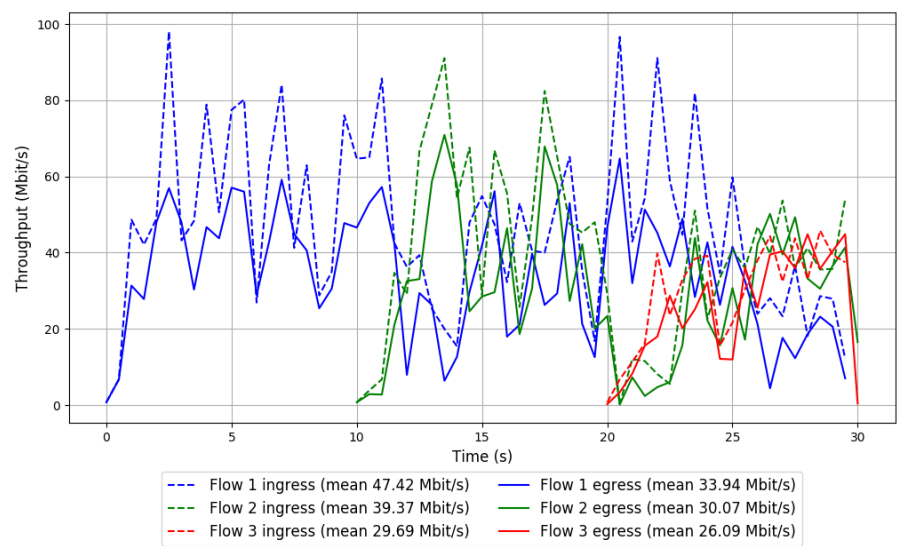3 flows with 10s interval between flows

scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	34.50	28.25	24.29	116.63	116.27	116.90	28.05	29.24	24.76
TCP Cubic	6	39.21	44.15	22.93	381.07	112.65	114.38	0.37	0.61	1.10
LEDBAT	10	12.87	8.44	4.11	87.26	87.14	87.11	0.00	0.01	0.00
PCC	10	78.43	8.99	7.94	117.39	118.08	117.78	2.70	4.88	6.05
QUIC Cubic	10	38.90	21.97	14.63	113.08	111.03	109.71	0.74	0.53	1.65
SCReAM	9	0.22	0.22	0.22	86.80	86.81	86.29	0.00	0.00	0.00
WebRTC media	10	2.14	1.16	0.29	140.07	125.32	108.95	0.00	0.00	0.00
Sprout	10	3.33	2.98	2.75	93.94	93.84	93.88	0.00	0.00	0.00
TaoVA-100x	10	46.03	34.17	25.45	115.30	115.70	115.81	3.95	7.41	10.26
TCP Vegas	10	23.69	30.11	30.32	195.51	95.96	97.86	0.44	0.84	1.54
Verus	10	25.26	25.93	9.18	136.88	142.88	122.25	48.62	56.12	32.73
Copa	6	68.43	21.45	11.85	108.92	103.07	101.49	0.20	0.25	0.01
FillP	10	53.67	42.75	41.40	115.42	114.92	125.85	25.40	35.95	47.13
Indigo	6	65.31	27.69	27.14	114.71	116.40	117.10	1.19	2.85	6.14
Vivace-latency	10	57.73	13.43	6.83	113.80	112.34	109.02	0.46	0.58	0.09
Vivace-loss	10	46.05	21.81	12.78	116.08	116.30	115.54	4.50	4.24	5.47
Vivace-LTE	10	5.93	8.69	17.15	119.04	118.71	118.50	21.95	22.50	22.80

```
Run 1: Statistics of TCP BBR

Start at: 2018-01-17 02:59:49
End at: 2018-01-17 03:00:19
Local clock offset: 1.076 ms
Remote clock offset: -0.158 ms


# Below is generated by plot.py at 2018-01-17 07:12:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.45 Mbit/s
95th percentile per-packet one-way delay: 118.740 ms
Loss rate: 24.89%
-- Flow 1:
Average throughput: 33.94 Mbit/s
95th percentile per-packet one-way delay: 118.631 ms
Loss rate: 28.34%
-- Flow 2:
Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 118.761 ms
Loss rate: 23.51%
-- Flow 3:
Average throughput: 26.09 Mbit/s
95th percentile per-packet one-way delay: 118.735 ms
Loss rate: 12.06%
```
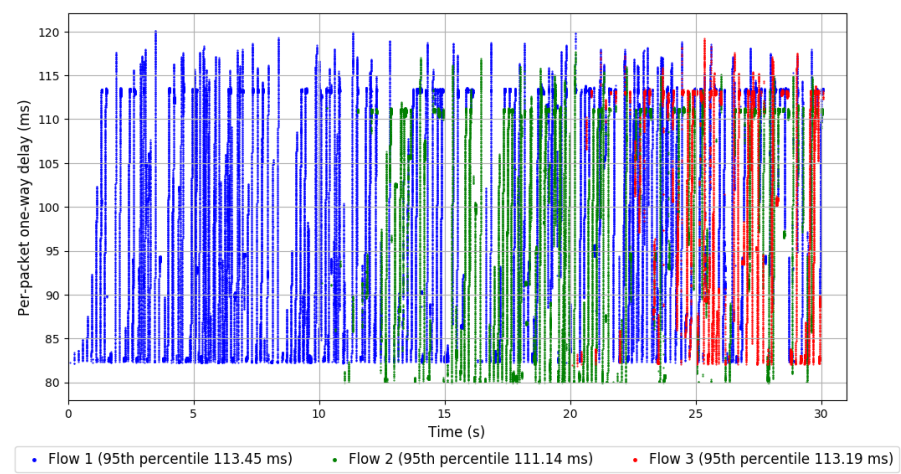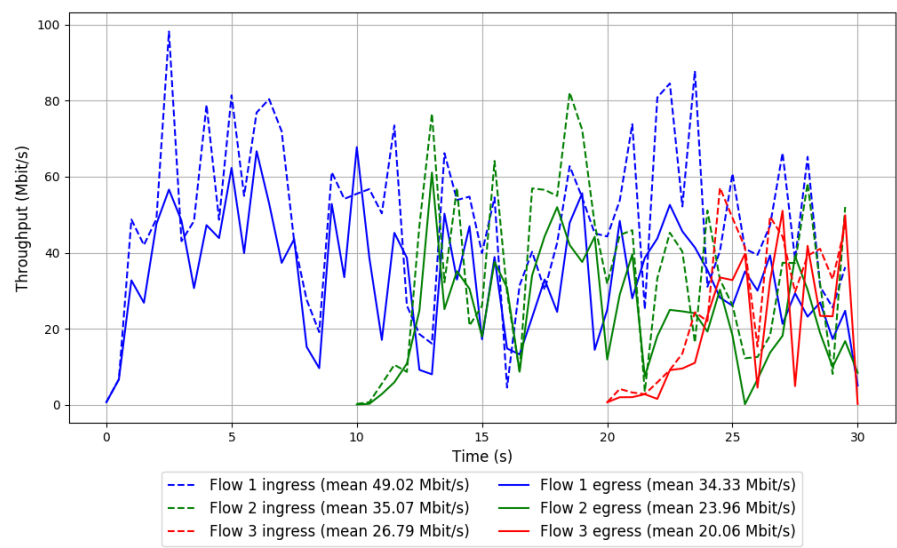
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-01-17 03:23:01
End at: 2018-01-17 03:23:31
Local clock offset: 0.975 ms
Remote clock offset: -6.47 ms


# Below is generated by plot.py at 2018-01-17 07:12:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 113.378 ms
Loss rate: 29.85%
-- Flow 1:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 113.455 ms
Loss rate: 29.91%
-- Flow 2:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 111.143 ms
Loss rate: 31.60%
-- Flow 3:
Average throughput: 20.06 Mbit/s
95th percentile per-packet one-way delay: 113.192 ms
Loss rate: 24.92%
```
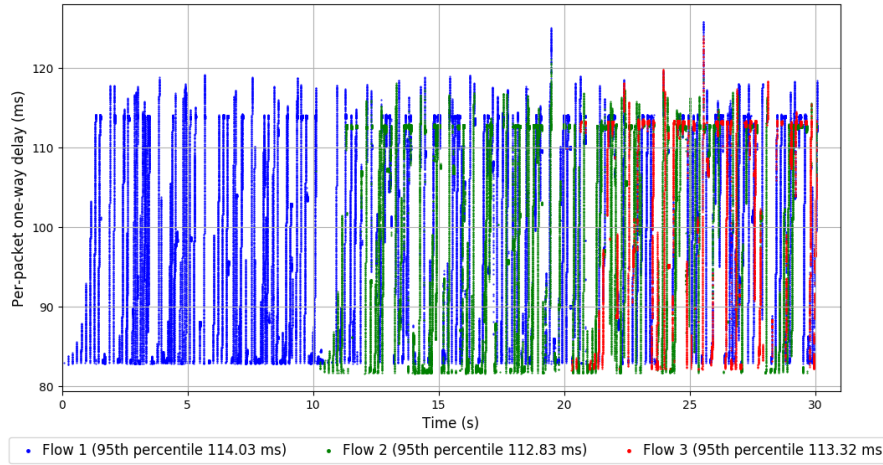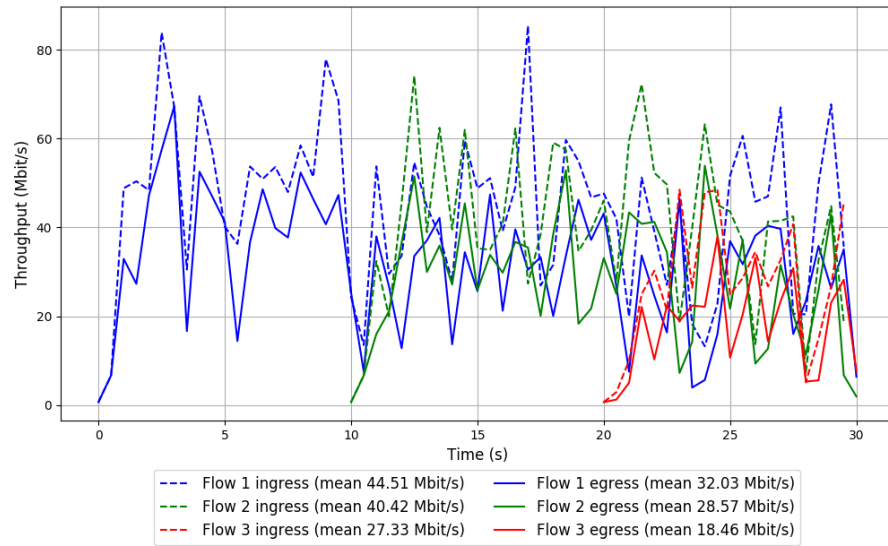
Run 2: Report of TCP BBR — Data Link

Legend:
- Flow 1 ingress (mean 49.02 Mbit/s) --- Flow 1 egress (mean 34.33 Mbit/s)
- Flow 2 ingress (mean 35.07 Mbit/s) --- Flow 2 egress (mean 23.96 Mbit/s)
- Flow 3 ingress (mean 26.79 Mbit/s) --- Flow 3 egress (mean 20.06 Mbit/s)

Legend:
- Flow 1 (95th percentile 113.45 ms)
- Flow 2 (95th percentile 111.14 ms)
- Flow 3 (95th percentile 113.19 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2018-01-17 03:46:17
End at: 2018-01-17 03:46:48
Local clock offset: 0.888 ms
Remote clock offset: -5.858 ms


# Below is generated by plot.py at 2018-01-17 07:12:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.10 Mbit/s
95th percentile per-packet one-way delay: 113.976 ms
Loss rate: 28.93%
-- Flow 1:
Average throughput: 32.03 Mbit/s
95th percentile per-packet one-way delay: 114.033 ms
Loss rate: 27.98%
-- Flow 2:
Average throughput: 28.57 Mbit/s
95th percentile per-packet one-way delay: 112.831 ms
Loss rate: 29.30%
-- Flow 3:
Average throughput: 18.46 Mbit/s
95th percentile per-packet one-way delay: 113.324 ms
Loss rate: 32.47%
```

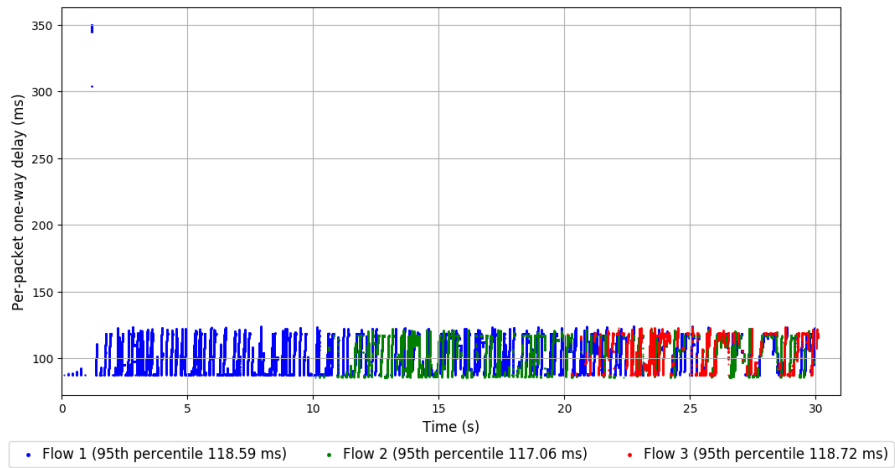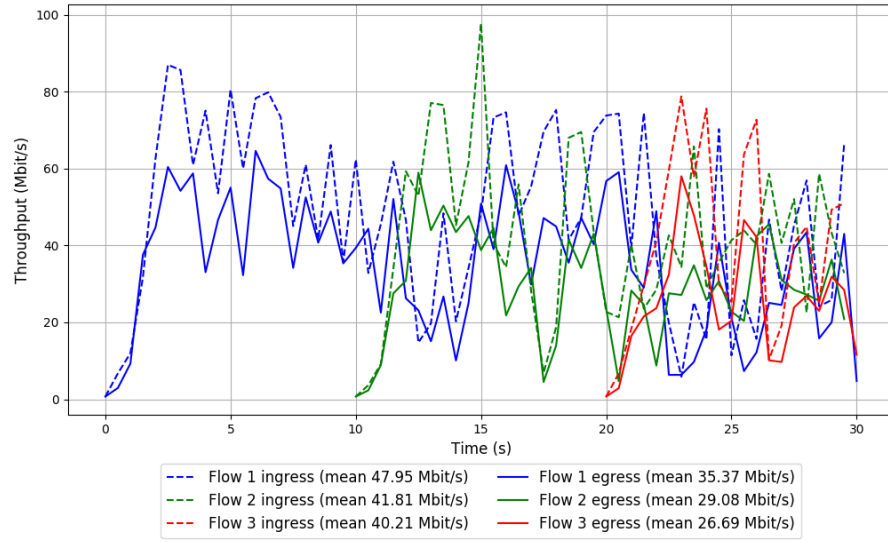Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 44.51 Mbit/s) — — —   Flow 1 egress (mean 32.03 Mbit/s)
Flow 2 ingress (mean 40.42 Mbit/s) — — —   Flow 2 egress (mean 28.57 Mbit/s)
Flow 3 ingress (mean 27.33 Mbit/s) — — —   Flow 3 egress (mean 18.46 Mbit/s)

Flow 1 (95th percentile 114.03 ms)   Flow 2 (95th percentile 112.83 ms)   Flow 3 (95th percentile 113.32 ms)

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```
Run 4: Statistics of TCP BBR

Start at: 2018-01-17 04:09:29
End at: 2018-01-17 04:09:59
Local clock offset: 0.88 ms
Remote clock offset: -0.719 ms


# Below is generated by plot.py at 2018-01-17 07:12:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.44 Mbit/s
95th percentile per-packet one-way delay: 118.590 ms
Loss rate: 28.59%
-- Flow 1:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 118.589 ms
Loss rate: 26.16%
-- Flow 2:
Average throughput: 29.08 Mbit/s
95th percentile per-packet one-way delay: 117.057 ms
Loss rate: 30.37%
-- Flow 3:
Average throughput: 26.69 Mbit/s
95th percentile per-packet one-way delay: 118.722 ms
Loss rate: 33.63%
```
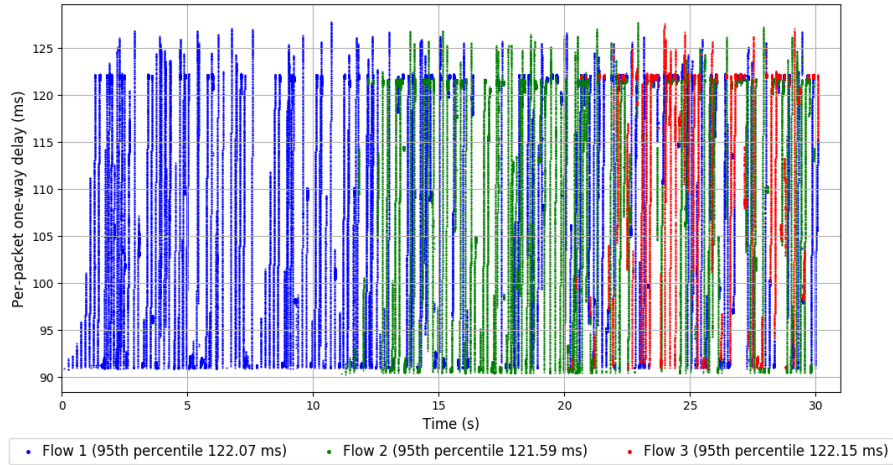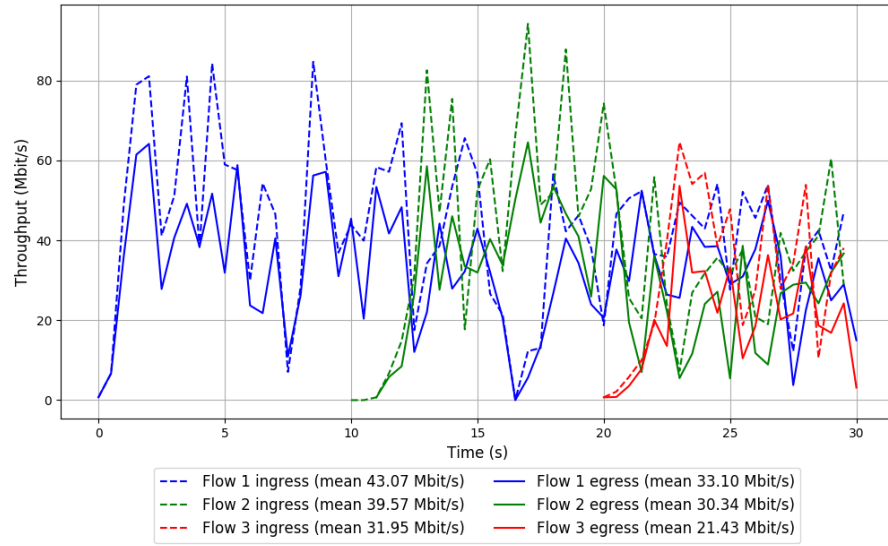
Run 4: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 47.95 Mbit/s) —— Flow 1 egress (mean 35.37 Mbit/s)
- - - Flow 2 ingress (mean 41.81 Mbit/s) —— Flow 2 egress (mean 29.08 Mbit/s)
- - - Flow 3 ingress (mean 40.21 Mbit/s) —— Flow 3 egress (mean 26.69 Mbit/s)

- Flow 1 (95th percentile 118.59 ms)   • Flow 2 (95th percentile 117.06 ms)   • Flow 3 (95th percentile 118.72 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2018-01-17 04:32:53
End at: 2018-01-17 04:33:23
Local clock offset: 0.81 ms
Remote clock offset: 3.549 ms

# Below is generated by plot.py at 2018-01-17 07:12:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.28 Mbit/s
95th percentile per-packet one-way delay: 122.070 ms
Loss rate: 25.74%
-- Flow 1:
Average throughput: 33.10 Mbit/s
95th percentile per-packet one-way delay: 122.073 ms
Loss rate: 23.08%
-- Flow 2:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 121.594 ms
Loss rate: 27.29%
-- Flow 3:
Average throughput: 21.43 Mbit/s
95th percentile per-packet one-way delay: 122.146 ms
Loss rate: 32.71%
```
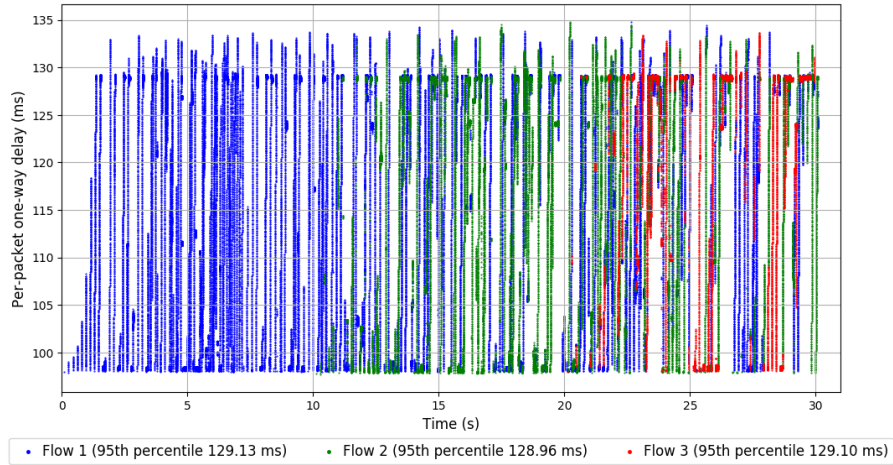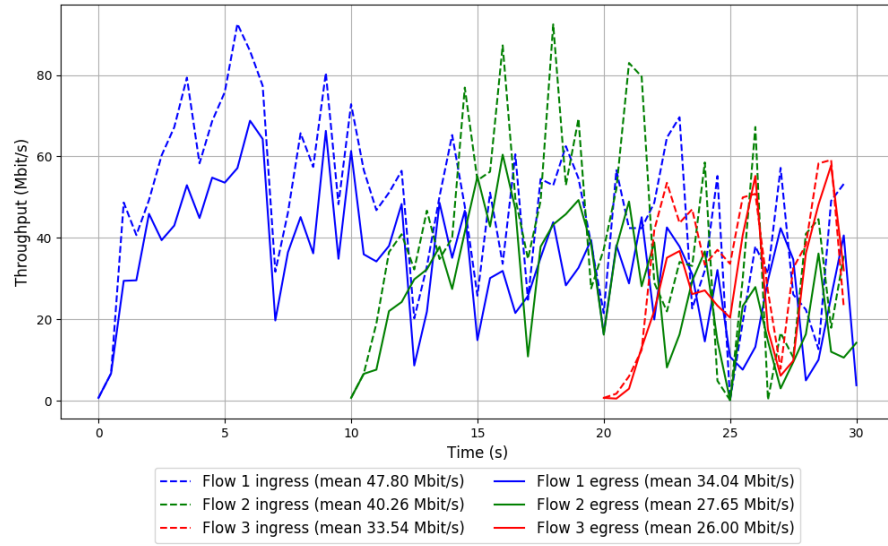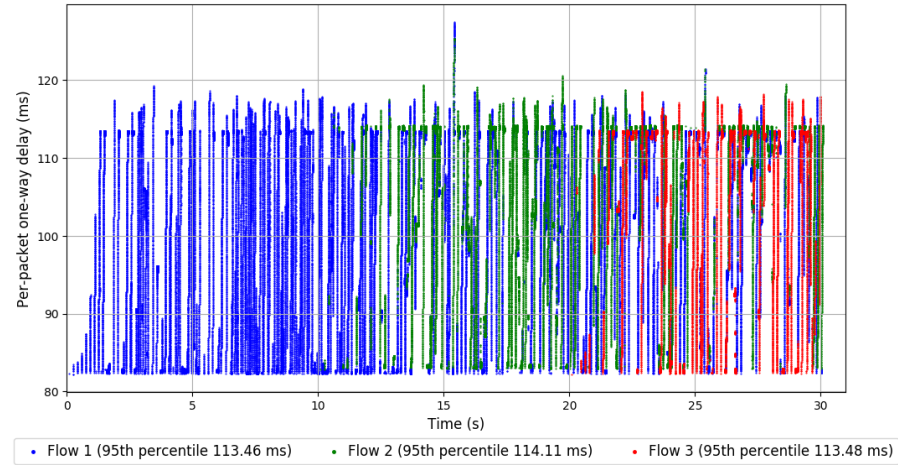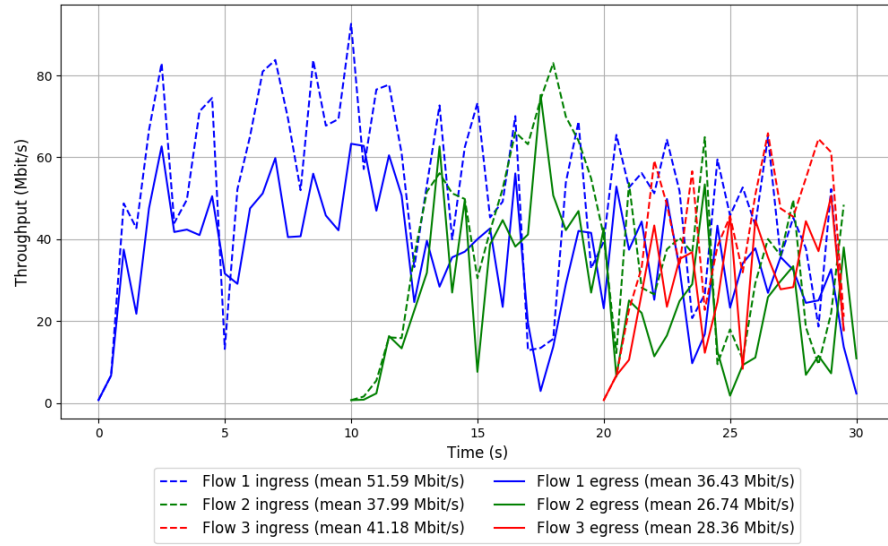
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 43.07 Mbit/s)   Flow 1 egress (mean 33.10 Mbit/s)
Flow 2 ingress (mean 39.57 Mbit/s)   Flow 2 egress (mean 30.34 Mbit/s)
Flow 3 ingress (mean 31.95 Mbit/s)   Flow 3 egress (mean 21.43 Mbit/s)

Flow 1 (95th percentile 122.07 ms)   Flow 2 (95th percentile 121.59 ms)   Flow 3 (95th percentile 122.15 ms)
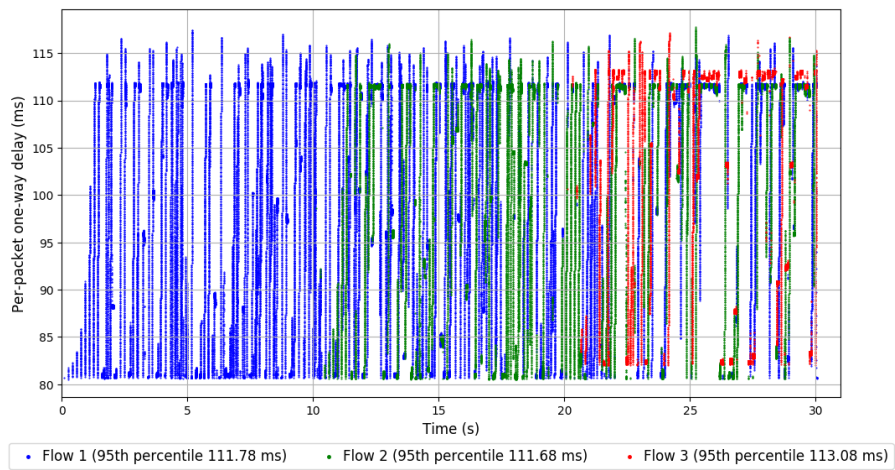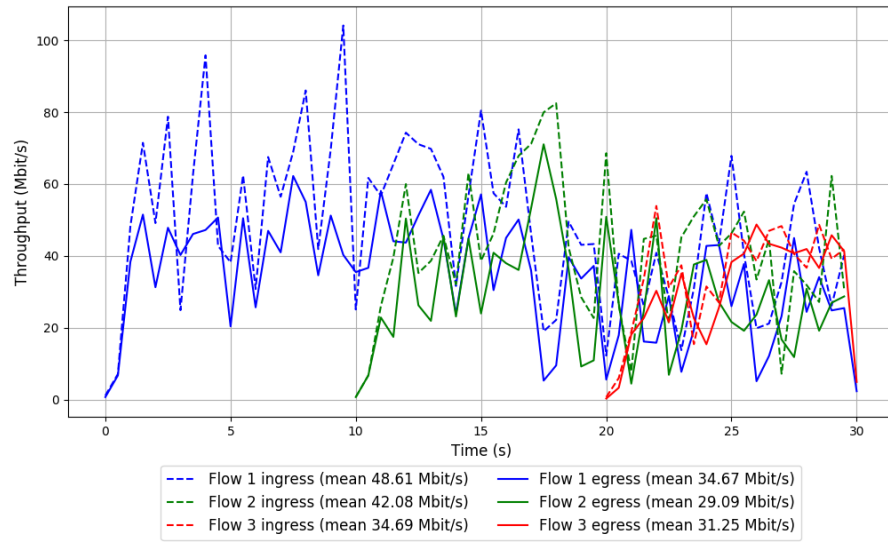
13

```
Run 6: Statistics of TCP BBR

Start at: 2018-01-17 04:56:17
End at: 2018-01-17 04:56:47
Local clock offset: 0.746 ms
Remote clock offset: 9.044 ms


# Below is generated by plot.py at 2018-01-17 07:12:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.96 Mbit/s
95th percentile per-packet one-way delay: 129.102 ms
Loss rate: 28.68%
-- Flow 1:
Average throughput: 34.04 Mbit/s
95th percentile per-packet one-way delay: 129.133 ms
Loss rate: 28.74%
-- Flow 2:
Average throughput: 27.65 Mbit/s
95th percentile per-packet one-way delay: 128.961 ms
Loss rate: 31.22%
-- Flow 3:
Average throughput: 26.00 Mbit/s
95th percentile per-packet one-way delay: 129.105 ms
Loss rate: 22.23%
```

Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 47.80 Mbit/s)   Flow 1 egress (mean 34.04 Mbit/s)
Flow 2 ingress (mean 40.26 Mbit/s)   Flow 2 egress (mean 27.65 Mbit/s)
Flow 3 ingress (mean 33.54 Mbit/s)   Flow 3 egress (mean 26.00 Mbit/s)

Flow 1 (95th percentile 129.13 ms)   Flow 2 (95th percentile 128.96 ms)   Flow 3 (95th percentile 129.10 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-01-17 05:19:36
End at: 2018-01-17 05:20:06
Local clock offset: 0.629 ms
Remote clock offset: -5.013 ms


# Below is generated by plot.py at 2018-01-17 07:12:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.51 Mbit/s
95th percentile per-packet one-way delay: 114.041 ms
Loss rate: 29.65%
-- Flow 1:
Average throughput: 36.43 Mbit/s
95th percentile per-packet one-way delay: 113.464 ms
Loss rate: 29.39%
-- Flow 2:
Average throughput: 26.74 Mbit/s
95th percentile per-packet one-way delay: 114.110 ms
Loss rate: 29.51%
-- Flow 3:
Average throughput: 28.36 Mbit/s
95th percentile per-packet one-way delay: 113.484 ms
Loss rate: 30.88%
```
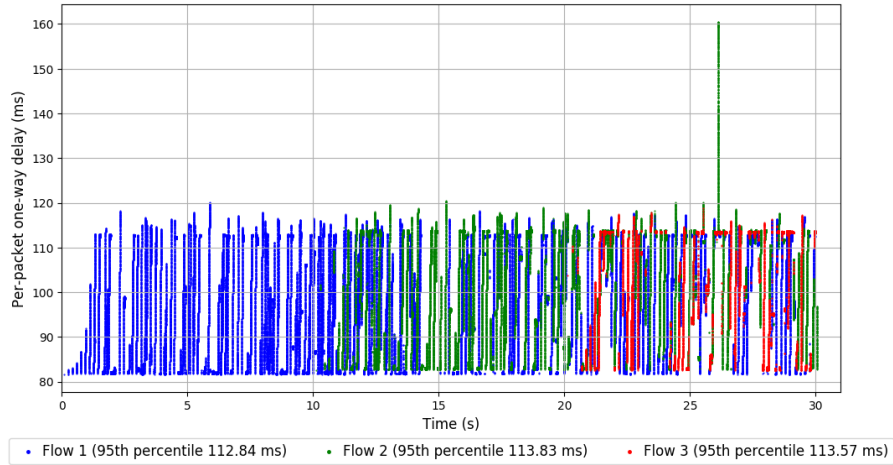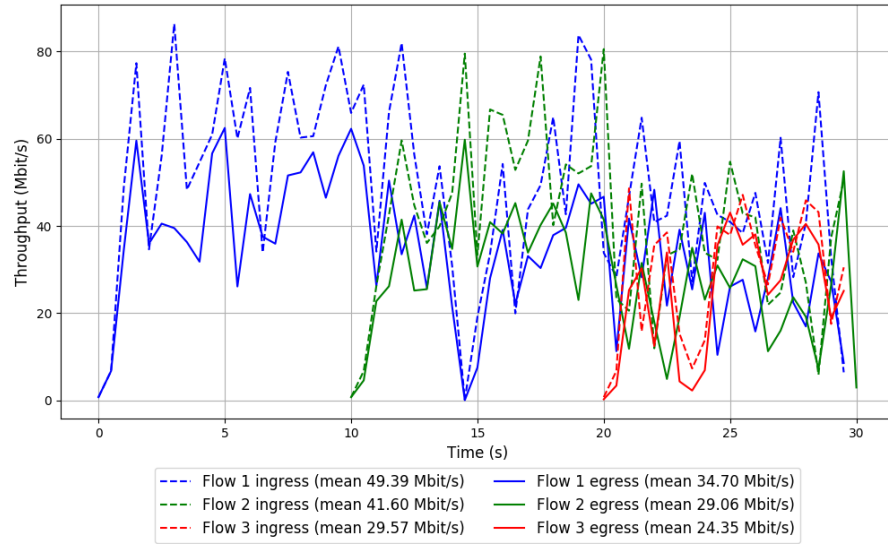
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2018-01-17 05:42:59
End at: 2018-01-17 05:43:29
Local clock offset: 0.667 ms
Remote clock offset: -6.448 ms


# Below is generated by plot.py at 2018-01-17 07:12:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.26 Mbit/s
95th percentile per-packet one-way delay: 112.840 ms
Loss rate: 26.90%
-- Flow 1:
Average throughput: 34.67 Mbit/s
95th percentile per-packet one-way delay: 111.776 ms
Loss rate: 28.67%
-- Flow 2:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 111.680 ms
Loss rate: 30.82%
-- Flow 3:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 113.085 ms
Loss rate: 9.84%
```

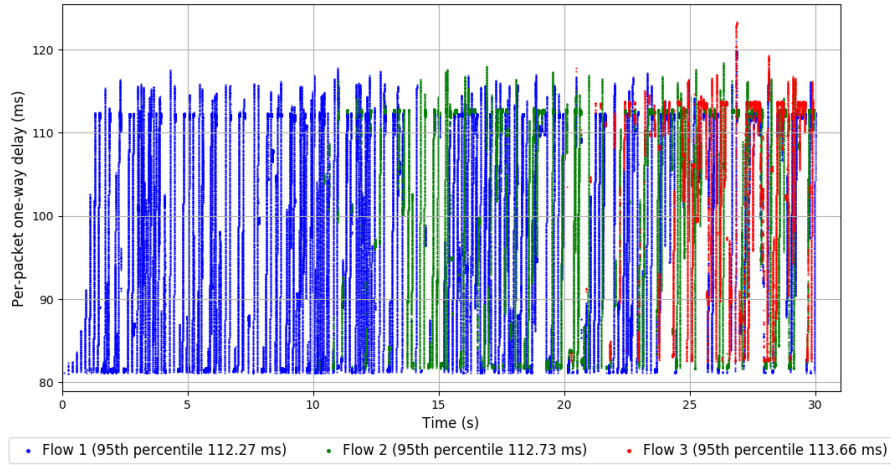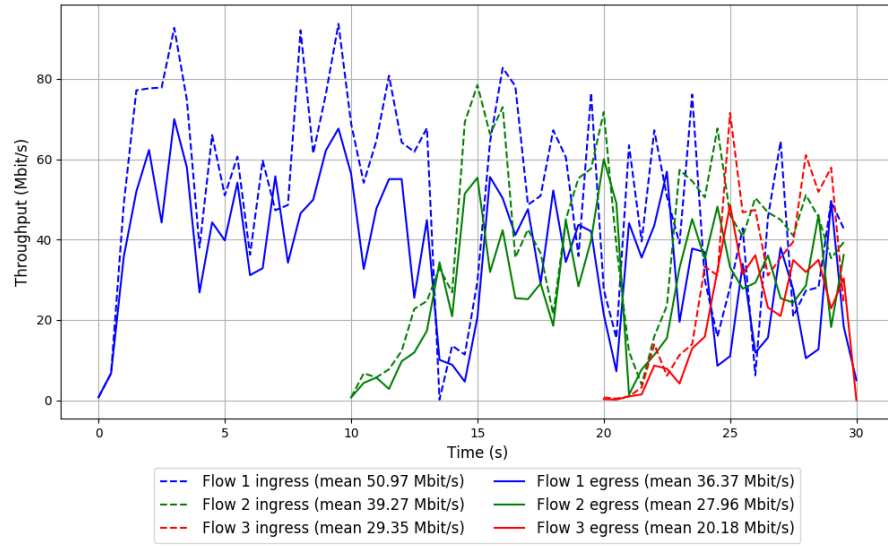# Run 8: Report of TCP BBR — Data Link

- - - - Flow 1 ingress (mean 48.61 Mbit/s) — Flow 1 egress (mean 34.67 Mbit/s)
- - - - Flow 2 ingress (mean 42.08 Mbit/s) — Flow 2 egress (mean 29.09 Mbit/s)
- - - - Flow 3 ingress (mean 34.69 Mbit/s) — Flow 3 egress (mean 31.25 Mbit/s)

• Flow 1 (95th percentile 111.78 ms)   • Flow 2 (95th percentile 111.68 ms)   • Flow 3 (95th percentile 113.08 ms)
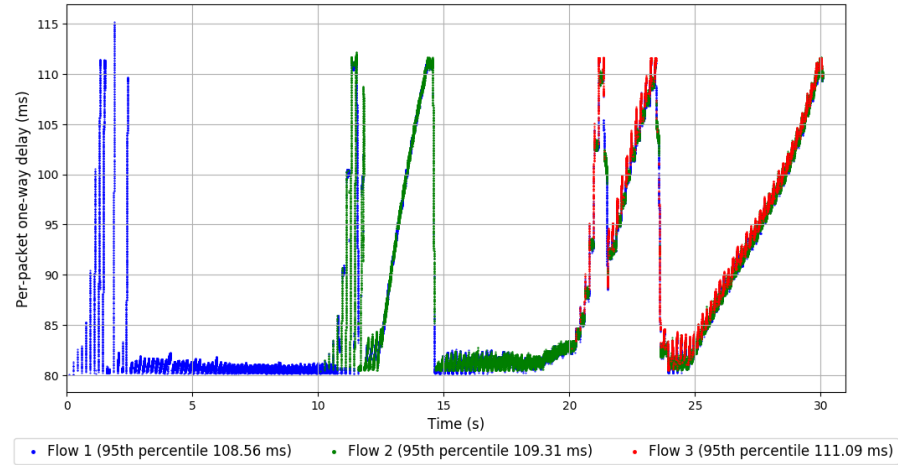
```
Run 9: Statistics of TCP BBR

Start at: 2018-01-17 06:06:18
End at: 2018-01-17 06:06:48
Local clock offset: 0.633 ms
Remote clock offset: -5.655 ms

# Below is generated by plot.py at 2018-01-17 07:13:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.97 Mbit/s
95th percentile per-packet one-way delay: 113.716 ms
Loss rate: 28.44%
-- Flow 1:
Average throughput: 34.70 Mbit/s
95th percentile per-packet one-way delay: 112.843 ms
Loss rate: 29.67%
-- Flow 2:
Average throughput: 29.06 Mbit/s
95th percentile per-packet one-way delay: 113.828 ms
Loss rate: 30.08%
-- Flow 3:
Average throughput: 24.35 Mbit/s
95th percentile per-packet one-way delay: 113.571 ms
Loss rate: 17.56%
```
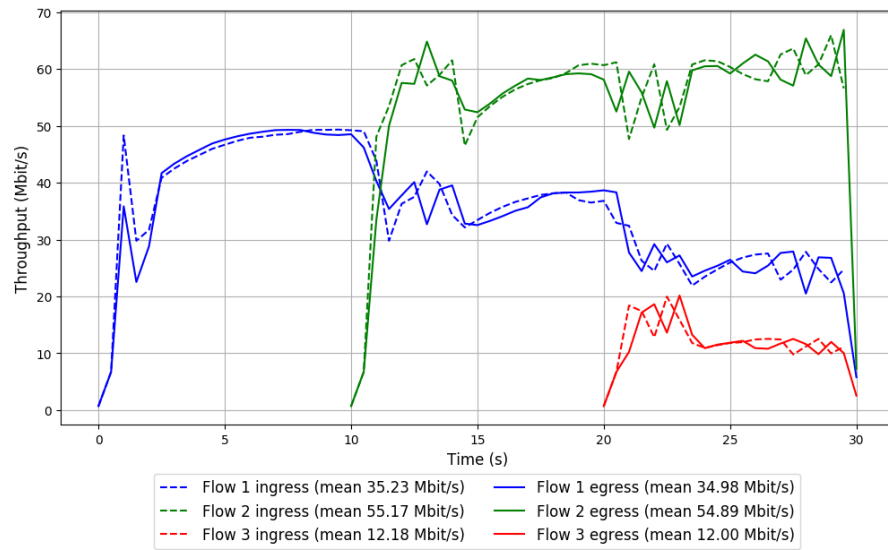
Run 9: Report of TCP BBR — Data Link

```
Run 10: Statistics of TCP BBR

Start at: 2018-01-17 06:29:48
End at: 2018-01-17 06:30:18
Local clock offset: 0.699 ms
Remote clock offset: -4.498 ms


# Below is generated by plot.py at 2018-01-17 07:13:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.59 Mbit/s
95th percentile per-packet one-way delay: 113.460 ms
Loss rate: 28.92%
-- Flow 1:
Average throughput: 36.37 Mbit/s
95th percentile per-packet one-way delay: 112.267 ms
Loss rate: 28.59%
-- Flow 2:
Average throughput: 27.96 Mbit/s
95th percentile per-packet one-way delay: 112.733 ms
Loss rate: 28.69%
-- Flow 3:
Average throughput: 20.18 Mbit/s
95th percentile per-packet one-way delay: 113.655 ms
Loss rate: 31.25%
```

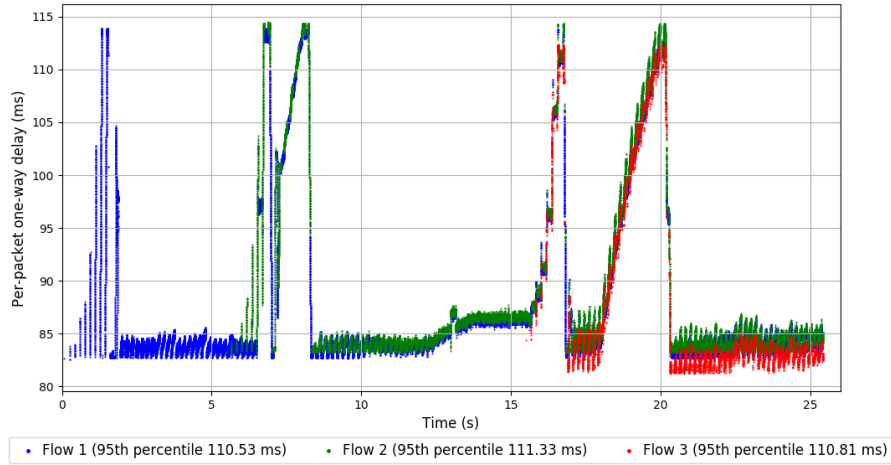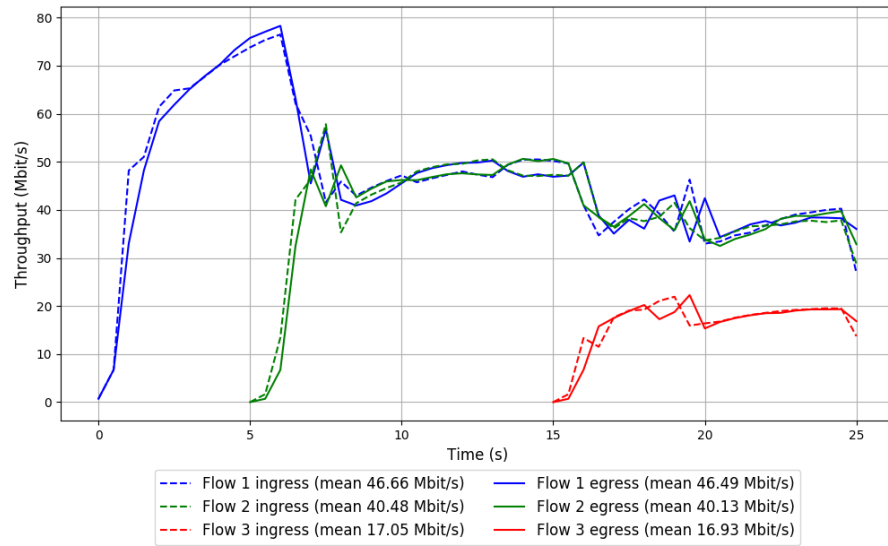# Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 50.97 Mbit/s)   Flow 1 egress (mean 36.37 Mbit/s)
Flow 2 ingress (mean 39.27 Mbit/s)   Flow 2 egress (mean 27.96 Mbit/s)
Flow 3 ingress (mean 29.35 Mbit/s)   Flow 3 egress (mean 20.18 Mbit/s)

Flow 1 (95th percentile 112.27 ms)   Flow 2 (95th percentile 112.73 ms)   Flow 3 (95th percentile 113.66 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2018-01-17 03:12:42
End at: 2018-01-17 03:13:12
Local clock offset: 0.996 ms
Remote clock offset: -0.672 ms
```

Run 1: Report of TCP Cubic — Data Link

Figure is missing

Figure is missing

```
Run 2: Statistics of TCP Cubic

Start at: 2018-01-17 03:35:54
End at: 2018-01-17 03:36:24
Local clock offset: 0.913 ms
Remote clock offset: -6.817 ms


# Below is generated by plot.py at 2018-01-17 07:13:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.53 Mbit/s
95th percentile per-packet one-way delay: 109.359 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 34.98 Mbit/s
95th percentile per-packet one-way delay: 108.555 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 109.309 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 12.00 Mbit/s
95th percentile per-packet one-way delay: 111.094 ms
Loss rate: 1.22%
```

Run 2: Report of TCP Cubic — Data Link
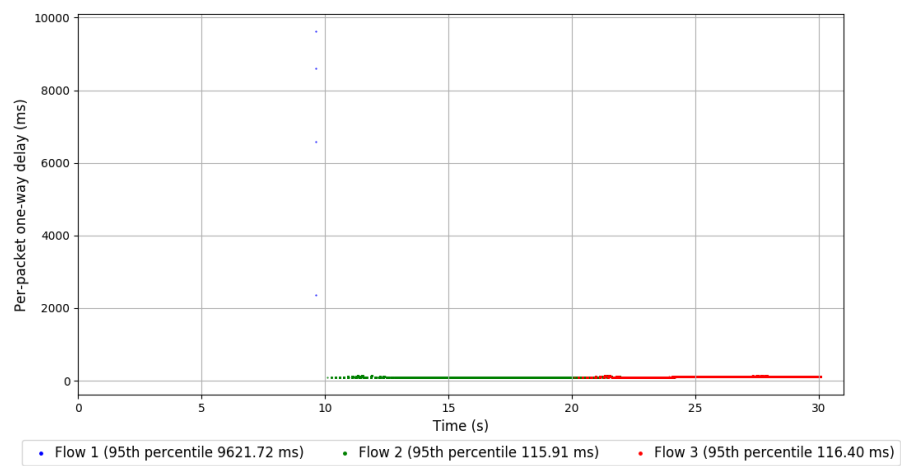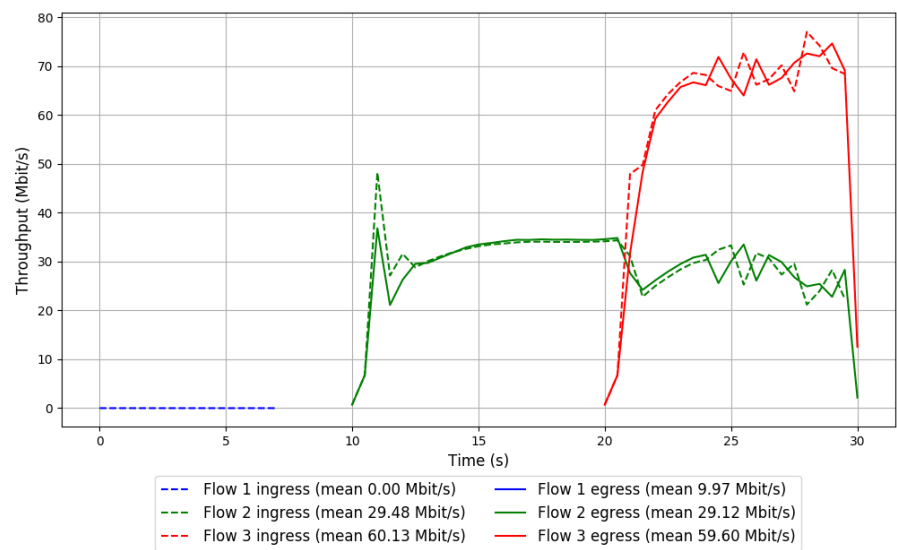
```
Run 3: Statistics of TCP Cubic

Start at: 2018-01-17 03:59:13
End at: 2018-01-17 03:59:43
Local clock offset: 0.917 ms
Remote clock offset: -5.679 ms


# Below is generated by plot.py at 2018-01-17 07:13:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.67 Mbit/s
95th percentile per-packet one-way delay: 111.026 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 46.49 Mbit/s
95th percentile per-packet one-way delay: 110.531 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 40.13 Mbit/s
95th percentile per-packet one-way delay: 111.330 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 16.93 Mbit/s
95th percentile per-packet one-way delay: 110.810 ms
Loss rate: 0.74%
```
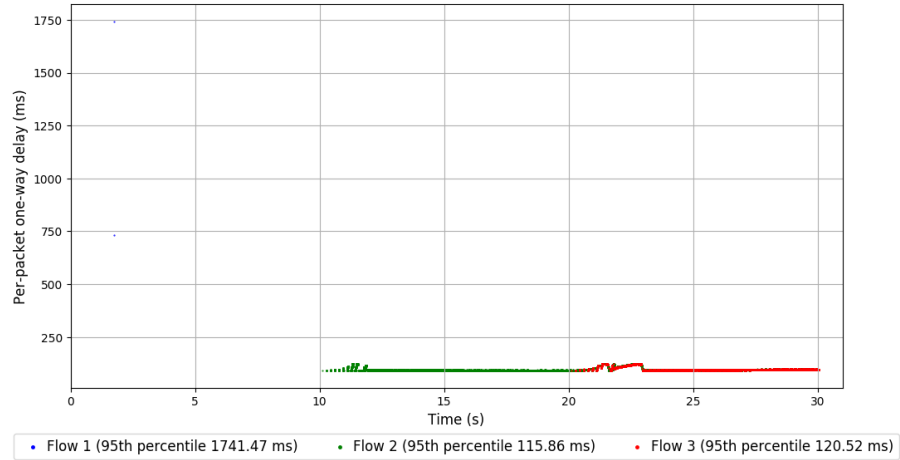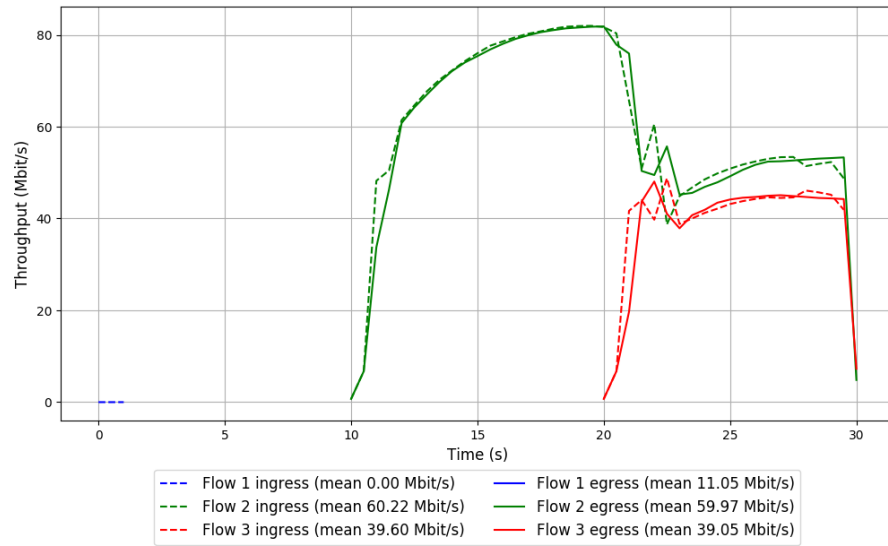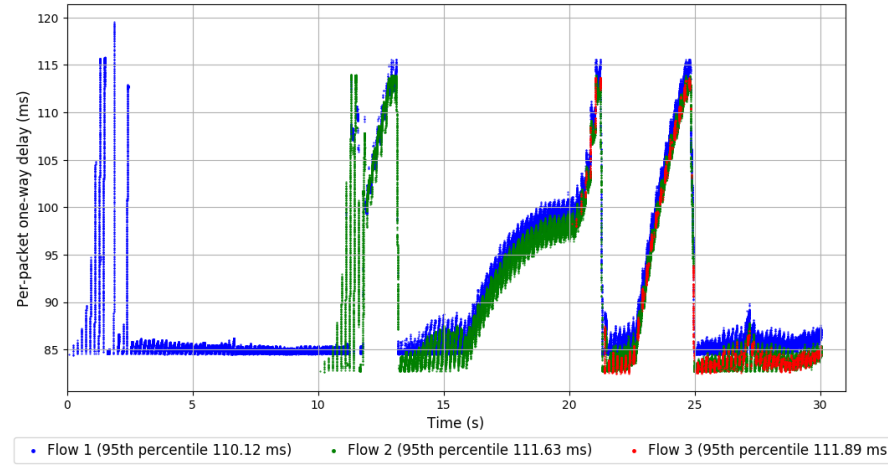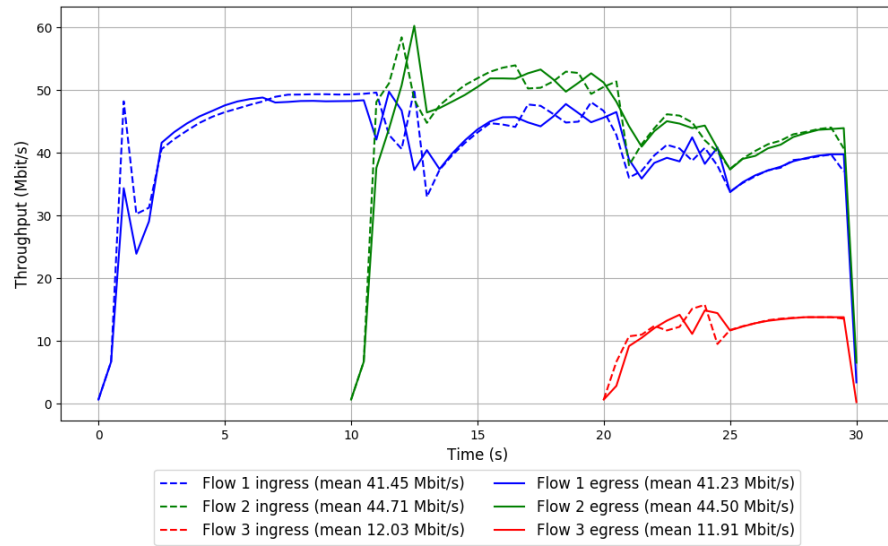
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 46.66 Mbit/s) --- Flow 1 egress (mean 46.49 Mbit/s) ---
Flow 2 ingress (mean 40.48 Mbit/s) --- Flow 2 egress (mean 40.13 Mbit/s) ---
Flow 3 ingress (mean 17.05 Mbit/s) --- Flow 3 egress (mean 16.93 Mbit/s) ---

Flow 1 (95th percentile 110.53 ms) • Flow 2 (95th percentile 111.33 ms) • Flow 3 (95th percentile 110.81 ms) •

```
Run 4: Statistics of TCP Cubic

Start at: 2018-01-17 04:22:31
End at: 2018-01-17 04:23:01
Local clock offset: 0.86 ms
Remote clock offset: -0.795 ms
```

Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 9.97 Mbit/s)
Flow 2 ingress (mean 29.48 Mbit/s) --- Flow 2 egress (mean 29.12 Mbit/s)
Flow 3 ingress (mean 60.13 Mbit/s) --- Flow 3 egress (mean 59.60 Mbit/s)

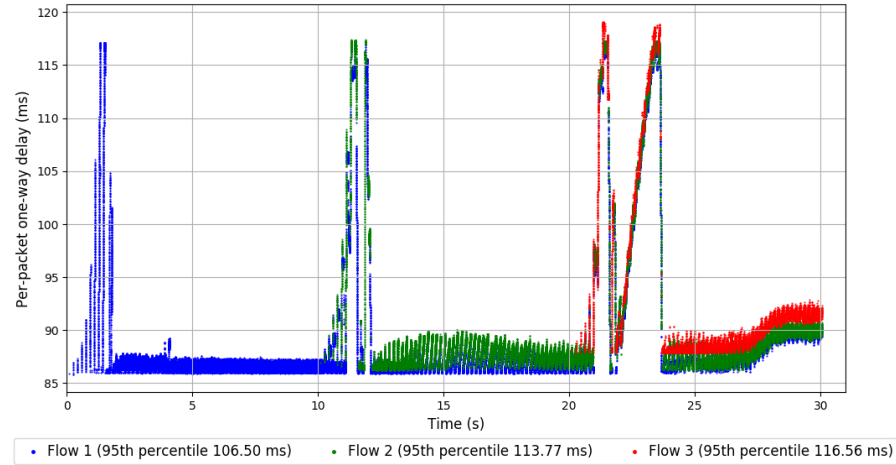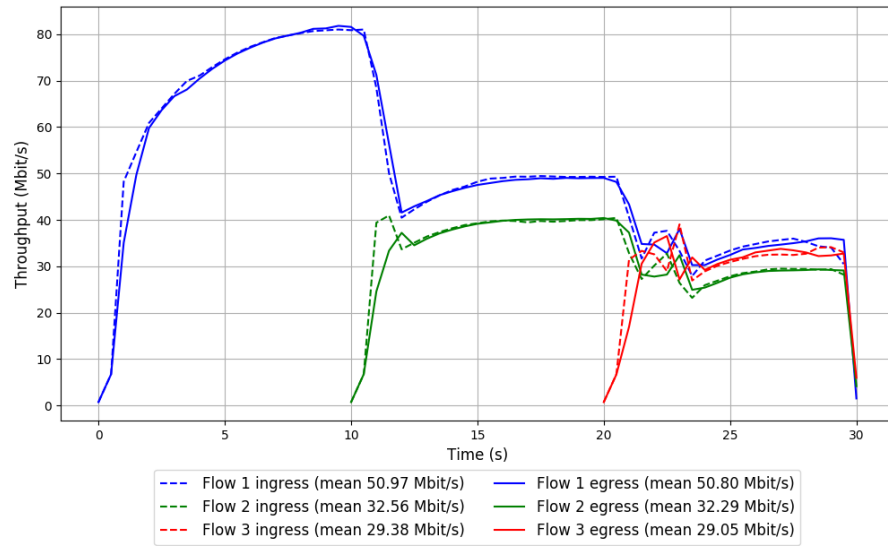Flow 1 (95th percentile 9621.72 ms) • Flow 2 (95th percentile 115.91 ms) • Flow 3 (95th percentile 116.40 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-01-17 04:45:55
End at: 2018-01-17 04:46:25
Local clock offset: 0.746 ms
Remote clock offset: 3.443 ms


# Below is generated by plot.py at 2018-01-17 07:13:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.98 Mbit/s
95th percentile per-packet one-way delay: 117.712 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 1741.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.97 Mbit/s
95th percentile per-packet one-way delay: 115.860 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 39.05 Mbit/s
95th percentile per-packet one-way delay: 120.524 ms
Loss rate: 1.32%
```

Run 5: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 0.00 Mbit/s) ——— Flow 1 egress (mean 11.05 Mbit/s)
- - - Flow 2 ingress (mean 60.22 Mbit/s) ——— Flow 2 egress (mean 59.97 Mbit/s)
- - - Flow 3 ingress (mean 39.60 Mbit/s) ——— Flow 3 egress (mean 39.05 Mbit/s)

- Flow 1 (95th percentile 1741.47 ms)　　• Flow 2 (95th percentile 115.86 ms)　　• Flow 3 (95th percentile 120.52 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-01-17 05:09:19
End at: 2018-01-17 05:09:49
Local clock offset: 0.712 ms
Remote clock offset: -4.496 ms


# Below is generated by plot.py at 2018-01-17 07:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.82 Mbit/s
95th percentile per-packet one-way delay: 111.137 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 110.121 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 44.50 Mbit/s
95th percentile per-packet one-way delay: 111.630 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 111.892 ms
Loss rate: 1.08%
```
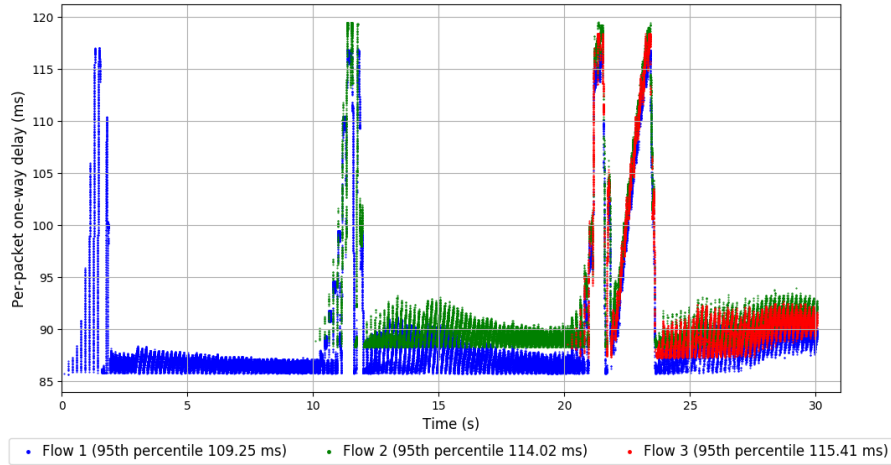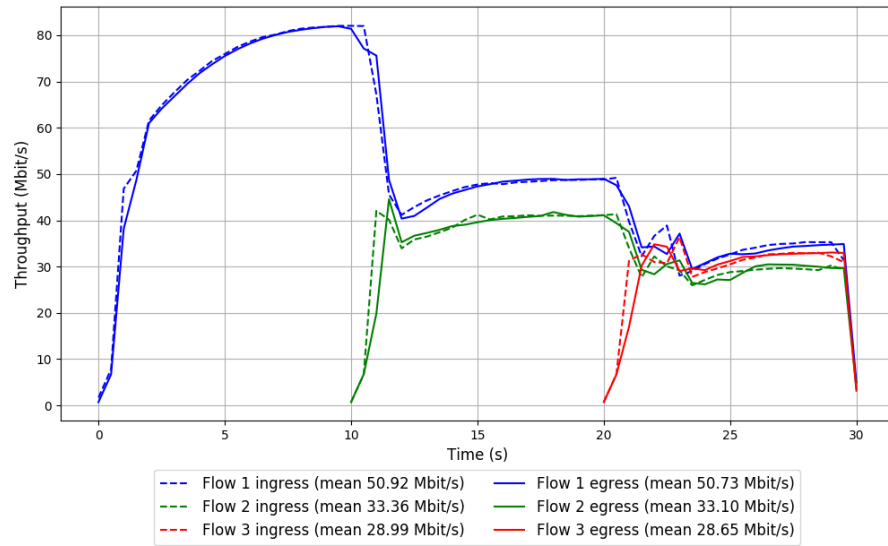
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-01-17 05:32:40
End at: 2018-01-17 05:33:10
Local clock offset: 0.671 ms
Remote clock offset: -5.57 ms
```

Run 7: Report of TCP Cubic — Data Link
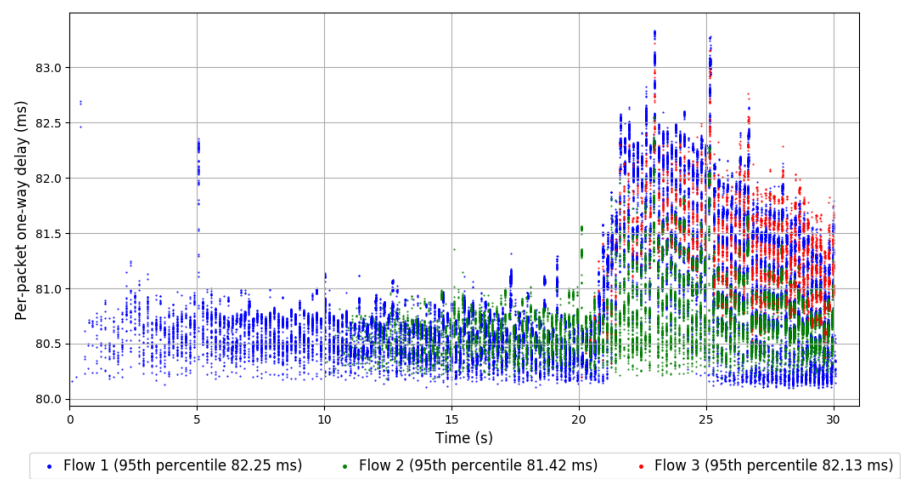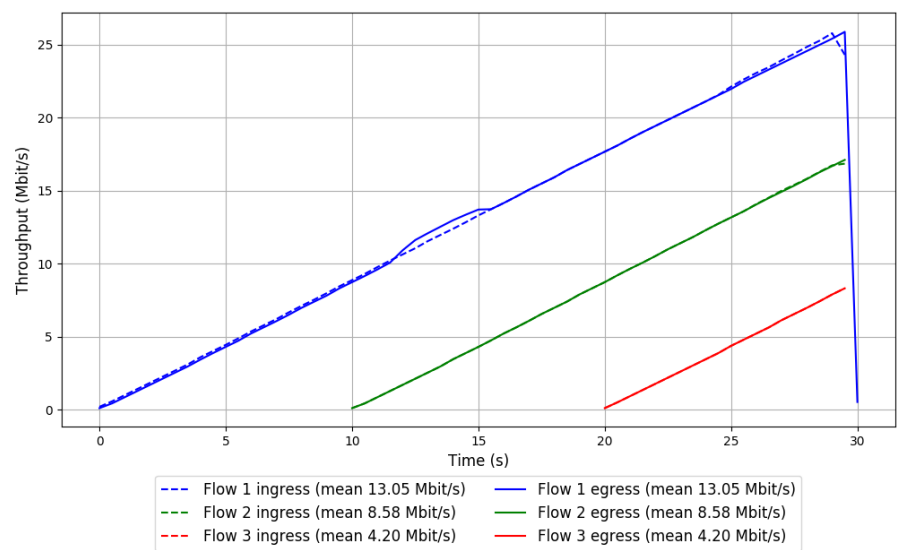
Figure is missing

Figure is missing

```
Run 8: Statistics of TCP Cubic

Start at: 2018-01-17 05:56:02
End at: 2018-01-17 05:56:32
Local clock offset: 0.666 ms
Remote clock offset: -0.668 ms


# Below is generated by plot.py at 2018-01-17 07:13:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.95 Mbit/s
95th percentile per-packet one-way delay: 112.253 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 50.80 Mbit/s
95th percentile per-packet one-way delay: 106.505 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 113.770 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 29.05 Mbit/s
95th percentile per-packet one-way delay: 116.562 ms
Loss rate: 1.08%
```

Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2018-01-17 06:19:32
End at: 2018-01-17 06:20:02
Local clock offset: 0.732 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.28 Mbit/s
95th percentile per-packet one-way delay: 111.121 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 50.73 Mbit/s
95th percentile per-packet one-way delay: 109.252 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 33.10 Mbit/s
95th percentile per-packet one-way delay: 114.019 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 28.65 Mbit/s
95th percentile per-packet one-way delay: 115.414 ms
Loss rate: 1.14%
```
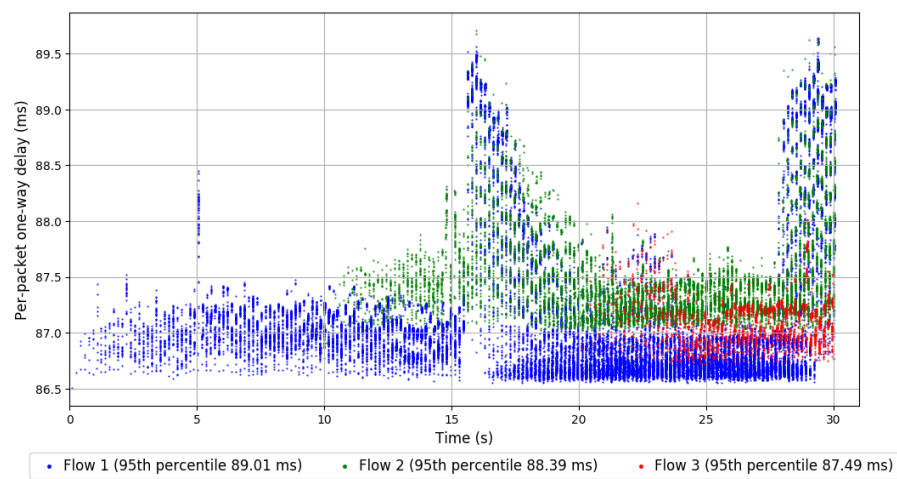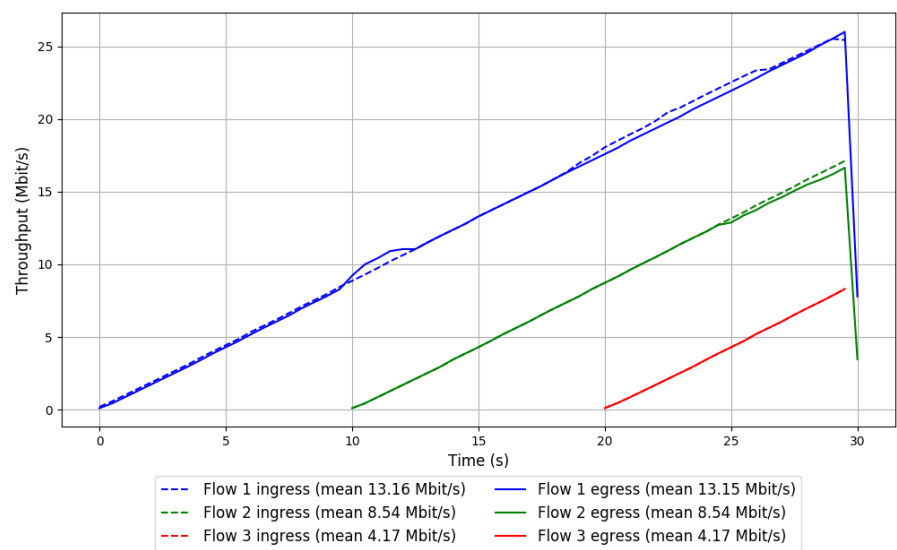
Run 9: Report of TCP Cubic — Data Link

- - - - Flow 1 ingress (mean 50.92 Mbit/s) —— Flow 1 egress (mean 50.73 Mbit/s)
- - - - Flow 2 ingress (mean 33.36 Mbit/s) —— Flow 2 egress (mean 33.10 Mbit/s)
- - - - Flow 3 ingress (mean 28.99 Mbit/s) —— Flow 3 egress (mean 28.65 Mbit/s)

- Flow 1 (95th percentile 109.25 ms) · Flow 2 (95th percentile 114.02 ms) · Flow 3 (95th percentile 115.41 ms)

Run 10: Statistics of TCP Cubic

Start at: 2018-01-17 06:42:44
End at: 2018-01-17 06:43:14
Local clock offset: 0.589 ms
Remote clock offset: -0.539 ms

Run 10: Report of TCP Cubic — Data Link
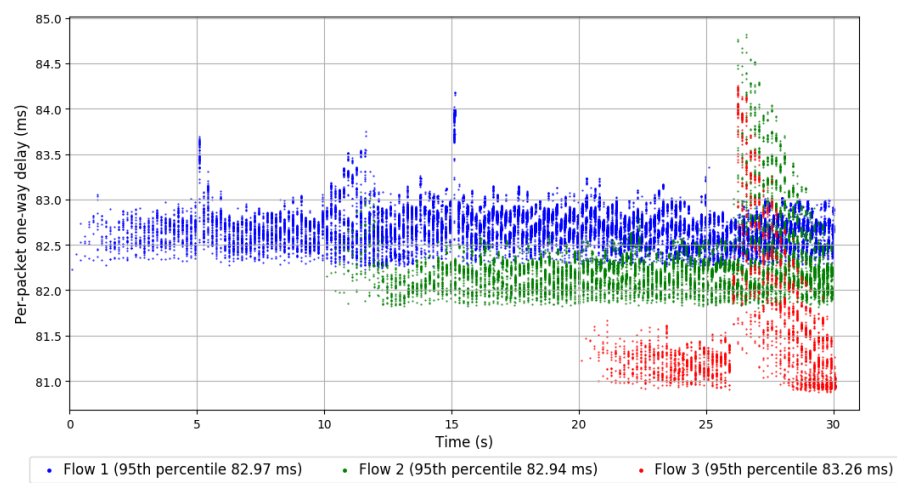
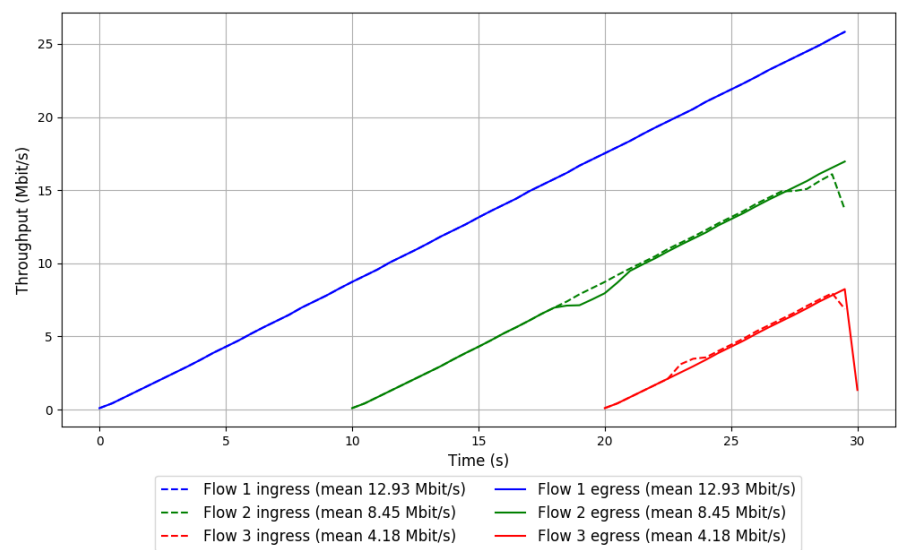Figure is missing

Figure is missing

```
Run 1: Statistics of LEDBAT

Start at: 2018-01-17 02:50:43
End at: 2018-01-17 02:51:13
Local clock offset: 0.919 ms
Remote clock offset: -5.813 ms

# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.12 Mbit/s
95th percentile per-packet one-way delay: 82.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 82.255 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 81.421 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 82.131 ms
Loss rate: 0.00%
```
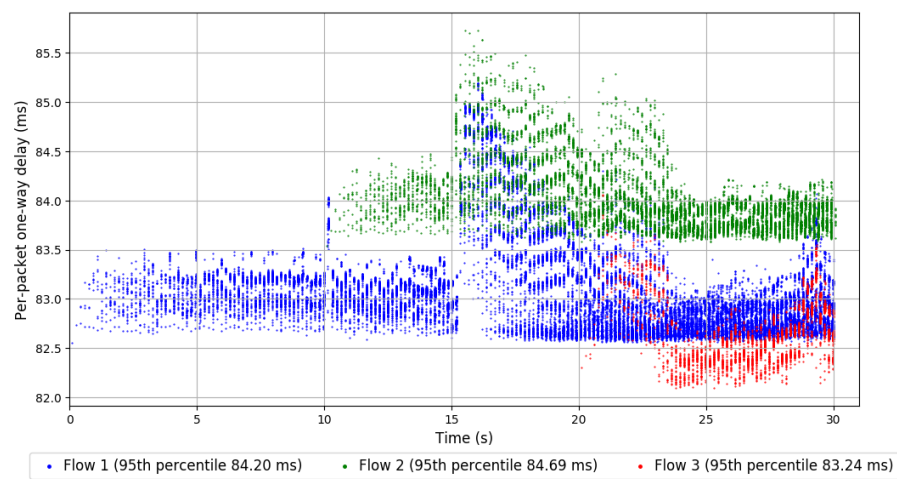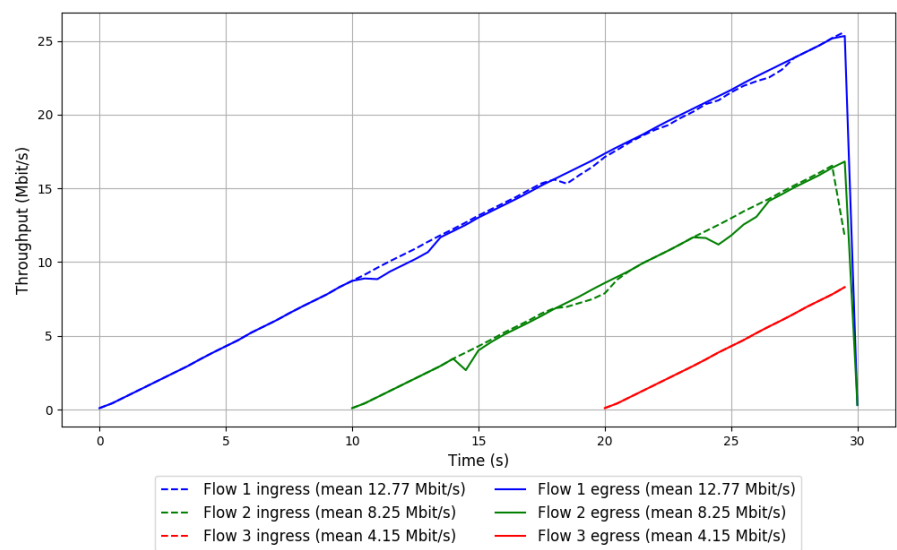
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-01-17 03:13:56
End at: 2018-01-17 03:14:26
Local clock offset: 1.046 ms
Remote clock offset: 0.229 ms


# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.21 Mbit/s
95th percentile per-packet one-way delay: 88.908 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.15 Mbit/s
95th percentile per-packet one-way delay: 89.010 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.54 Mbit/s
95th percentile per-packet one-way delay: 88.393 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 87.491 ms
Loss rate: 0.00%
```
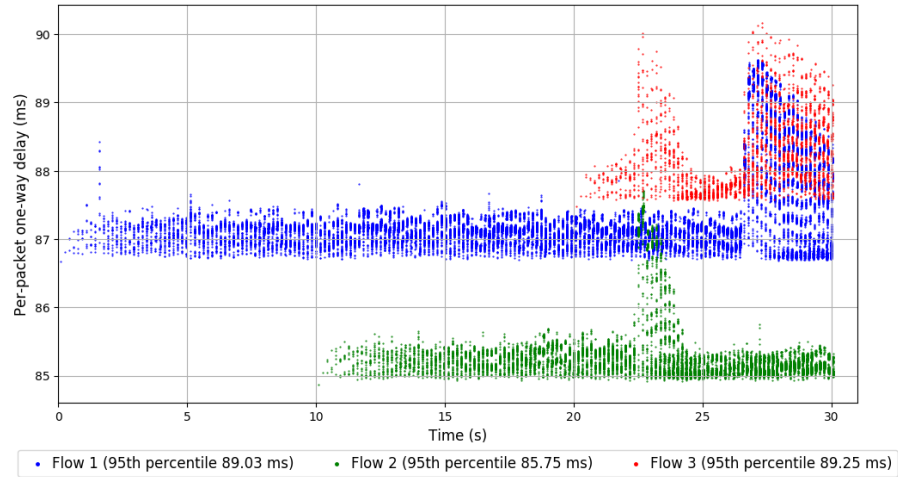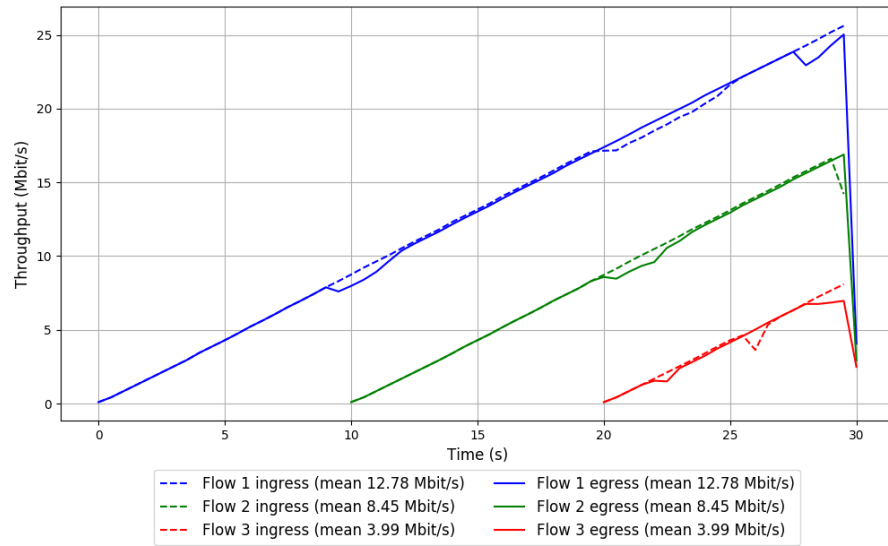
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-01-17 03:37:13
End at: 2018-01-17 03:37:43
Local clock offset: 0.986 ms
Remote clock offset: -5.941 ms

# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.88 Mbit/s
95th percentile per-packet one-way delay: 82.975 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 82.974 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 82.943 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 83.264 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-01-17 04:00:31
End at: 2018-01-17 04:01:01
Local clock offset: 0.9 ms
Remote clock offset: -5.706 ms


# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.61 Mbit/s
95th percentile per-packet one-way delay: 84.444 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 84.202 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 84.685 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 83.243 ms
Loss rate: 0.00%
```
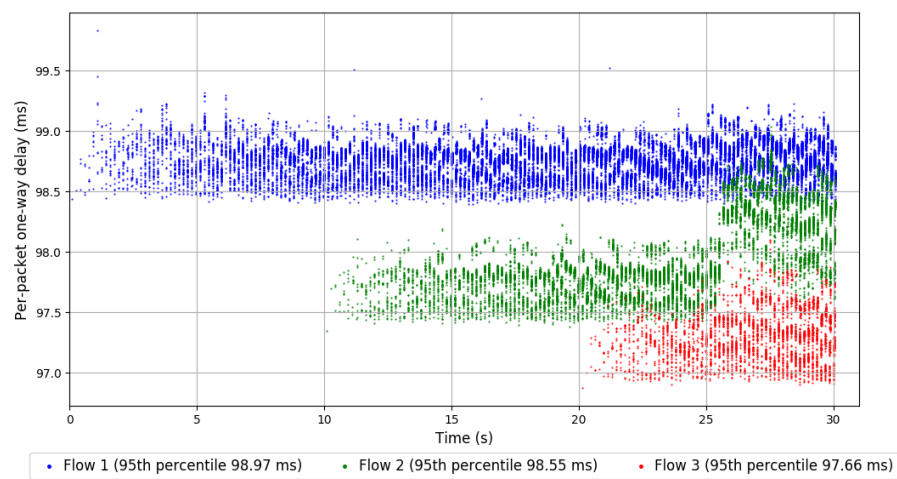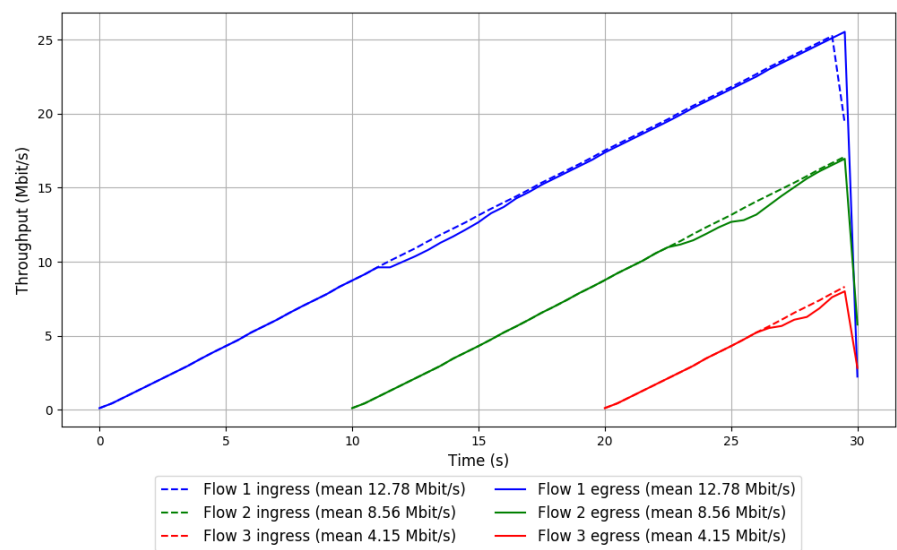
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-01-17 04:23:47
End at: 2018-01-17 04:24:17
Local clock offset: 0.86 ms
Remote clock offset: -1.681 ms


# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.72 Mbit/s
95th percentile per-packet one-way delay: 88.814 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.78 Mbit/s
95th percentile per-packet one-way delay: 89.025 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 85.754 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 89.247 ms
Loss rate: 0.00%
```
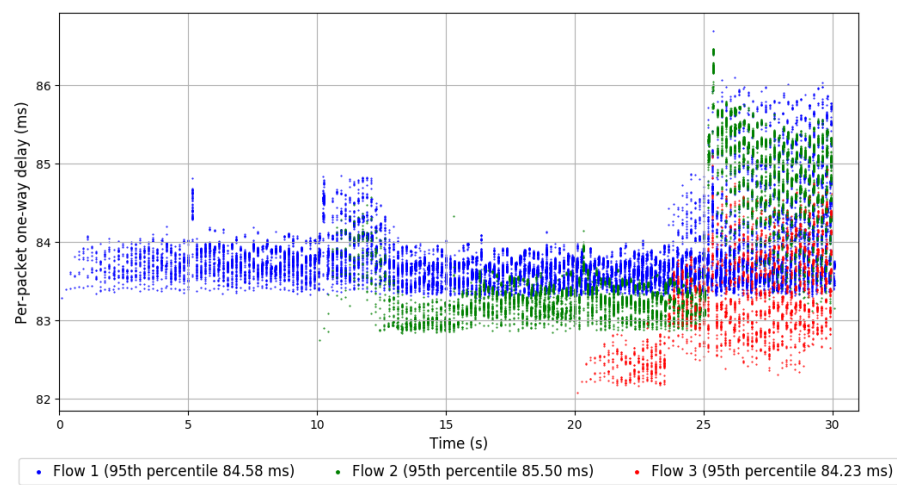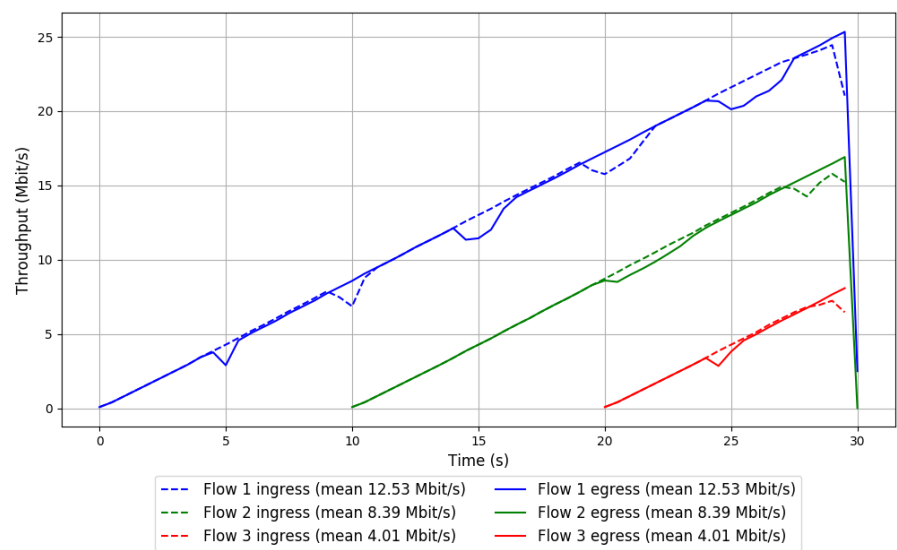
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 12.78 Mbit/s) --- Flow 1 egress (mean 12.78 Mbit/s)
Flow 2 ingress (mean 8.45 Mbit/s) --- Flow 2 egress (mean 8.45 Mbit/s)
Flow 3 ingress (mean 3.99 Mbit/s) --- Flow 3 egress (mean 3.99 Mbit/s)

Flow 1 (95th percentile 89.03 ms)   Flow 2 (95th percentile 85.75 ms)   Flow 3 (95th percentile 89.25 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-01-17 04:47:12
End at: 2018-01-17 04:47:42
Local clock offset: 0.741 ms
Remote clock offset: 9.85 ms

# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.84 Mbit/s
95th percentile per-packet one-way delay: 98.934 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.78 Mbit/s
95th percentile per-packet one-way delay: 98.965 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 8.56 Mbit/s
95th percentile per-packet one-way delay: 98.552 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 97.657 ms
Loss rate: 0.00%
```
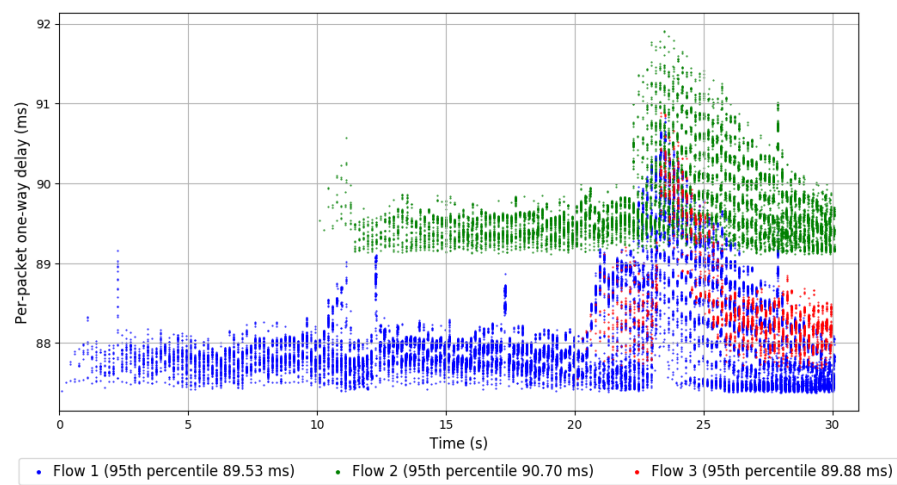
Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2018-01-17 05:10:37
End at: 2018-01-17 05:11:07
Local clock offset: 0.656 ms
Remote clock offset: -5.355 ms


# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.43 Mbit/s
95th percentile per-packet one-way delay: 85.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.53 Mbit/s
95th percentile per-packet one-way delay: 84.575 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.39 Mbit/s
95th percentile per-packet one-way delay: 85.497 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 84.228 ms
Loss rate: 0.00%
```
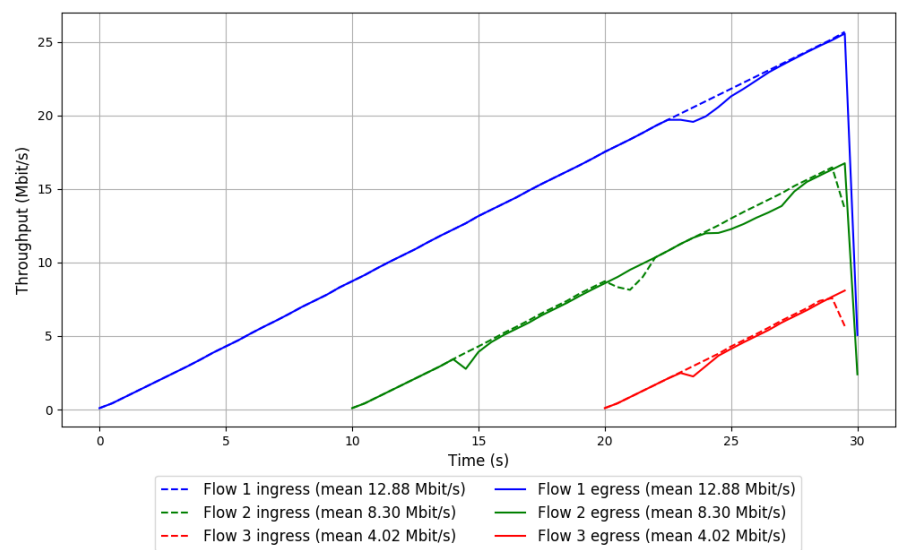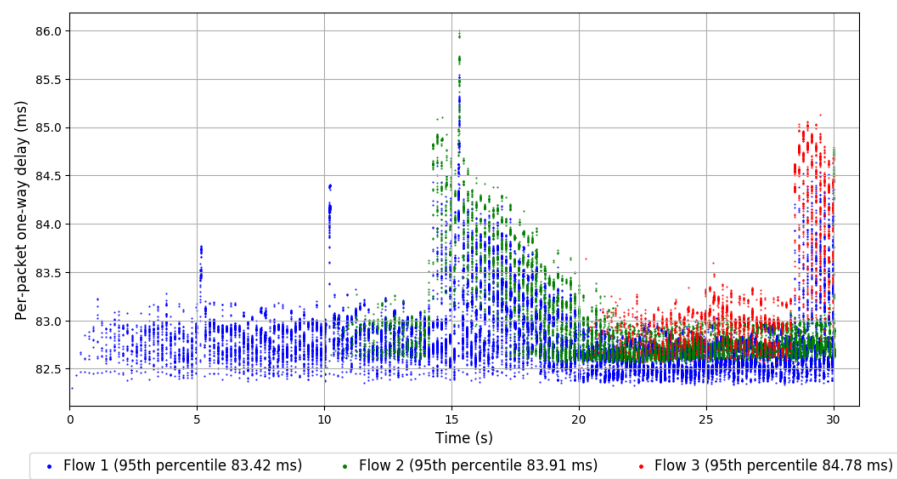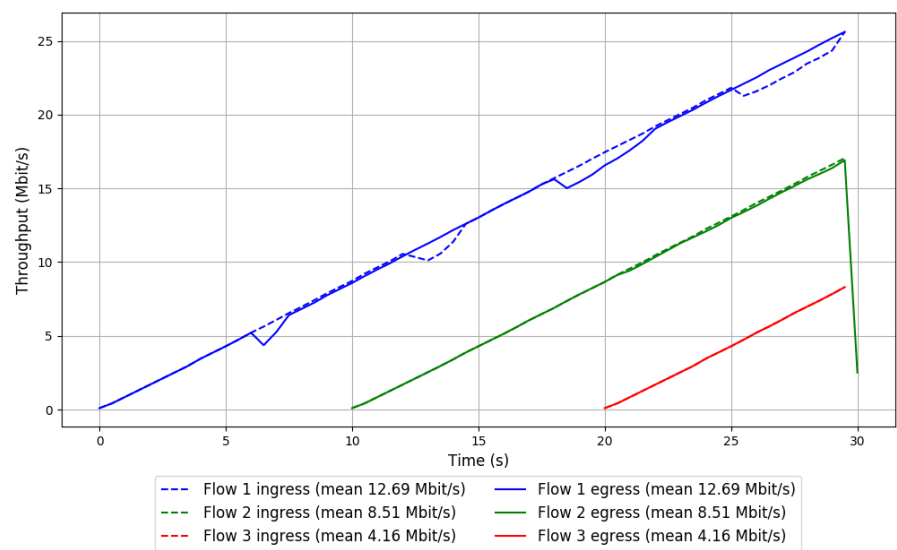
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 12.53 Mbit/s)   Flow 1 egress (mean 12.53 Mbit/s)
Flow 2 ingress (mean 8.39 Mbit/s)   Flow 2 egress (mean 8.39 Mbit/s)
Flow 3 ingress (mean 4.01 Mbit/s)   Flow 3 egress (mean 4.01 Mbit/s)

Flow 1 (95th percentile 84.58 ms)   Flow 2 (95th percentile 85.50 ms)   Flow 3 (95th percentile 84.23 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-01-17 05:33:54
End at: 2018-01-17 05:34:24
Local clock offset: 0.586 ms
Remote clock offset: 0.239 ms

# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.72 Mbit/s
95th percentile per-packet one-way delay: 90.140 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.88 Mbit/s
95th percentile per-packet one-way delay: 89.530 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 90.700 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 89.884 ms
Loss rate: 0.00%
```
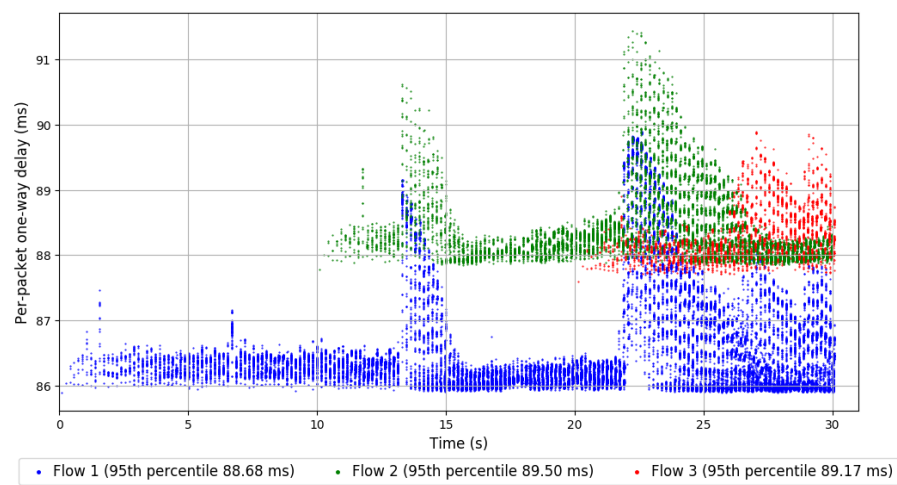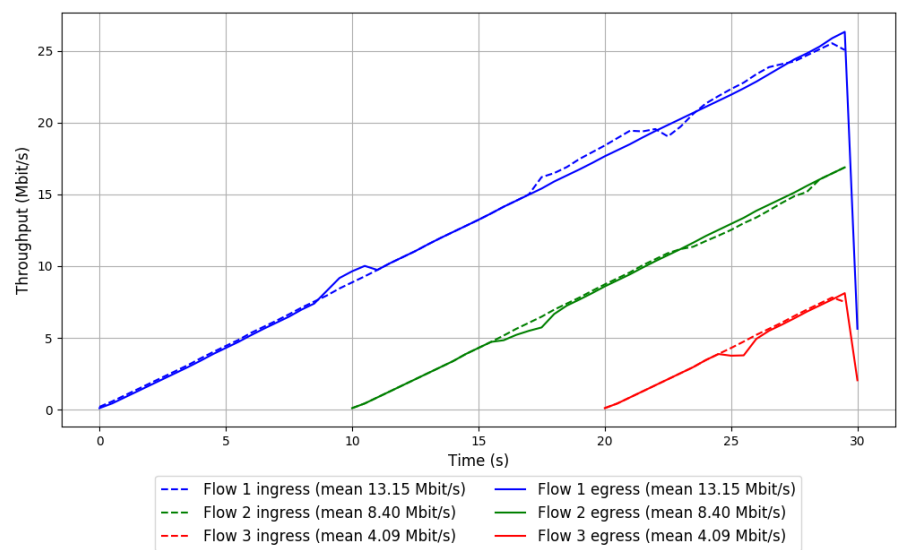
Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2018-01-17 05:57:21
End at: 2018-01-17 05:57:51
Local clock offset: 0.683 ms
Remote clock offset: -5.923 ms

# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.72 Mbit/s
95th percentile per-packet one-way delay: 83.772 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 83.420 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 83.914 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 84.782 ms
Loss rate: 0.00%
```
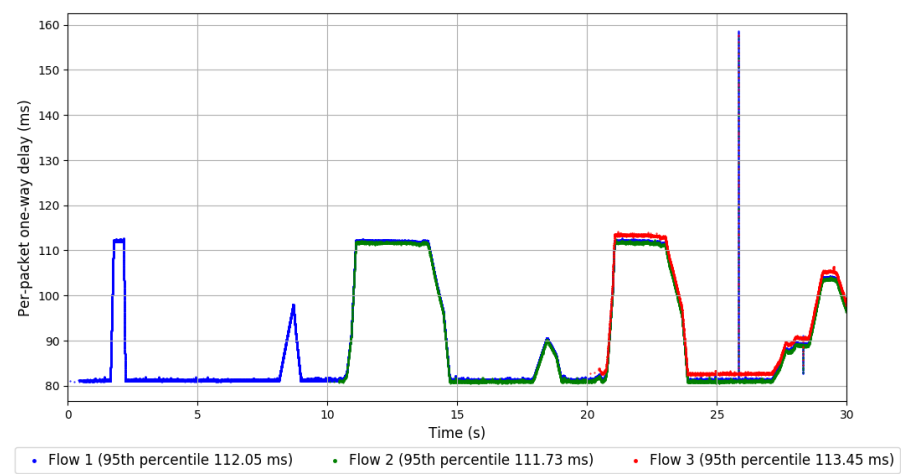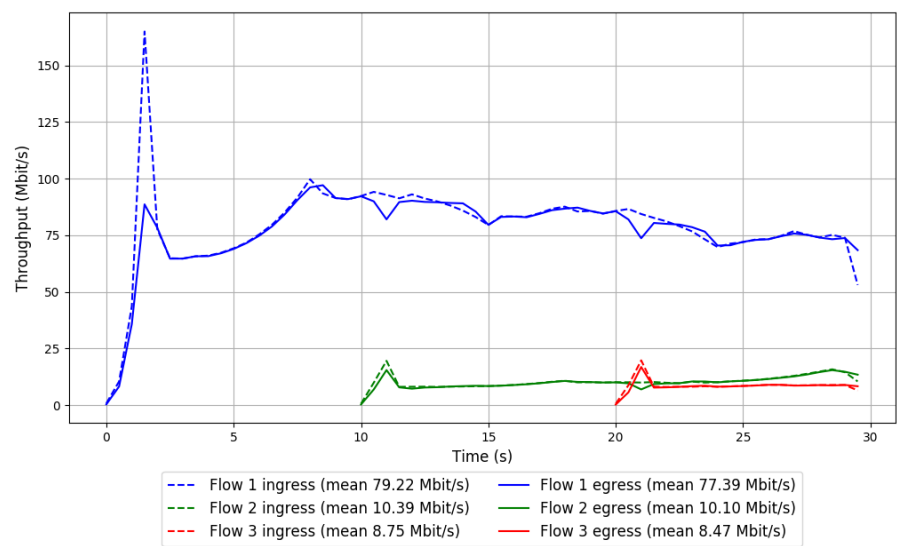
Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2018-01-17 06:20:50
End at: 2018-01-17 06:21:20
Local clock offset: 0.719 ms
Remote clock offset: 0.086 ms


# Below is generated by plot.py at 2018-01-17 07:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.08 Mbit/s
95th percentile per-packet one-way delay: 89.156 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.15 Mbit/s
95th percentile per-packet one-way delay: 88.682 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.40 Mbit/s
95th percentile per-packet one-way delay: 89.496 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.09 Mbit/s
95th percentile per-packet one-way delay: 89.167 ms
Loss rate: 0.00%
```
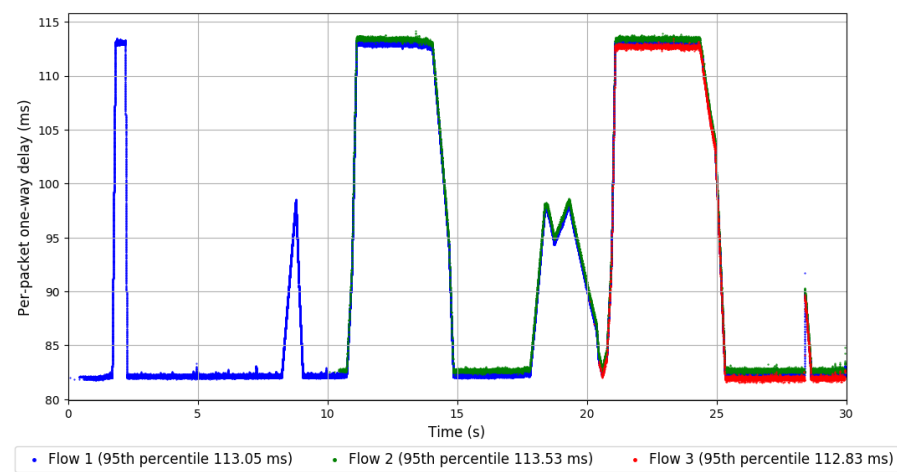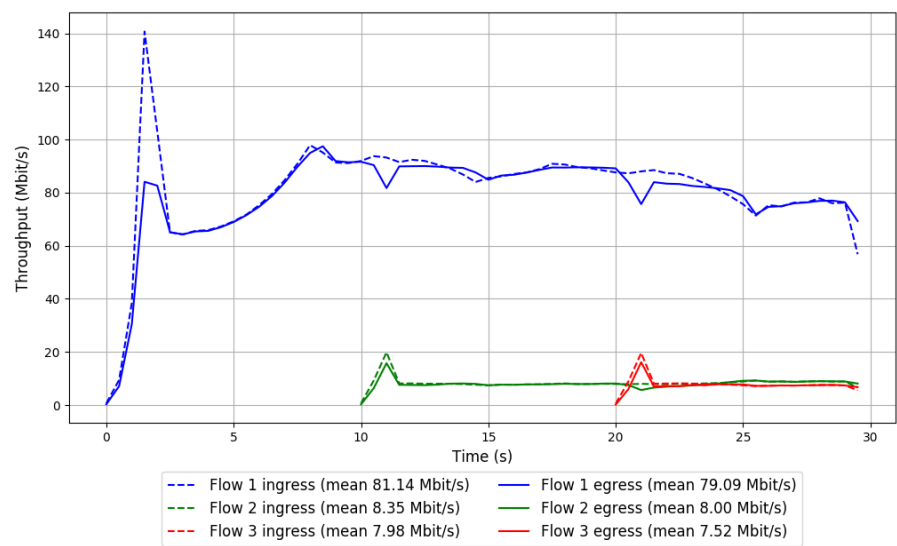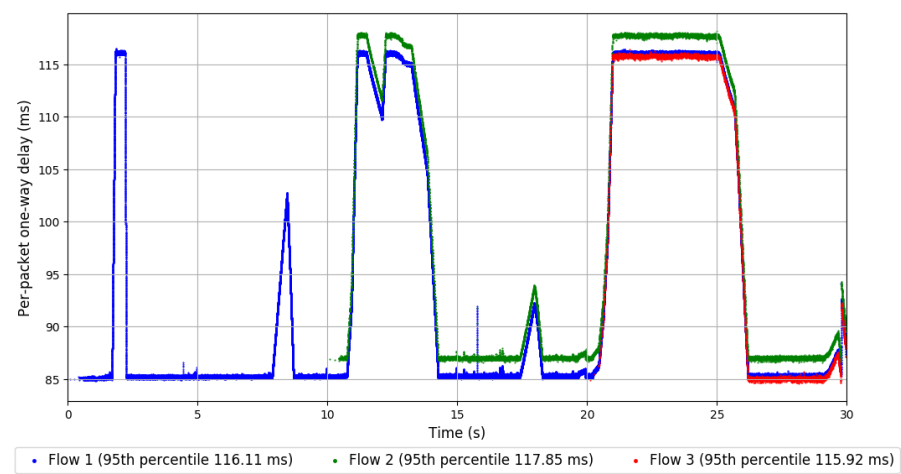
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2018-01-17 02:55:56
End at: 2018-01-17 02:56:26
Local clock offset: 1.019 ms
Remote clock offset: -5.047 ms


# Below is generated by plot.py at 2018-01-17 07:15:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 112.058 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 77.39 Mbit/s
95th percentile per-packet one-way delay: 112.054 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 111.726 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 113.454 ms
Loss rate: 3.01%
```

Run 1: Report of PCC — Data Link

Flow 1 ingress (mean 79.22 Mbit/s) — Flow 1 egress (mean 77.39 Mbit/s)
Flow 2 ingress (mean 10.39 Mbit/s) — Flow 2 egress (mean 10.10 Mbit/s)
Flow 3 ingress (mean 8.75 Mbit/s) — Flow 3 egress (mean 8.47 Mbit/s)

Flow 1 (95th percentile 112.05 ms) • Flow 2 (95th percentile 111.73 ms) • Flow 3 (95th percentile 113.45 ms)
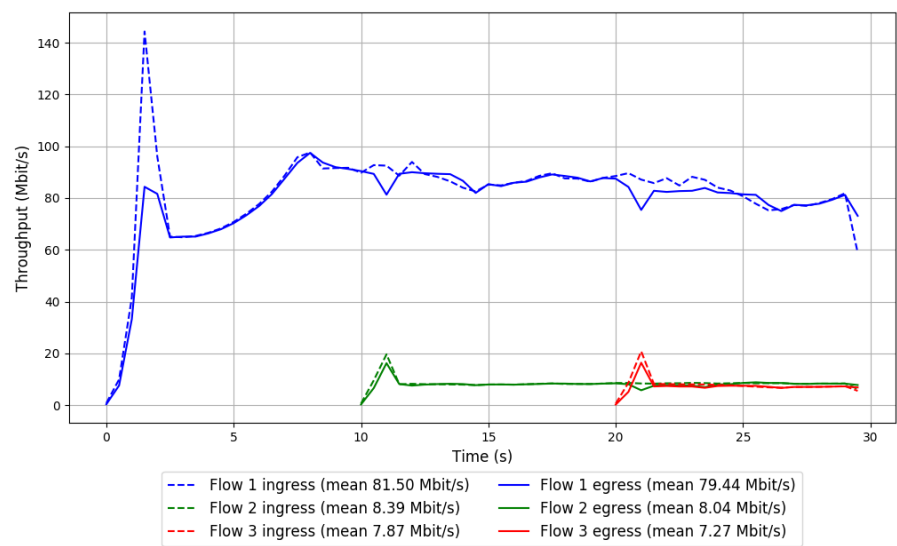
```
Run 2: Statistics of PCC

Start at: 2018-01-17 03:19:09
End at: 2018-01-17 03:19:39
Local clock offset: 1.081 ms
Remote clock offset: -6.413 ms

# Below is generated by plot.py at 2018-01-17 07:15:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.87 Mbit/s
95th percentile per-packet one-way delay: 113.072 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 79.09 Mbit/s
95th percentile per-packet one-way delay: 113.047 ms
Loss rate: 2.53%
-- Flow 2:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 113.531 ms
Loss rate: 4.16%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 112.828 ms
Loss rate: 5.84%
```
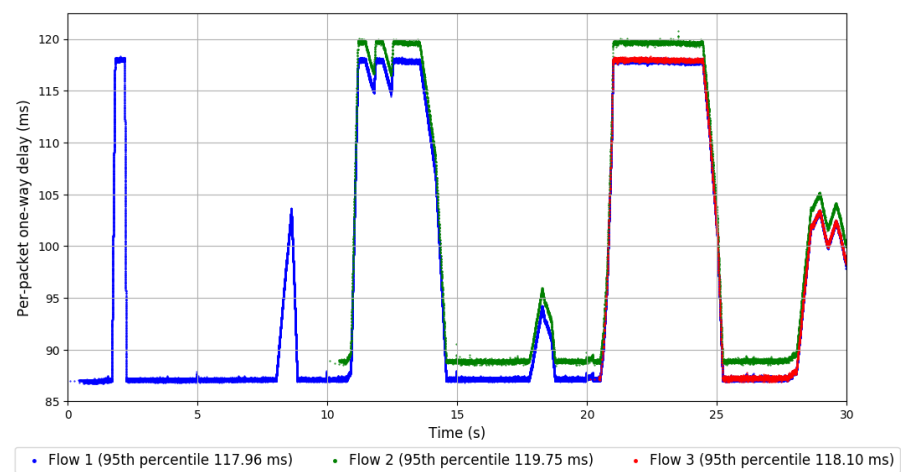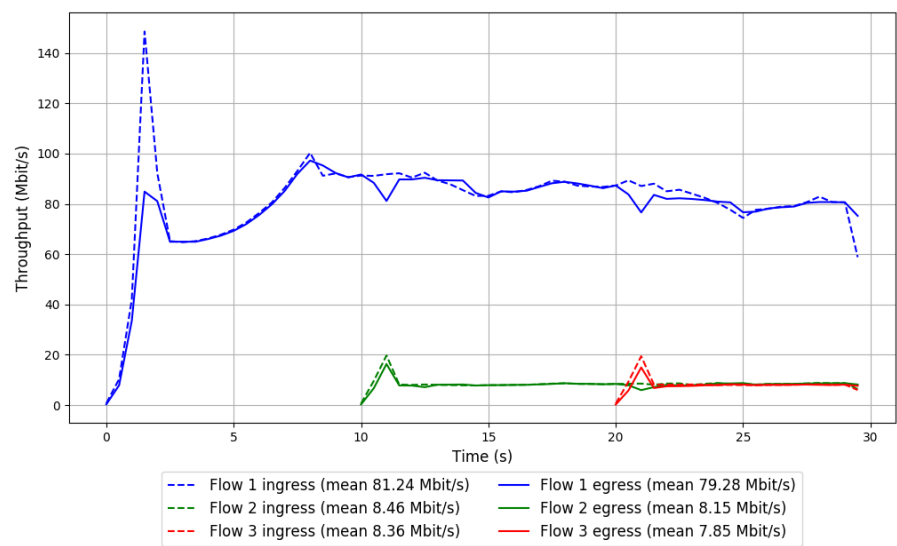
Run 2: Report of PCC — Data Link

- - - - Flow 1 ingress (mean 81.14 Mbit/s) ——— Flow 1 egress (mean 79.09 Mbit/s)
- - - - Flow 2 ingress (mean 8.35 Mbit/s) ——— Flow 2 egress (mean 8.00 Mbit/s)
- - - - Flow 3 ingress (mean 7.98 Mbit/s) ——— Flow 3 egress (mean 7.52 Mbit/s)

- Flow 1 (95th percentile 113.05 ms)   • Flow 2 (95th percentile 113.53 ms)   • Flow 3 (95th percentile 112.83 ms)

```
Run 3: Statistics of PCC

Start at: 2018-01-17 03:42:25
End at: 2018-01-17 03:42:55
Local clock offset: 0.964 ms
Remote clock offset: -2.066 ms


# Below is generated by plot.py at 2018-01-17 07:15:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.19 Mbit/s
95th percentile per-packet one-way delay: 116.137 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 79.44 Mbit/s
95th percentile per-packet one-way delay: 116.111 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 8.04 Mbit/s
95th percentile per-packet one-way delay: 117.852 ms
Loss rate: 4.21%
-- Flow 3:
Average throughput: 7.27 Mbit/s
95th percentile per-packet one-way delay: 115.922 ms
Loss rate: 7.60%
```
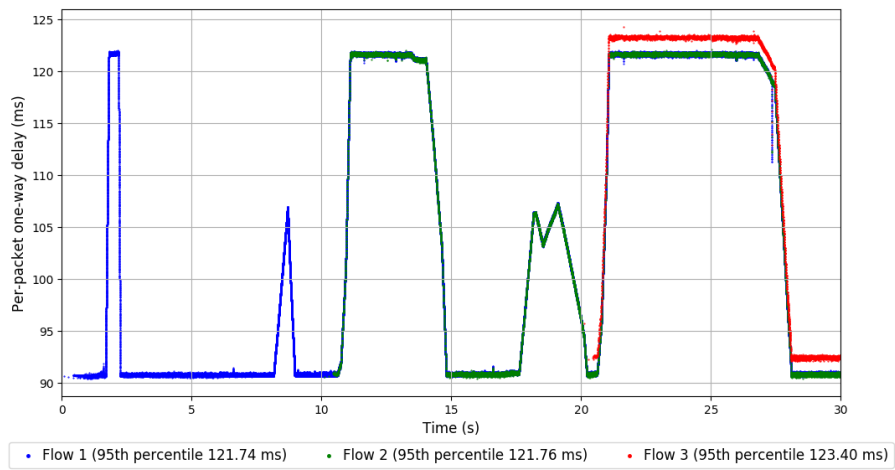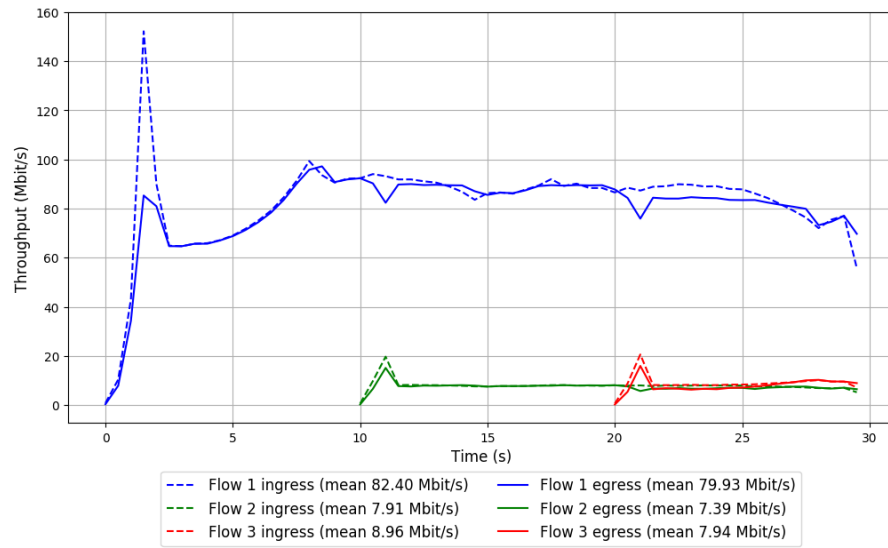
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 81.50 Mbit/s) — Flow 1 egress (mean 79.44 Mbit/s)
Flow 2 ingress (mean 8.39 Mbit/s) — Flow 2 egress (mean 8.04 Mbit/s)
Flow 3 ingress (mean 7.87 Mbit/s) — Flow 3 egress (mean 7.27 Mbit/s)

Flow 1 (95th percentile 116.11 ms) • Flow 2 (95th percentile 117.85 ms) • Flow 3 (95th percentile 115.92 ms)

```
Run 4: Statistics of PCC

Start at: 2018-01-17 04:05:37
End at: 2018-01-17 04:06:07
Local clock offset: 0.838 ms
Remote clock offset: 0.127 ms


# Below is generated by plot.py at 2018-01-17 07:15:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.29 Mbit/s
95th percentile per-packet one-way delay: 117.993 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 79.28 Mbit/s
95th percentile per-packet one-way delay: 117.956 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 119.745 ms
Loss rate: 3.54%
-- Flow 3:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 118.099 ms
Loss rate: 6.00%
```
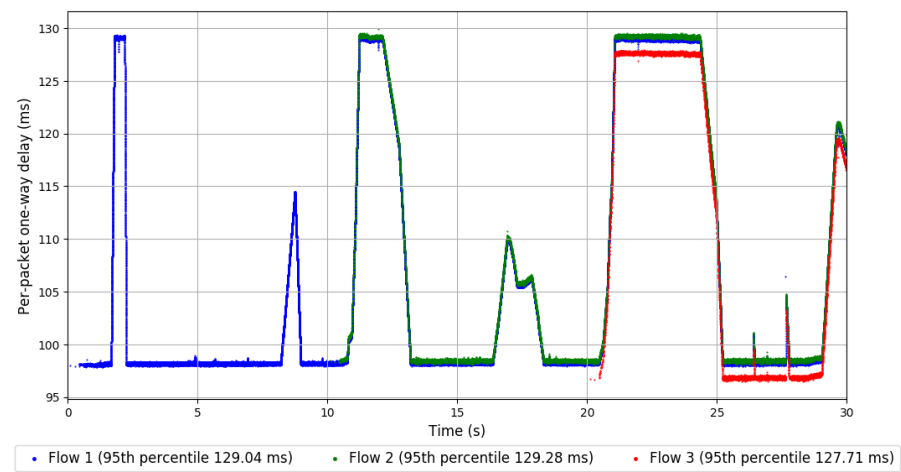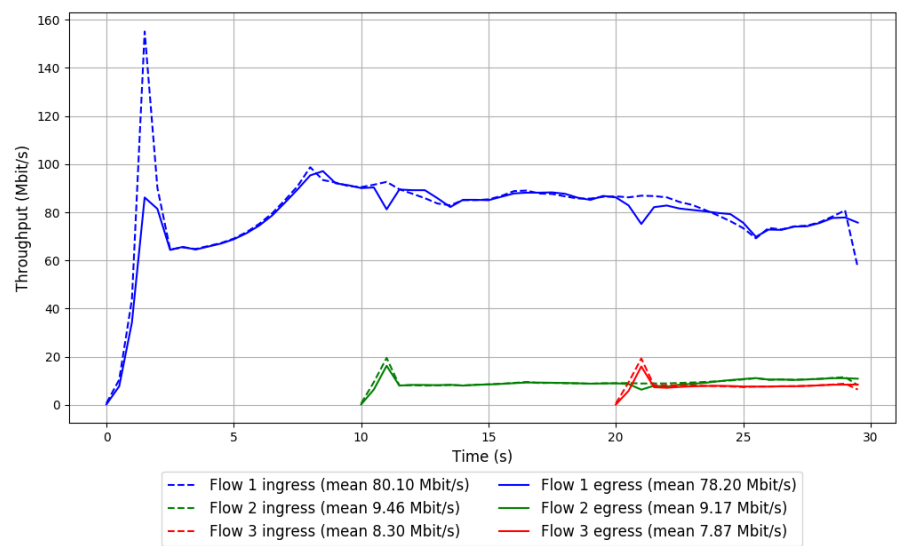
Run 4: Report of PCC — Data Link

```
Run 5: Statistics of PCC

Start at: 2018-01-17 04:29:01
End at: 2018-01-17 04:29:31
Local clock offset: 0.825 ms
Remote clock offset: 3.608 ms

# Below is generated by plot.py at 2018-01-17 07:15:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 121.768 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 79.93 Mbit/s
95th percentile per-packet one-way delay: 121.744 ms
Loss rate: 3.00%
-- Flow 2:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 121.758 ms
Loss rate: 6.54%
-- Flow 3:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 123.397 ms
Loss rate: 11.49%
```
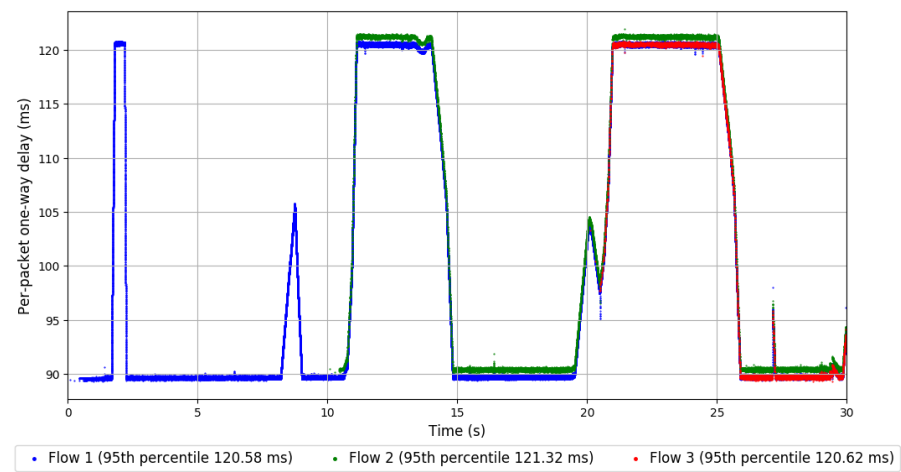
Run 5: Report of PCC — Data Link

```
Run 6: Statistics of PCC

Start at: 2018-01-17 04:52:24
End at: 2018-01-17 04:52:54
Local clock offset: 0.658 ms
Remote clock offset: 9.135 ms

# Below is generated by plot.py at 2018-01-17 07:15:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.89 Mbit/s
95th percentile per-packet one-way delay: 129.052 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 78.20 Mbit/s
95th percentile per-packet one-way delay: 129.036 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 129.276 ms
Loss rate: 2.92%
-- Flow 3:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 127.711 ms
Loss rate: 4.94%
```
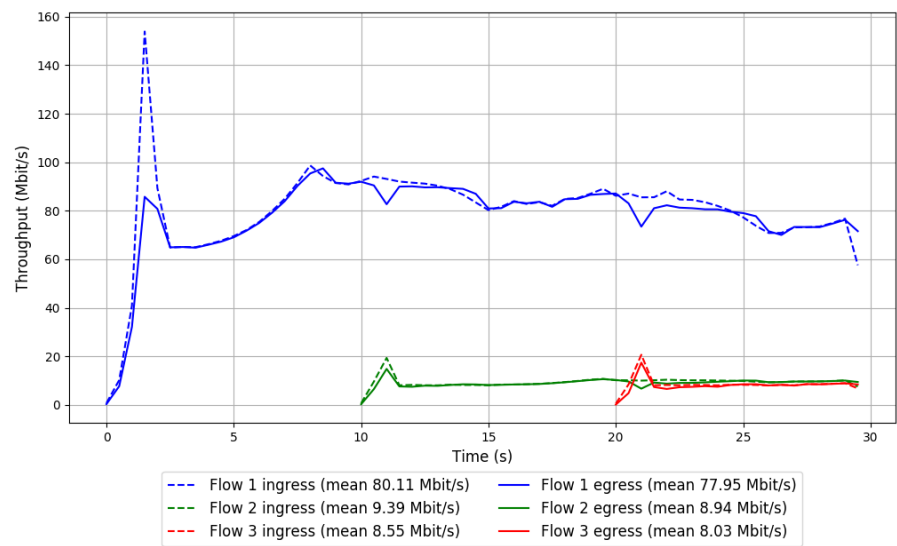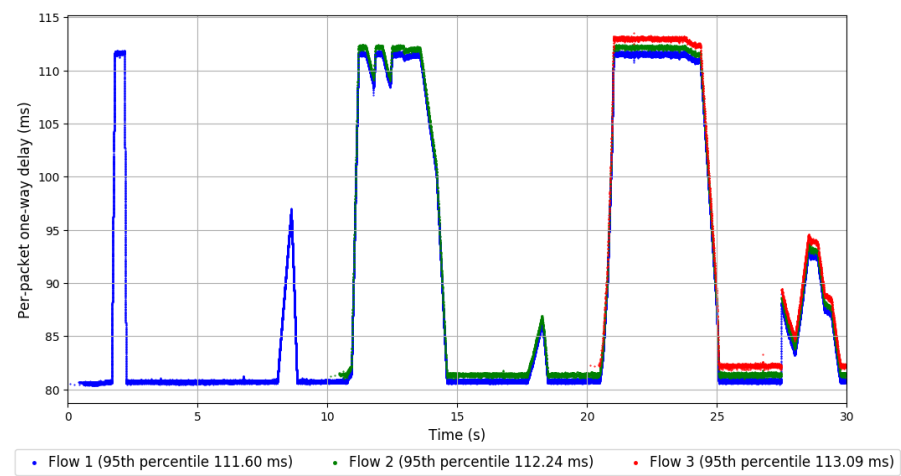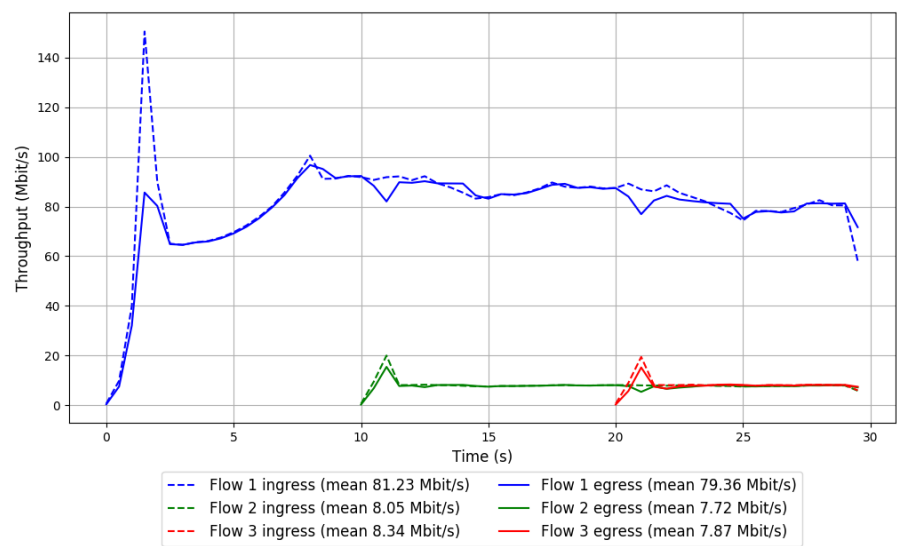
Run 6: Report of PCC — Data Link

- - - Flow 1 ingress (mean 80.10 Mbit/s)   — Flow 1 egress (mean 78.20 Mbit/s)
- - - Flow 2 ingress (mean 9.46 Mbit/s)   — Flow 2 egress (mean 9.17 Mbit/s)
- - - Flow 3 ingress (mean 8.30 Mbit/s)   — Flow 3 egress (mean 7.87 Mbit/s)

• Flow 1 (95th percentile 129.04 ms)   • Flow 2 (95th percentile 129.28 ms)   • Flow 3 (95th percentile 127.71 ms)

```
Run 7: Statistics of PCC

Start at: 2018-01-17 05:15:43
End at: 2018-01-17 05:16:13
Local clock offset: 0.714 ms
Remote clock offset: 0.756 ms

# Below is generated by plot.py at 2018-01-17 07:15:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.53 Mbit/s
95th percentile per-packet one-way delay: 120.614 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 77.95 Mbit/s
95th percentile per-packet one-way delay: 120.578 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 8.94 Mbit/s
95th percentile per-packet one-way delay: 121.316 ms
Loss rate: 4.72%
-- Flow 3:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 120.618 ms
Loss rate: 6.17%
```
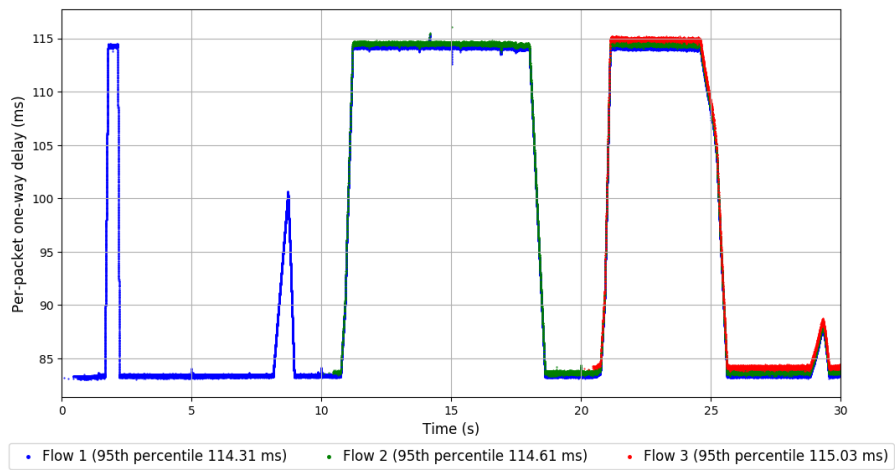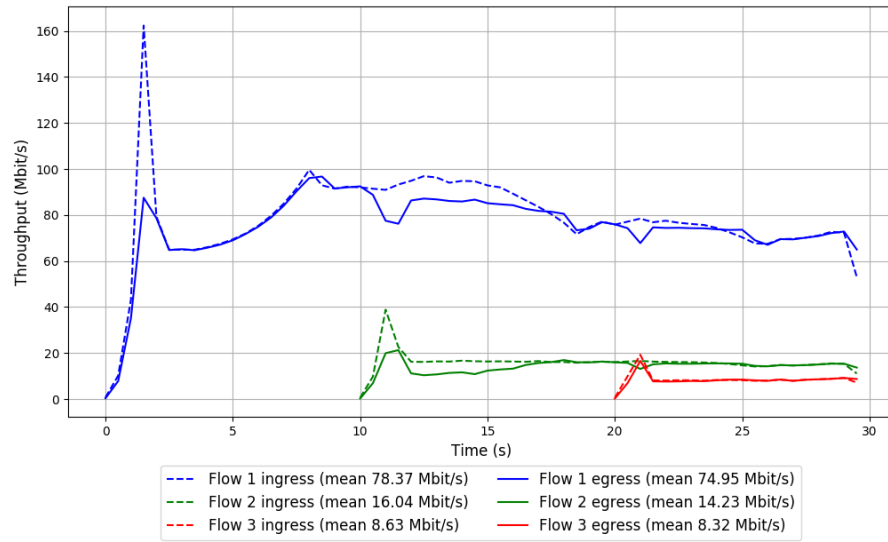
Run 7: Report of PCC — Data Link

```
Run 8: Statistics of PCC

Start at: 2018-01-17 05:39:06
End at: 2018-01-17 05:39:36
Local clock offset: 0.675 ms
Remote clock offset: -6.49 ms

# Below is generated by plot.py at 2018-01-17 07:15:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.08 Mbit/s
95th percentile per-packet one-way delay: 111.644 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 79.36 Mbit/s
95th percentile per-packet one-way delay: 111.597 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 7.72 Mbit/s
95th percentile per-packet one-way delay: 112.239 ms
Loss rate: 4.04%
-- Flow 3:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 113.090 ms
Loss rate: 5.66%
```
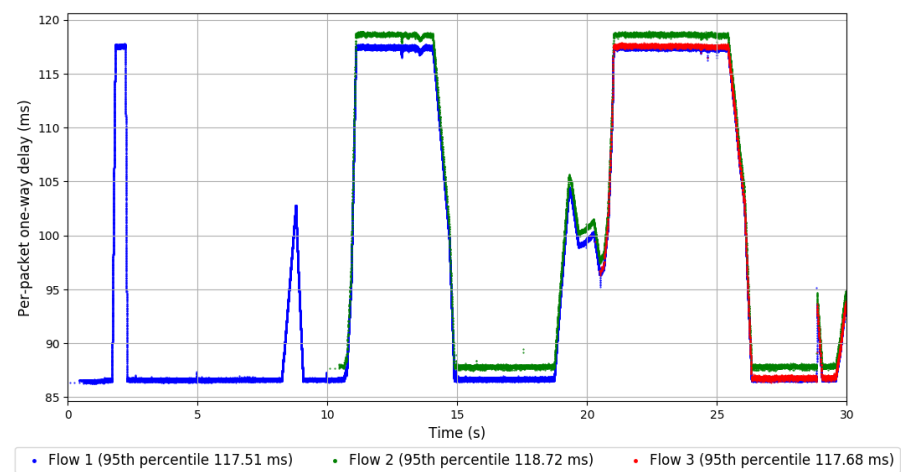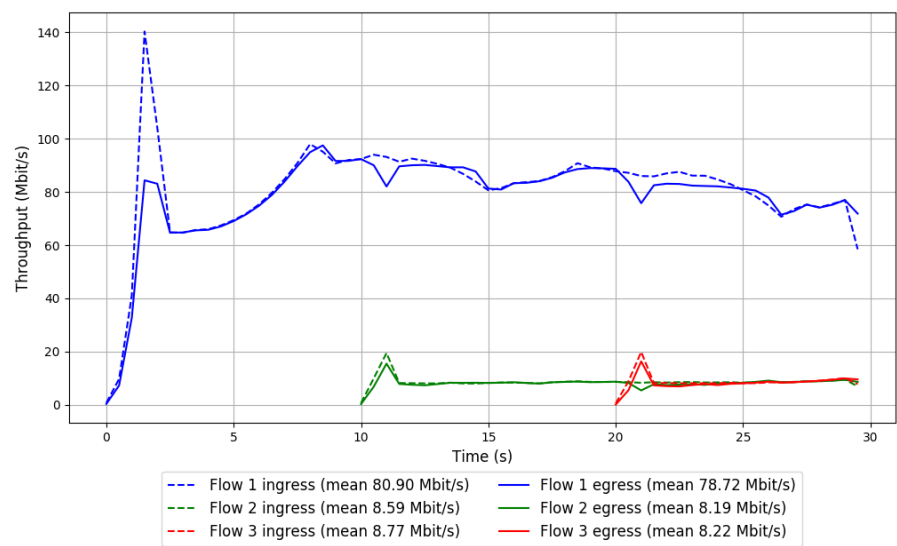
Run 8: Report of PCC — Data Link

Flow 1 ingress (mean 81.23 Mbit/s) --- Flow 1 egress (mean 79.36 Mbit/s)
Flow 2 ingress (mean 8.05 Mbit/s) --- Flow 2 egress (mean 7.72 Mbit/s)
Flow 3 ingress (mean 8.34 Mbit/s) --- Flow 3 egress (mean 7.87 Mbit/s)

Flow 1 (95th percentile 111.60 ms)   Flow 2 (95th percentile 112.24 ms)   Flow 3 (95th percentile 113.09 ms)

79

```
Run 9: Statistics of PCC

Start at: 2018-01-17 06:02:26
End at: 2018-01-17 06:02:56
Local clock offset: 0.69 ms
Remote clock offset: -5.002 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 114.431 ms
Loss rate: 5.14%
-- Flow 1:
Average throughput: 74.95 Mbit/s
95th percentile per-packet one-way delay: 114.311 ms
Loss rate: 4.36%
-- Flow 2:
Average throughput: 14.23 Mbit/s
95th percentile per-packet one-way delay: 114.613 ms
Loss rate: 11.28%
-- Flow 3:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 115.026 ms
Loss rate: 3.58%
```
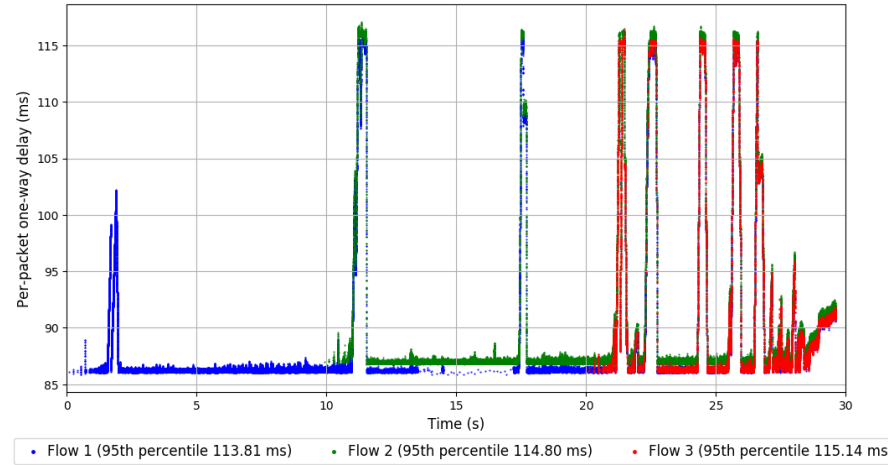
Run 9: Report of PCC — Data Link

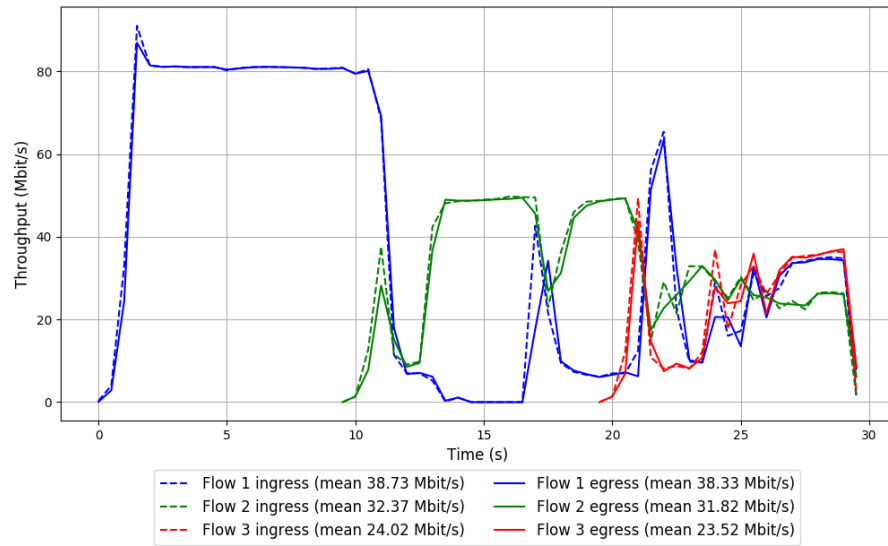- - - - Flow 1 ingress (mean 78.37 Mbit/s)   —— Flow 1 egress (mean 74.95 Mbit/s)
- - - - Flow 2 ingress (mean 16.04 Mbit/s)   —— Flow 2 egress (mean 14.23 Mbit/s)
- - - - Flow 3 ingress (mean 8.63 Mbit/s)   —— Flow 3 egress (mean 8.32 Mbit/s)

• Flow 1 (95th percentile 114.31 ms)   • Flow 2 (95th percentile 114.61 ms)   • Flow 3 (95th percentile 115.03 ms)

81

```
Run 10: Statistics of PCC

Start at: 2018-01-17 06:25:56
End at: 2018-01-17 06:26:26
Local clock offset: 0.739 ms
Remote clock offset: 0.214 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.88 Mbit/s
95th percentile per-packet one-way delay: 117.560 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 78.72 Mbit/s
95th percentile per-packet one-way delay: 117.513 ms
Loss rate: 2.67%
-- Flow 2:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 118.722 ms
Loss rate: 4.60%
-- Flow 3:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 117.681 ms
Loss rate: 6.23%
```
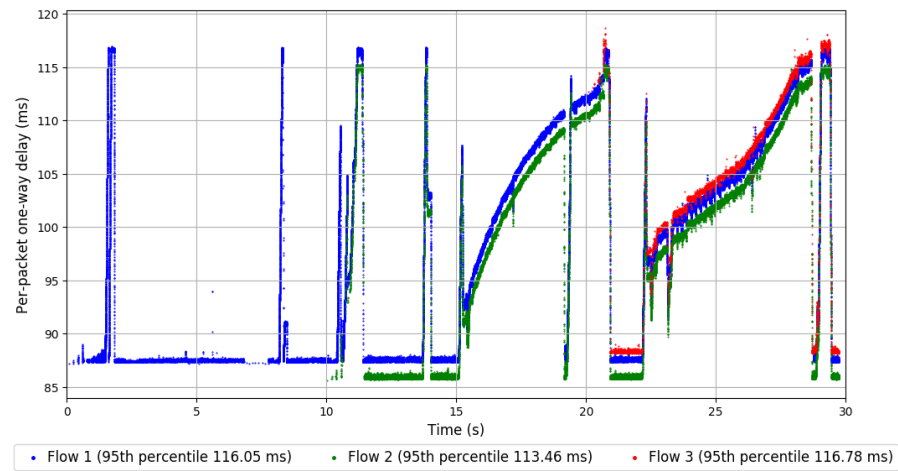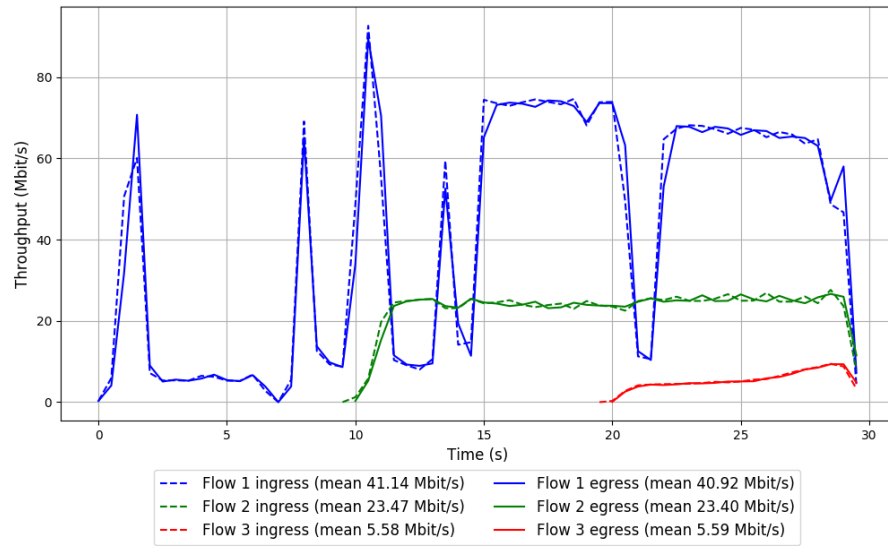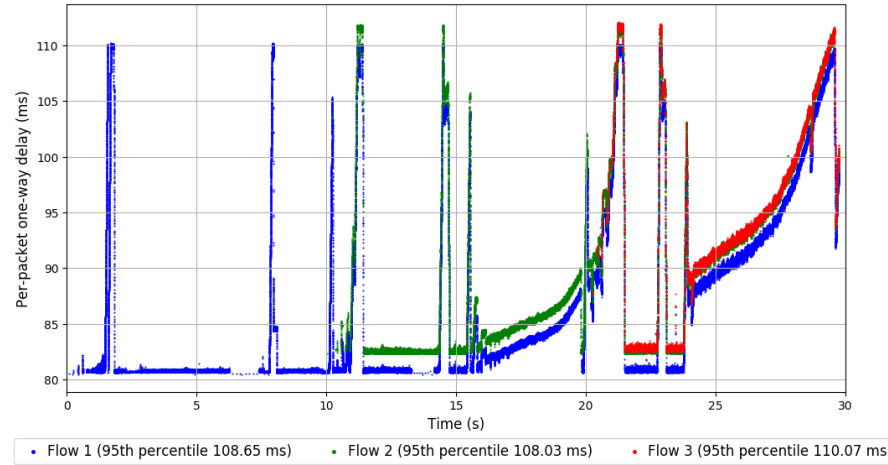
Run 10: Report of PCC — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-17 03:11:24
End at: 2018-01-17 03:11:54
Local clock offset: 1.092 ms
Remote clock offset: -0.619 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.26 Mbit/s
95th percentile per-packet one-way delay: 114.685 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 38.33 Mbit/s
95th percentile per-packet one-way delay: 113.810 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 114.796 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 23.52 Mbit/s
95th percentile per-packet one-way delay: 115.135 ms
Loss rate: 2.01%
```

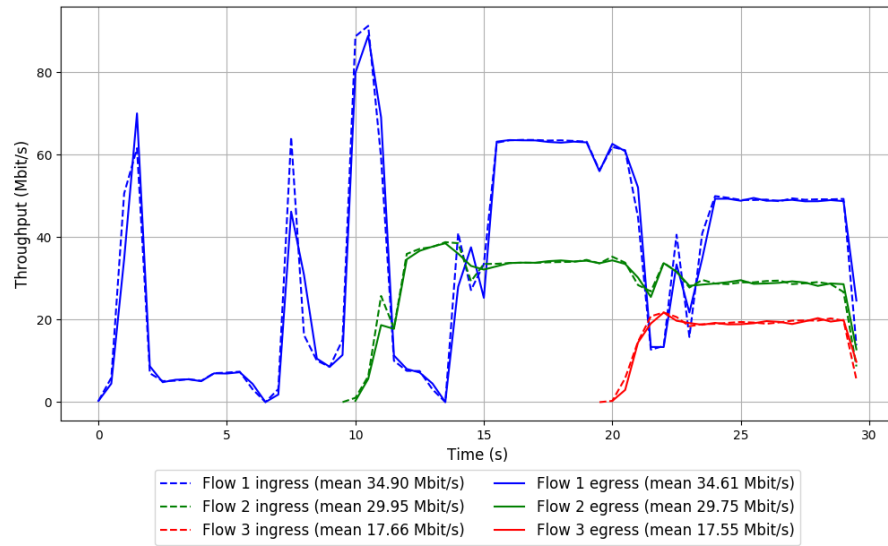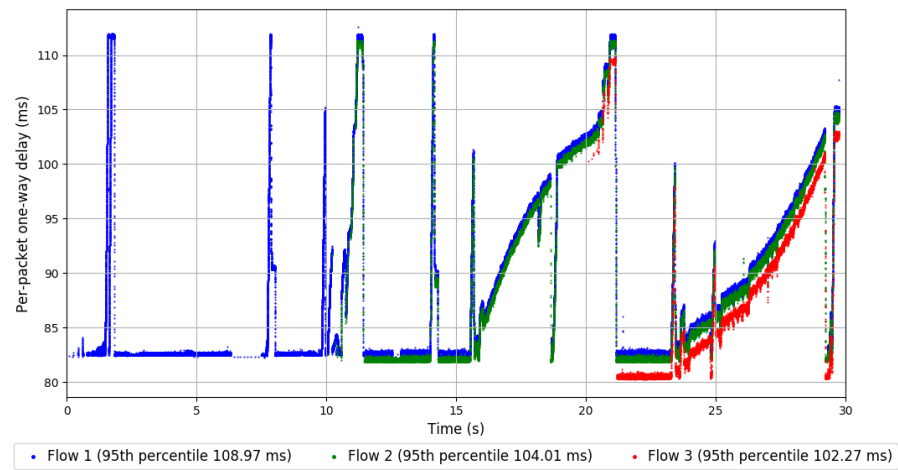Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-01-17 03:34:37
End at: 2018-01-17 03:35:07
Local clock offset: 0.978 ms
Remote clock offset: -1.03 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.29 Mbit/s
95th percentile per-packet one-way delay: 115.226 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 116.046 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 23.40 Mbit/s
95th percentile per-packet one-way delay: 113.456 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 5.59 Mbit/s
95th percentile per-packet one-way delay: 116.782 ms
Loss rate: 0.04%
```

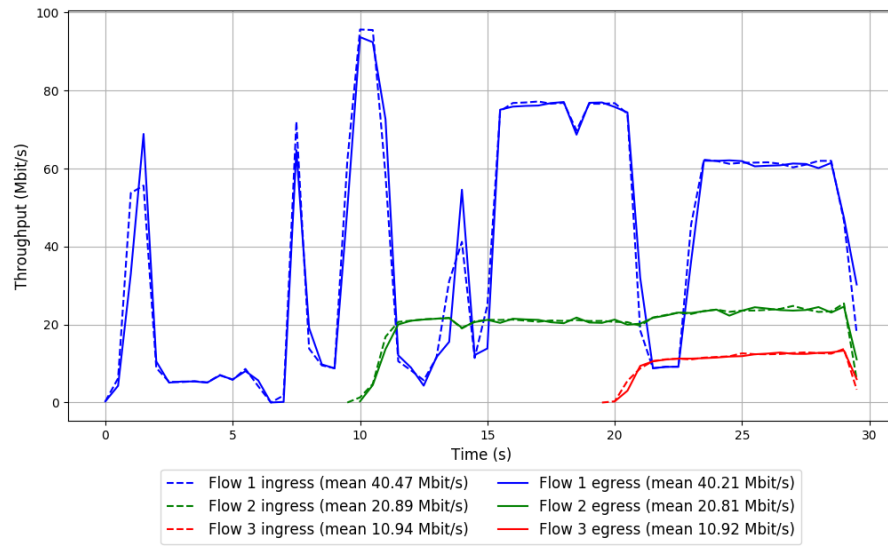# Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-01-17 03:57:56
End at: 2018-01-17 03:58:26
Local clock offset: 0.873 ms
Remote clock offset: -6.551 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.11 Mbit/s
95th percentile per-packet one-way delay: 108.655 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 108.646 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 29.75 Mbit/s
95th percentile per-packet one-way delay: 108.030 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 17.55 Mbit/s
95th percentile per-packet one-way delay: 110.074 ms
Loss rate: 0.58%
```
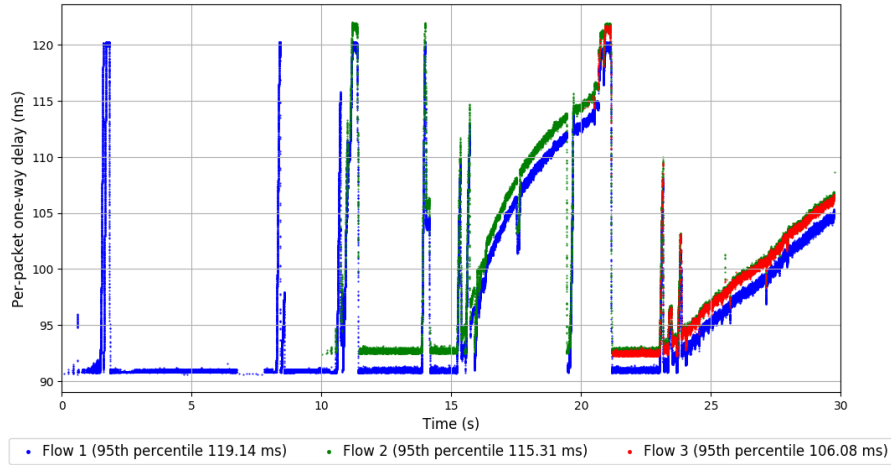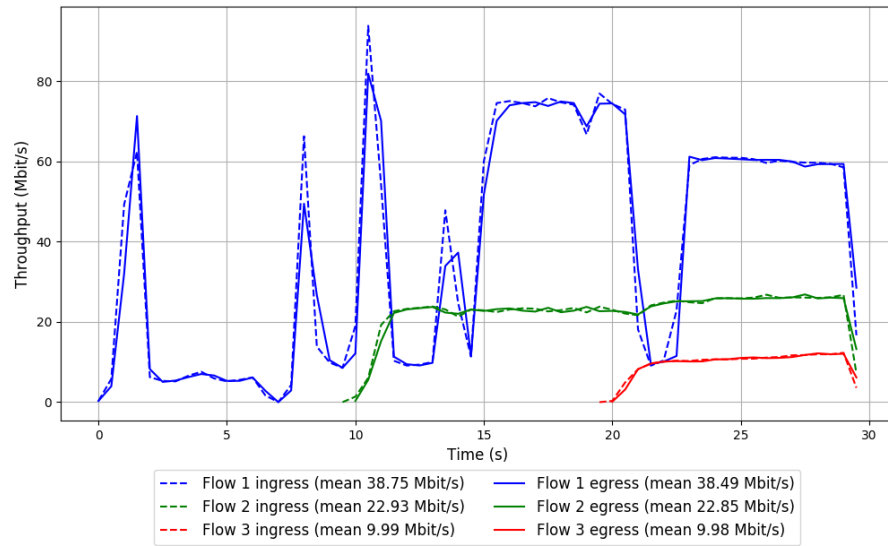
Run 3: Report of QUIC Cubic — Data Link

- - - - Flow 1 ingress (mean 34.90 Mbit/s)   —— Flow 1 egress (mean 34.61 Mbit/s)
- - - - Flow 2 ingress (mean 29.95 Mbit/s)   —— Flow 2 egress (mean 29.75 Mbit/s)
- - - - Flow 3 ingress (mean 17.66 Mbit/s)   —— Flow 3 egress (mean 17.55 Mbit/s)

- Flow 1 (95th percentile 108.65 ms)   • Flow 2 (95th percentile 108.03 ms)   • Flow 3 (95th percentile 110.07 ms)

89

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-01-17 04:21:14
End at: 2018-01-17 04:21:44
Local clock offset: 0.864 ms
Remote clock offset: -6.432 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.60 Mbit/s
95th percentile per-packet one-way delay: 108.037 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 40.21 Mbit/s
95th percentile per-packet one-way delay: 108.969 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 20.81 Mbit/s
95th percentile per-packet one-way delay: 104.014 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 102.265 ms
Loss rate: 0.16%
```
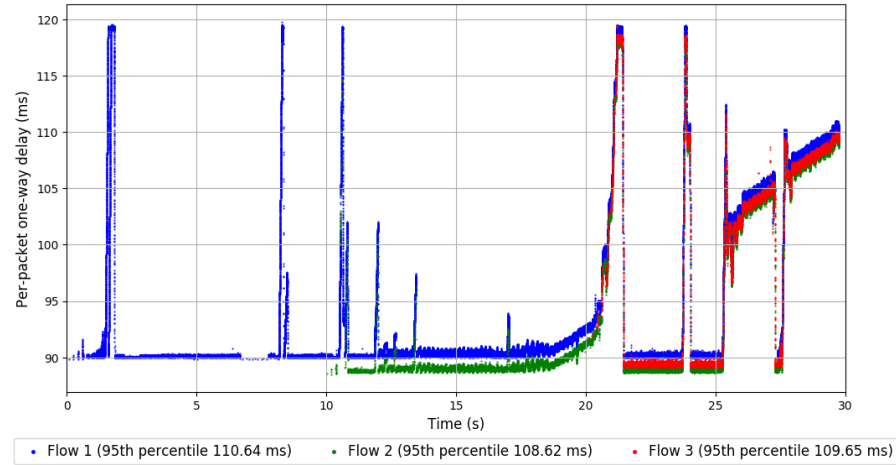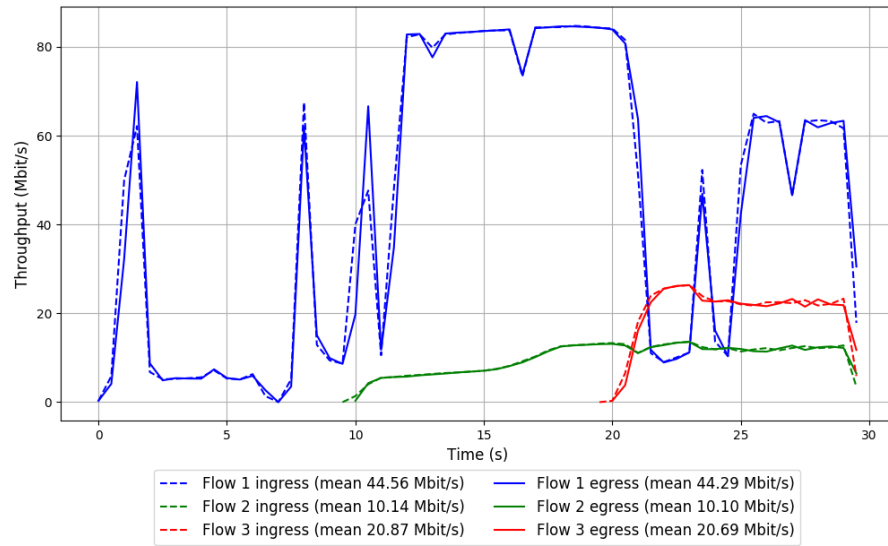
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 40.47 Mbit/s) — — — Flow 1 egress (mean 40.21 Mbit/s)
Flow 2 ingress (mean 20.89 Mbit/s) — — — Flow 2 egress (mean 20.81 Mbit/s)
Flow 3 ingress (mean 10.94 Mbit/s) — — — Flow 3 egress (mean 10.92 Mbit/s)

Flow 1 (95th percentile 108.97 ms)   Flow 2 (95th percentile 104.01 ms)   Flow 3 (95th percentile 102.27 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-01-17 04:44:38
End at: 2018-01-17 04:45:08
Local clock offset: 0.677 ms
Remote clock offset: 3.304 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 117.974 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 38.49 Mbit/s
95th percentile per-packet one-way delay: 119.139 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 115.313 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 106.079 ms
Loss rate: 0.11%
```
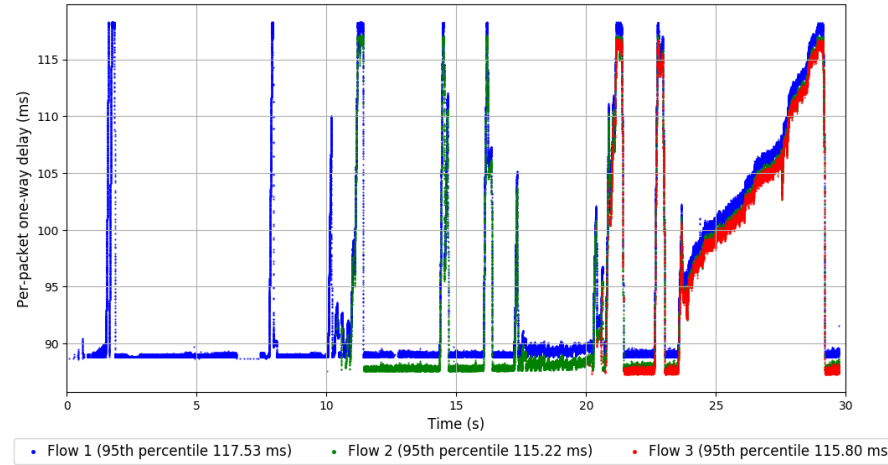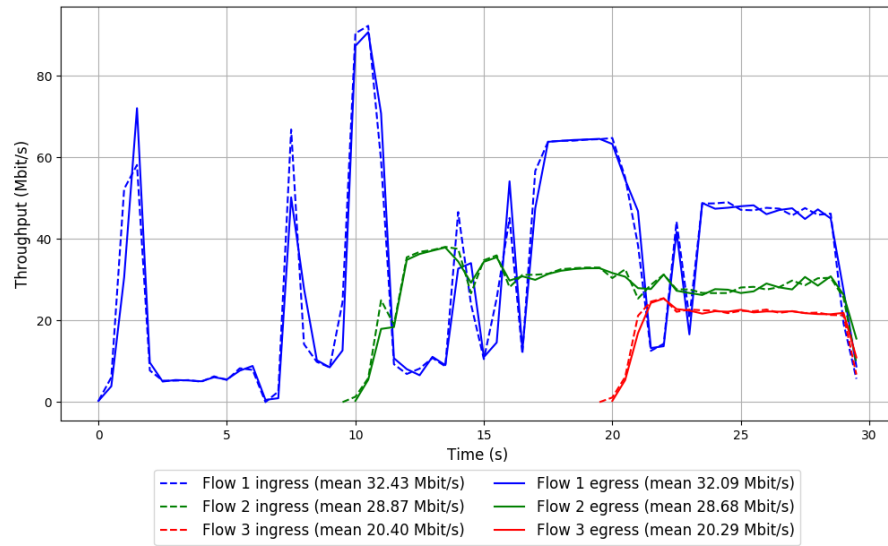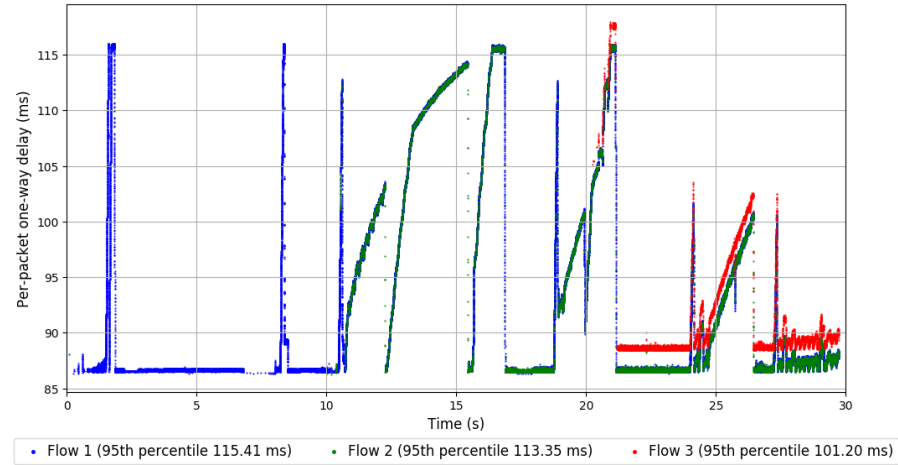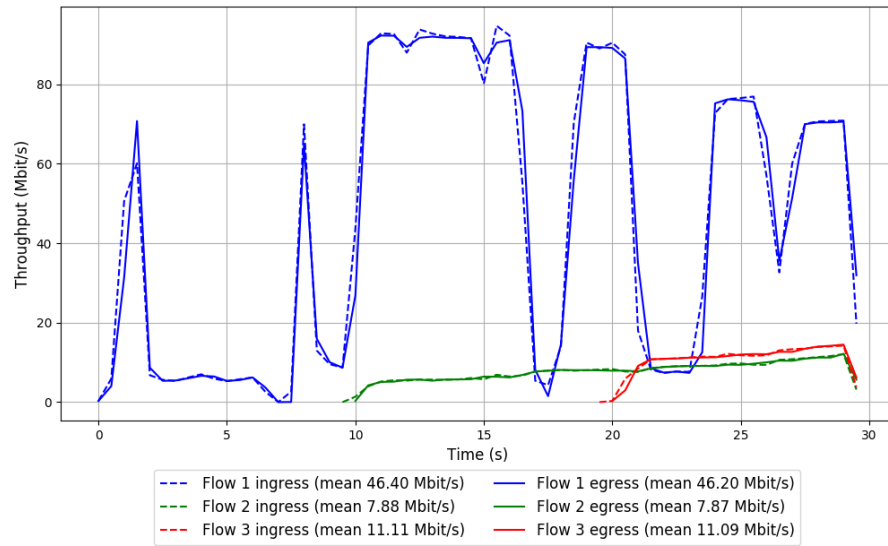
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 38.75 Mbit/s) --- Flow 1 egress (mean 38.49 Mbit/s)
Flow 2 ingress (mean 22.93 Mbit/s) --- Flow 2 egress (mean 22.85 Mbit/s)
Flow 3 ingress (mean 9.99 Mbit/s) --- Flow 3 egress (mean 9.98 Mbit/s)

Flow 1 (95th percentile 119.14 ms)   Flow 2 (95th percentile 115.31 ms)   Flow 3 (95th percentile 106.08 ms)

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```
Run 6: Statistics of QUIC Cubic

Start at: 2018-01-17 05:08:02
End at: 2018-01-17 05:08:32
Local clock offset: 0.651 ms
Remote clock offset: 1.145 ms


# Below is generated by plot.py at 2018-01-17 07:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.76 Mbit/s
95th percentile per-packet one-way delay: 110.372 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 44.29 Mbit/s
95th percentile per-packet one-way delay: 110.635 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 108.621 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 20.69 Mbit/s
95th percentile per-packet one-way delay: 109.648 ms
Loss rate: 0.67%
```

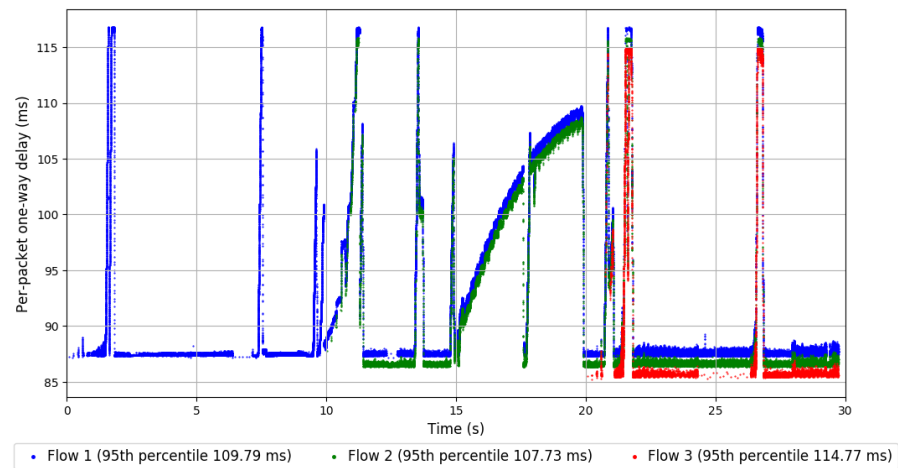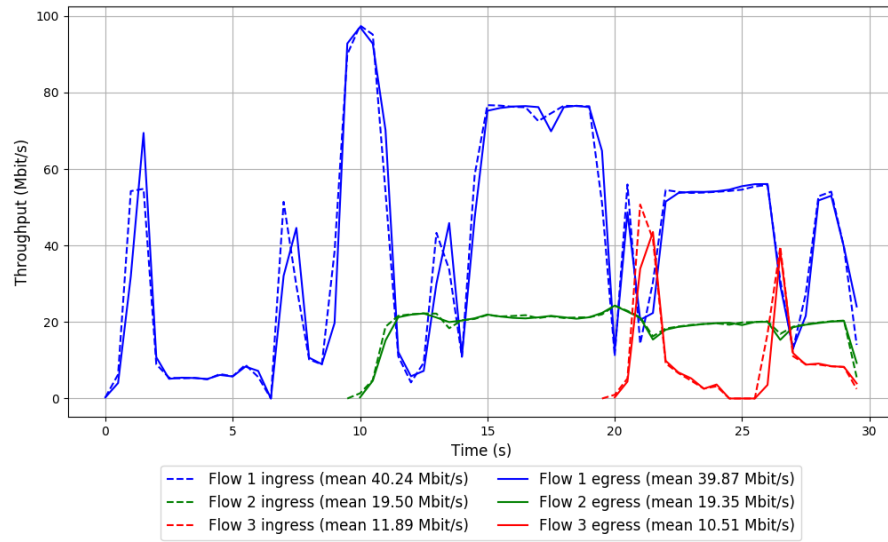Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 44.56 Mbit/s) --- Flow 1 egress (mean 44.29 Mbit/s)
Flow 2 ingress (mean 10.14 Mbit/s) --- Flow 2 egress (mean 10.10 Mbit/s)
Flow 3 ingress (mean 20.87 Mbit/s) --- Flow 3 egress (mean 20.69 Mbit/s)

Flow 1 (95th percentile 110.64 ms)   Flow 2 (95th percentile 108.62 ms)   Flow 3 (95th percentile 109.65 ms)
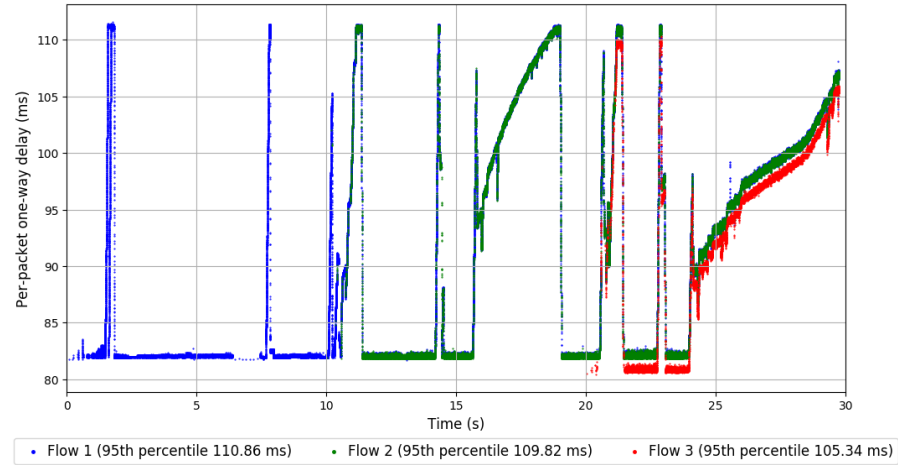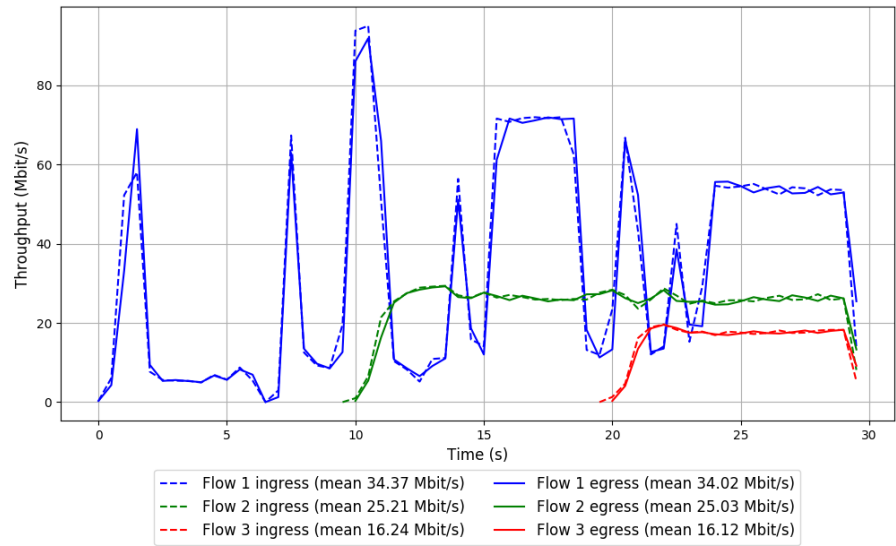
```
Run 7: Statistics of QUIC Cubic

Start at: 2018-01-17 05:31:23
End at: 2018-01-17 05:31:53
Local clock offset: 0.651 ms
Remote clock offset: 0.179 ms


# Below is generated by plot.py at 2018-01-17 07:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 116.482 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 32.09 Mbit/s
95th percentile per-packet one-way delay: 117.527 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 28.68 Mbit/s
95th percentile per-packet one-way delay: 115.215 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 20.29 Mbit/s
95th percentile per-packet one-way delay: 115.799 ms
Loss rate: 0.55%
```

Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 32.43 Mbit/s) --- Flow 1 egress (mean 32.09 Mbit/s)
Flow 2 ingress (mean 28.87 Mbit/s) --- Flow 2 egress (mean 28.68 Mbit/s)
Flow 3 ingress (mean 20.40 Mbit/s) --- Flow 3 egress (mean 20.29 Mbit/s)

Flow 1 (95th percentile 117.53 ms) · Flow 2 (95th percentile 115.22 ms) · Flow 3 (95th percentile 115.80 ms)

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```
Run 8: Statistics of QUIC Cubic

Start at: 2018-01-17 05:54:45
End at: 2018-01-17 05:55:15
Local clock offset: 0.598 ms
Remote clock offset: -0.618 ms

# Below is generated by plot.py at 2018-01-17 07:17:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.05 Mbit/s
95th percentile per-packet one-way delay: 115.277 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 46.20 Mbit/s
95th percentile per-packet one-way delay: 115.406 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 113.353 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 11.09 Mbit/s
95th percentile per-packet one-way delay: 101.201 ms
Loss rate: 0.25%
```

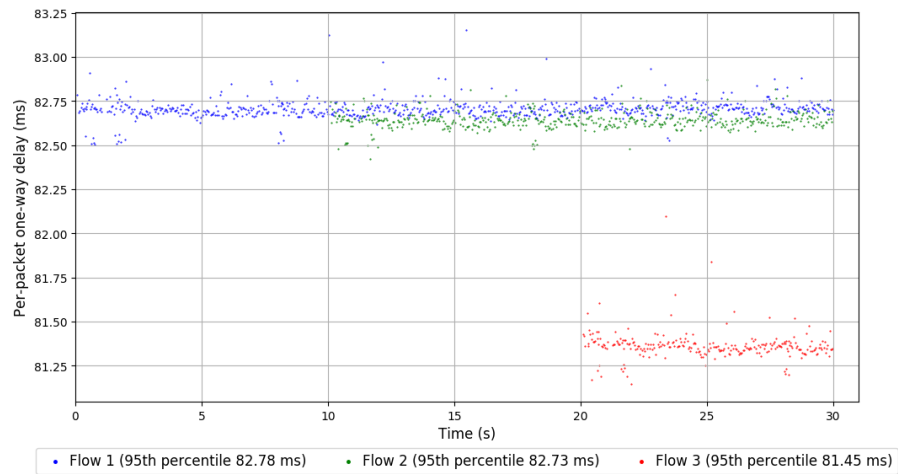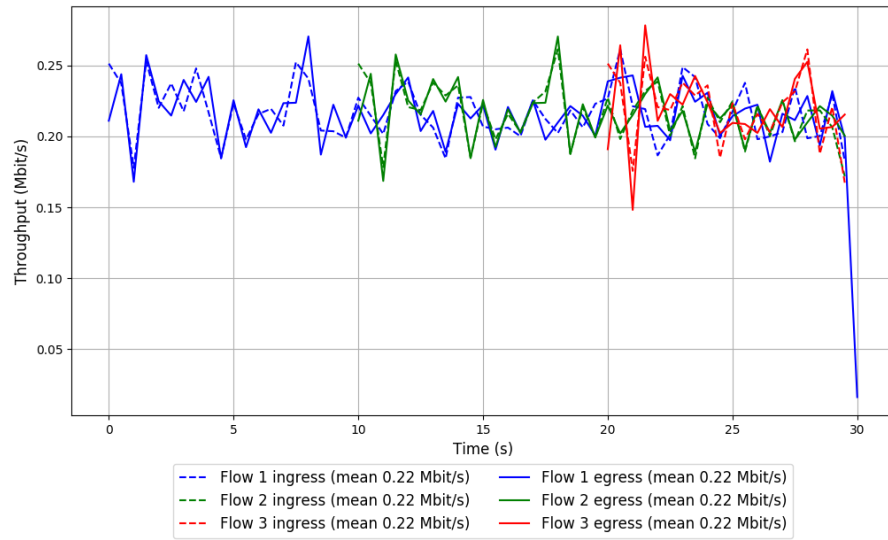# Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 46.40 Mbit/s) --- Flow 1 egress (mean 46.20 Mbit/s)
Flow 2 ingress (mean 7.88 Mbit/s) --- Flow 2 egress (mean 7.87 Mbit/s)
Flow 3 ingress (mean 11.11 Mbit/s) --- Flow 3 egress (mean 11.09 Mbit/s)

Flow 1 (95th percentile 115.41 ms)   Flow 2 (95th percentile 113.35 ms)   Flow 3 (95th percentile 101.20 ms)

99

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-01-17 06:18:14
End at: 2018-01-17 06:18:44
Local clock offset: 0.729 ms
Remote clock offset: -0.534 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.15 Mbit/s
95th percentile per-packet one-way delay: 111.259 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 109.792 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 19.35 Mbit/s
95th percentile per-packet one-way delay: 107.729 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 10.51 Mbit/s
95th percentile per-packet one-way delay: 114.766 ms
Loss rate: 11.63%
```

Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 40.24 Mbit/s) --- Flow 1 egress (mean 39.87 Mbit/s)
Flow 2 ingress (mean 19.50 Mbit/s) --- Flow 2 egress (mean 19.35 Mbit/s)
Flow 3 ingress (mean 11.89 Mbit/s) --- Flow 3 egress (mean 10.51 Mbit/s)

Flow 1 (95th percentile 109.79 ms)   Flow 2 (95th percentile 107.73 ms)   Flow 3 (95th percentile 114.77 ms)

101

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-01-17 06:41:27
End at: 2018-01-17 06:41:57
Local clock offset: 0.608 ms
Remote clock offset: -5.351 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.94 Mbit/s
95th percentile per-packet one-way delay: 110.632 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 34.02 Mbit/s
95th percentile per-packet one-way delay: 110.862 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 25.03 Mbit/s
95th percentile per-packet one-way delay: 109.821 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 16.12 Mbit/s
95th percentile per-packet one-way delay: 105.345 ms
Loss rate: 0.48%
```

Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 34.37 Mbit/s) --- Flow 1 egress (mean 34.02 Mbit/s)
Flow 2 ingress (mean 25.21 Mbit/s) --- Flow 2 egress (mean 25.03 Mbit/s)
Flow 3 ingress (mean 16.24 Mbit/s) --- Flow 3 egress (mean 16.12 Mbit/s)

Flow 1 (95th percentile 110.86 ms) • Flow 2 (95th percentile 109.82 ms) • Flow 3 (95th percentile 105.34 ms)
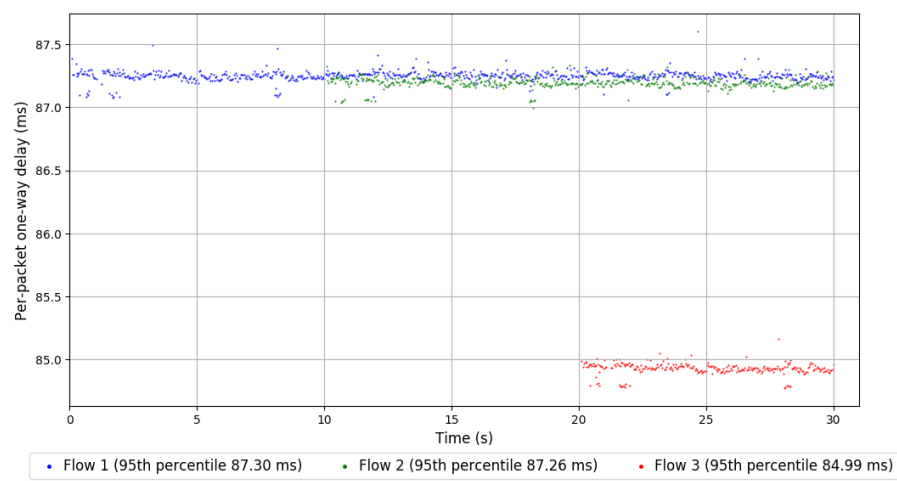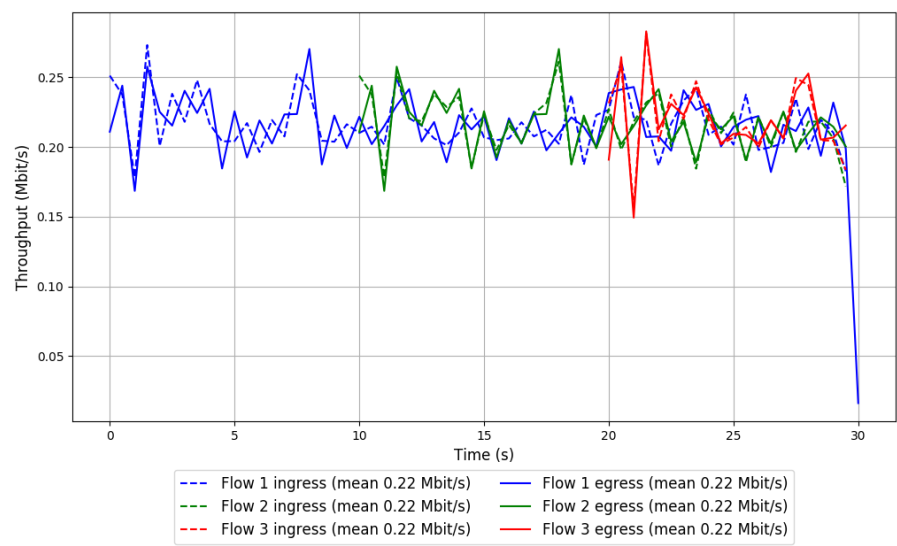
```
Run 1: Statistics of SCReAM

Start at: 2018-01-17 03:03:47
End at: 2018-01-17 03:04:17
Local clock offset: 1.008 ms
Remote clock offset: -5.171 ms

# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 82.759 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.779 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.729 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.449 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-01-17 03:26:58
End at: 2018-01-17 03:27:28
Local clock offset: 0.999 ms
Remote clock offset: -6.535 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 81.871 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.903 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.296 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.507 ms
Loss rate: 0.00%
```
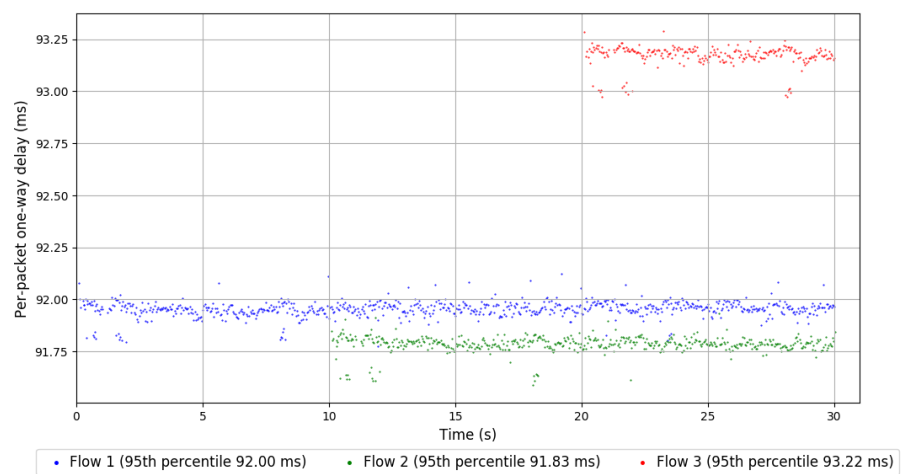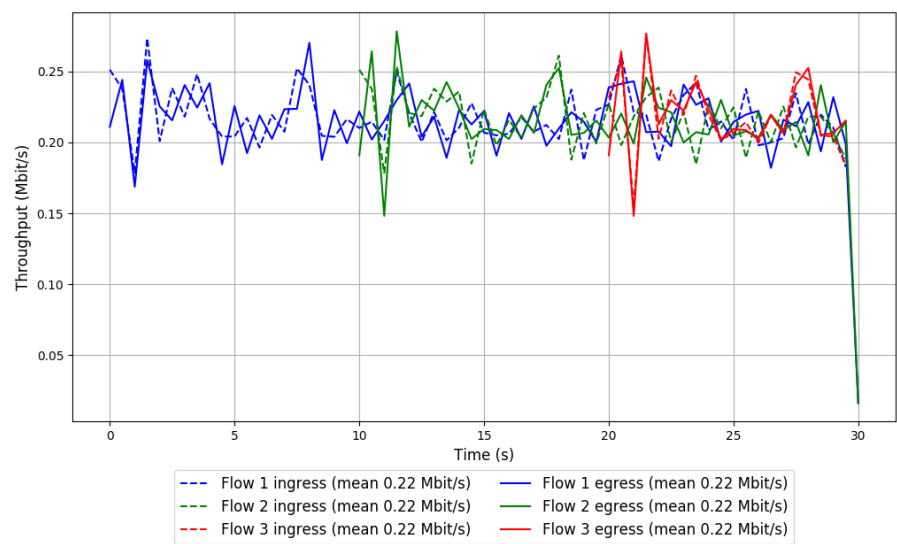
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-01-17 03:50:15
End at: 2018-01-17 03:50:45
Local clock offset: 0.881 ms
Remote clock offset: -1.914 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.047 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.066 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.535 ms
Loss rate: 0.00%
```
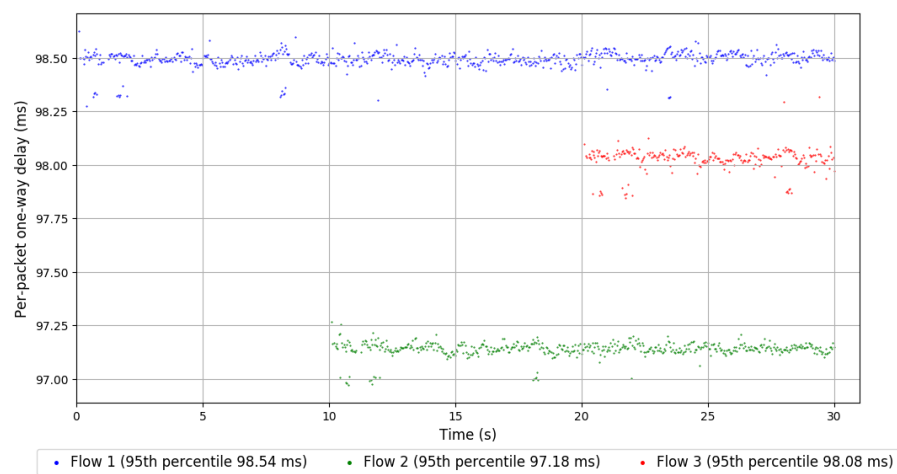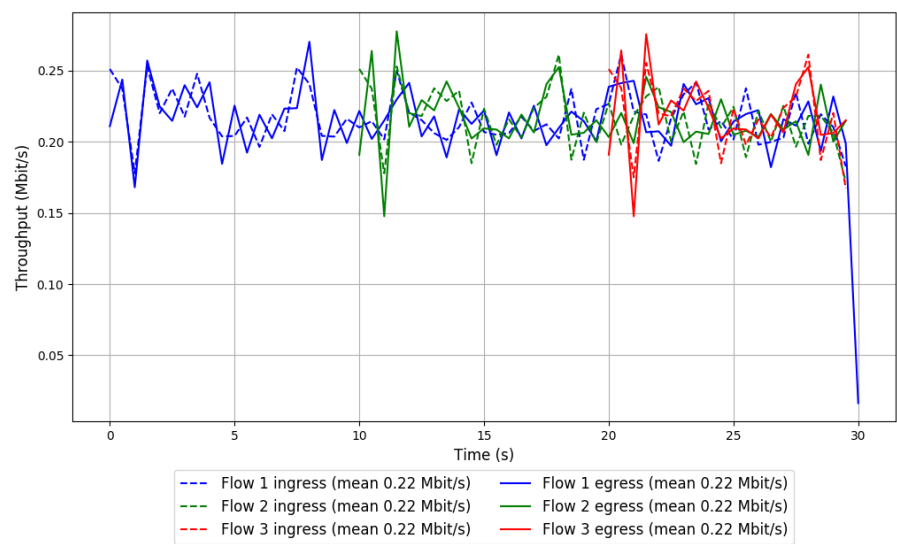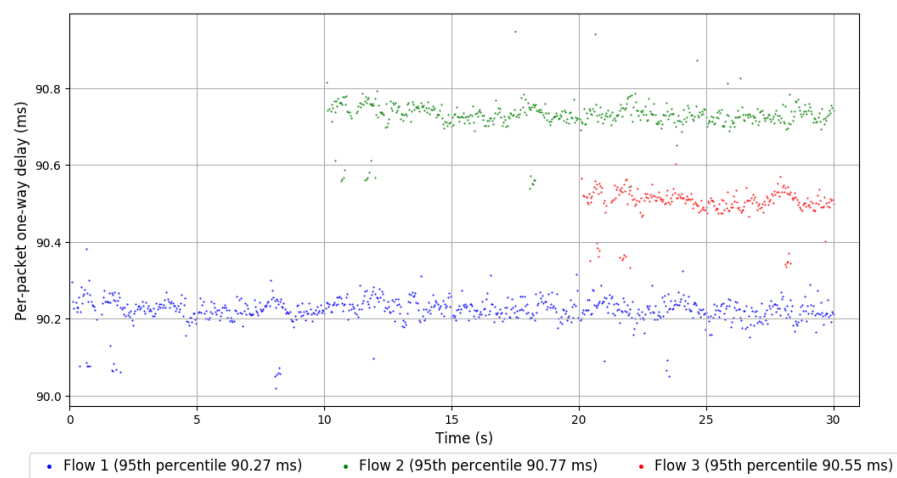
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-01-17 04:13:27
End at: 2018-01-17 04:13:57
Local clock offset: 0.811 ms
Remote clock offset: -1.468 ms

# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.288 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.257 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.990 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-01-17 04:36:50
End at: 2018-01-17 04:37:20
Local clock offset: 0.774 ms
Remote clock offset: 4.391 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 93.194 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.999 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.831 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.219 ms
Loss rate: 0.00%
```
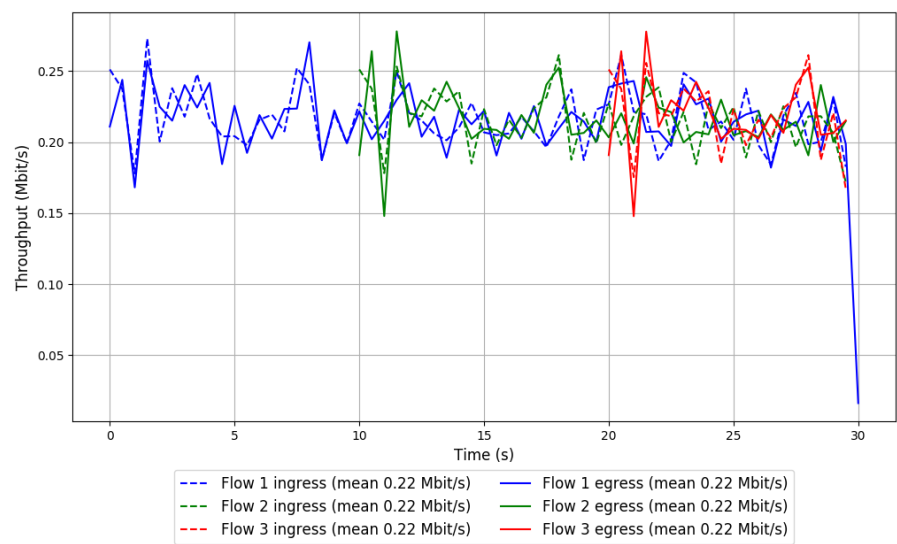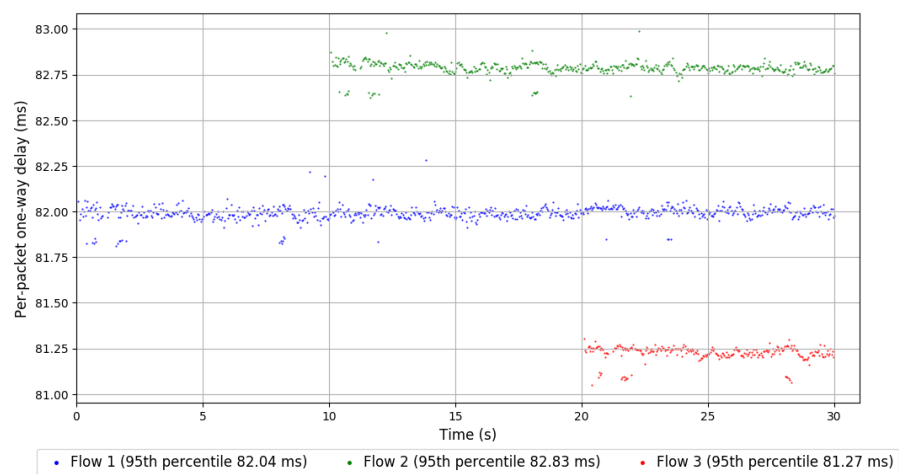
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-01-17 05:00:15
End at: 2018-01-17 05:00:45
Local clock offset: 0.63 ms
Remote clock offset: 9.105 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 98.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 98.537 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.181 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 98.076 ms
Loss rate: 0.00%
```
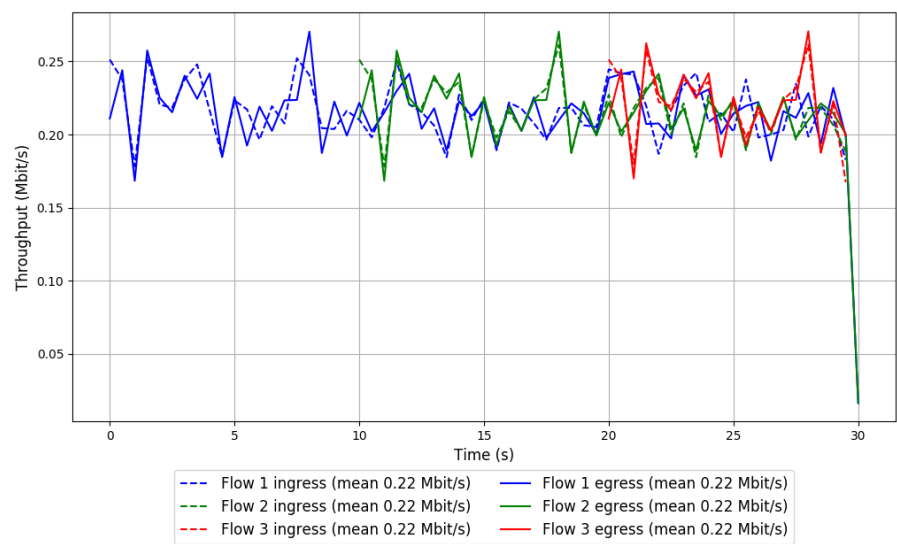
Run 6: Report of SCReAM — Data Link
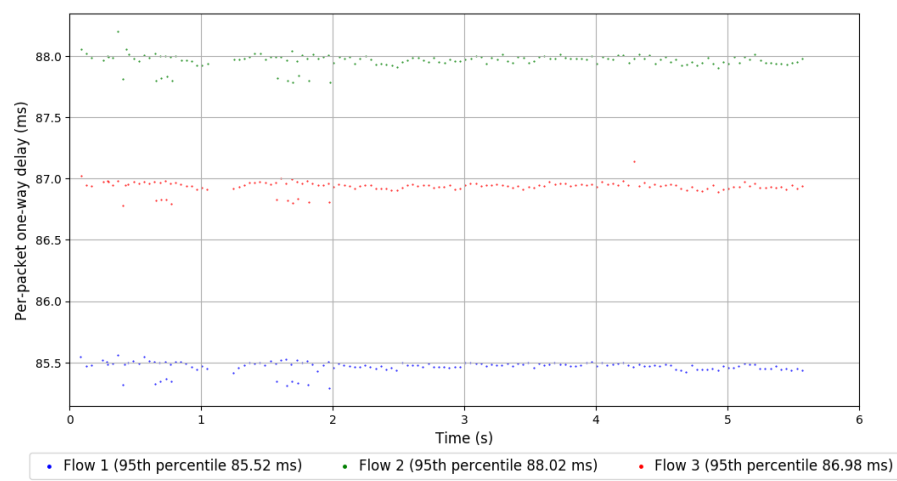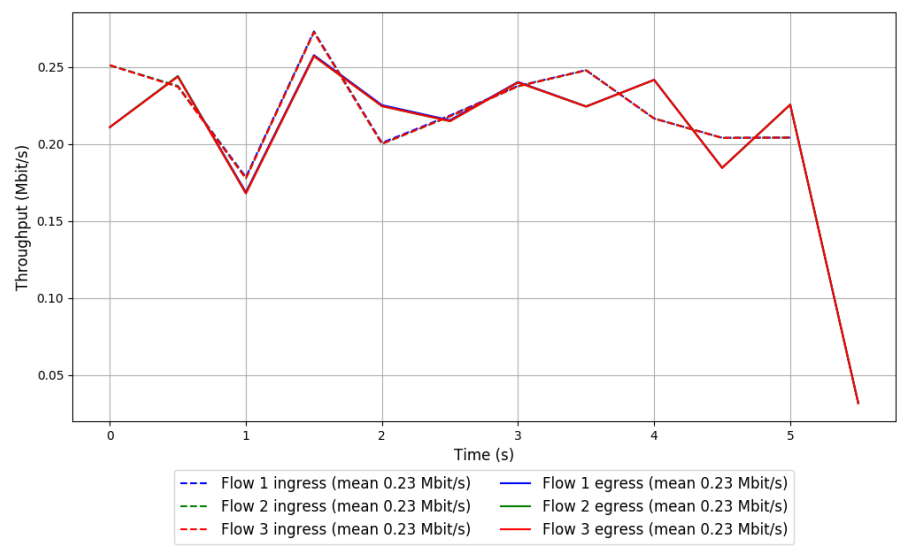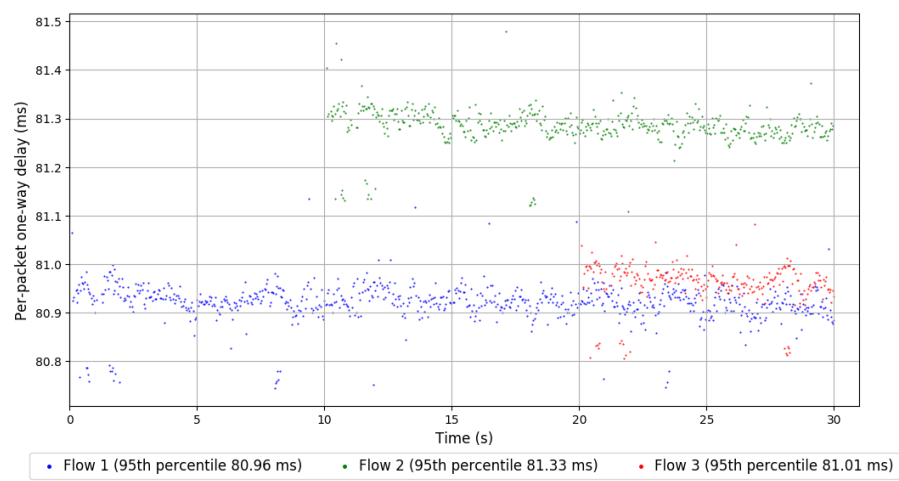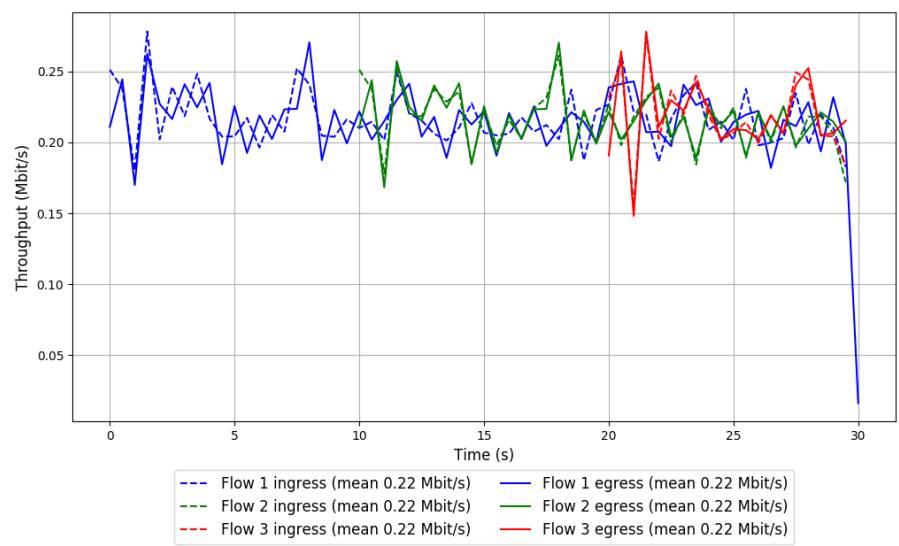
```
Run 7: Statistics of SCReAM

Start at: 2018-01-17 05:23:34
End at: 2018-01-17 05:24:04
Local clock offset: 0.697 ms
Remote clock offset: 1.428 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 90.755 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.266 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.770 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.545 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2018-01-17 05:46:57
End at: 2018-01-17 05:47:27
Local clock offset: 0.652 ms
Remote clock offset: -5.68 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 82.812 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.039 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.825 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.267 ms
Loss rate: 0.00%
```
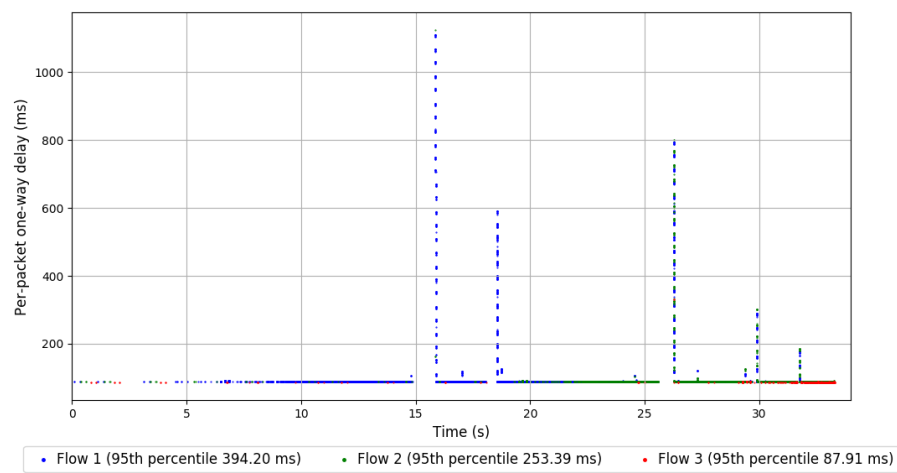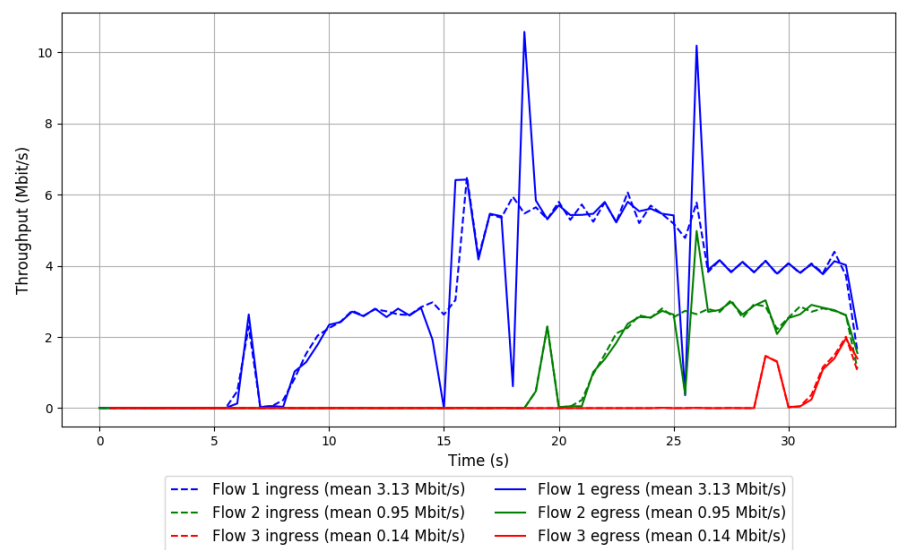
Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2018-01-17 06:10:25
End at: 2018-01-17 06:10:55
Local clock offset: 0.716 ms
Remote clock offset: -0.747 ms
```

Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-01-17 06:33:46
End at: 2018-01-17 06:34:16
Local clock offset: 0.653 ms
Remote clock offset: -4.526 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 81.312 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.964 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.006 ms
Loss rate: 0.00%
```
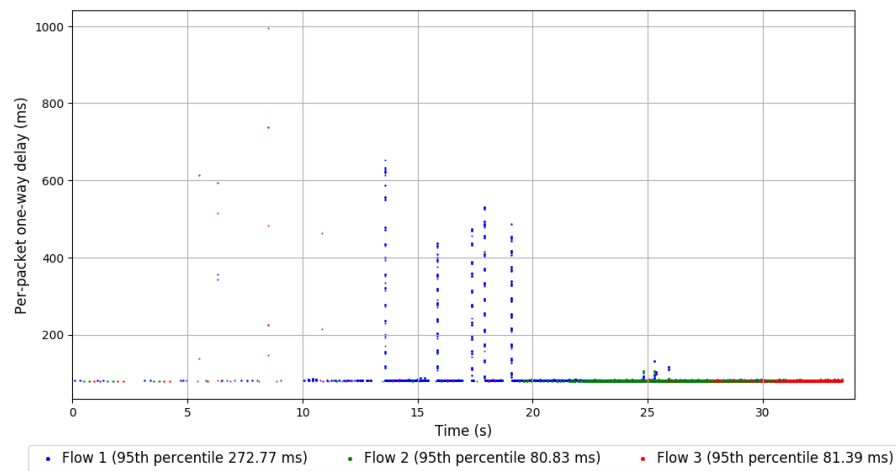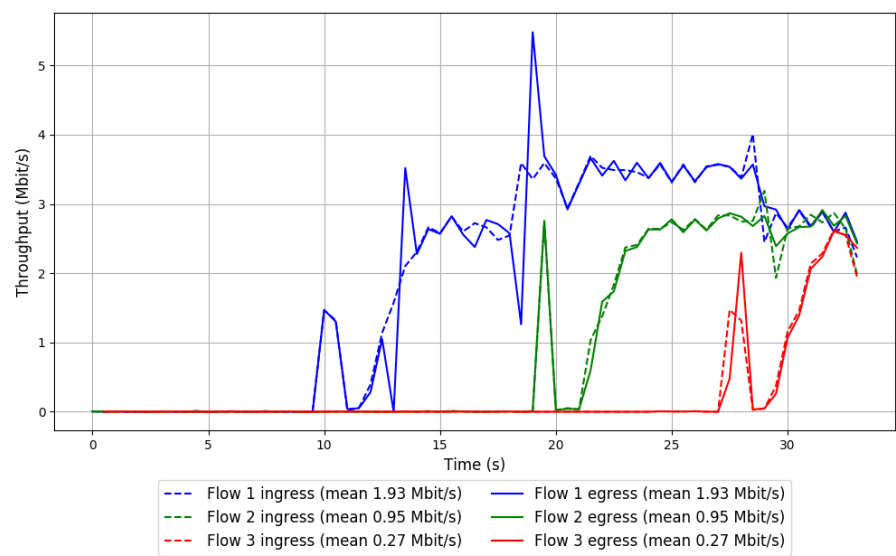
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-01-17 03:06:15
End at: 2018-01-17 03:06:45
Local clock offset: 1.006 ms
Remote clock offset: -0.371 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 351.976 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 394.200 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 253.390 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 87.914 ms
Loss rate: 0.00%
```
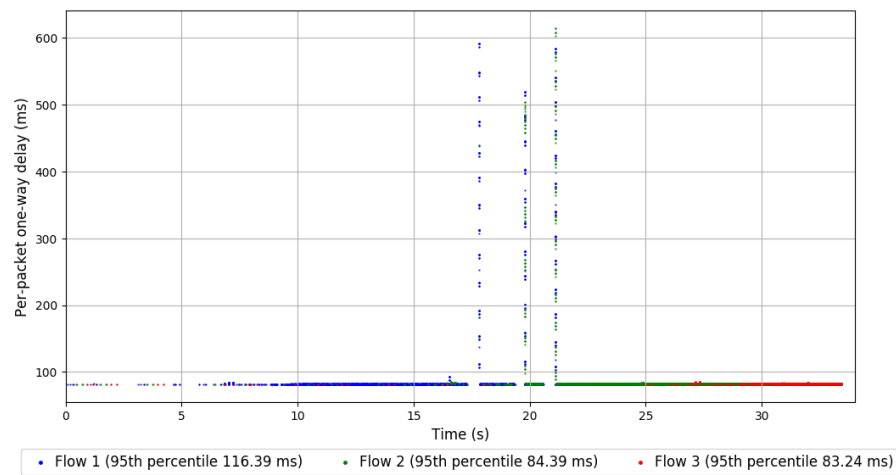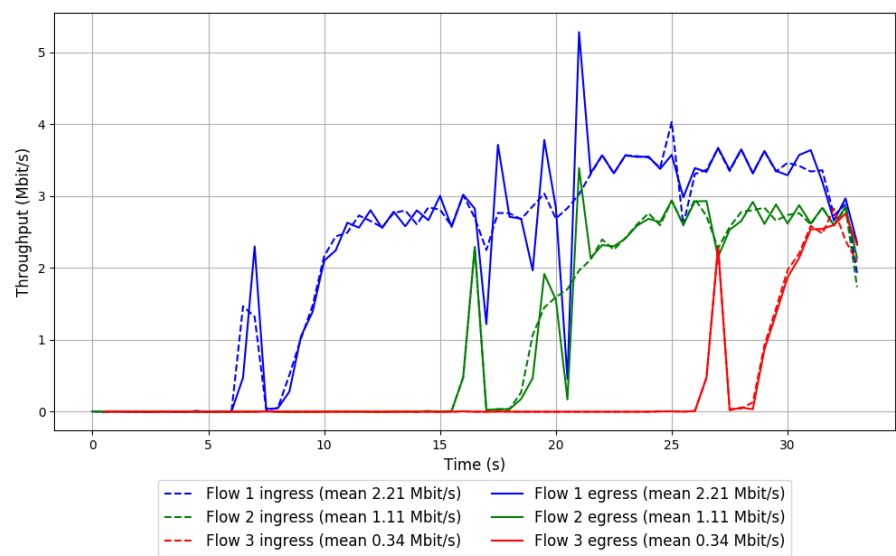
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-01-17 03:29:28
End at: 2018-01-17 03:29:58
Local clock offset: 0.992 ms
Remote clock offset: -6.704 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 118.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 272.773 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 80.834 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 81.394 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-01-17 03:52:46
End at: 2018-01-17 03:53:16
Local clock offset: 0.94 ms
Remote clock offset: -6.781 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 84.357 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 116.395 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 84.391 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 83.237 ms
Loss rate: 0.00%
```
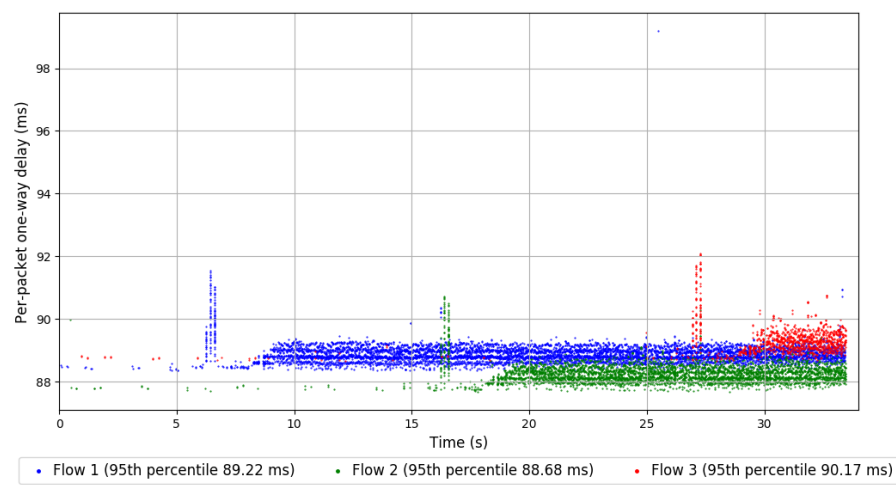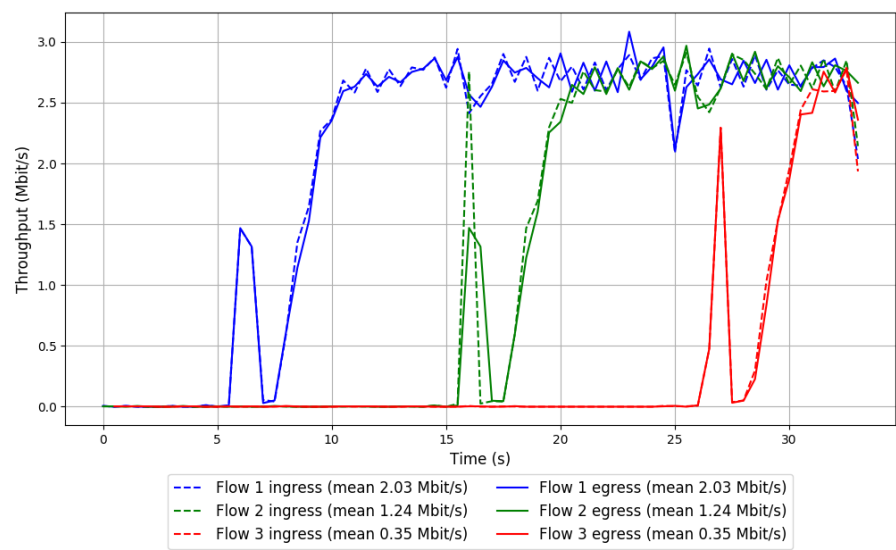
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-01-17 04:15:57
End at: 2018-01-17 04:16:27
Local clock offset: 0.883 ms
Remote clock offset: 0.262 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 89.375 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 89.217 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 88.680 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 90.173 ms
Loss rate: 0.00%
```
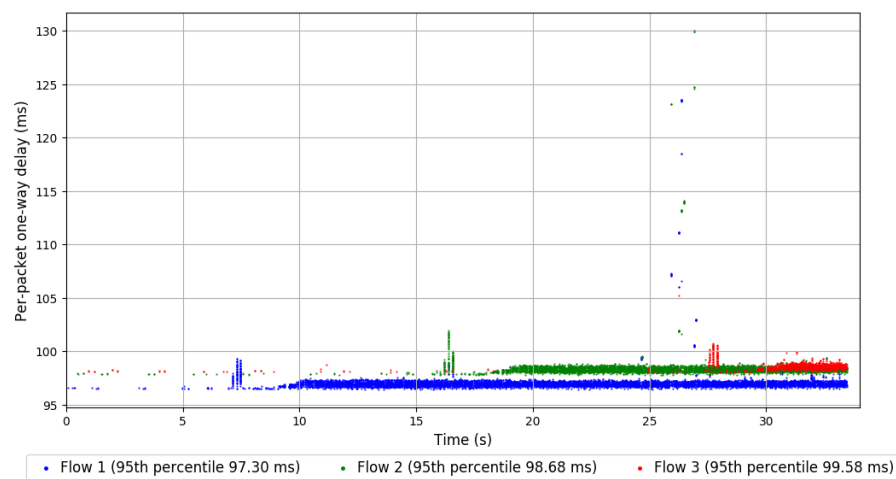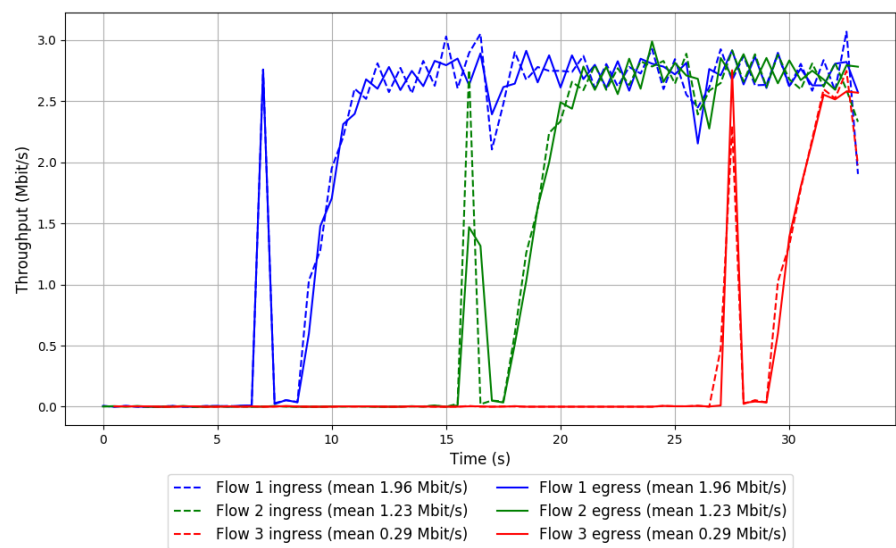
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-01-17 04:39:20
End at: 2018-01-17 04:39:50
Local clock offset: 0.784 ms
Remote clock offset: 9.16 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 98.689 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 97.303 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 98.677 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 99.577 ms
Loss rate: 0.00%
```
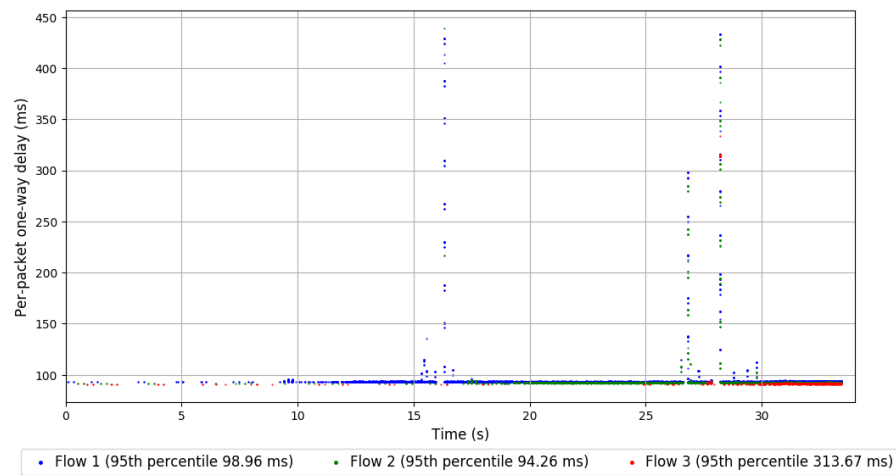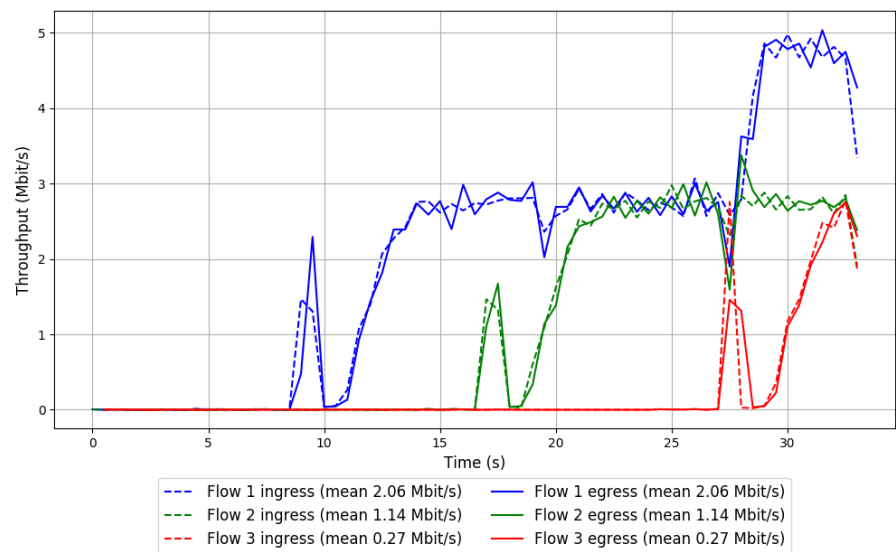
Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-01-17 05:02:45
End at: 2018-01-17 05:03:15
Local clock offset: 0.71 ms
Remote clock offset: 3.49 ms

# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 97.395 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 98.961 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 94.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 313.668 ms
Loss rate: 0.00%
```

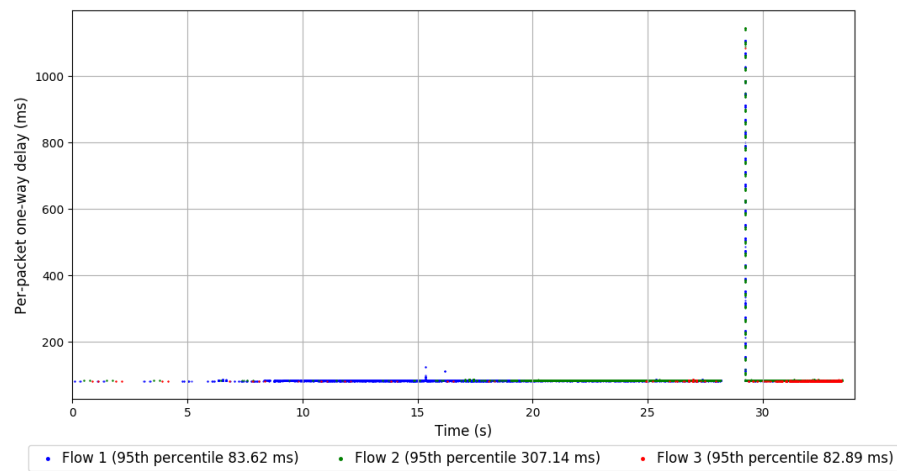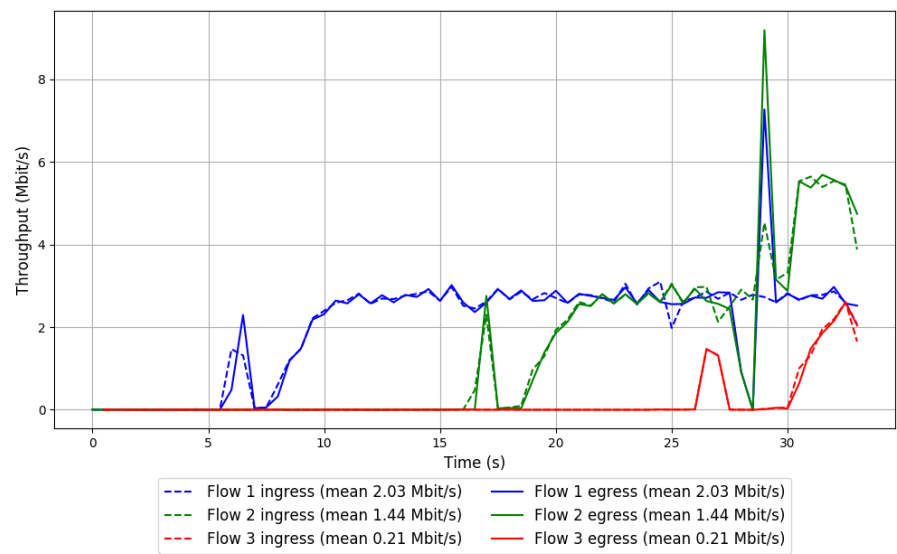Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-01-17 05:26:05
End at: 2018-01-17 05:26:35
Local clock offset: 0.682 ms
Remote clock offset: -5.976 ms

# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 85.267 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 83.618 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 307.140 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 82.893 ms
Loss rate: 0.00%
```

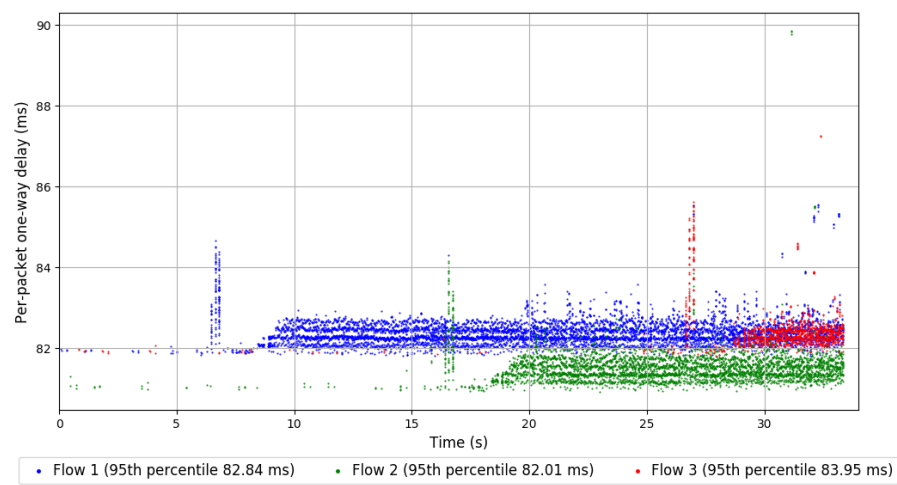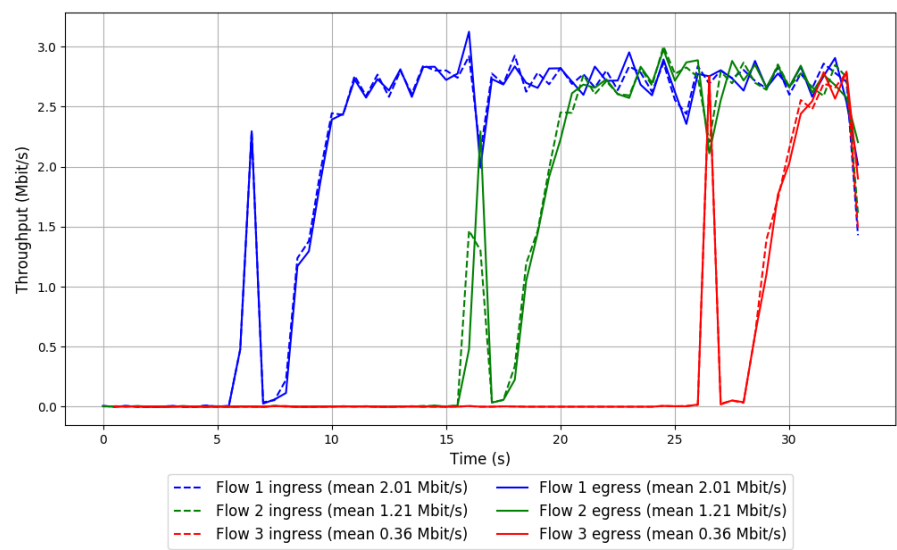Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-01-17 05:49:28
End at: 2018-01-17 05:49:58
Local clock offset: 0.673 ms
Remote clock offset: -6.014 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 82.779 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 82.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 82.010 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 83.955 ms
Loss rate: 0.00%
```

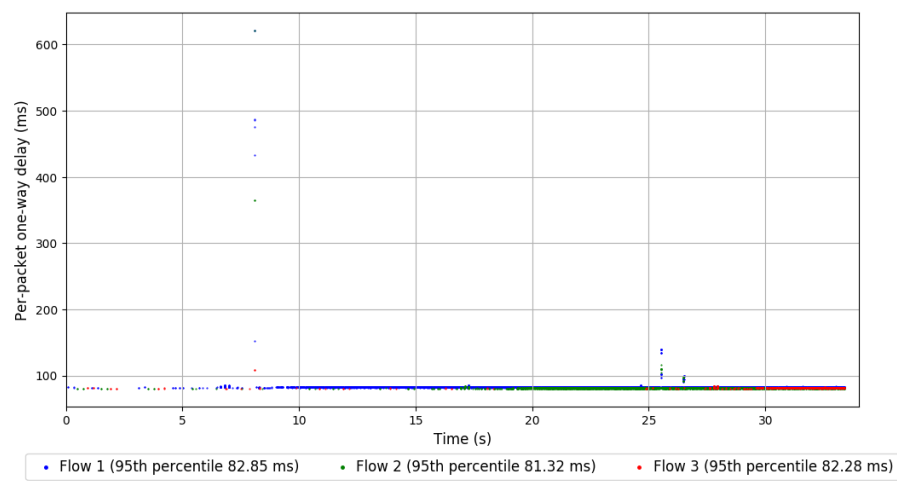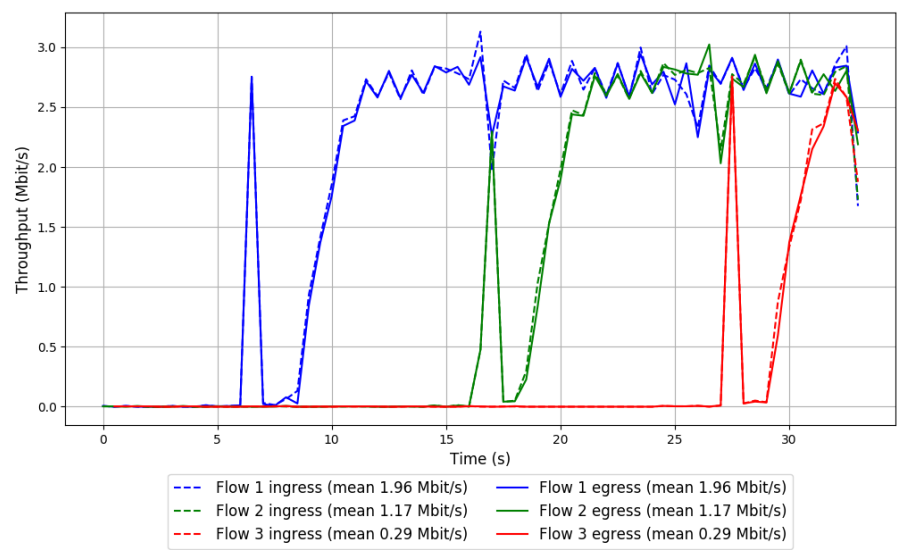Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-01-17 06:12:56
End at: 2018-01-17 06:13:26
Local clock offset: 0.723 ms
Remote clock offset: -5.861 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 82.762 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 82.854 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 81.322 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 82.276 ms
Loss rate: 0.00%
```

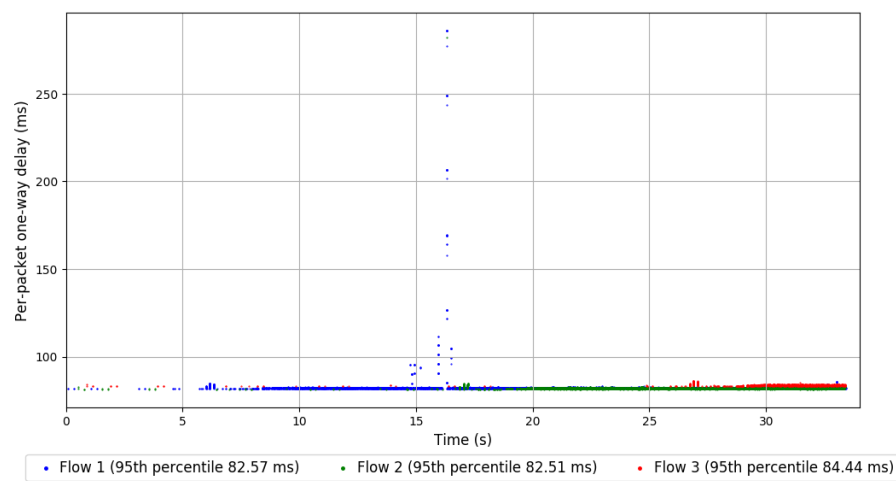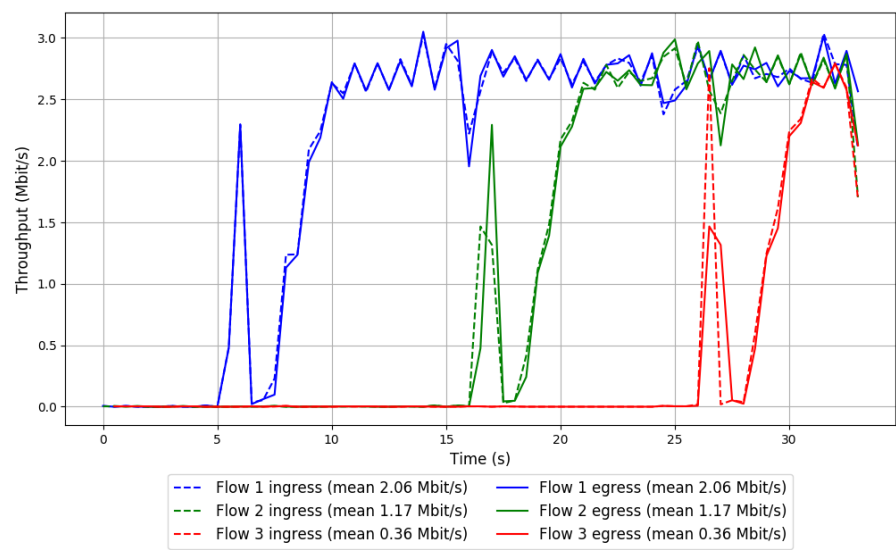Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-01-17 06:36:16
End at: 2018-01-17 06:36:46
Local clock offset: 0.58 ms
Remote clock offset: -4.398 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 83.808 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 82.569 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 82.512 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 84.435 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-01-17 02:58:34
End at: 2018-01-17 02:59:04
Local clock offset: 1.035 ms
Remote clock offset: -5.86 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 87.424 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 86.294 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 88.127 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 87.217 ms
Loss rate: 0.00%
```
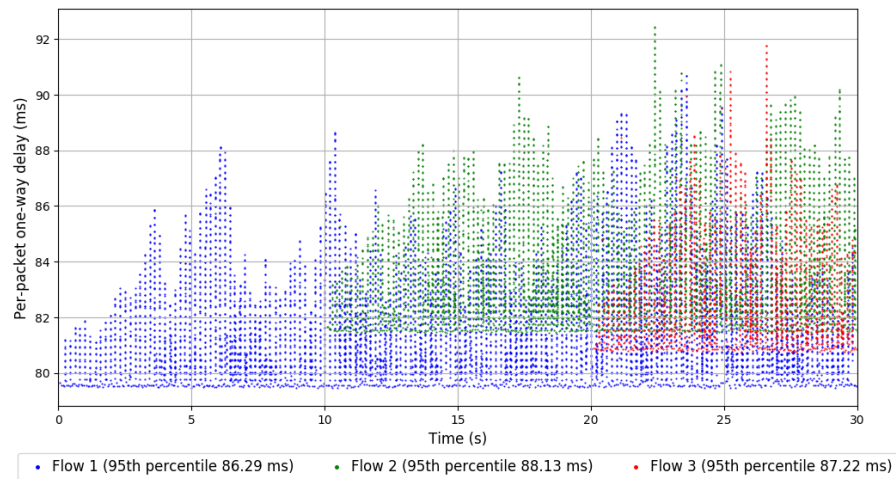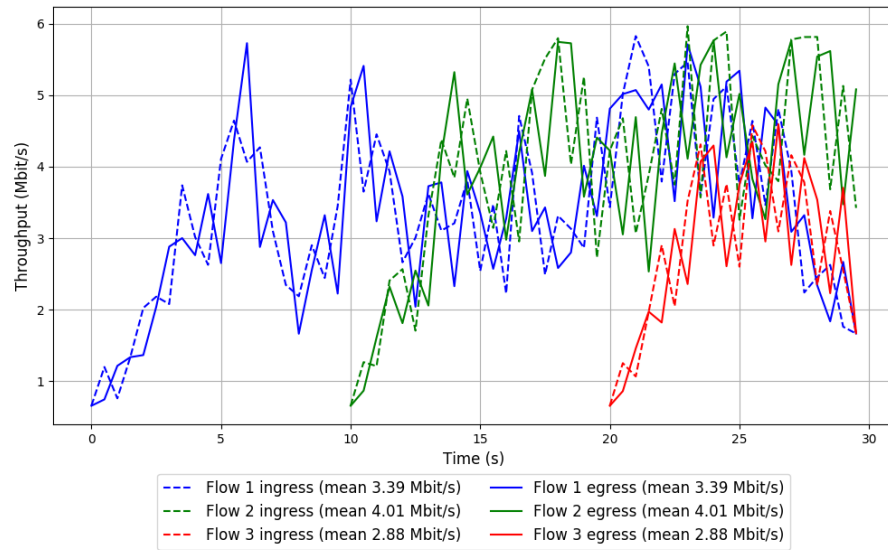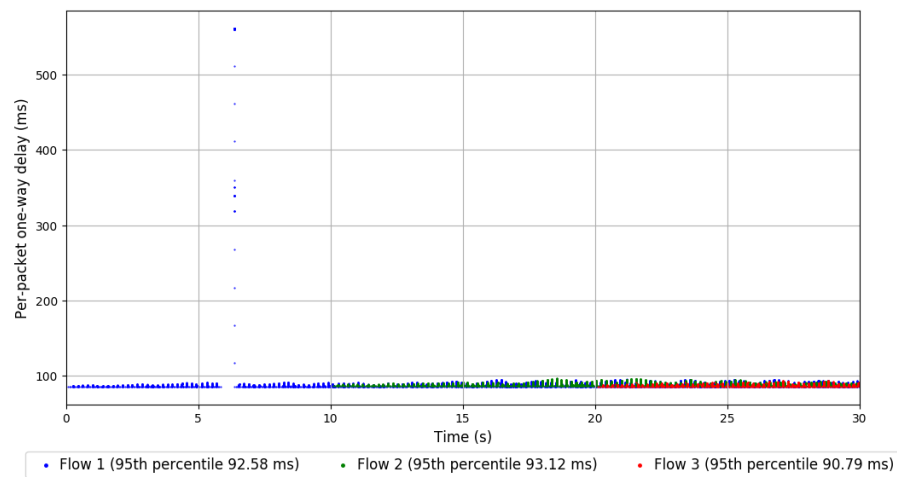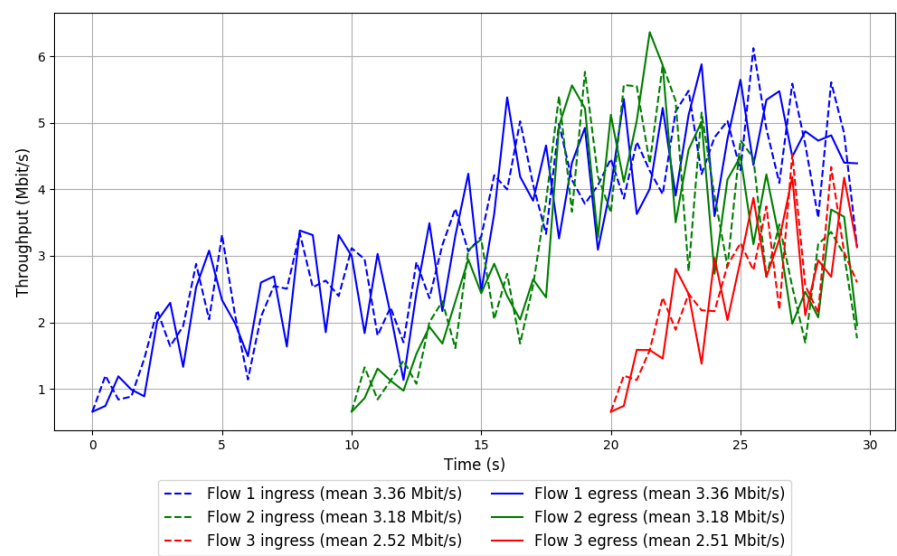
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-01-17 03:21:47
End at: 2018-01-17 03:22:17
Local clock offset: 1.065 ms
Remote clock offset: -0.8 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.31 Mbit/s
95th percentile per-packet one-way delay: 92.644 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 92.578 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 93.123 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 90.792 ms
Loss rate: 0.00%
```
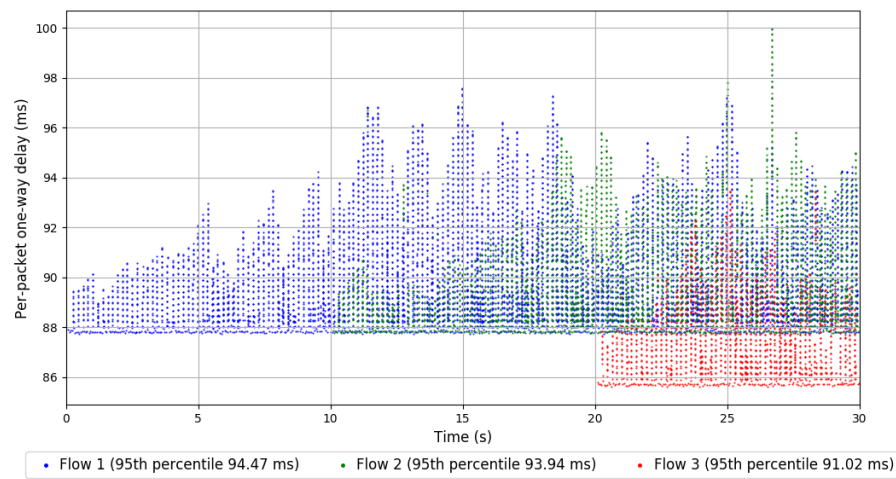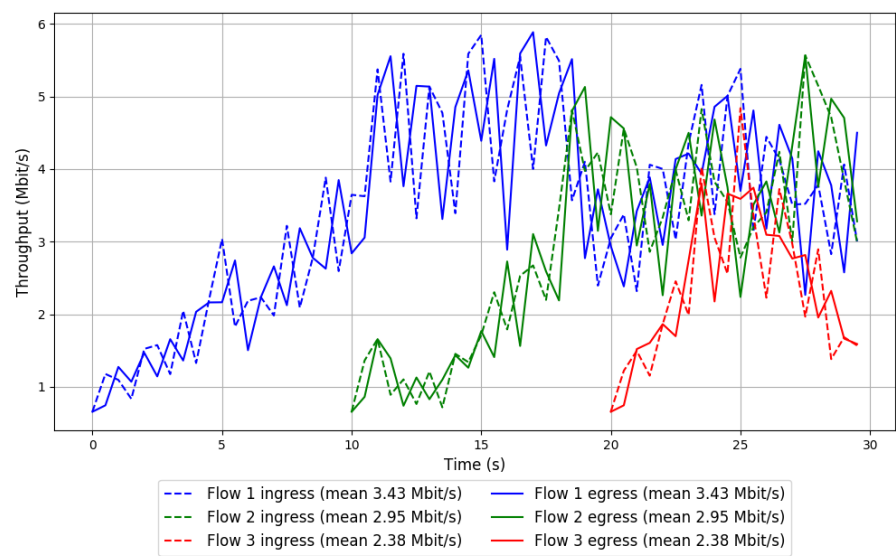
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-01-17 03:45:03
End at: 2018-01-17 03:45:33
Local clock offset: 0.953 ms
Remote clock offset: -1.013 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 94.149 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 94.475 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.95 Mbit/s
95th percentile per-packet one-way delay: 93.940 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 91.017 ms
Loss rate: 0.00%
```
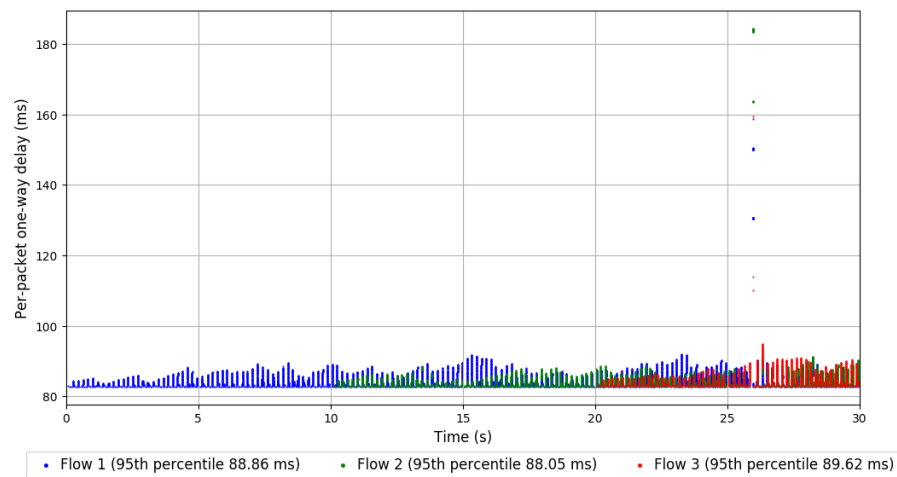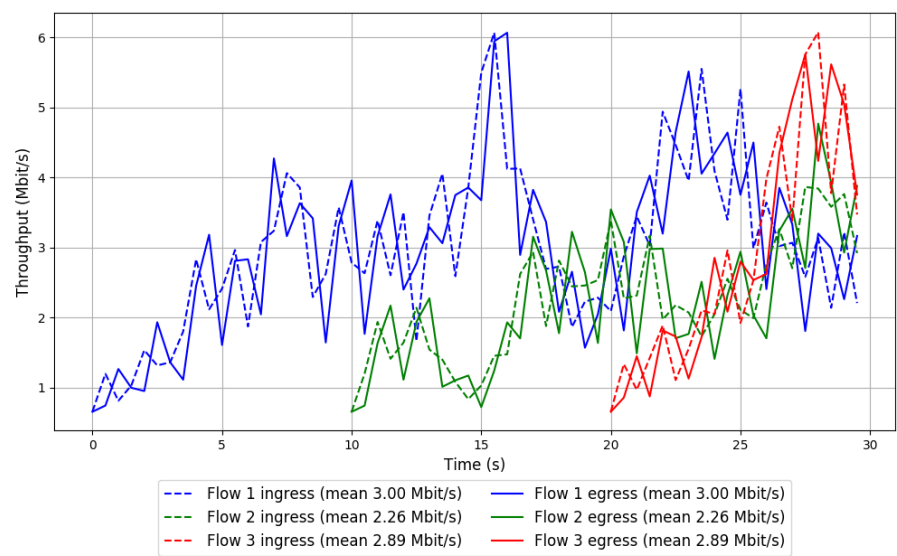
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-01-17 04:08:15
End at: 2018-01-17 04:08:45
Local clock offset: 0.833 ms
Remote clock offset: -5.52 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.45 Mbit/s
95th percentile per-packet one-way delay: 88.880 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 88.859 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 88.048 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 89.624 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-01-17 04:31:39
End at: 2018-01-17 04:32:09
Local clock offset: 0.822 ms
Remote clock offset: 9.307 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.84 Mbit/s
95th percentile per-packet one-way delay: 104.448 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 102.369 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 105.094 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 105.511 ms
Loss rate: 0.00%
```
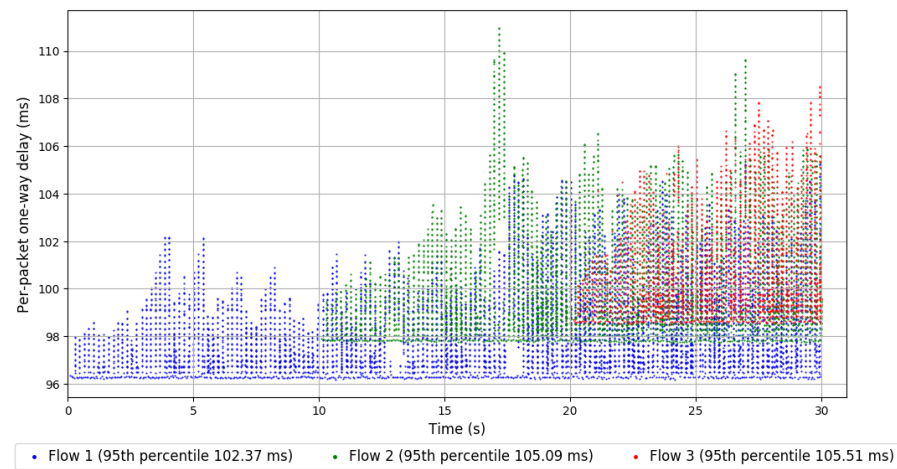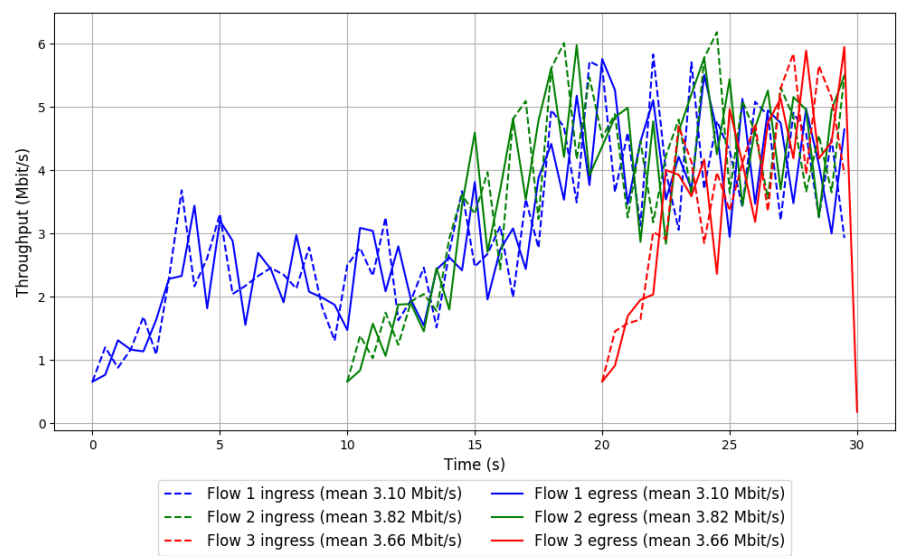
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-01-17 04:55:03
End at: 2018-01-17 04:55:33
Local clock offset: 0.729 ms
Remote clock offset: 8.321 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.81 Mbit/s
95th percentile per-packet one-way delay: 102.278 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 102.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 102.188 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 101.958 ms
Loss rate: 0.00%
```
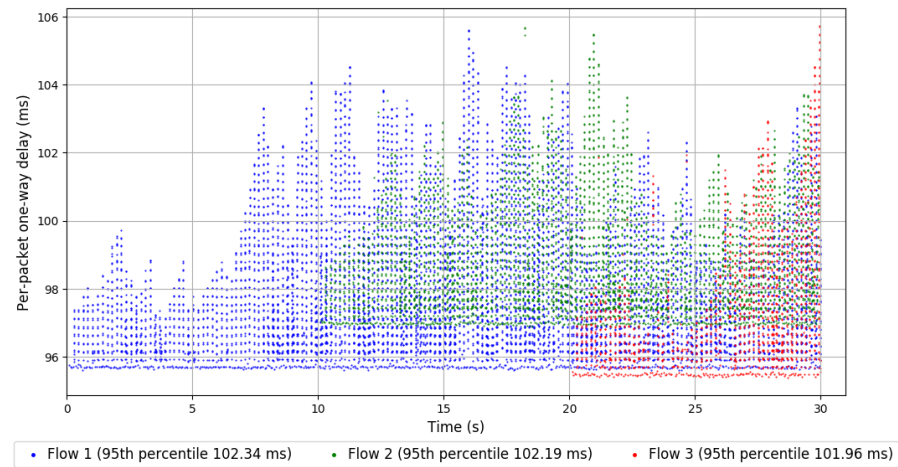
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-01-17 05:18:21
End at: 2018-01-17 05:18:51
Local clock offset: 0.695 ms
Remote clock offset: 0.712 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 95.792 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 95.838 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 94.623 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 96.849 ms
Loss rate: 0.00%
```
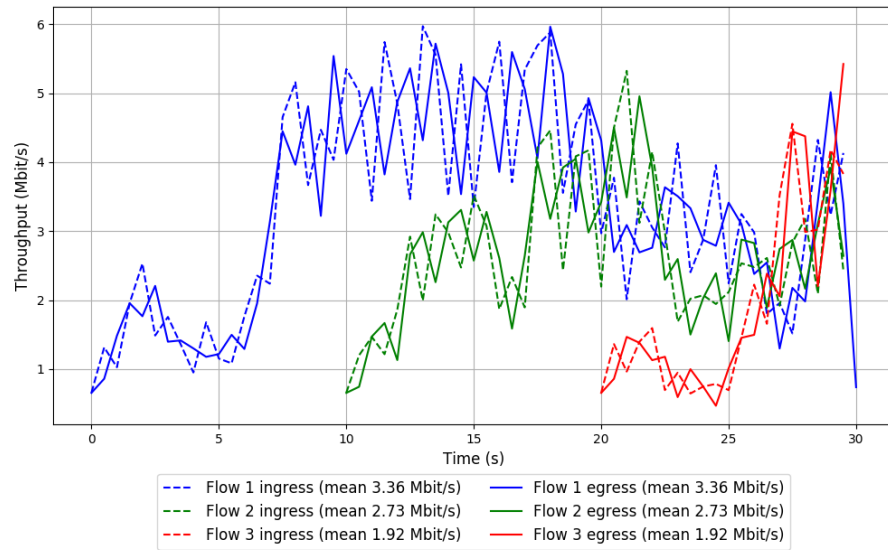
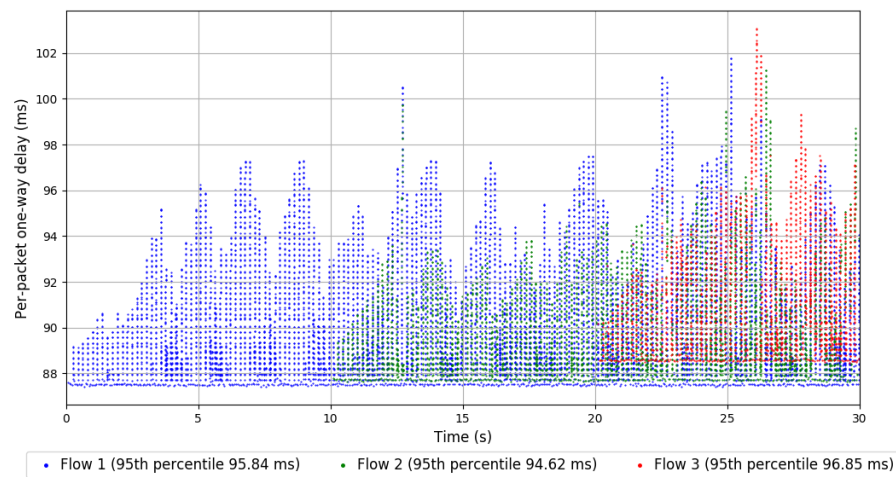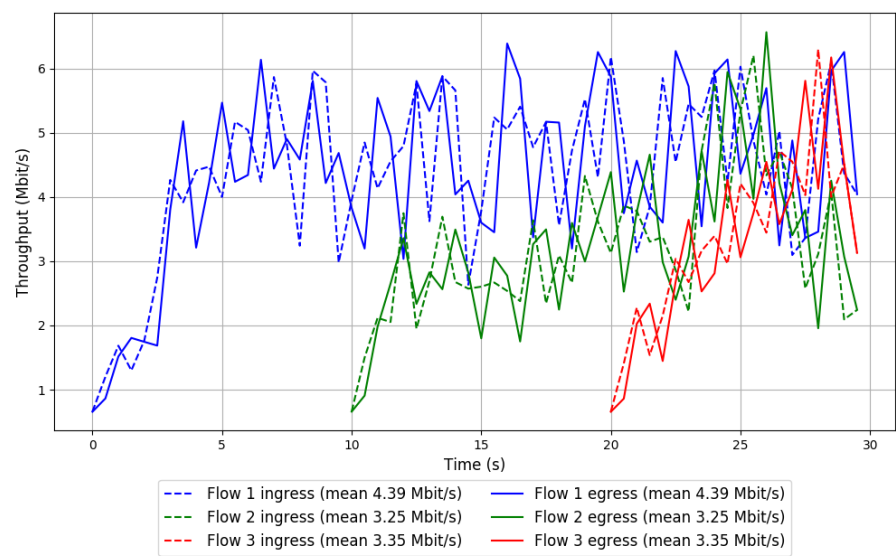# Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-01-17 05:41:44
End at: 2018-01-17 05:42:14
Local clock offset: 0.605 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.30 Mbit/s
95th percentile per-packet one-way delay: 94.231 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 94.172 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 94.451 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 93.836 ms
Loss rate: 0.00%
```

Run 8: Report of Sprout — Data Link

Run 9: Statistics of Sprout

Start at: 2018-01-17 06:05:04
End at: 2018-01-17 06:05:34
Local clock offset: 0.702 ms
Remote clock offset: -4.923 ms

Below is generated by plot.py at 2018-01-17 07:17:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 88.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 88.224 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 85.067 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 88.814 ms
Loss rate: 0.00%
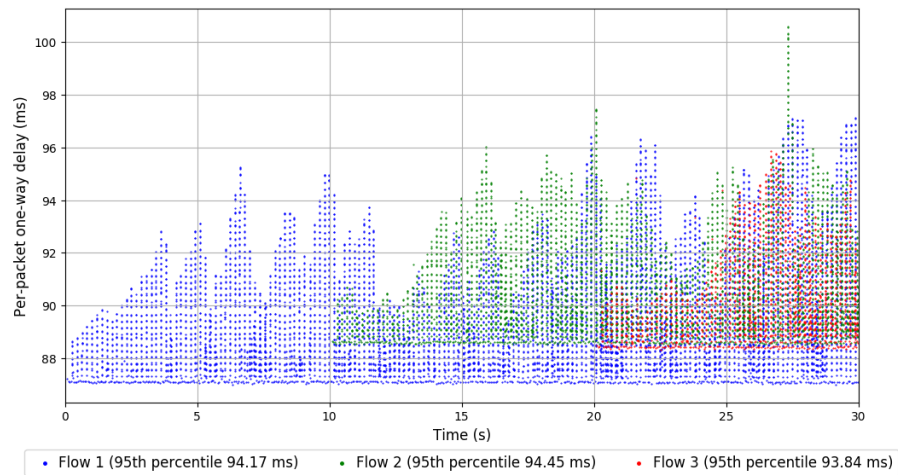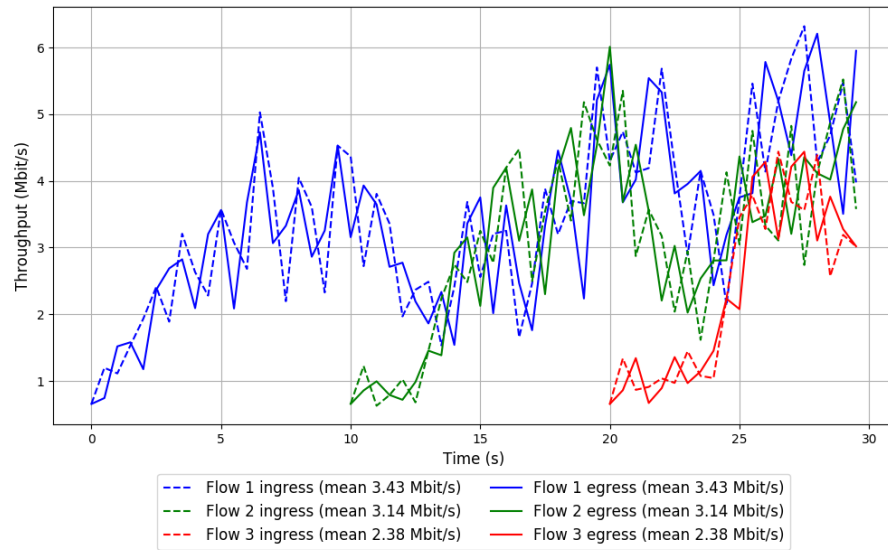
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-01-17 06:28:34
End at: 2018-01-17 06:29:04
Local clock offset: 0.709 ms
Remote clock offset: 1.073 ms


# Below is generated by plot.py at 2018-01-17 07:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 93.979 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 94.288 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 93.709 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 93.186 ms
Loss rate: 0.00%
```
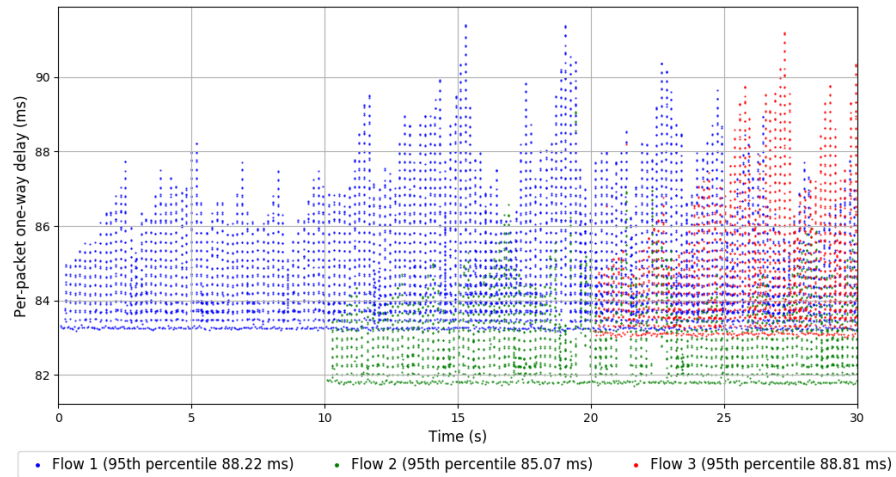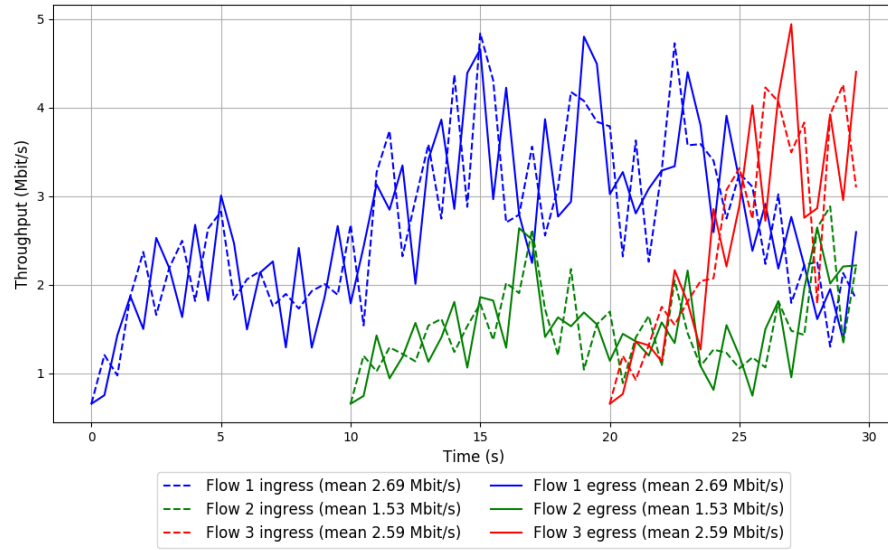
Run 10: Report of Sprout — Data Link

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

Start at: 2018-01-17 03:07:29
End at: 2018-01-17 03:07:59
Local clock offset: 1.087 ms
Remote clock offset: -6.151 ms

# Below is generated by plot.py at 2018-01-17 07:19:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.12 Mbit/s
95th percentile per-packet one-way delay: 111.160 ms
Loss rate: 5.71%
-- Flow 1:
Average throughput: 45.20 Mbit/s
95th percentile per-packet one-way delay: 111.205 ms
Loss rate: 4.30%
-- Flow 2:
Average throughput: 43.86 Mbit/s
95th percentile per-packet one-way delay: 111.162 ms
Loss rate: 6.41%
-- Flow 3:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 110.317 ms
Loss rate: 15.76%
```

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

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

Start at: 2018-01-17 03:30:42
End at: 2018-01-17 03:31:12
Local clock offset: 0.993 ms
Remote clock offset: -6.655 ms

# Below is generated by plot.py at 2018-01-17 07:19:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.64 Mbit/s
95th percentile per-packet one-way delay: 111.168 ms
Loss rate: 5.36%
-- Flow 1:
Average throughput: 44.19 Mbit/s
95th percentile per-packet one-way delay: 111.458 ms
Loss rate: 3.83%
-- Flow 2:
Average throughput: 41.54 Mbit/s
95th percentile per-packet one-way delay: 110.046 ms
Loss rate: 6.60%
-- Flow 3:
Average throughput: 16.77 Mbit/s
95th percentile per-packet one-way delay: 111.778 ms
Loss rate: 11.82%
```
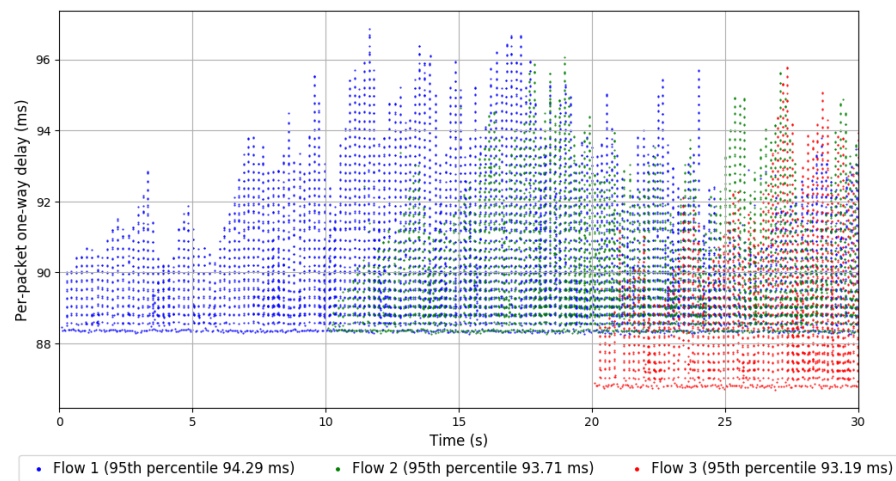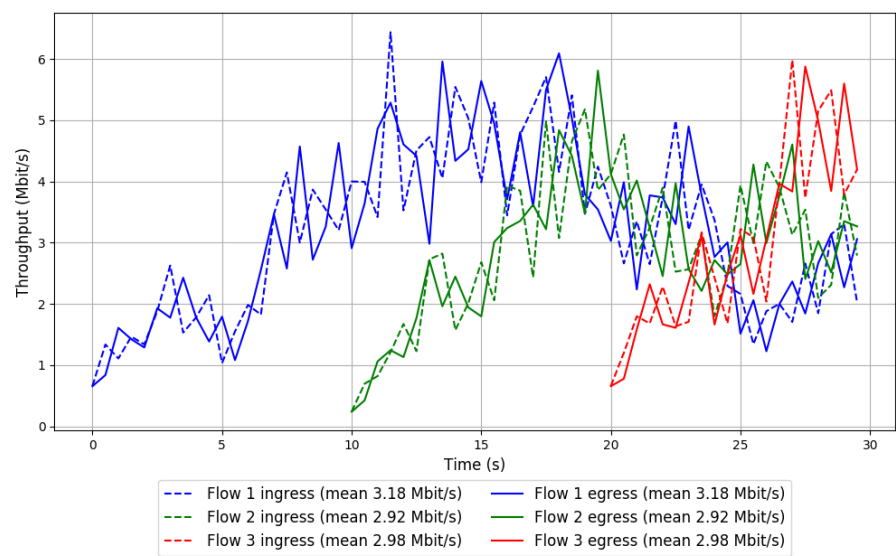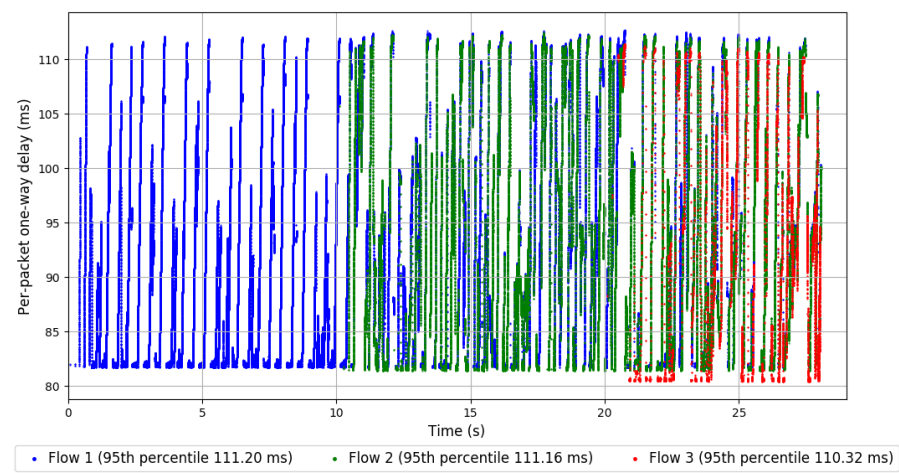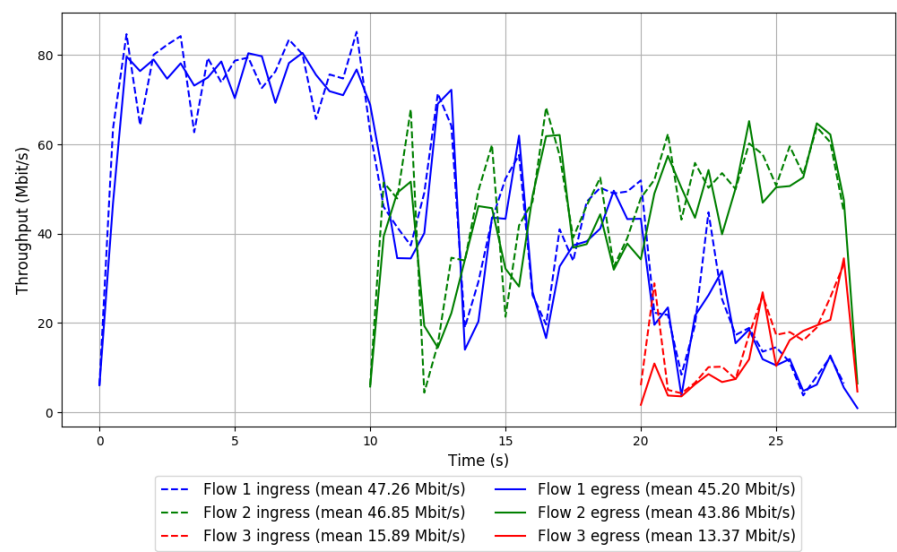
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-01-17 03:53:59
End at: 2018-01-17 03:54:30
Local clock offset: 0.845 ms
Remote clock offset: -1.009 ms


# Below is generated by plot.py at 2018-01-17 07:19:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.93 Mbit/s
95th percentile per-packet one-way delay: 117.352 ms
Loss rate: 6.41%
-- Flow 1:
Average throughput: 47.09 Mbit/s
95th percentile per-packet one-way delay: 117.452 ms
Loss rate: 4.89%
-- Flow 2:
Average throughput: 41.62 Mbit/s
95th percentile per-packet one-way delay: 116.973 ms
Loss rate: 8.01%
-- Flow 3:
Average throughput: 11.01 Mbit/s
95th percentile per-packet one-way delay: 118.191 ms
Loss rate: 14.33%
```
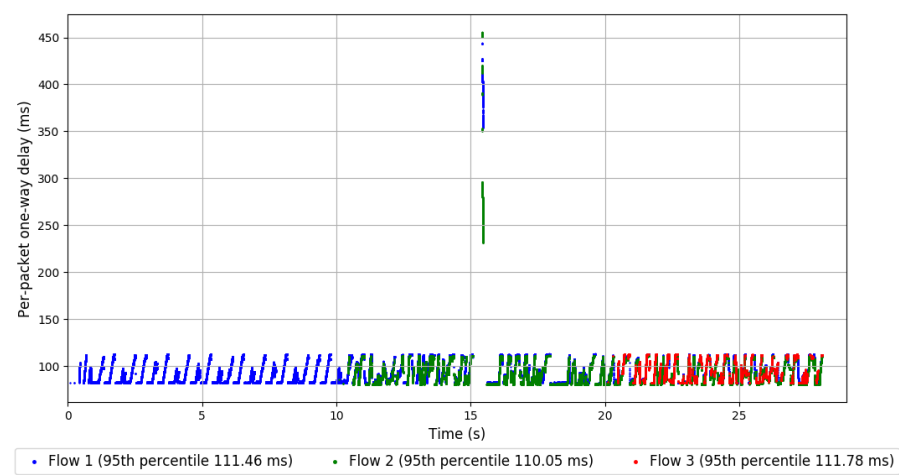
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 49.57 Mbit/s) --- Flow 1 egress (mean 47.09 Mbit/s)
Flow 2 ingress (mean 45.27 Mbit/s) --- Flow 2 egress (mean 41.62 Mbit/s)
Flow 3 ingress (mean 12.89 Mbit/s) --- Flow 3 egress (mean 11.01 Mbit/s)

Flow 1 (95th percentile 117.45 ms) · Flow 2 (95th percentile 116.97 ms) · Flow 3 (95th percentile 118.19 ms)

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

Start at: 2018-01-17 04:17:11
End at: 2018-01-17 04:17:41
Local clock offset: 0.883 ms
Remote clock offset: -0.723 ms


# Below is generated by plot.py at 2018-01-17 07:19:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.49 Mbit/s
95th percentile per-packet one-way delay: 116.894 ms
Loss rate: 5.99%
-- Flow 1:
Average throughput: 46.13 Mbit/s
95th percentile per-packet one-way delay: 115.628 ms
Loss rate: 4.19%
-- Flow 2:
Average throughput: 37.10 Mbit/s
95th percentile per-packet one-way delay: 117.468 ms
Loss rate: 7.80%
-- Flow 3:
Average throughput: 26.34 Mbit/s
95th percentile per-packet one-way delay: 118.369 ms
Loss rate: 12.26%
```

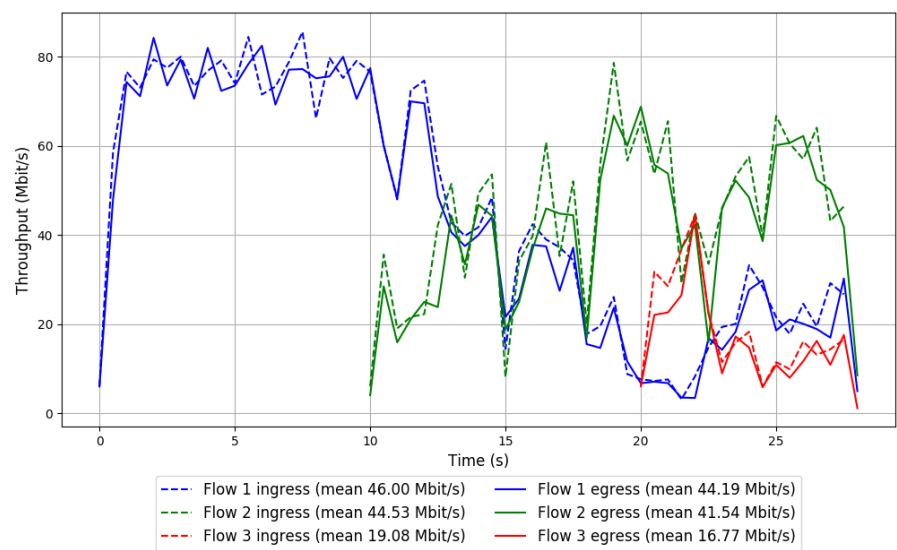## Run 4: Report of TaoVA-100x — Data Link

- - - Flow 1 ingress (mean 48.18 Mbit/s) ——— Flow 1 egress (mean 46.13 Mbit/s)
- - - Flow 2 ingress (mean 40.31 Mbit/s) ——— Flow 2 egress (mean 37.10 Mbit/s)
- - - Flow 3 ingress (mean 22.46 Mbit/s) ——— Flow 3 egress (mean 26.34 Mbit/s)

- Flow 1 (95th percentile 115.63 ms) · Flow 2 (95th percentile 117.47 ms) · Flow 3 (95th percentile 118.37 ms)
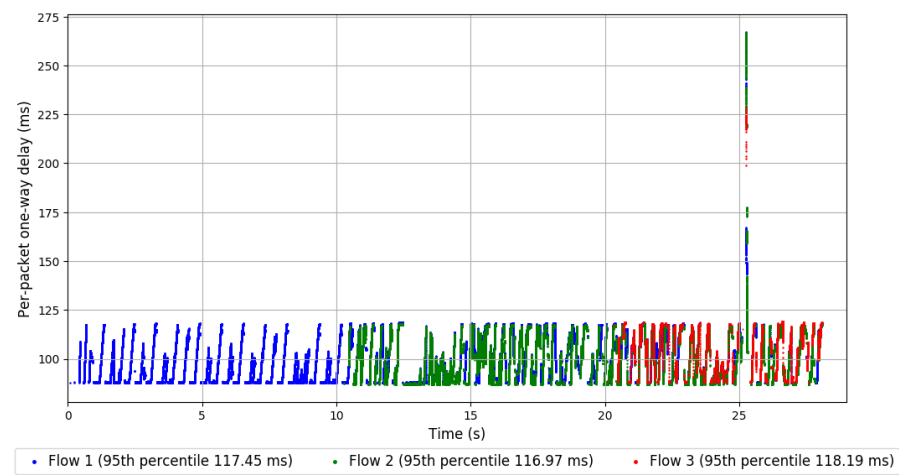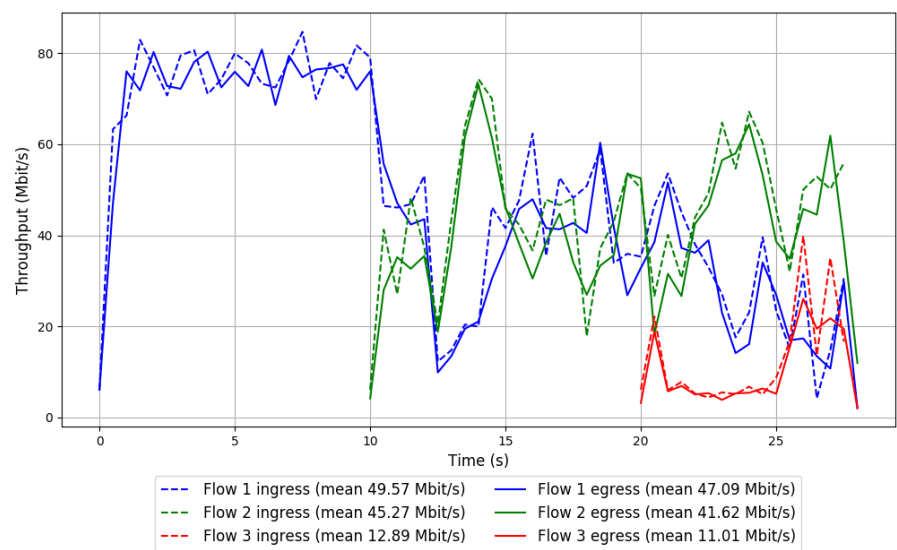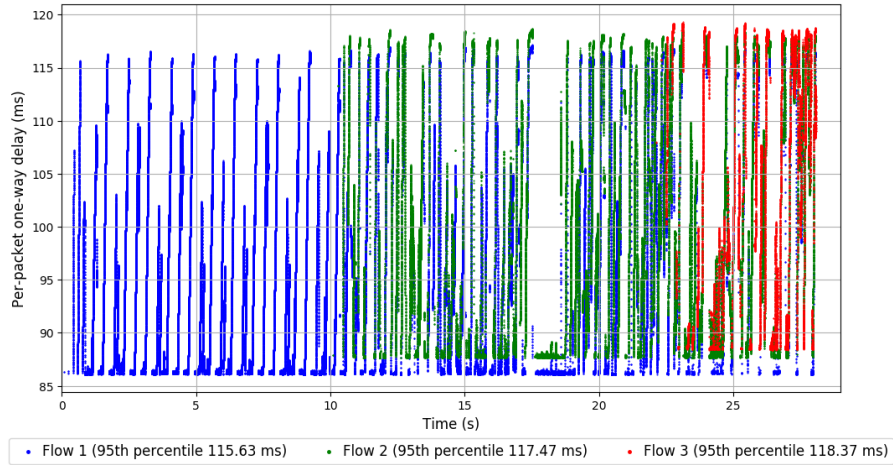
```
Run 5: Statistics of TaoVA-100x

Start at: 2018-01-17 04:40:34
End at: 2018-01-17 04:41:04
Local clock offset: 0.721 ms
Remote clock offset: 8.189 ms

# Below is generated by plot.py at 2018-01-17 07:19:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.32 Mbit/s
95th percentile per-packet one-way delay: 126.347 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 47.99 Mbit/s
95th percentile per-packet one-way delay: 126.433 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 125.713 ms
Loss rate: 7.12%
-- Flow 3:
Average throughput: 31.19 Mbit/s
95th percentile per-packet one-way delay: 127.267 ms
Loss rate: 7.34%
```
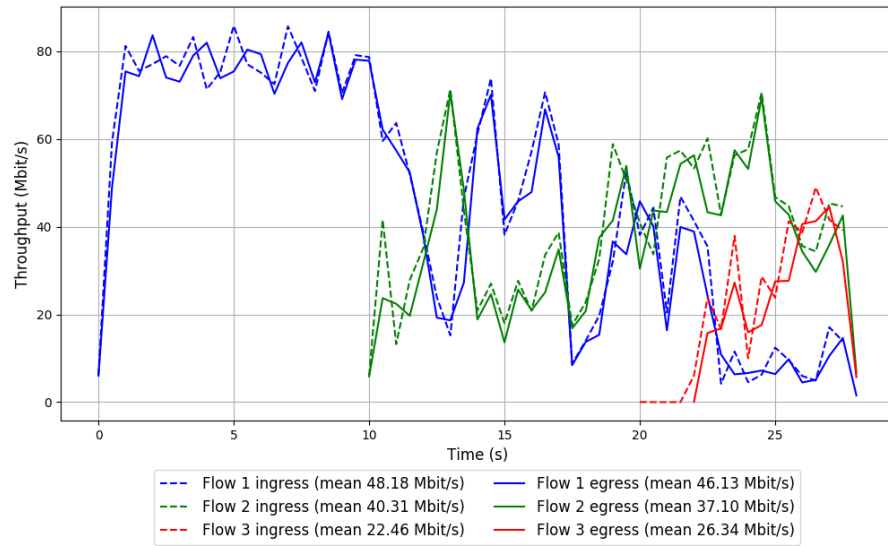
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 49.66 Mbit/s) --- Flow 1 egress (mean 47.99 Mbit/s) ———
Flow 2 ingress (mean 31.11 Mbit/s) --- Flow 2 egress (mean 28.85 Mbit/s) ———
Flow 3 ingress (mean 33.78 Mbit/s) --- Flow 3 egress (mean 31.19 Mbit/s) ———

Flow 1 (95th percentile 126.43 ms) • Flow 2 (95th percentile 125.71 ms) • Flow 3 (95th percentile 127.27 ms)

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

Start at: 2018-01-17 05:03:59
End at: 2018-01-17 05:04:29
Local clock offset: 0.648 ms
Remote clock offset: 3.117 ms

# Below is generated by plot.py at 2018-01-17 07:19:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.22 Mbit/s
95th percentile per-packet one-way delay: 119.738 ms
Loss rate: 3.53%
-- Flow 1:
Average throughput: 39.20 Mbit/s
95th percentile per-packet one-way delay: 119.456 ms
Loss rate: 2.66%
-- Flow 2:
Average throughput: 19.43 Mbit/s
95th percentile per-packet one-way delay: 120.085 ms
Loss rate: 6.20%
-- Flow 3:
Average throughput: 47.58 Mbit/s
95th percentile per-packet one-way delay: 119.717 ms
Loss rate: 3.47%
```
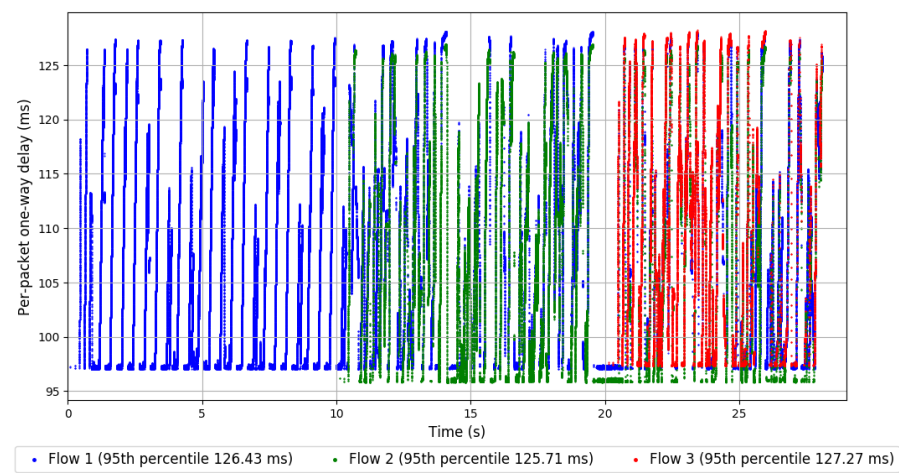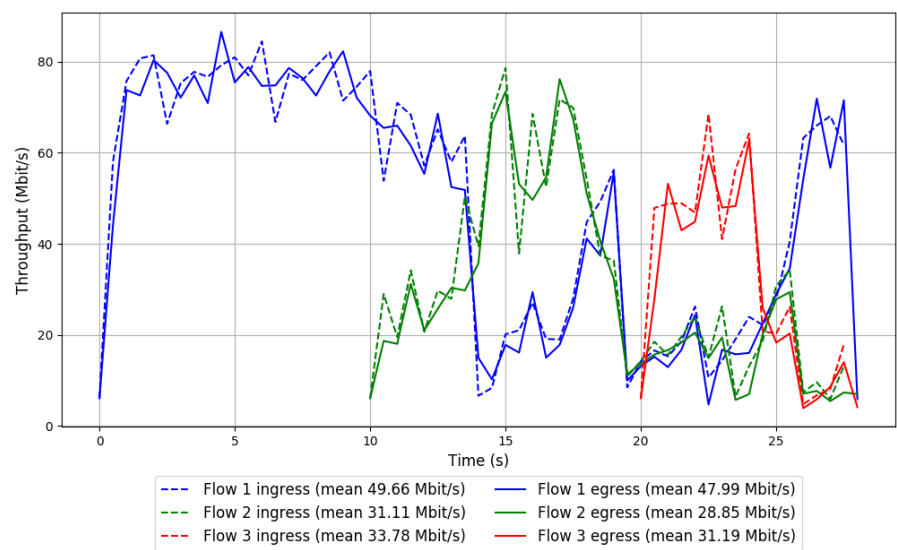
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 40.30 Mbit/s) --- Flow 1 egress (mean 39.20 Mbit/s)
Flow 2 ingress (mean 20.74 Mbit/s) --- Flow 2 egress (mean 19.43 Mbit/s)
Flow 3 ingress (mean 49.41 Mbit/s) --- Flow 3 egress (mean 47.58 Mbit/s)

Flow 1 (95th percentile 119.46 ms)   Flow 2 (95th percentile 120.08 ms)   Flow 3 (95th percentile 119.72 ms)

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

Start at: 2018-01-17 05:27:19
End at: 2018-01-17 05:27:49
Local clock offset: 0.684 ms
Remote clock offset: -6.376 ms

# Below is generated by plot.py at 2018-01-17 07:19:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.56 Mbit/s
95th percentile per-packet one-way delay: 112.145 ms
Loss rate: 5.04%
-- Flow 1:
Average throughput: 41.39 Mbit/s
95th percentile per-packet one-way delay: 111.229 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 44.39 Mbit/s
95th percentile per-packet one-way delay: 112.892 ms
Loss rate: 5.24%
-- Flow 3:
Average throughput: 19.93 Mbit/s
95th percentile per-packet one-way delay: 112.678 ms
Loss rate: 10.96%
```
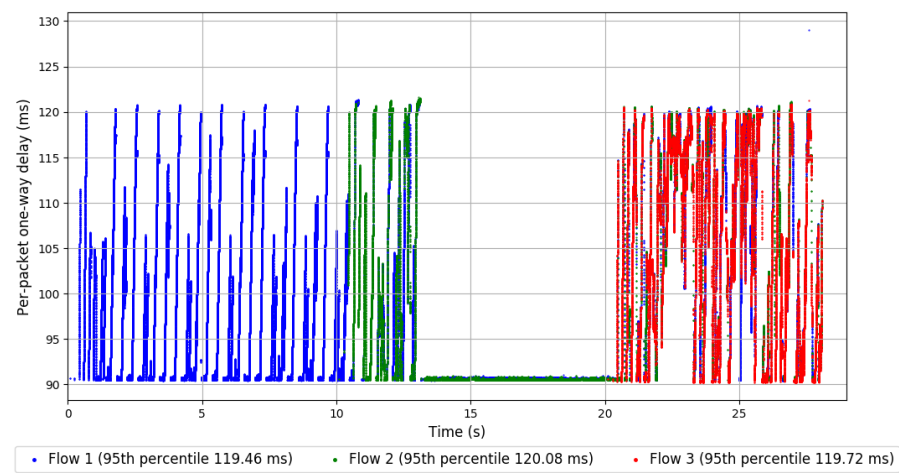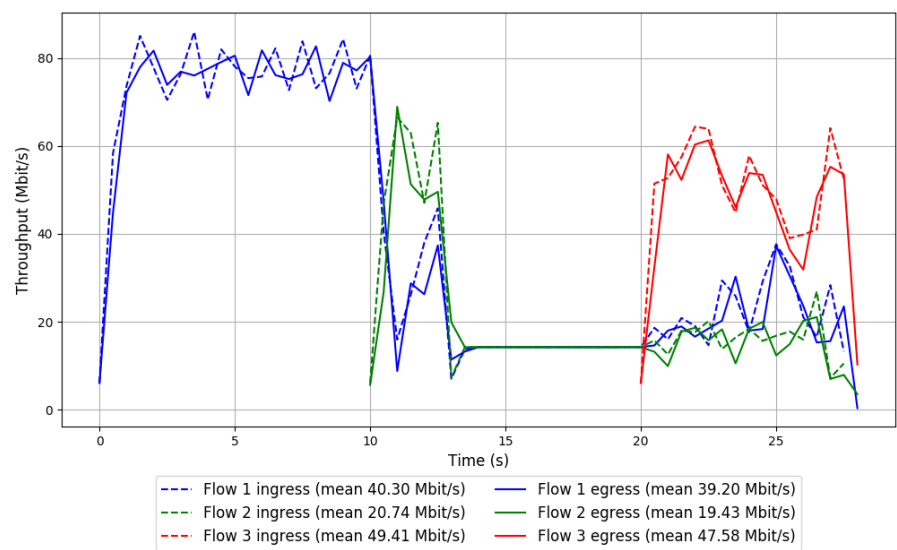
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 43.15 Mbit/s)   Flow 1 egress (mean 41.39 Mbit/s)
Flow 2 ingress (mean 46.90 Mbit/s)   Flow 2 egress (mean 44.39 Mbit/s)
Flow 3 ingress (mean 22.43 Mbit/s)   Flow 3 egress (mean 19.93 Mbit/s)

Flow 1 (95th percentile 111.23 ms)   Flow 2 (95th percentile 112.89 ms)   Flow 3 (95th percentile 112.68 ms)
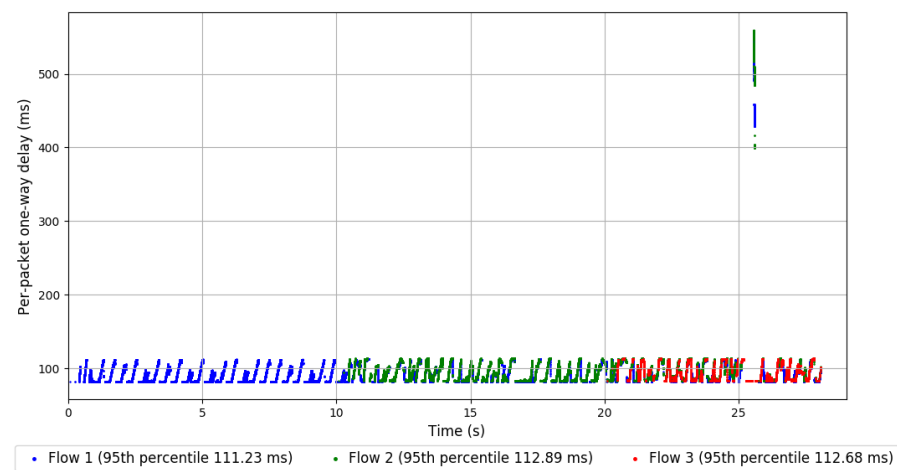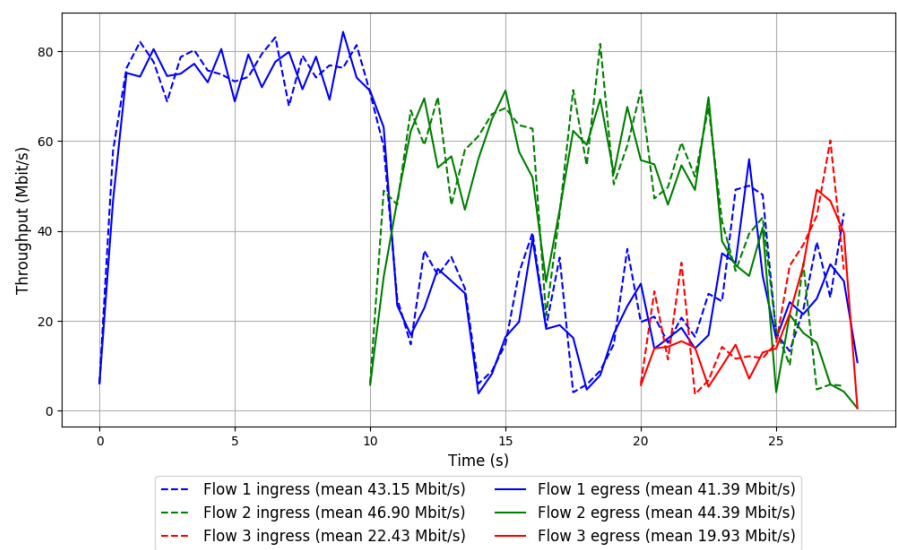
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-01-17 05:50:41
End at: 2018-01-17 05:51:11
Local clock offset: 0.656 ms
Remote clock offset: -5.564 ms


# Below is generated by plot.py at 2018-01-17 07:19:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.37 Mbit/s
95th percentile per-packet one-way delay: 112.499 ms
Loss rate: 4.98%
-- Flow 1:
Average throughput: 56.48 Mbit/s
95th percentile per-packet one-way delay: 112.243 ms
Loss rate: 3.15%
-- Flow 2:
Average throughput: 20.90 Mbit/s
95th percentile per-packet one-way delay: 112.944 ms
Loss rate: 10.07%
-- Flow 3:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 112.003 ms
Loss rate: 12.39%
```
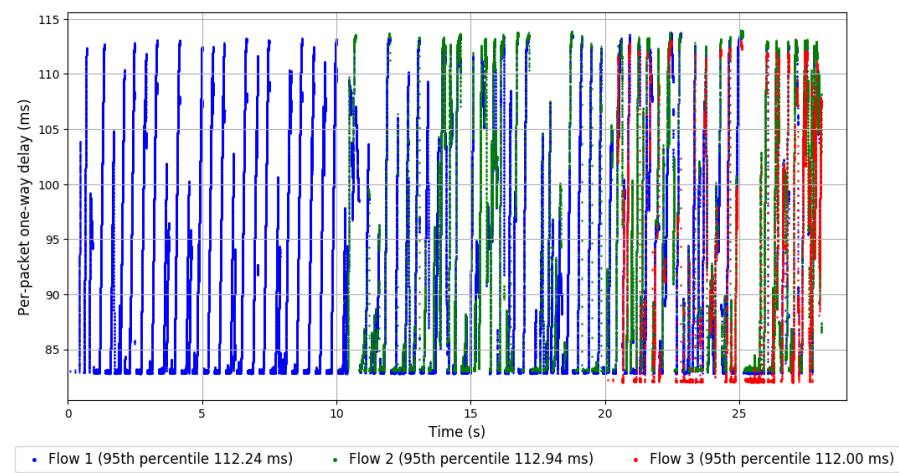
Run 8: Report of TaoVA-100x — Data Link

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

Start at: 2018-01-17 06:14:10
End at: 2018-01-17 06:14:40
Local clock offset: 0.725 ms
Remote clock offset: -4.927 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.59 Mbit/s
95th percentile per-packet one-way delay: 111.131 ms
Loss rate: 5.89%
-- Flow 1:
Average throughput: 47.78 Mbit/s
95th percentile per-packet one-way delay: 110.968 ms
Loss rate: 4.78%
-- Flow 2:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 111.343 ms
Loss rate: 8.27%
-- Flow 3:
Average throughput: 41.73 Mbit/s
95th percentile per-packet one-way delay: 111.267 ms
Loss rate: 6.19%
```

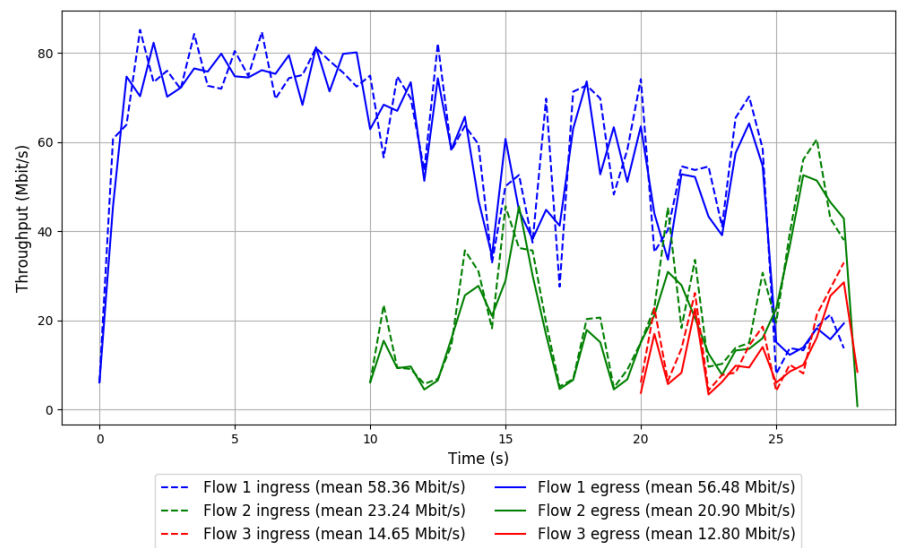# Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 50.18 Mbit/s) --- Flow 1 egress (mean 47.78 Mbit/s)
Flow 2 ingress (mean 34.03 Mbit/s) --- Flow 2 egress (mean 31.22 Mbit/s)
Flow 3 ingress (mean 44.48 Mbit/s) --- Flow 3 egress (mean 41.73 Mbit/s)

Flow 1 (95th percentile 110.97 ms)   Flow 2 (95th percentile 111.34 ms)   Flow 3 (95th percentile 111.27 ms)
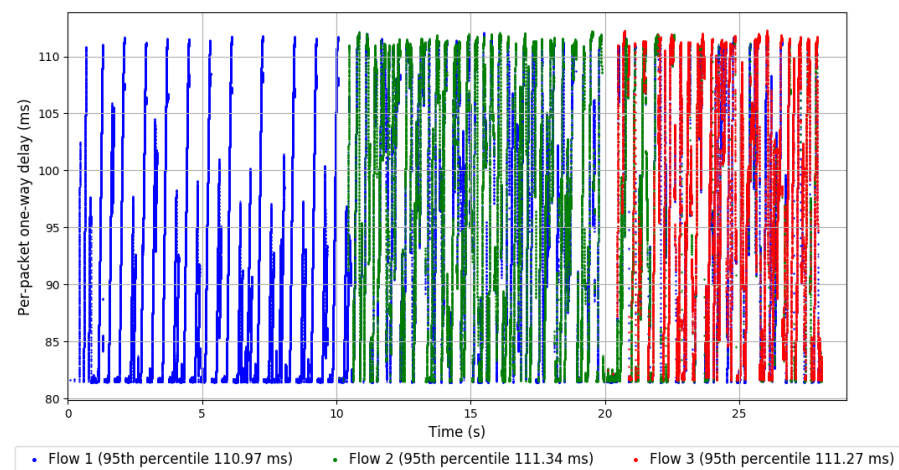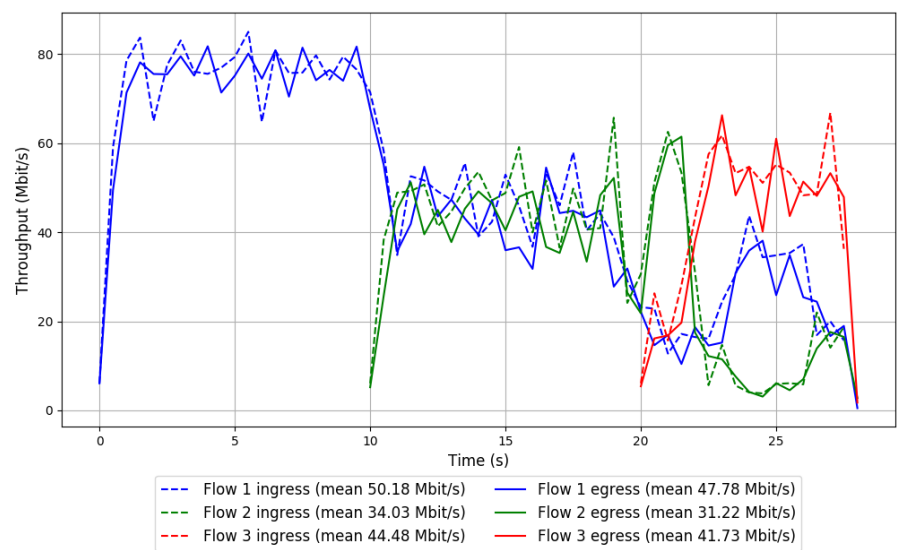
```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-17 06:37:31
End at: 2018-01-17 06:38:01
Local clock offset: 0.631 ms
Remote clock offset: 0.493 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.53 Mbit/s
95th percentile per-packet one-way delay: 117.346 ms
Loss rate: 6.02%
-- Flow 1:
Average throughput: 44.88 Mbit/s
95th percentile per-packet one-way delay: 116.934 ms
Loss rate: 4.40%
-- Flow 2:
Average throughput: 32.83 Mbit/s
95th percentile per-packet one-way delay: 118.338 ms
Loss rate: 8.40%
-- Flow 3:
Average throughput: 33.77 Mbit/s
95th percentile per-packet one-way delay: 116.540 ms
Loss rate: 8.10%
```
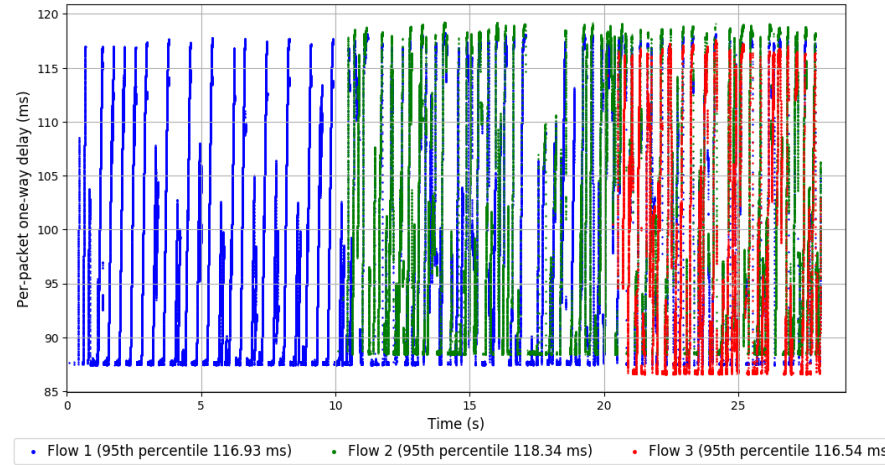
Run 10: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2018-01-17 03:05:01
End at: 2018-01-17 03:05:31
Local clock offset: 1.069 ms
Remote clock offset: -5.938 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.19 Mbit/s
95th percentile per-packet one-way delay: 101.574 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1111.658 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.70 Mbit/s
95th percentile per-packet one-way delay: 96.805 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 108.935 ms
Loss rate: 2.89%
```
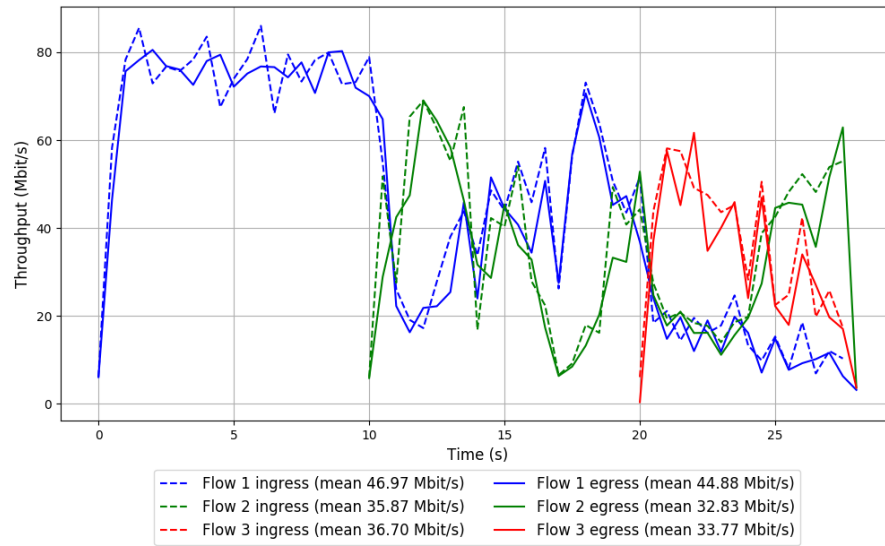
Run 1: Report of TCP Vegas — Data Link

- - - - Flow 1 ingress (mean 0.00 Mbit/s) ——— Flow 1 egress (mean 0.01 Mbit/s)
- - - - Flow 2 ingress (mean 16.02 Mbit/s) ——— Flow 2 egress (mean 15.70 Mbit/s)
- - - - Flow 3 ingress (mean 13.12 Mbit/s) ——— Flow 3 egress (mean 12.74 Mbit/s)

• Flow 1 (95th percentile 1111.66 ms)   • Flow 2 (95th percentile 96.81 ms)   • Flow 3 (95th percentile 108.94 ms)
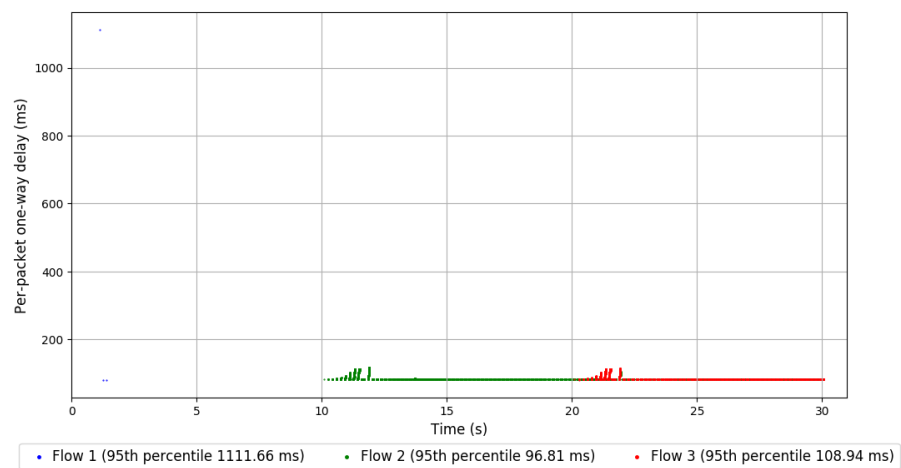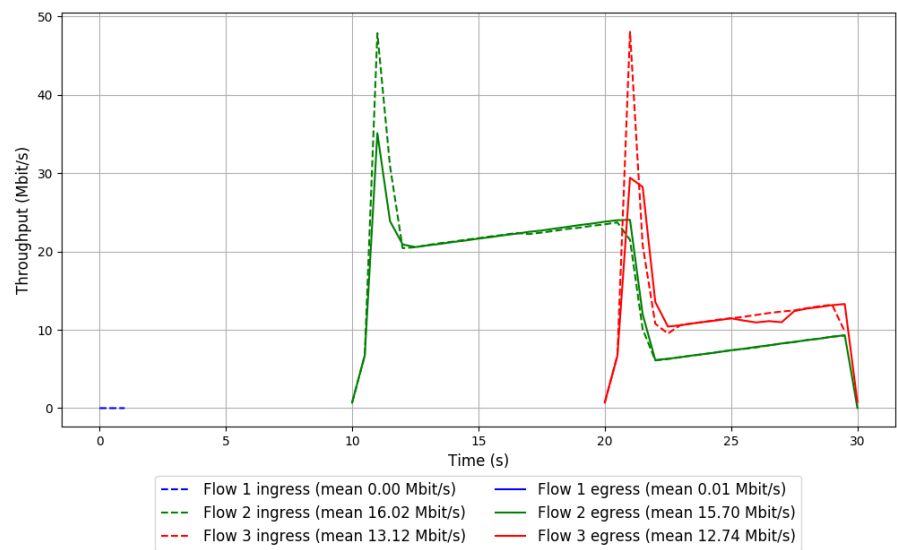
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```
Run 2: Statistics of TCP Vegas

Start at: 2018-01-17 03:28:11
End at: 2018-01-17 03:28:42
Local clock offset: 0.996 ms
Remote clock offset: -0.959 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.69 Mbit/s
95th percentile per-packet one-way delay: 100.751 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 21.66 Mbit/s
95th percentile per-packet one-way delay: 101.009 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 17.55 Mbit/s
95th percentile per-packet one-way delay: 107.804 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 37.20 Mbit/s
95th percentile per-packet one-way delay: 93.133 ms
Loss rate: 1.00%
```

Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 21.81 Mbit/s) --- Flow 1 egress (mean 21.66 Mbit/s)
Flow 2 ingress (mean 17.88 Mbit/s) --- Flow 2 egress (mean 17.55 Mbit/s)
Flow 3 ingress (mean 37.58 Mbit/s) --- Flow 3 egress (mean 37.20 Mbit/s)

Flow 1 (95th percentile 101.01 ms) · Flow 2 (95th percentile 107.80 ms) · Flow 3 (95th percentile 93.13 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2018-01-17 03:51:28
End at: 2018-01-17 03:51:58
Local clock offset: 0.928 ms
Remote clock offset: -1.9 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.15 Mbit/s
95th percentile per-packet one-way delay: 93.965 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 94.977 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 41.64 Mbit/s
95th percentile per-packet one-way delay: 90.040 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 22.60 Mbit/s
95th percentile per-packet one-way delay: 103.256 ms
Loss rate: 0.41%
```
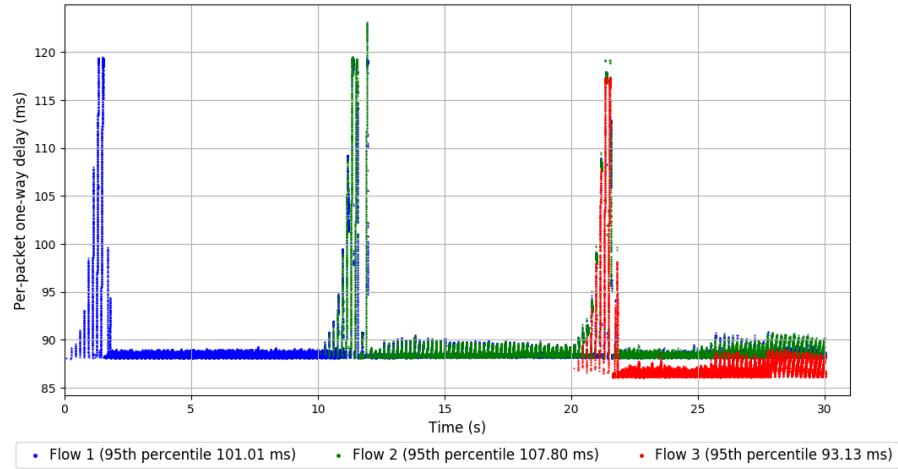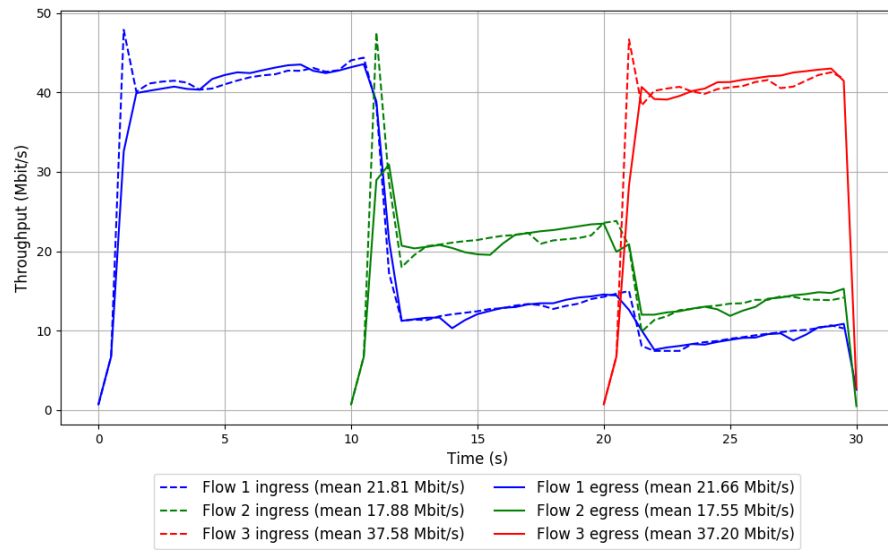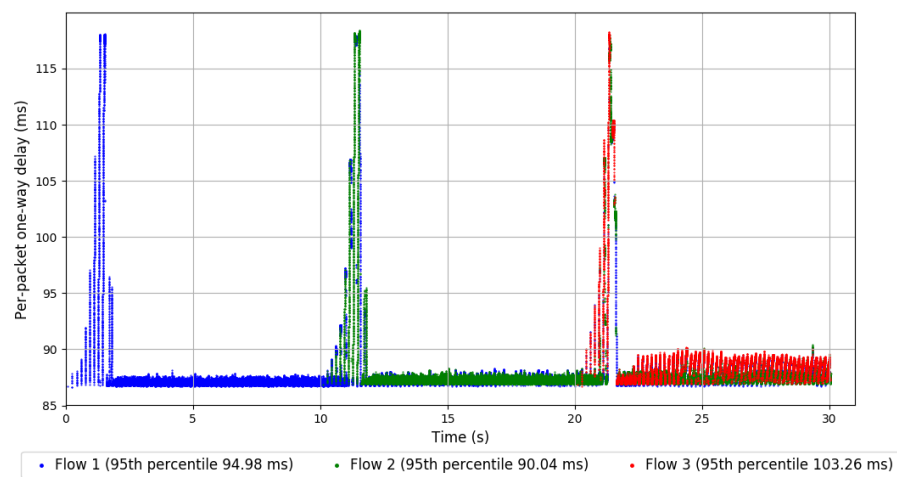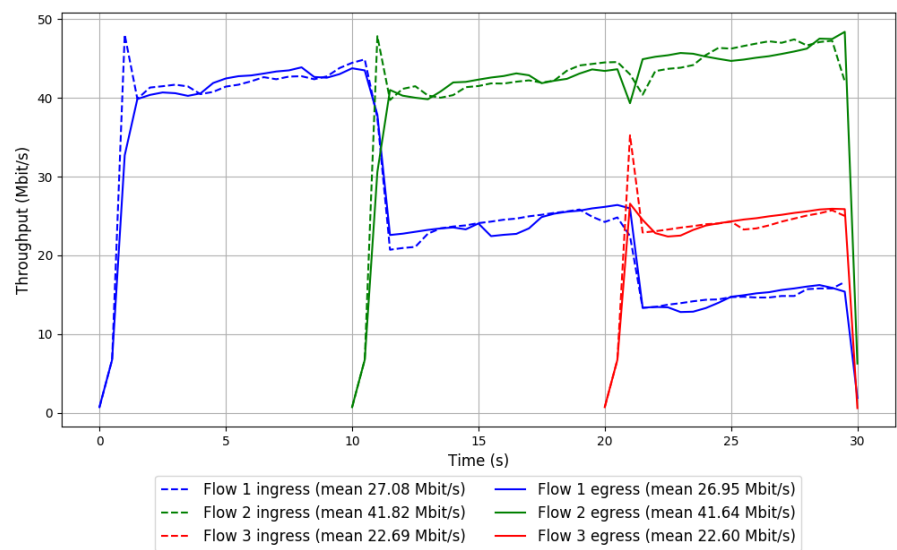
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-01-17 04:14:40
End at: 2018-01-17 04:15:10
Local clock offset: 0.88 ms
Remote clock offset: -5.447 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.85 Mbit/s
95th percentile per-packet one-way delay: 90.906 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 27.02 Mbit/s
95th percentile per-packet one-way delay: 88.825 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 31.93 Mbit/s
95th percentile per-packet one-way delay: 91.194 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 22.79 Mbit/s
95th percentile per-packet one-way delay: 98.753 ms
Loss rate: 0.44%
```
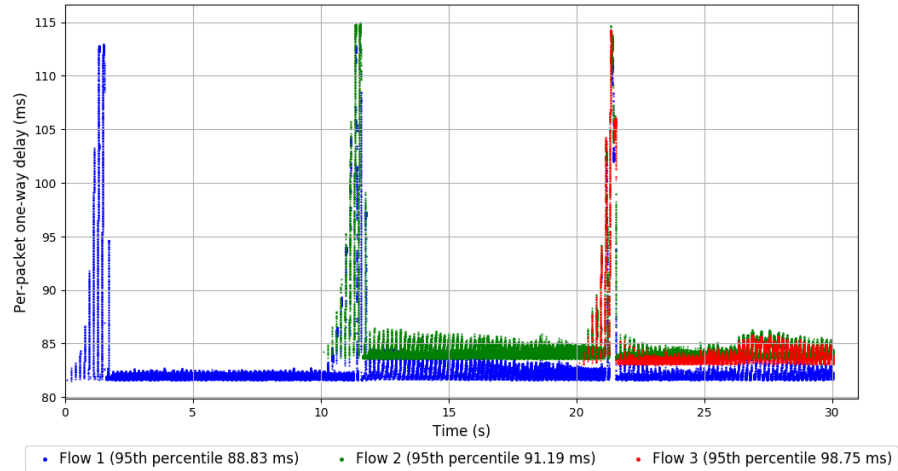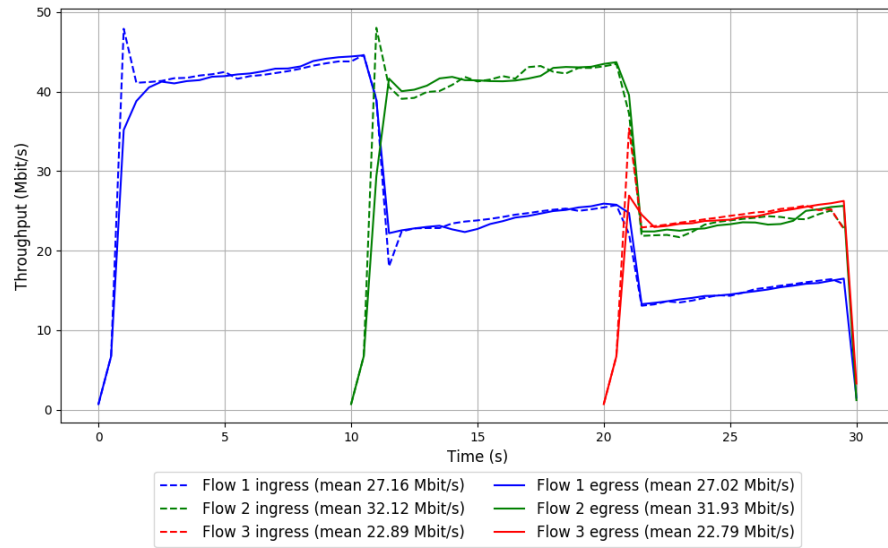
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-01-17 04:38:03
End at: 2018-01-17 04:38:33
Local clock offset: 0.73 ms
Remote clock offset: 9.105 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.20 Mbit/s
95th percentile per-packet one-way delay: 107.473 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 31.04 Mbit/s
95th percentile per-packet one-way delay: 106.467 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 32.91 Mbit/s
95th percentile per-packet one-way delay: 108.725 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 36.97 Mbit/s
95th percentile per-packet one-way delay: 107.396 ms
Loss rate: 1.64%
```

Run 5: Report of TCP Vegas — Data Link

Legend:
- Flow 1 ingress (mean 31.17 Mbit/s)
- Flow 1 egress (mean 31.04 Mbit/s)
- Flow 2 ingress (mean 33.10 Mbit/s)
- Flow 2 egress (mean 32.91 Mbit/s)
- Flow 3 ingress (mean 37.59 Mbit/s)
- Flow 3 egress (mean 36.97 Mbit/s)

Legend:
- Flow 1 (95th percentile 106.47 ms)
- Flow 2 (95th percentile 108.72 ms)
- Flow 3 (95th percentile 107.40 ms)

```
Run 6: Statistics of TCP Vegas

Start at: 2018-01-17 05:01:28
End at: 2018-01-17 05:01:58
Local clock offset: 0.721 ms
Remote clock offset: 3.431 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.61 Mbit/s
95th percentile per-packet one-way delay: 105.180 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 25.39 Mbit/s
95th percentile per-packet one-way delay: 102.135 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 103.906 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 21.16 Mbit/s
95th percentile per-packet one-way delay: 115.772 ms
Loss rate: 2.75%
```
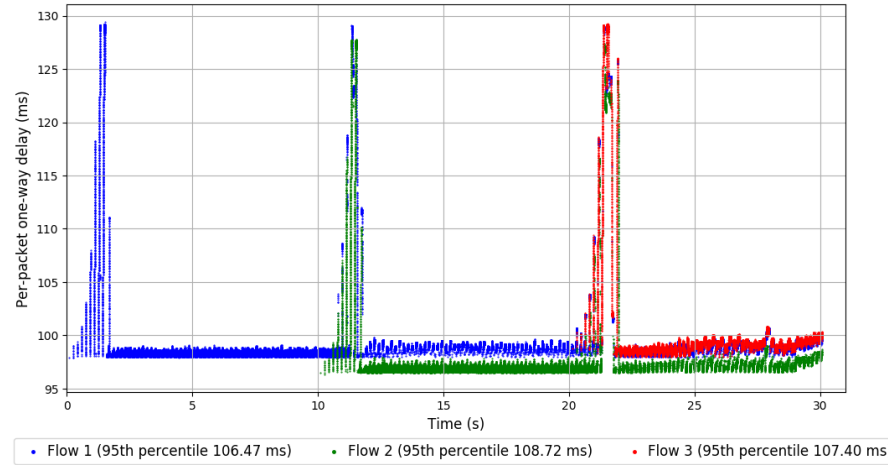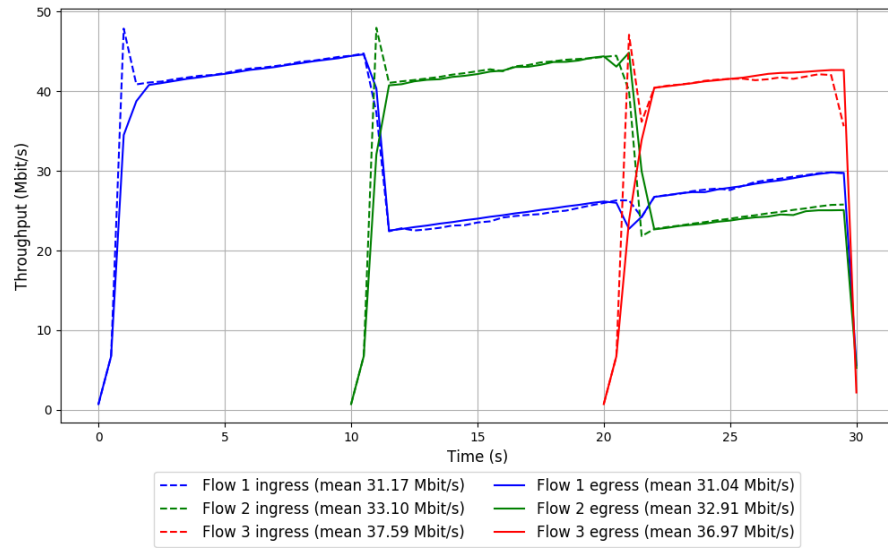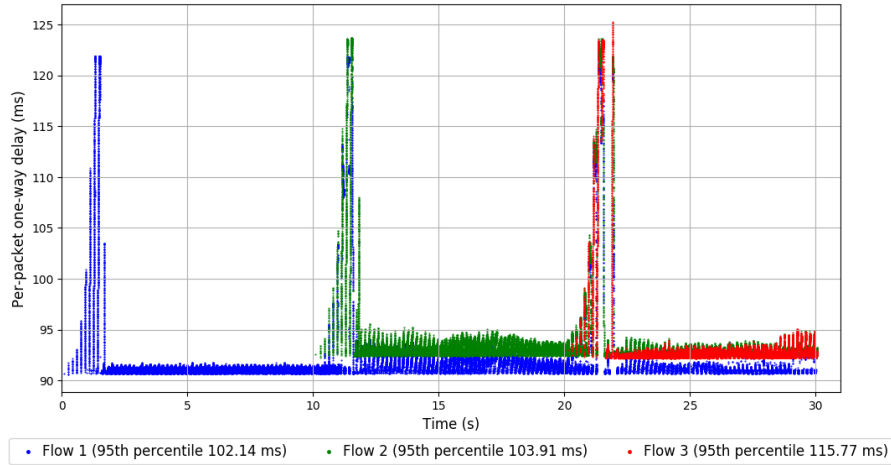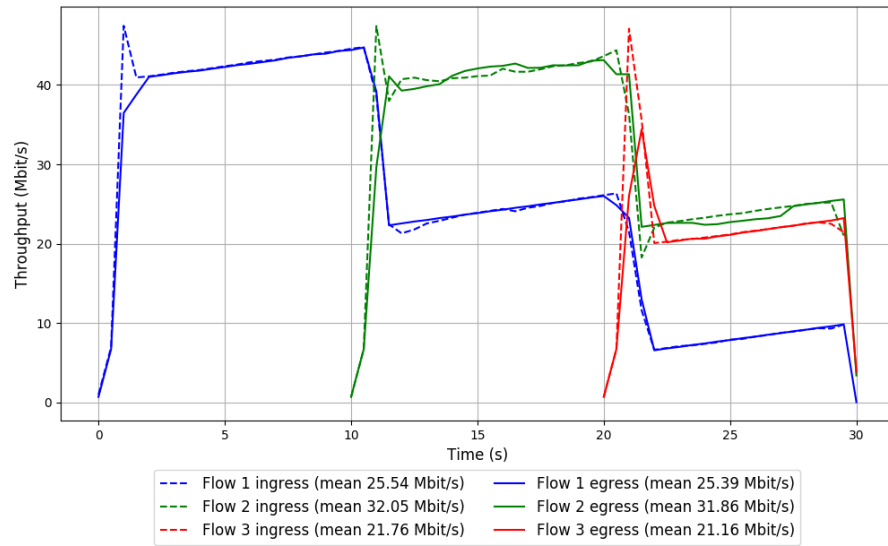
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-01-17 05:24:48
End at: 2018-01-17 05:25:18
Local clock offset: 0.615 ms
Remote clock offset: -5.934 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.63 Mbit/s
95th percentile per-packet one-way delay: 87.253 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 27.16 Mbit/s
95th percentile per-packet one-way delay: 85.516 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 88.684 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 37.02 Mbit/s
95th percentile per-packet one-way delay: 89.278 ms
Loss rate: 1.49%
```

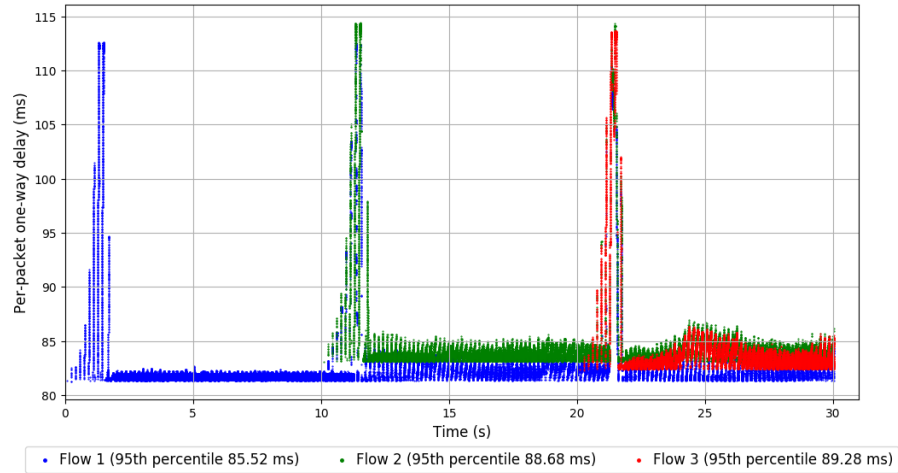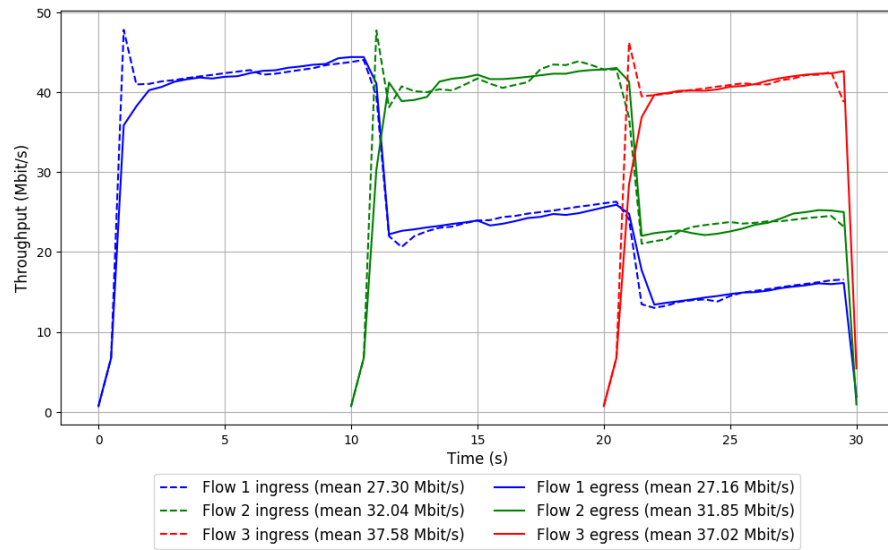## Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-01-17 05:48:10
End at: 2018-01-17 05:48:40
Local clock offset: 0.666 ms
Remote clock offset: -5.234 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.51 Mbit/s
95th percentile per-packet one-way delay: 91.674 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 92.301 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 32.63 Mbit/s
95th percentile per-packet one-way delay: 91.370 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 37.82 Mbit/s
95th percentile per-packet one-way delay: 87.963 ms
Loss rate: 1.60%
```

Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-01-17 06:11:38
End at: 2018-01-17 06:12:08
Local clock offset: 0.704 ms
Remote clock offset: -5.963 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.20 Mbit/s
95th percentile per-packet one-way delay: 86.995 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 26.76 Mbit/s
95th percentile per-packet one-way delay: 87.762 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 32.76 Mbit/s
95th percentile per-packet one-way delay: 86.520 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 85.872 ms
Loss rate: 1.57%
```
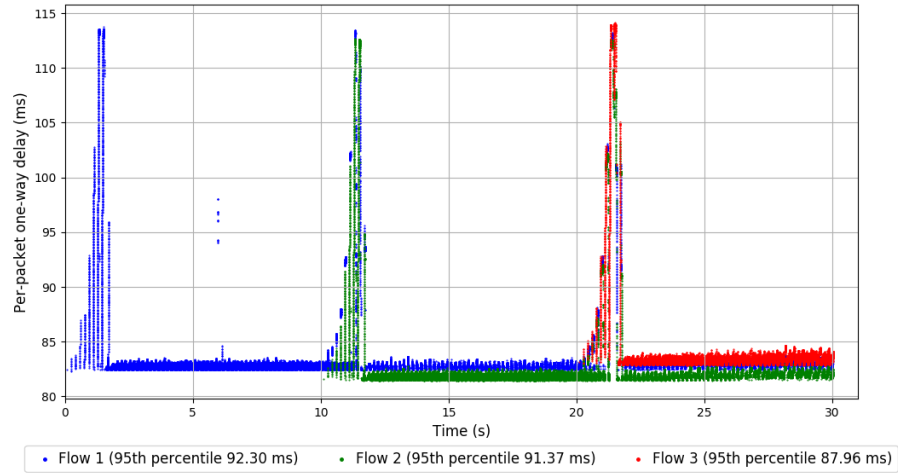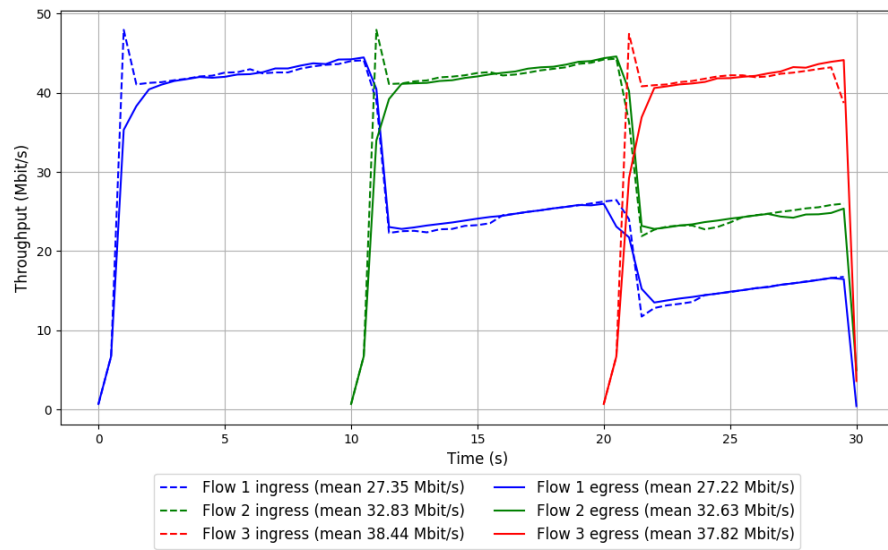
Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-01-17 06:34:59
End at: 2018-01-17 06:35:29
Local clock offset: 0.636 ms
Remote clock offset: -4.367 ms


# Below is generated by plot.py at 2018-01-17 07:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.42 Mbit/s
95th percentile per-packet one-way delay: 89.461 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 23.65 Mbit/s
95th percentile per-packet one-way delay: 84.438 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 32.31 Mbit/s
95th percentile per-packet one-way delay: 94.592 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 36.92 Mbit/s
95th percentile per-packet one-way delay: 88.285 ms
Loss rate: 1.66%
```
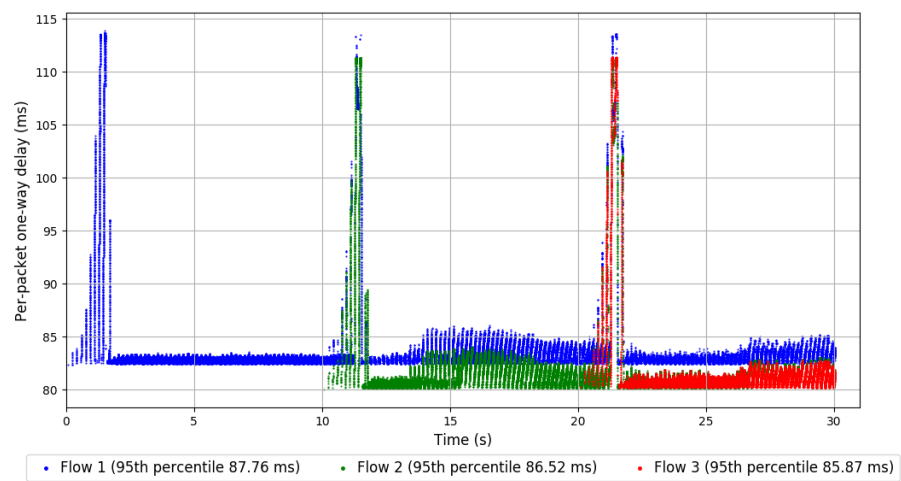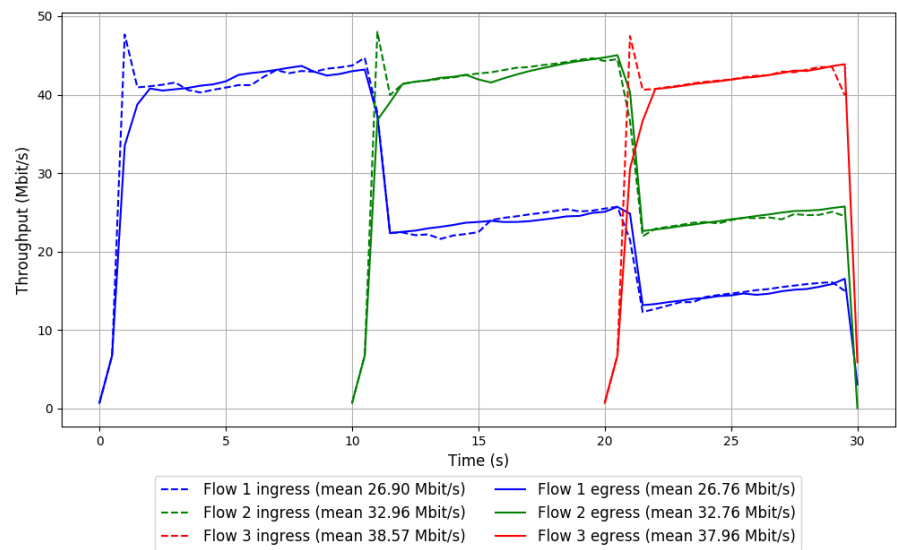
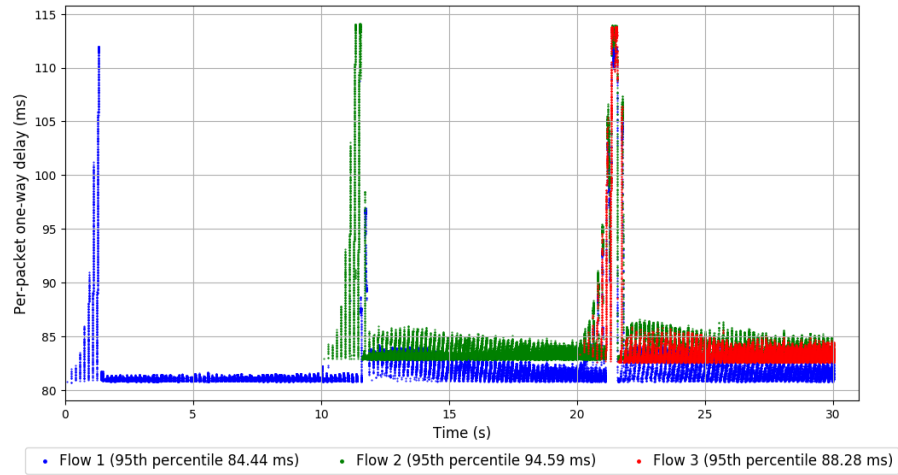Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-01-17 03:02:28
End at: 2018-01-17 03:02:58
Local clock offset: 1.066 ms
Remote clock offset: -5.198 ms


# Below is generated by plot.py at 2018-01-17 07:21:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.50 Mbit/s
95th percentile per-packet one-way delay: 153.738 ms
Loss rate: 68.61%
-- Flow 1:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 156.104 ms
Loss rate: 74.35%
-- Flow 2:
Average throughput: 19.20 Mbit/s
95th percentile per-packet one-way delay: 113.421 ms
Loss rate: 30.66%
-- Flow 3:
Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 111.552 ms
Loss rate: 20.28%
```

Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 126.76 Mbit/s)   Flow 1 egress (mean 32.43 Mbit/s)
Flow 2 ingress (mean 24.85 Mbit/s)   Flow 2 egress (mean 19.20 Mbit/s)
Flow 3 ingress (mean 6.61 Mbit/s)   Flow 3 egress (mean 5.89 Mbit/s)

Flow 1 (95th percentile 156.10 ms)   Flow 2 (95th percentile 113.42 ms)   Flow 3 (95th percentile 111.55 ms)

```
Run 2: Statistics of Verus

Start at: 2018-01-17 03:25:40
End at: 2018-01-17 03:26:10
Local clock offset: 1.024 ms
Remote clock offset: -6.603 ms


# Below is generated by plot.py at 2018-01-17 07:21:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.89 Mbit/s
95th percentile per-packet one-way delay: 140.806 ms
Loss rate: 56.62%
-- Flow 1:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 145.595 ms
Loss rate: 63.26%
-- Flow 2:
Average throughput: 14.87 Mbit/s
95th percentile per-packet one-way delay: 112.312 ms
Loss rate: 17.59%
-- Flow 3:
Average throughput: 12.09 Mbit/s
95th percentile per-packet one-way delay: 111.479 ms
Loss rate: 45.63%
```
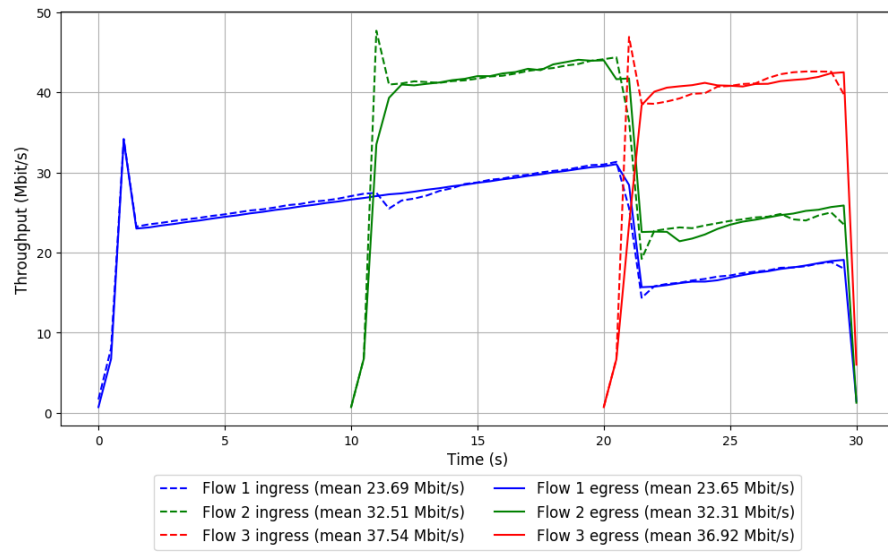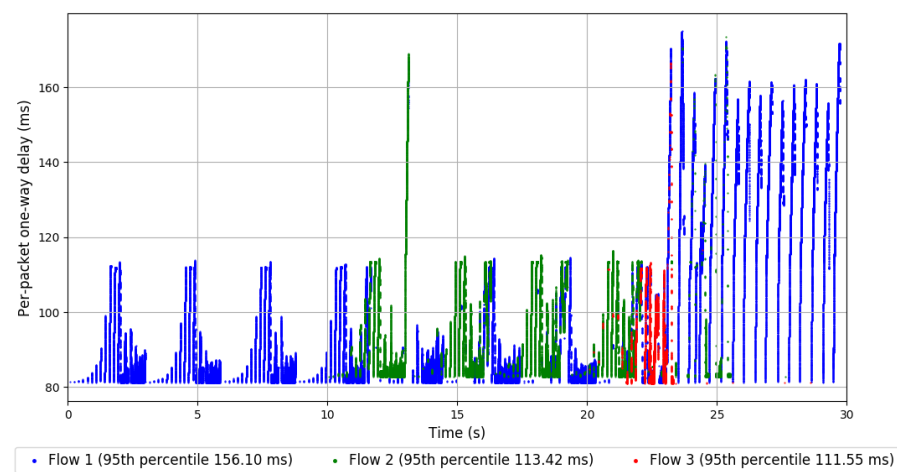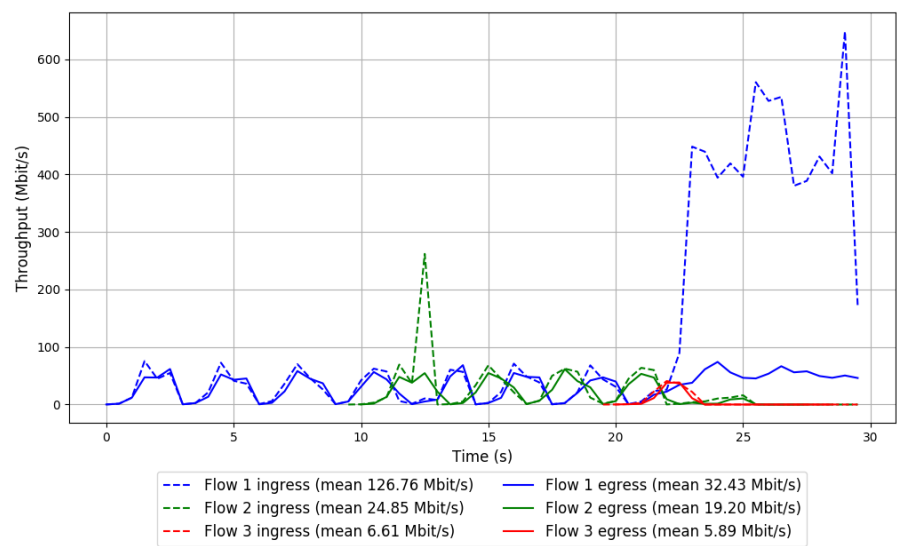
Run 2: Report of Verus — Data Link

- - - Flow 1 ingress (mean 82.00 Mbit/s)   —— Flow 1 egress (mean 30.12 Mbit/s)
- - - Flow 2 ingress (mean 18.04 Mbit/s)   —— Flow 2 egress (mean 14.87 Mbit/s)
- - - Flow 3 ingress (mean 22.24 Mbit/s)   —— Flow 3 egress (mean 12.09 Mbit/s)

- Flow 1 (95th percentile 145.59 ms)   • Flow 2 (95th percentile 112.31 ms)   • Flow 3 (95th percentile 111.48 ms)
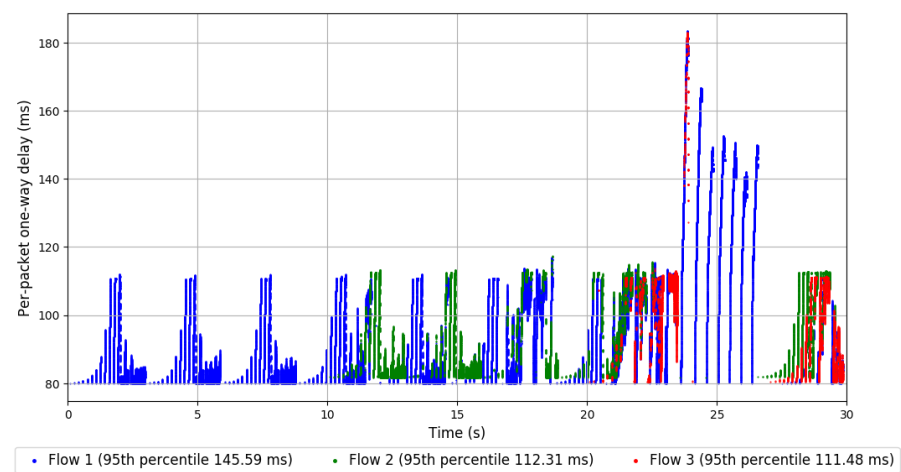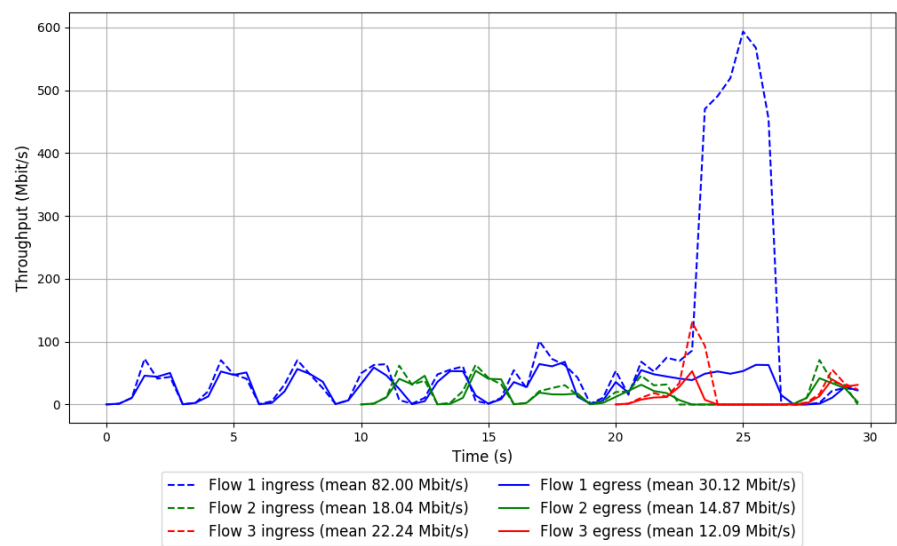
```
Run 3: Statistics of Verus

Start at: 2018-01-17 03:48:57
End at: 2018-01-17 03:49:27
Local clock offset: 0.867 ms
Remote clock offset: -6.794 ms


# Below is generated by plot.py at 2018-01-17 07:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.40 Mbit/s
95th percentile per-packet one-way delay: 140.780 ms
Loss rate: 62.58%
-- Flow 1:
Average throughput: 26.47 Mbit/s
95th percentile per-packet one-way delay: 147.118 ms
Loss rate: 66.76%
-- Flow 2:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 128.240 ms
Loss rate: 61.82%
-- Flow 3:
Average throughput: 17.62 Mbit/s
95th percentile per-packet one-way delay: 112.710 ms
Loss rate: 20.25%
```

Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 79.61 Mbit/s) --- Flow 1 egress (mean 26.47 Mbit/s)
Flow 2 ingress (mean 50.04 Mbit/s) --- Flow 2 egress (mean 19.07 Mbit/s)
Flow 3 ingress (mean 22.10 Mbit/s) --- Flow 3 egress (mean 17.62 Mbit/s)

Flow 1 (95th percentile 147.12 ms)   Flow 2 (95th percentile 128.24 ms)   Flow 3 (95th percentile 112.71 ms)
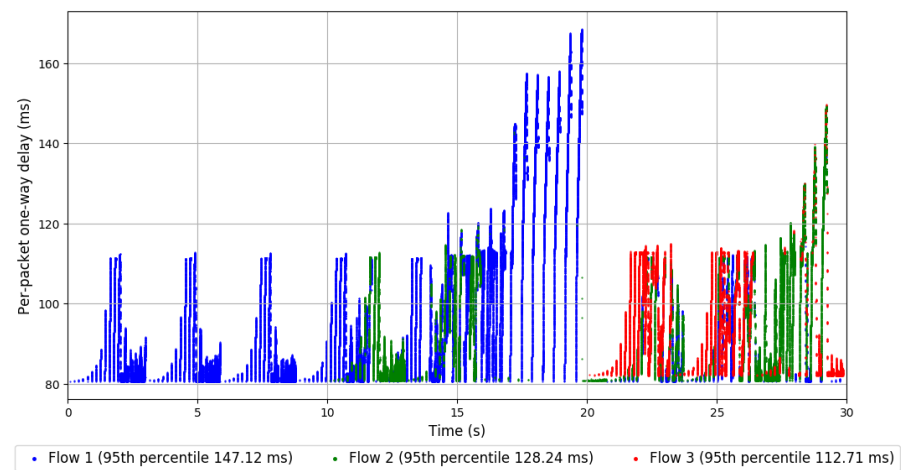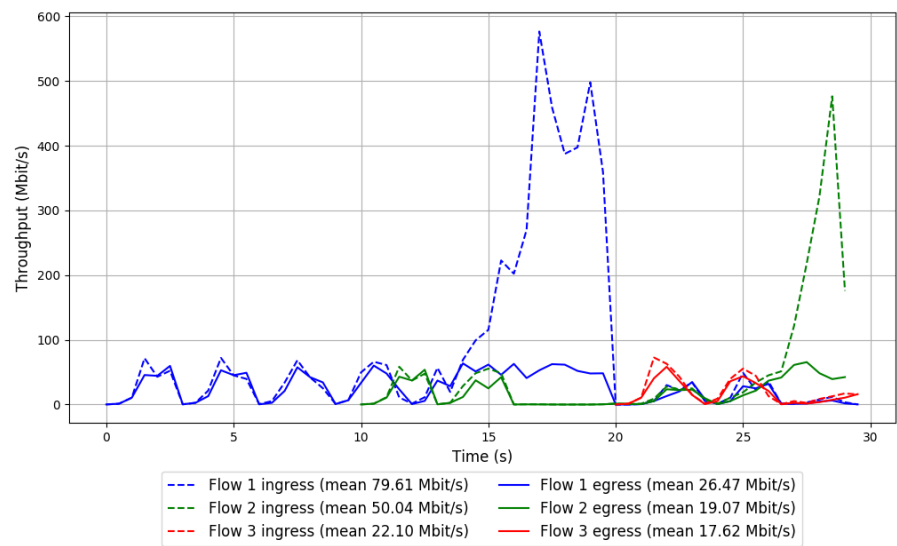
209

```
Run 4: Statistics of Verus

Start at: 2018-01-17 04:12:09
End at: 2018-01-17 04:12:39
Local clock offset: 0.882 ms
Remote clock offset: -0.671 ms

# Below is generated by plot.py at 2018-01-17 07:22:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.47 Mbit/s
95th percentile per-packet one-way delay: 118.833 ms
Loss rate: 45.88%
-- Flow 1:
Average throughput: 27.80 Mbit/s
95th percentile per-packet one-way delay: 123.476 ms
Loss rate: 54.33%
-- Flow 2:
Average throughput: 21.25 Mbit/s
95th percentile per-packet one-way delay: 117.180 ms
Loss rate: 30.15%
-- Flow 3:
Average throughput: 17.96 Mbit/s
95th percentile per-packet one-way delay: 116.436 ms
Loss rate: 16.64%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-01-17 04:35:32
End at: 2018-01-17 04:36:02
Local clock offset: 0.801 ms
Remote clock offset: 9.929 ms


# Below is generated by plot.py at 2018-01-17 07:22:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.94 Mbit/s
95th percentile per-packet one-way delay: 128.896 ms
Loss rate: 30.49%
-- Flow 1:
Average throughput: 25.56 Mbit/s
95th percentile per-packet one-way delay: 128.405 ms
Loss rate: 36.20%
-- Flow 2:
Average throughput: 20.38 Mbit/s
95th percentile per-packet one-way delay: 129.474 ms
Loss rate: 15.61%
-- Flow 3:
Average throughput: 18.17 Mbit/s
95th percentile per-packet one-way delay: 127.616 ms
Loss rate: 31.50%
```
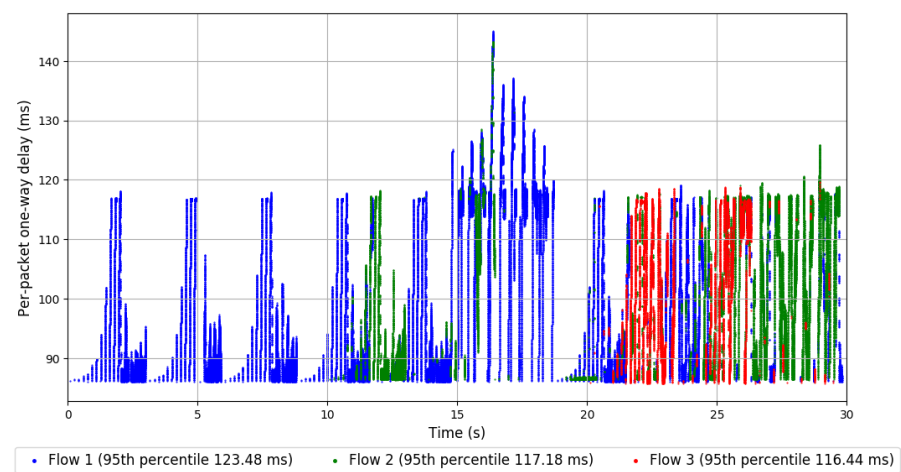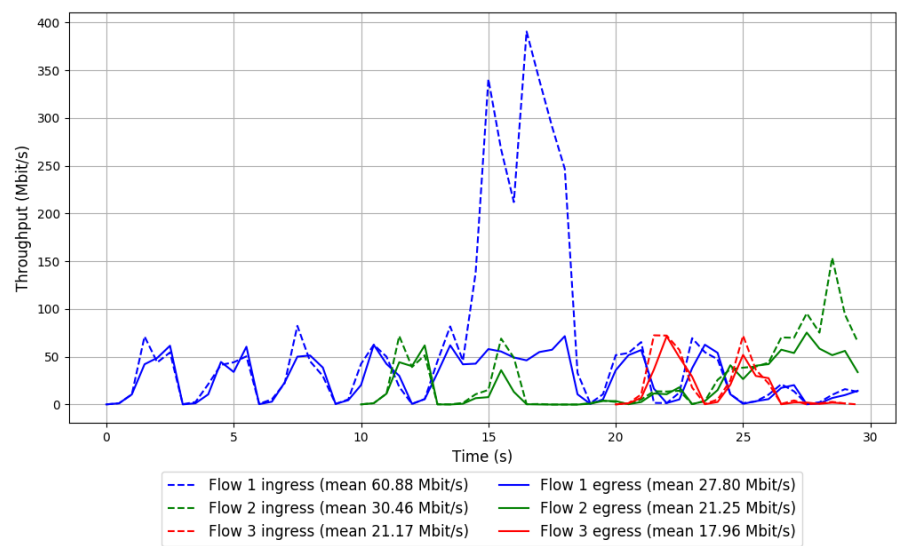
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 40.07 Mbit/s)   Flow 1 egress (mean 25.56 Mbit/s)
Flow 2 ingress (mean 24.15 Mbit/s)   Flow 2 egress (mean 20.38 Mbit/s)
Flow 3 ingress (mean 26.46 Mbit/s)   Flow 3 egress (mean 18.17 Mbit/s)

Flow 1 (95th percentile 128.41 ms)   Flow 2 (95th percentile 129.47 ms)   Flow 3 (95th percentile 127.62 ms)

```
Run 6: Statistics of Verus

Start at: 2018-01-17 04:58:56
End at: 2018-01-17 04:59:26
Local clock offset: 0.72 ms
Remote clock offset: 8.305 ms

# Below is generated by plot.py at 2018-01-17 07:22:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.57 Mbit/s
95th percentile per-packet one-way delay: 174.940 ms
Loss rate: 74.81%
-- Flow 1:
Average throughput: 19.04 Mbit/s
95th percentile per-packet one-way delay: 126.330 ms
Loss rate: 23.97%
-- Flow 2:
Average throughput: 36.83 Mbit/s
95th percentile per-packet one-way delay: 179.771 ms
Loss rate: 83.46%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 129.693 ms
Loss rate: 25.79%
```
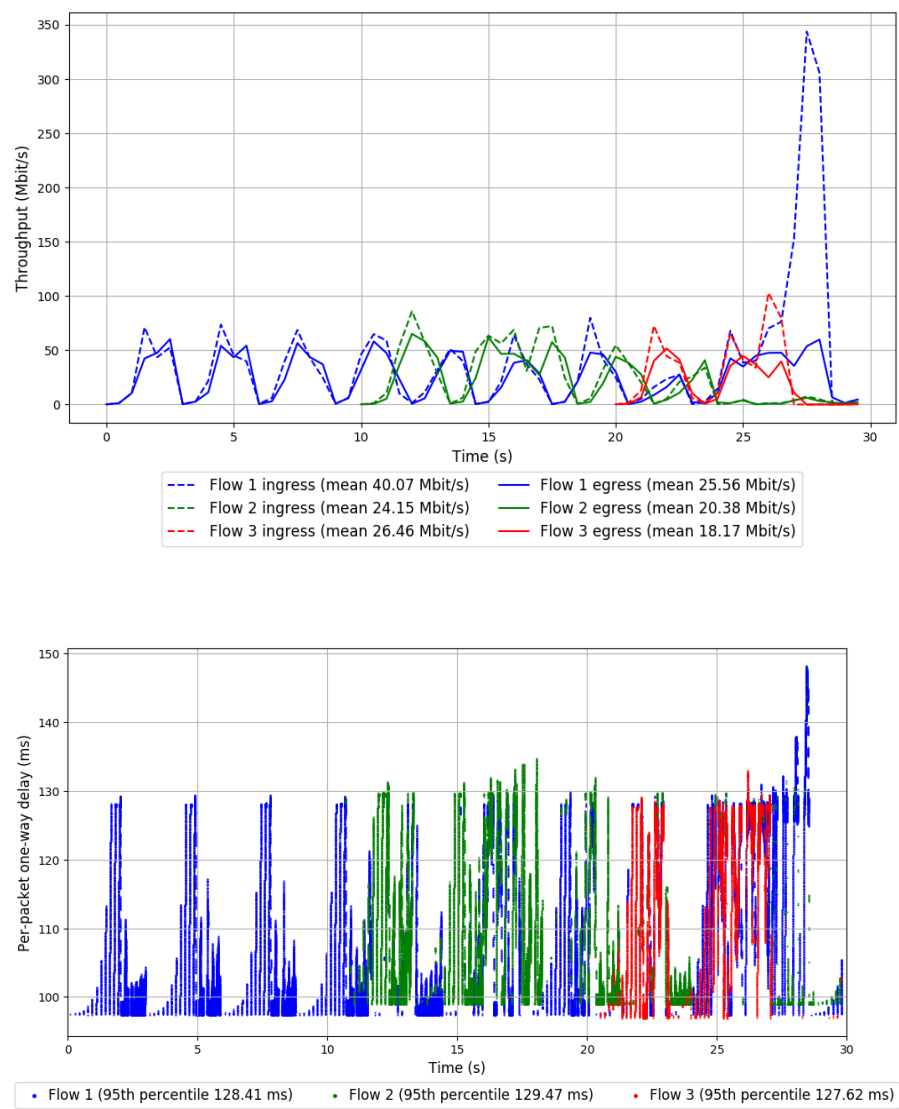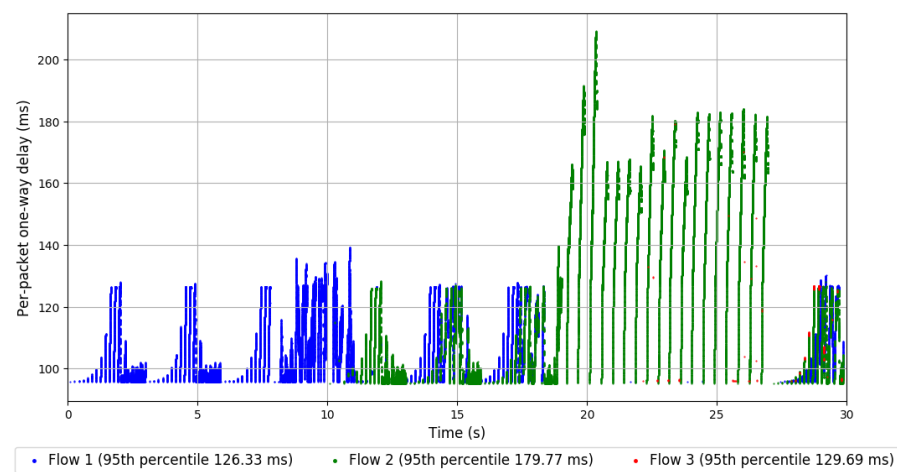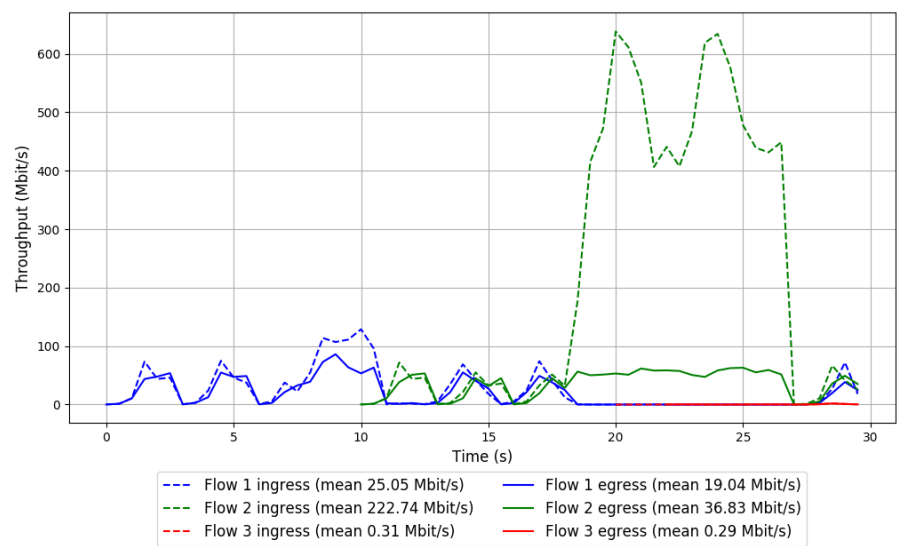
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-01-17 05:22:15
End at: 2018-01-17 05:22:45
Local clock offset: 0.709 ms
Remote clock offset: -0.157 ms


# Below is generated by plot.py at 2018-01-17 07:22:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.77 Mbit/s
95th percentile per-packet one-way delay: 160.174 ms
Loss rate: 73.84%
-- Flow 1:
Average throughput: 20.59 Mbit/s
95th percentile per-packet one-way delay: 117.908 ms
Loss rate: 12.26%
-- Flow 2:
Average throughput: 35.85 Mbit/s
95th percentile per-packet one-way delay: 162.747 ms
Loss rate: 83.83%
-- Flow 3:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 119.291 ms
Loss rate: 17.36%
```
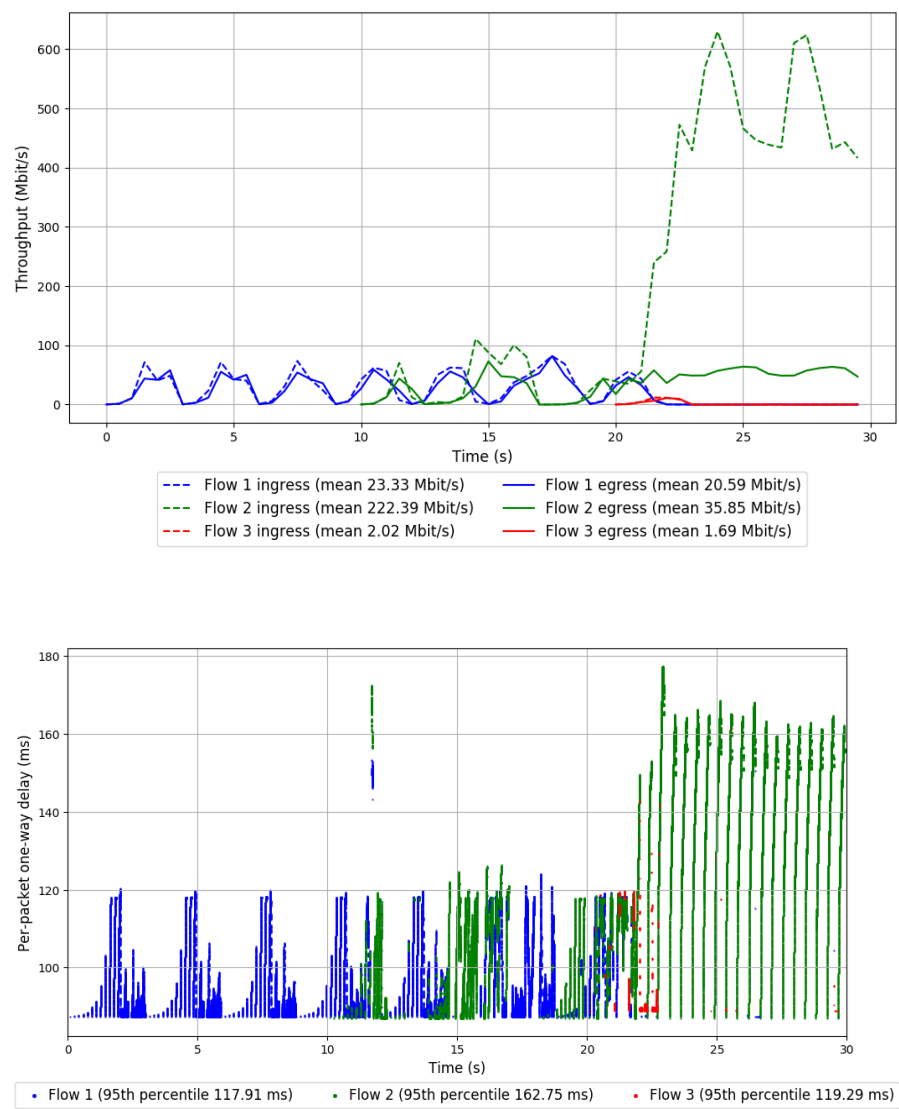
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-01-17 05:45:38
End at: 2018-01-17 05:46:08
Local clock offset: 0.603 ms
Remote clock offset: 0.017 ms


# Below is generated by plot.py at 2018-01-17 07:22:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.50 Mbit/s
95th percentile per-packet one-way delay: 147.001 ms
Loss rate: 67.42%
-- Flow 1:
Average throughput: 26.15 Mbit/s
95th percentile per-packet one-way delay: 138.391 ms
Loss rate: 64.49%
-- Flow 2:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 163.648 ms
Loss rate: 72.44%
-- Flow 3:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 119.114 ms
Loss rate: 23.58%
```

Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 71.11 Mbit/s)
Flow 1 egress (mean 26.15 Mbit/s)
Flow 2 ingress (mean 109.87 Mbit/s)
Flow 2 egress (mean 30.18 Mbit/s)
Flow 3 ingress (mean 10.55 Mbit/s)
Flow 3 egress (mean 8.06 Mbit/s)

Flow 1 (95th percentile 138.39 ms)
Flow 2 (95th percentile 163.65 ms)
Flow 3 (95th percentile 119.11 ms)

```
Run 9: Statistics of Verus

Start at: 2018-01-17 06:08:57
End at: 2018-01-17 06:09:27
Local clock offset: 0.705 ms
Remote clock offset: -0.325 ms


# Below is generated by plot.py at 2018-01-17 07:22:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.08 Mbit/s
95th percentile per-packet one-way delay: 167.747 ms
Loss rate: 81.01%
-- Flow 1:
Average throughput: 27.27 Mbit/s
95th percentile per-packet one-way delay: 168.648 ms
Loss rate: 77.49%
-- Flow 2:
Average throughput: 26.42 Mbit/s
95th percentile per-packet one-way delay: 165.535 ms
Loss rate: 85.49%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 131.276 ms
Loss rate: 60.61%
```
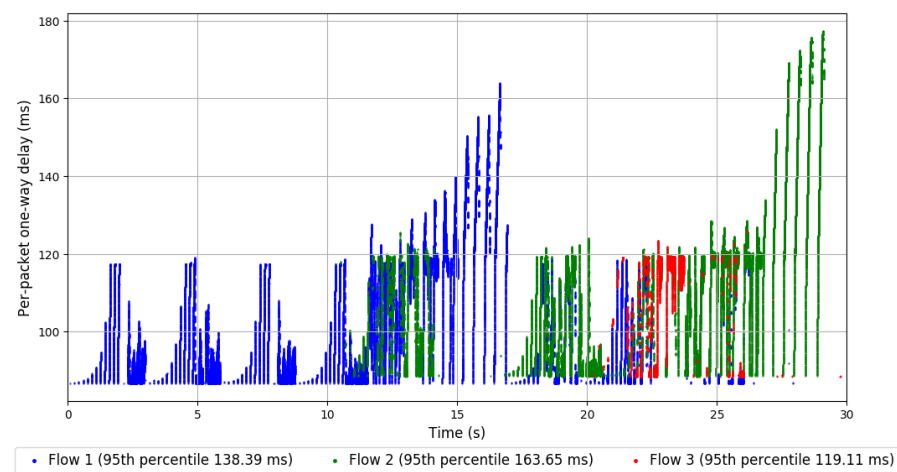
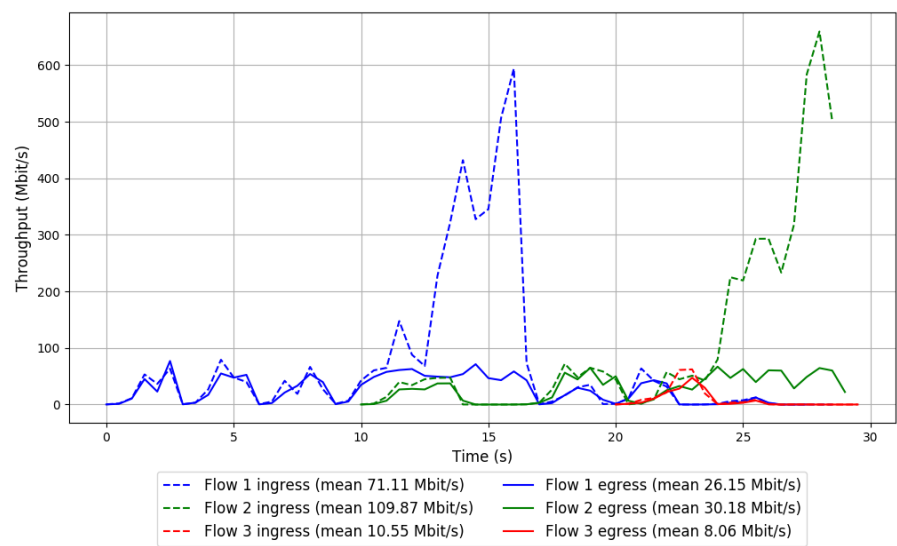## Run 9: Report of Verus — Data Link

Flow 1 ingress (mean 121.55 Mbit/s)   Flow 1 egress (mean 27.27 Mbit/s)
Flow 2 ingress (mean 144.40 Mbit/s)   Flow 2 egress (mean 26.42 Mbit/s)
Flow 3 ingress (mean 0.04 Mbit/s)   Flow 3 egress (mean 0.02 Mbit/s)

Flow 1 (95th percentile 168.65 ms)   Flow 2 (95th percentile 165.53 ms)   Flow 3 (95th percentile 131.28 ms)
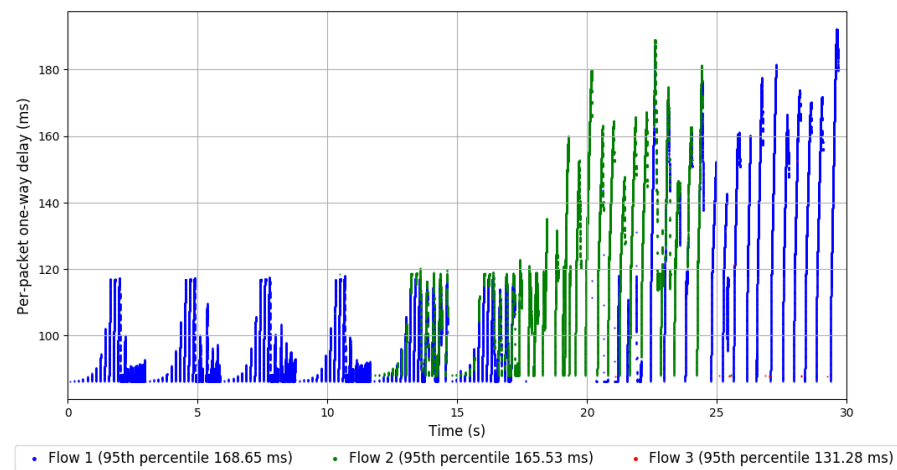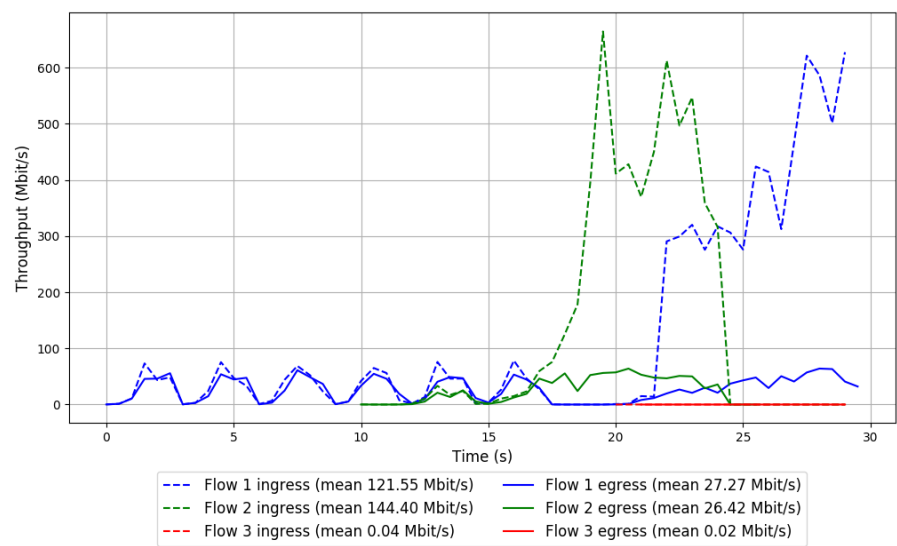
```
Run 10: Statistics of Verus

Start at: 2018-01-17 06:32:28
End at: 2018-01-17 06:32:58
Local clock offset: 0.684 ms
Remote clock offset: 0.35 ms


# Below is generated by plot.py at 2018-01-17 07:22:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.78 Mbit/s
95th percentile per-packet one-way delay: 147.423 ms
Loss rate: 70.12%
-- Flow 1:
Average throughput: 17.22 Mbit/s
95th percentile per-packet one-way delay: 116.811 ms
Loss rate: 13.07%
-- Flow 2:
Average throughput: 35.23 Mbit/s
95th percentile per-packet one-way delay: 156.495 ms
Loss rate: 80.11%
-- Flow 3:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 143.298 ms
Loss rate: 65.65%
```
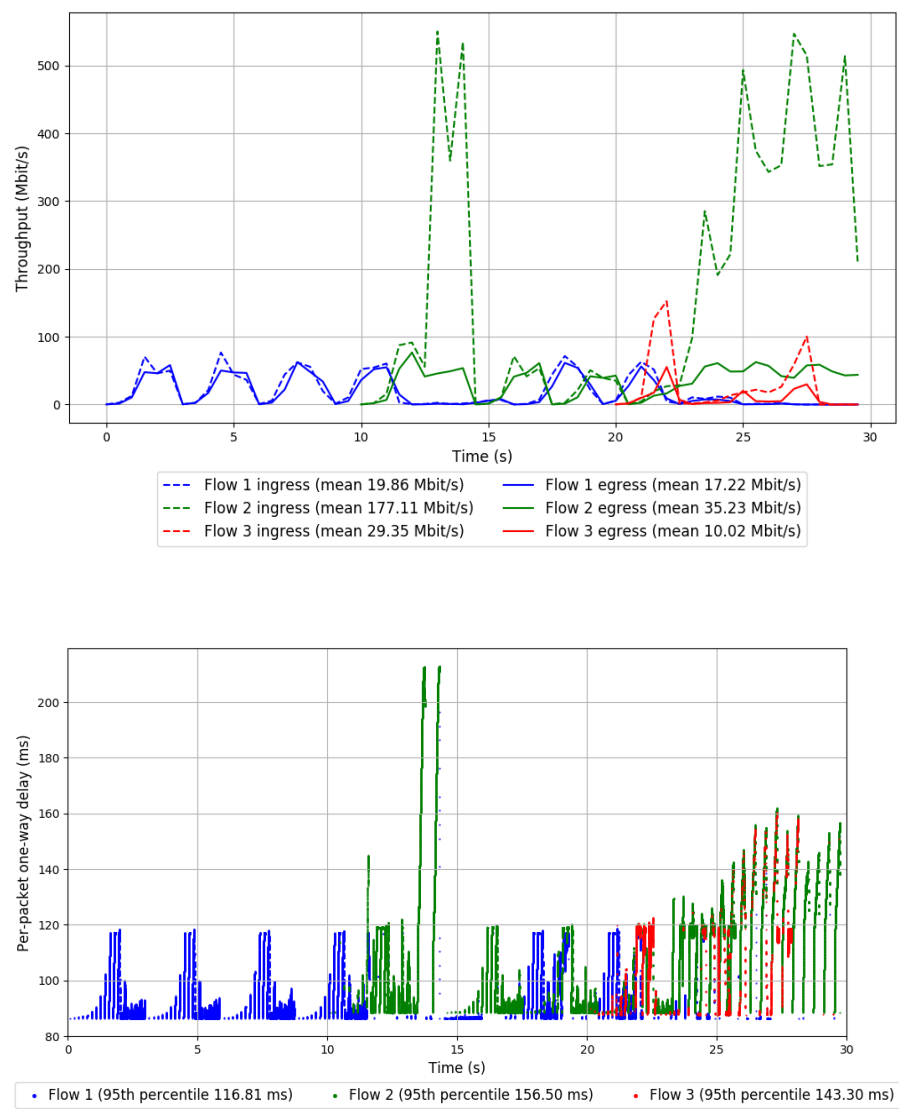
Run 10: Report of Verus — Data Link

- --- Flow 1 ingress (mean 19.86 Mbit/s)
- —— Flow 1 egress (mean 17.22 Mbit/s)
- --- Flow 2 ingress (mean 177.11 Mbit/s)
- —— Flow 2 egress (mean 35.23 Mbit/s)
- --- Flow 3 ingress (mean 29.35 Mbit/s)
- —— Flow 3 egress (mean 10.02 Mbit/s)

- • Flow 1 (95th percentile 116.81 ms)
- • Flow 2 (95th percentile 156.50 ms)
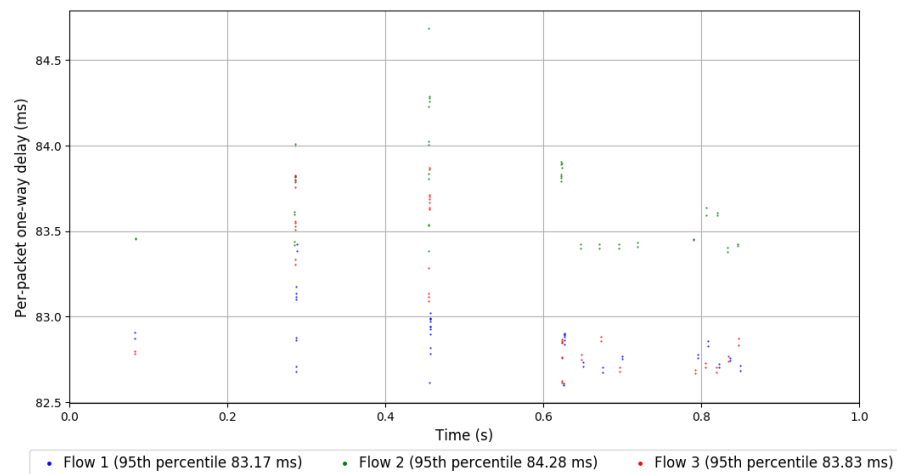- • Flow 3 (95th percentile 143.30 ms)
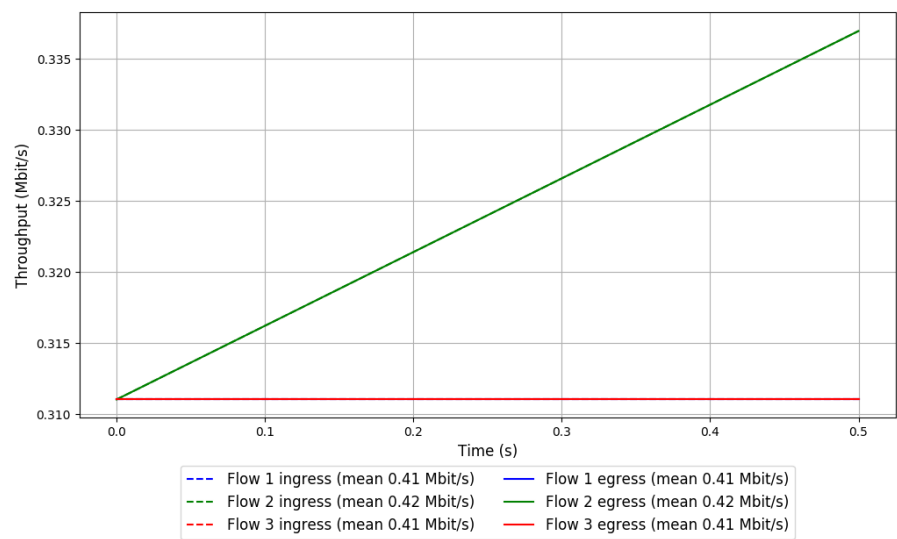
```
Run 1: Statistics of Copa

Start at: 2018-01-17 03:08:50
End at: 2018-01-17 03:09:20
Local clock offset: 1.088 ms
Remote clock offset: -5.323 ms
```

Run 1: Report of Copa — Data Link

225

```
Run 2: Statistics of Copa

Start at: 2018-01-17 03:32:03
End at: 2018-01-17 03:32:33
Local clock offset: 0.986 ms
Remote clock offset: -6.75 ms
```
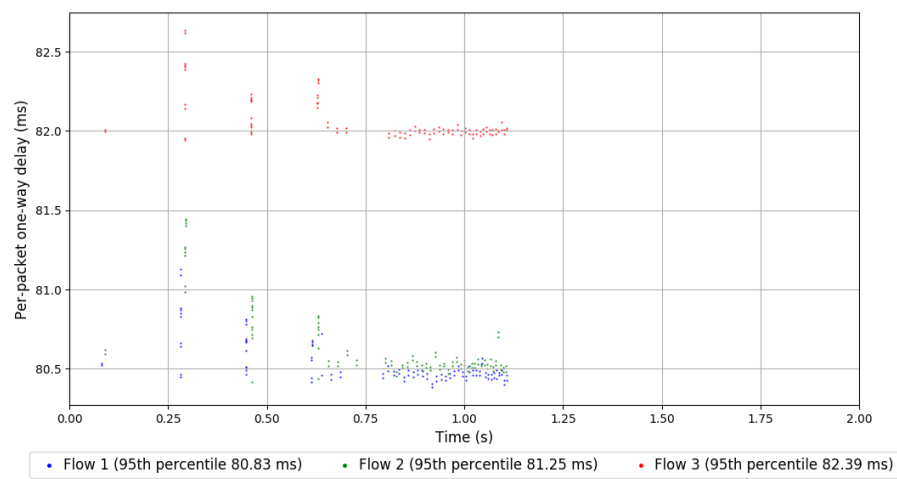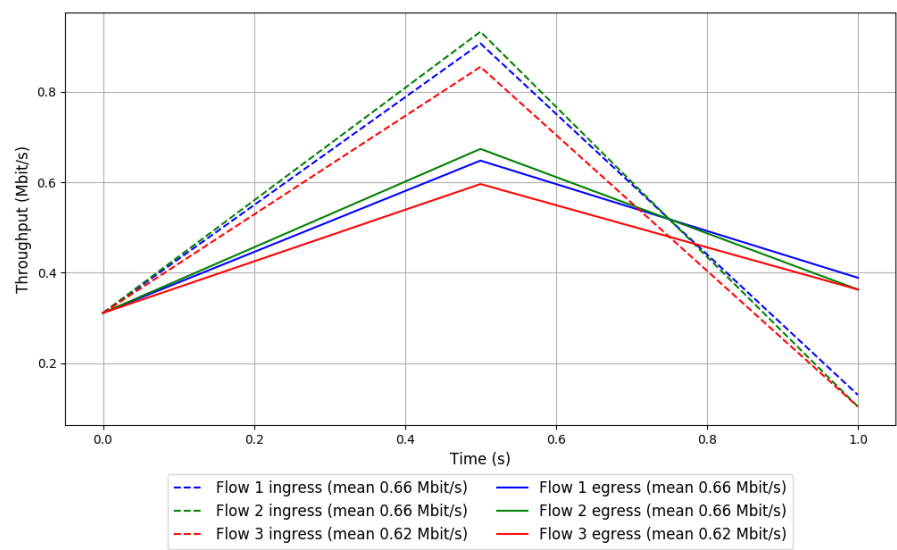
Run 2: Report of Copa — Data Link

Run 3: Statistics of Copa

Start at: 2018-01-17 03:55:21
End at: 2018-01-17 03:55:51
Local clock offset: 0.867 ms
Remote clock offset: -5.777 ms

Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 26.70 Mbit/s) -- Flow 1 egress (mean 19.09 Mbit/s)
Flow 2 ingress (mean 26.05 Mbit/s) -- Flow 2 egress (mean 18.94 Mbit/s)
Flow 3 ingress (mean 26.61 Mbit/s) -- Flow 3 egress (mean 19.31 Mbit/s)

Flow 1 (95th percentile 114.11 ms) • Flow 2 (95th percentile 112.14 ms) • Flow 3 (95th percentile 111.91 ms)
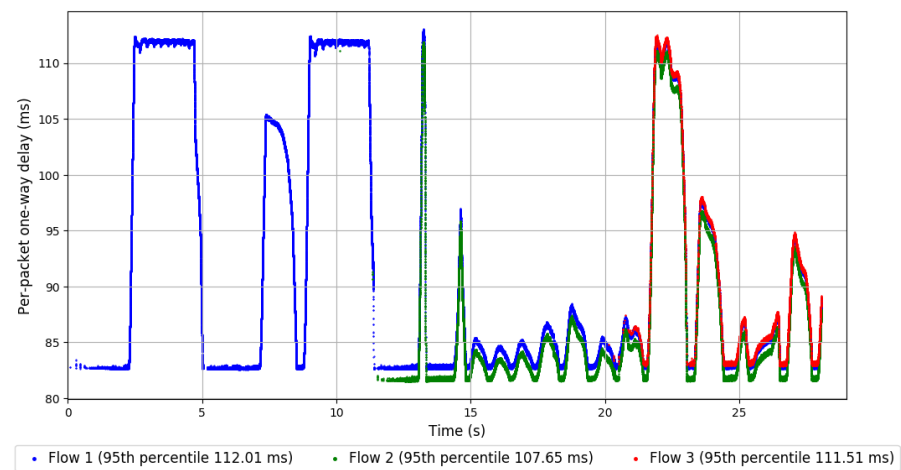
```
Run 4: Statistics of Copa

Start at: 2018-01-17 04:18:32
End at: 2018-01-17 04:19:02
Local clock offset: 0.871 ms
Remote clock offset: -5.546 ms


# Below is generated by plot.py at 2018-01-17 07:23:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.12 Mbit/s
95th percentile per-packet one-way delay: 111.961 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 43.89 Mbit/s
95th percentile per-packet one-way delay: 112.012 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 50.66 Mbit/s
95th percentile per-packet one-way delay: 107.647 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 111.512 ms
Loss rate: 0.06%
```

Run 4: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 44.05 Mbit/s)   ——— Flow 1 egress (mean 43.89 Mbit/s)
- - - - Flow 2 ingress (mean 50.66 Mbit/s)   ——— Flow 2 egress (mean 50.66 Mbit/s)
- - - - Flow 3 ingress (mean 9.83 Mbit/s)   ——— Flow 3 egress (mean 9.82 Mbit/s)

• Flow 1 (95th percentile 112.01 ms)   • Flow 2 (95th percentile 107.65 ms)   • Flow 3 (95th percentile 111.51 ms)
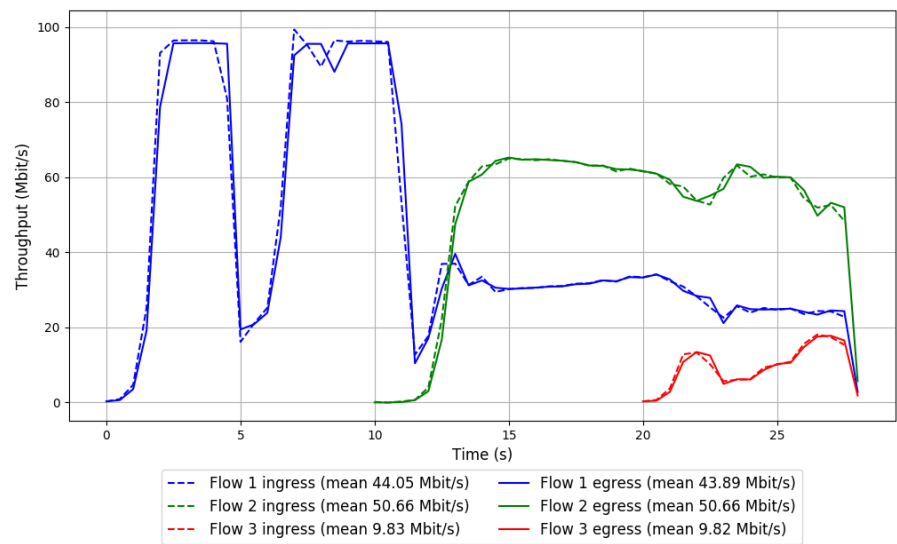
231

```
Run 5: Statistics of Copa

Start at: 2018-01-17 04:41:55
End at: 2018-01-17 04:42:25
Local clock offset: 0.791 ms
Remote clock offset: 3.325 ms


# Below is generated by plot.py at 2018-01-17 07:24:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.19 Mbit/s
95th percentile per-packet one-way delay: 108.028 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.44 Mbit/s
95th percentile per-packet one-way delay: 108.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.17 Mbit/s
95th percentile per-packet one-way delay: 107.753 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.38 Mbit/s
95th percentile per-packet one-way delay: 104.899 ms
Loss rate: 0.00%
```
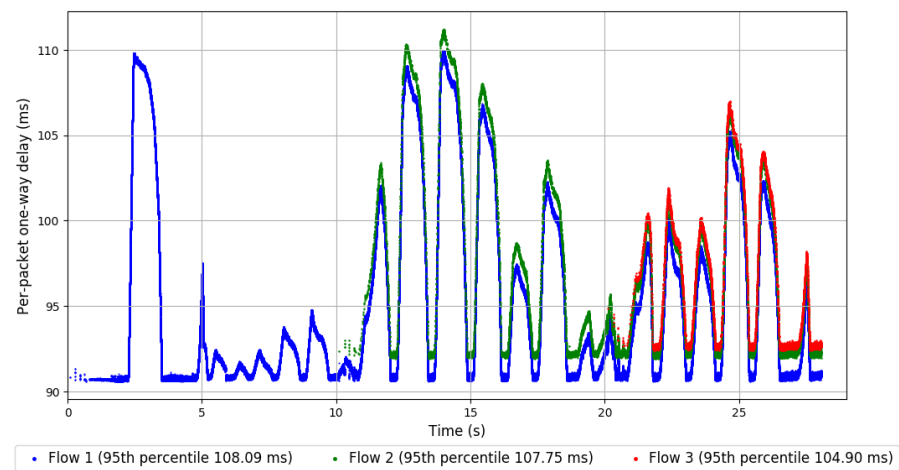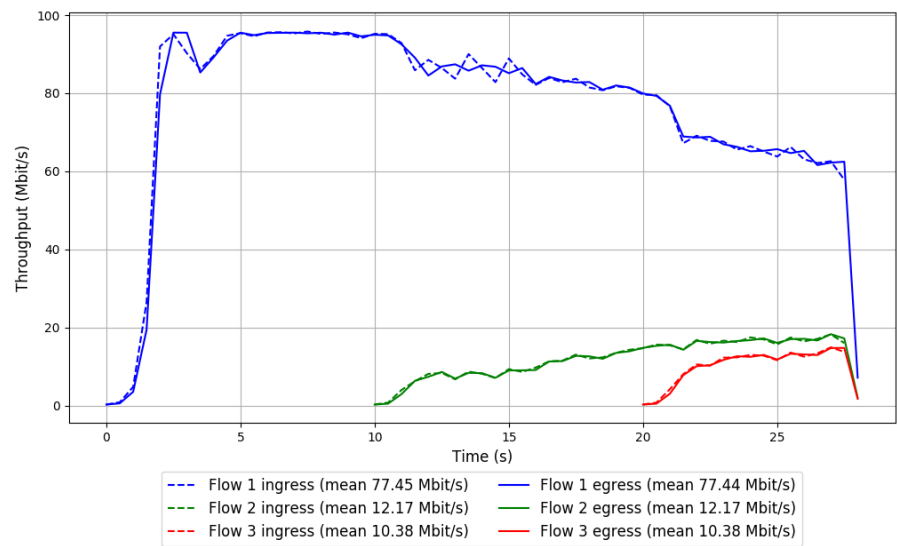
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 77.45 Mbit/s)   Flow 1 egress (mean 77.44 Mbit/s)
Flow 2 ingress (mean 12.17 Mbit/s)   Flow 2 egress (mean 12.17 Mbit/s)
Flow 3 ingress (mean 10.38 Mbit/s)   Flow 3 egress (mean 10.38 Mbit/s)

Flow 1 (95th percentile 108.09 ms)   Flow 2 (95th percentile 107.75 ms)   Flow 3 (95th percentile 104.90 ms)
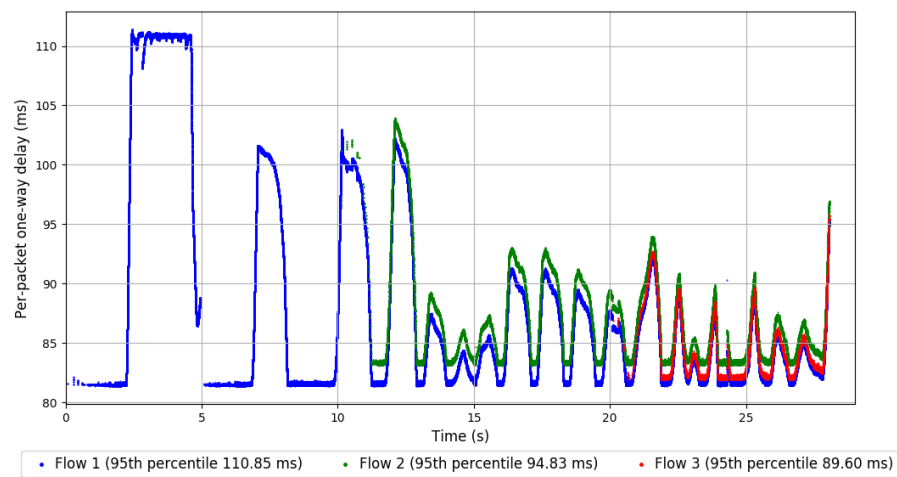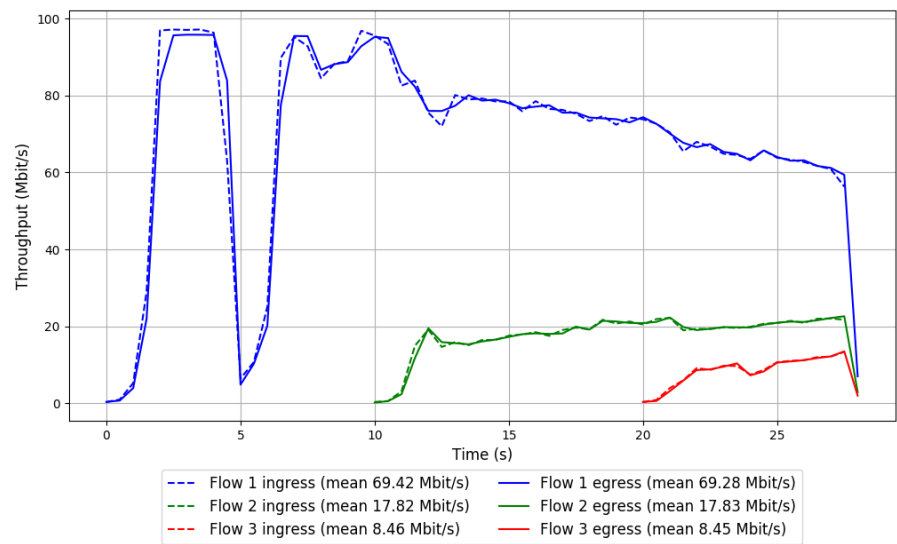
233

```
Run 6: Statistics of Copa

Start at: 2018-01-17 05:05:19
End at: 2018-01-17 05:05:49
Local clock offset: 0.659 ms
Remote clock offset: -5.356 ms


# Below is generated by plot.py at 2018-01-17 07:24:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.12 Mbit/s
95th percentile per-packet one-way delay: 110.808 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 69.28 Mbit/s
95th percentile per-packet one-way delay: 110.848 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 17.83 Mbit/s
95th percentile per-packet one-way delay: 94.825 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 89.598 ms
Loss rate: 0.00%
```
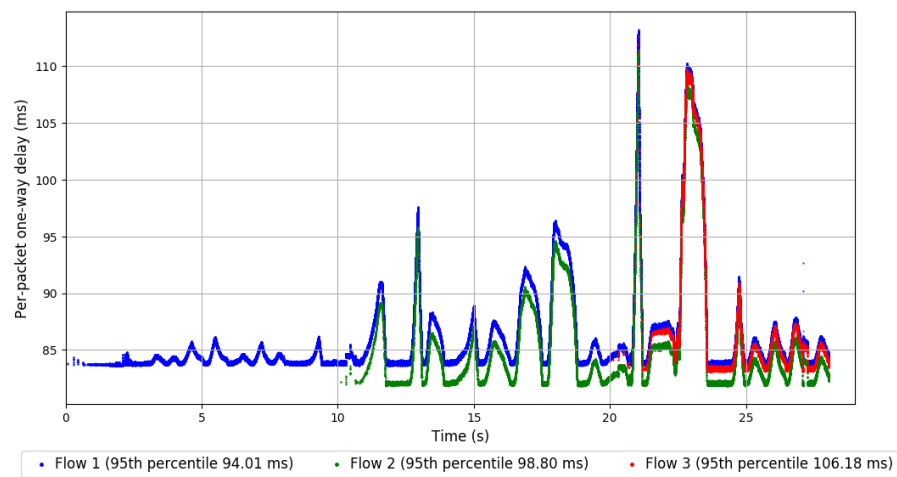
Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 69.42 Mbit/s) Flow 1 egress (mean 69.28 Mbit/s)
Flow 2 ingress (mean 17.82 Mbit/s) Flow 2 egress (mean 17.83 Mbit/s)
Flow 3 ingress (mean 8.46 Mbit/s)   Flow 3 egress (mean 8.45 Mbit/s)

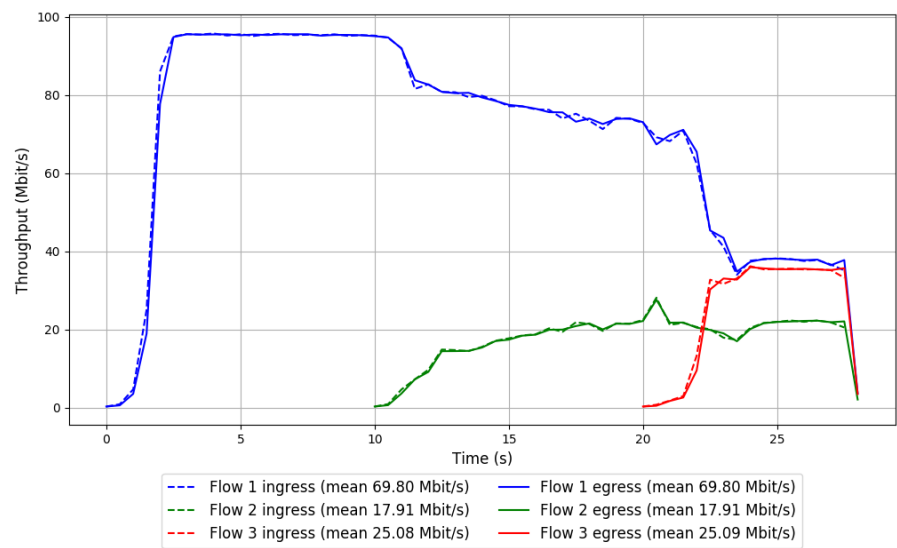Flow 1 (95th percentile 110.85 ms)   Flow 2 (95th percentile 94.83 ms)   Flow 3 (95th percentile 89.60 ms)

```
Run 7: Statistics of Copa

Start at: 2018-01-17 05:28:40
End at: 2018-01-17 05:29:10
Local clock offset: 0.632 ms
Remote clock offset: -5.924 ms

# Below is generated by plot.py at 2018-01-17 07:24:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.42 Mbit/s
95th percentile per-packet one-way delay: 94.859 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 69.80 Mbit/s
95th percentile per-packet one-way delay: 94.014 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 17.91 Mbit/s
95th percentile per-packet one-way delay: 98.802 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 25.09 Mbit/s
95th percentile per-packet one-way delay: 106.179 ms
Loss rate: 0.01%
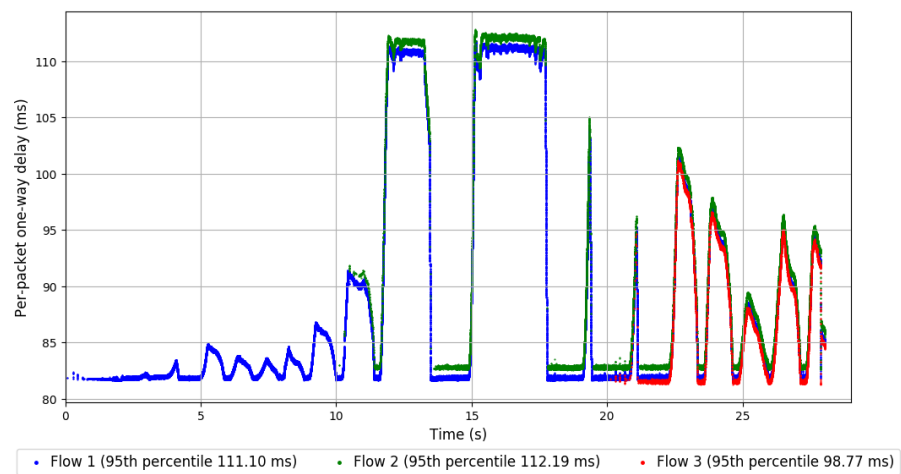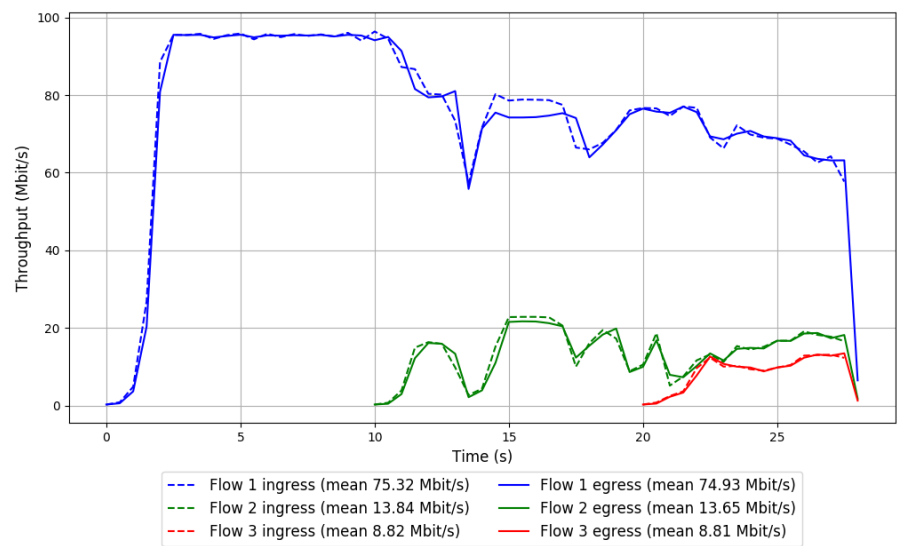```

Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-01-17 05:52:02
End at: 2018-01-17 05:52:32
Local clock offset: 0.671 ms
Remote clock offset: -5.495 ms


# Below is generated by plot.py at 2018-01-17 07:24:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.19 Mbit/s
95th percentile per-packet one-way delay: 111.217 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 74.93 Mbit/s
95th percentile per-packet one-way delay: 111.103 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 13.65 Mbit/s
95th percentile per-packet one-way delay: 112.187 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 8.81 Mbit/s
95th percentile per-packet one-way delay: 98.768 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 75.32 Mbit/s)   Flow 1 egress (mean 74.93 Mbit/s)
Flow 2 ingress (mean 13.84 Mbit/s)   Flow 2 egress (mean 13.65 Mbit/s)
Flow 3 ingress (mean 8.82 Mbit/s)   Flow 3 egress (mean 8.81 Mbit/s)

Flow 1 (95th percentile 111.10 ms)   Flow 2 (95th percentile 112.19 ms)   Flow 3 (95th percentile 98.77 ms)
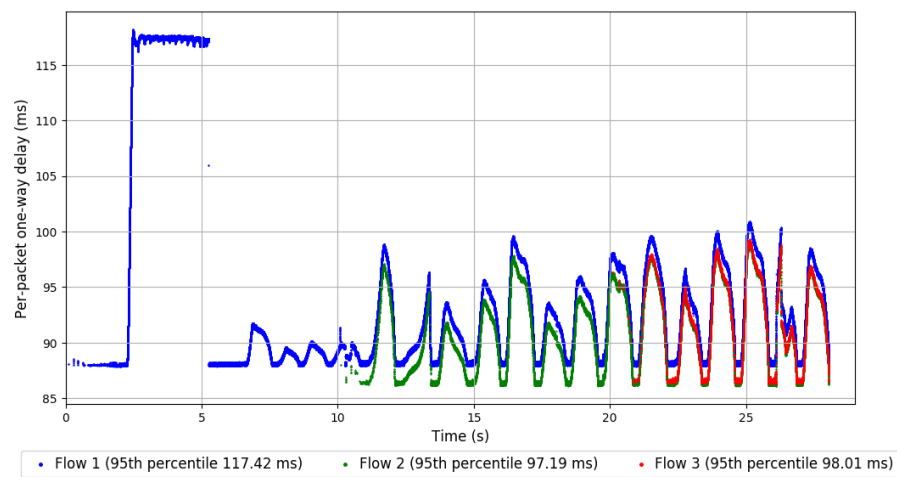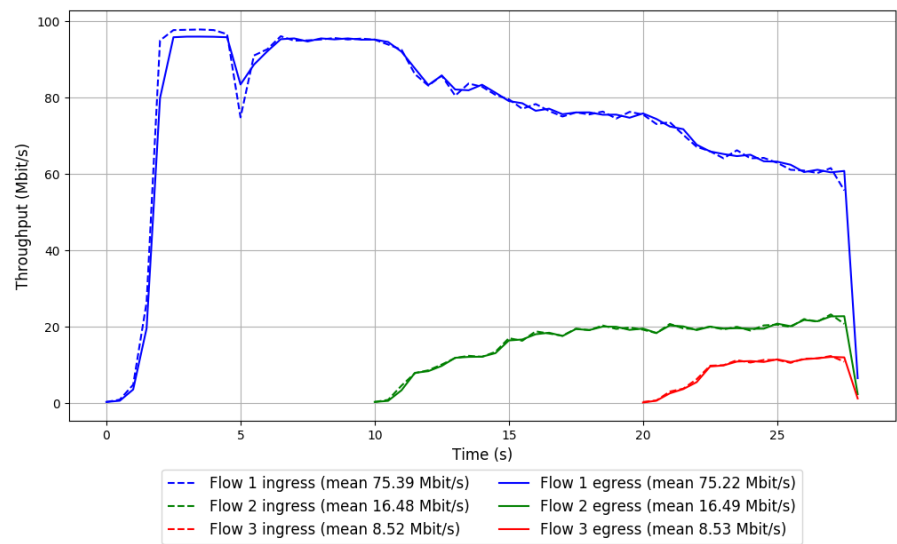
```
Run 9: Statistics of Copa

Start at: 2018-01-17 06:15:32
End at: 2018-01-17 06:16:02
Local clock offset: 0.718 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2018-01-17 07:24:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.23 Mbit/s
95th percentile per-packet one-way delay: 117.394 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 75.22 Mbit/s
95th percentile per-packet one-way delay: 117.419 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 16.49 Mbit/s
95th percentile per-packet one-way delay: 97.185 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 98.011 ms
Loss rate: 0.00%
```

Run 9: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 75.39 Mbit/s) ——— Flow 1 egress (mean 75.22 Mbit/s)
- - - - Flow 2 ingress (mean 16.48 Mbit/s) ——— Flow 2 egress (mean 16.49 Mbit/s)
- - - - Flow 3 ingress (mean 8.52 Mbit/s) ——— Flow 3 egress (mean 8.53 Mbit/s)

• Flow 1 (95th percentile 117.42 ms)   • Flow 2 (95th percentile 97.19 ms)   • Flow 3 (95th percentile 98.01 ms)

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```
Run 10: Statistics of Copa

Start at: 2018-01-17 06:38:52
End at: 2018-01-17 06:39:22
Local clock offset: 0.546 ms
Remote clock offset: 0.747 ms
```
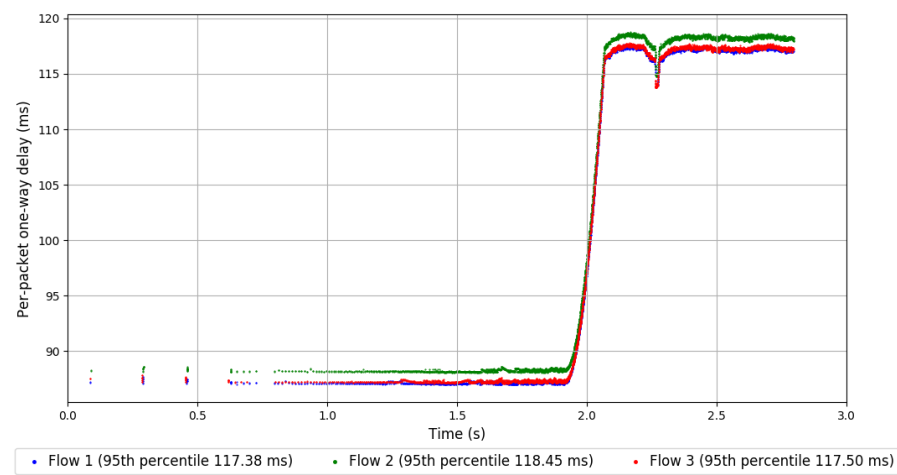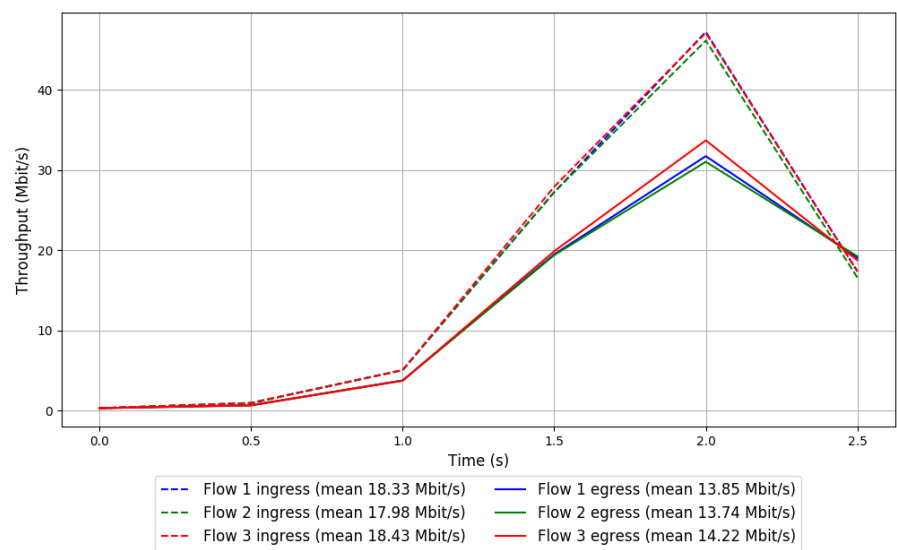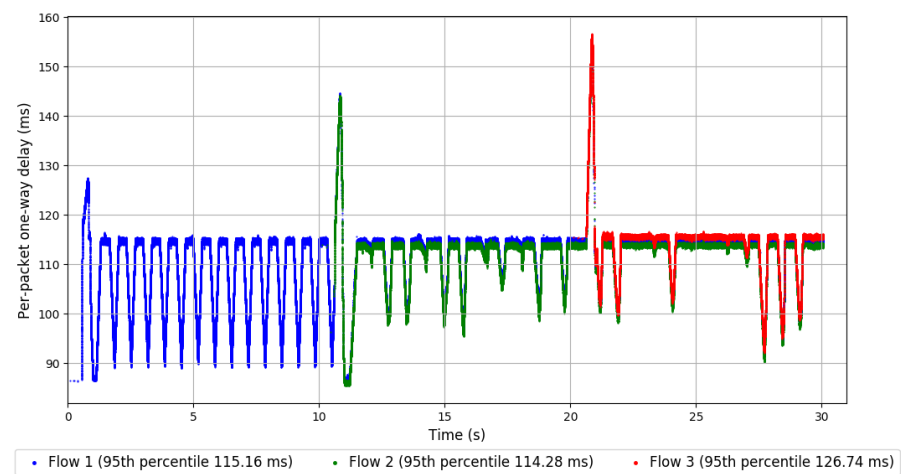
Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 18.33 Mbit/s)
Flow 2 ingress (mean 17.98 Mbit/s)
Flow 3 ingress (mean 18.43 Mbit/s)
Flow 1 egress (mean 13.85 Mbit/s)
Flow 2 egress (mean 13.74 Mbit/s)
Flow 3 egress (mean 14.22 Mbit/s)

Flow 1 (95th percentile 117.38 ms)
Flow 2 (95th percentile 118.45 ms)
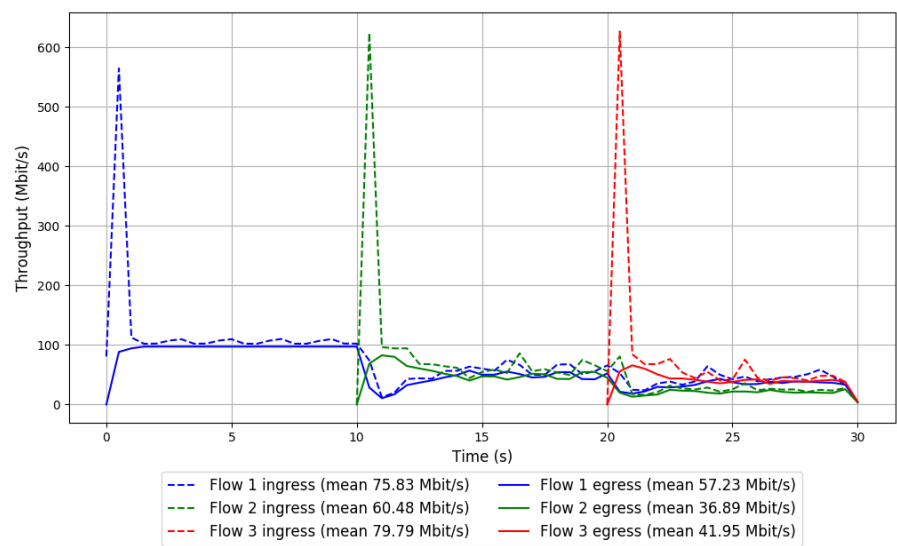Flow 3 (95th percentile 117.50 ms)

```
Run 1: Statistics of FillP

Start at: 2018-01-17 02:57:14
End at: 2018-01-17 02:57:44
Local clock offset: 1.032 ms
Remote clock offset: -0.214 ms

# Below is generated by plot.py at 2018-01-17 07:24:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: 115.802 ms
Loss rate: 32.83%
-- Flow 1:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 115.155 ms
Loss rate: 24.46%
-- Flow 2:
Average throughput: 36.89 Mbit/s
95th percentile per-packet one-way delay: 114.277 ms
Loss rate: 39.01%
-- Flow 3:
Average throughput: 41.95 Mbit/s
95th percentile per-packet one-way delay: 126.743 ms
Loss rate: 47.42%
```
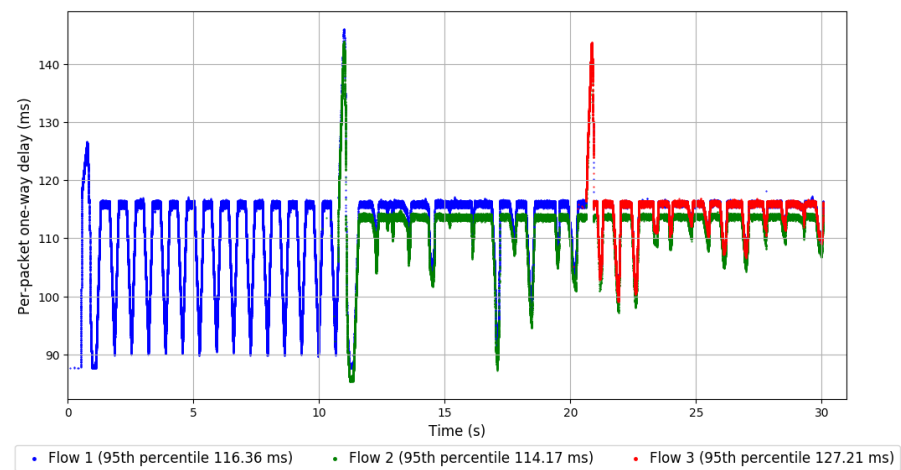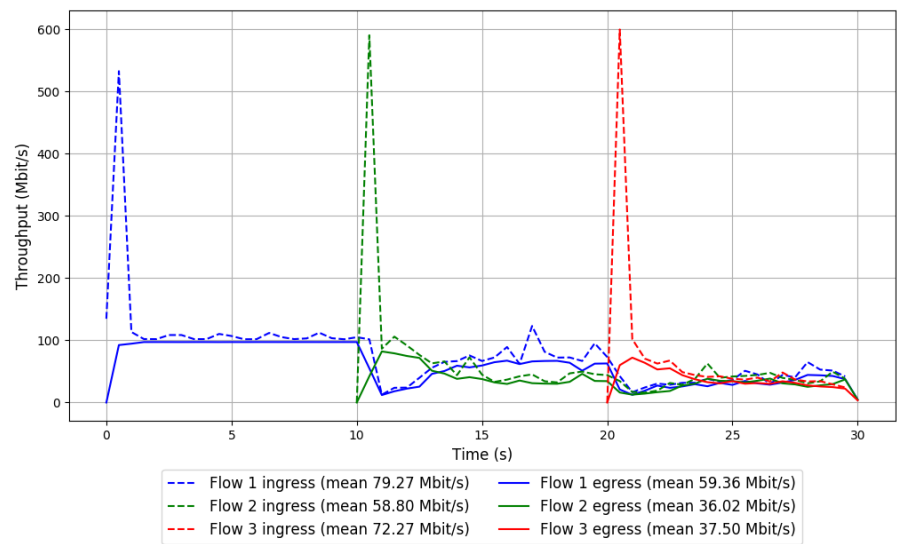
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 75.83 Mbit/s) --- Flow 1 egress (mean 57.23 Mbit/s)
Flow 2 ingress (mean 60.48 Mbit/s) --- Flow 2 egress (mean 36.89 Mbit/s)
Flow 3 ingress (mean 79.79 Mbit/s) --- Flow 3 egress (mean 41.95 Mbit/s)

Flow 1 (95th percentile 115.16 ms)   Flow 2 (95th percentile 114.28 ms)   Flow 3 (95th percentile 126.74 ms)

```
Run 2: Statistics of FillP

Start at: 2018-01-17 03:20:26
End at: 2018-01-17 03:20:56
Local clock offset: 1.064 ms
Remote clock offset: -0.705 ms


# Below is generated by plot.py at 2018-01-17 07:24:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 116.375 ms
Loss rate: 32.69%
-- Flow 1:
Average throughput: 59.36 Mbit/s
95th percentile per-packet one-way delay: 116.359 ms
Loss rate: 25.05%
-- Flow 2:
Average throughput: 36.02 Mbit/s
95th percentile per-packet one-way delay: 114.166 ms
Loss rate: 38.74%
-- Flow 3:
Average throughput: 37.50 Mbit/s
95th percentile per-packet one-way delay: 127.211 ms
Loss rate: 48.05%
```

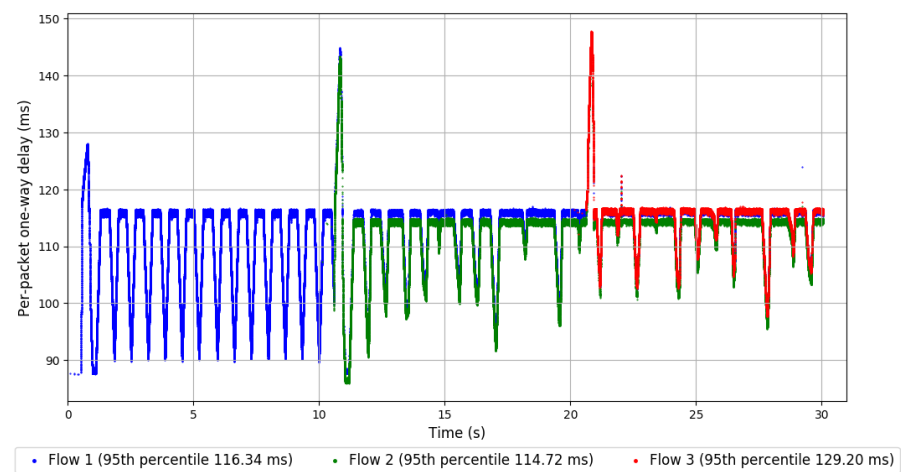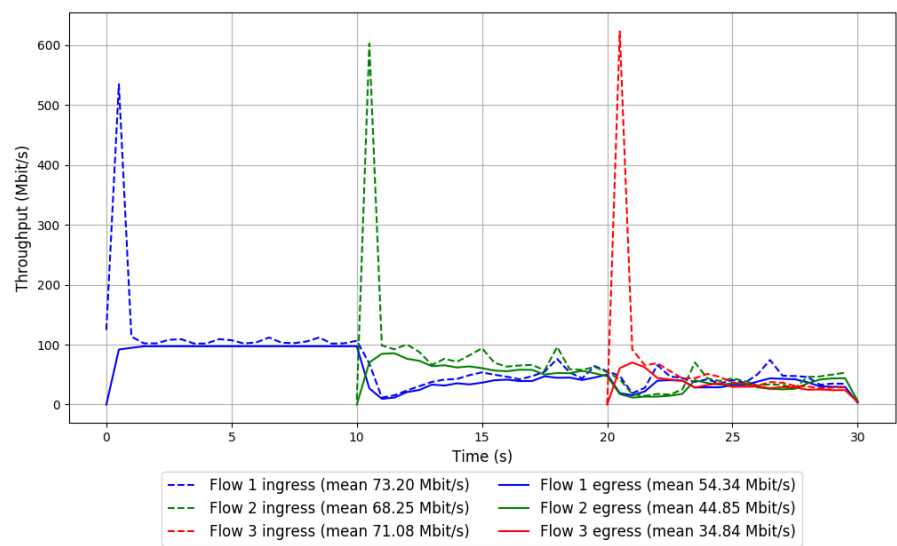Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-01-17 03:43:42
End at: 2018-01-17 03:44:12
Local clock offset: 0.952 ms
Remote clock offset: -1.266 ms


# Below is generated by plot.py at 2018-01-17 07:25:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 116.450 ms
Loss rate: 32.62%
-- Flow 1:
Average throughput: 54.34 Mbit/s
95th percentile per-packet one-way delay: 116.343 ms
Loss rate: 25.69%
-- Flow 2:
Average throughput: 44.85 Mbit/s
95th percentile per-packet one-way delay: 114.720 ms
Loss rate: 34.26%
-- Flow 3:
Average throughput: 34.84 Mbit/s
95th percentile per-packet one-way delay: 129.197 ms
Loss rate: 50.98%
```
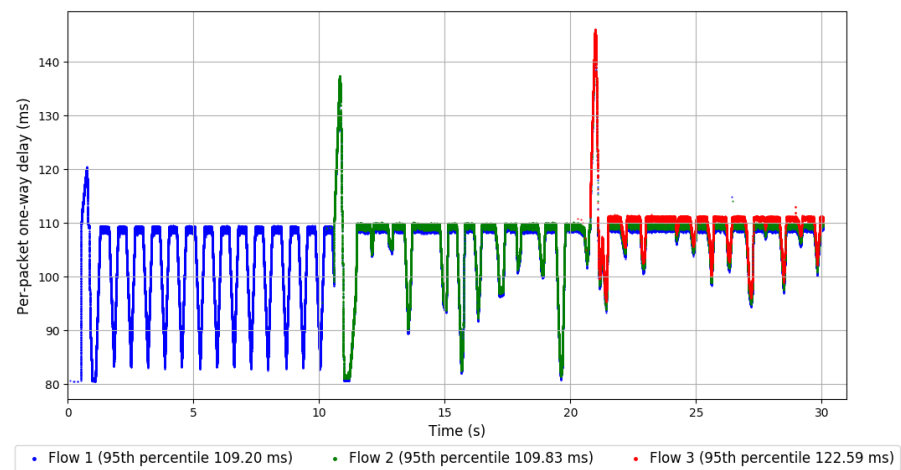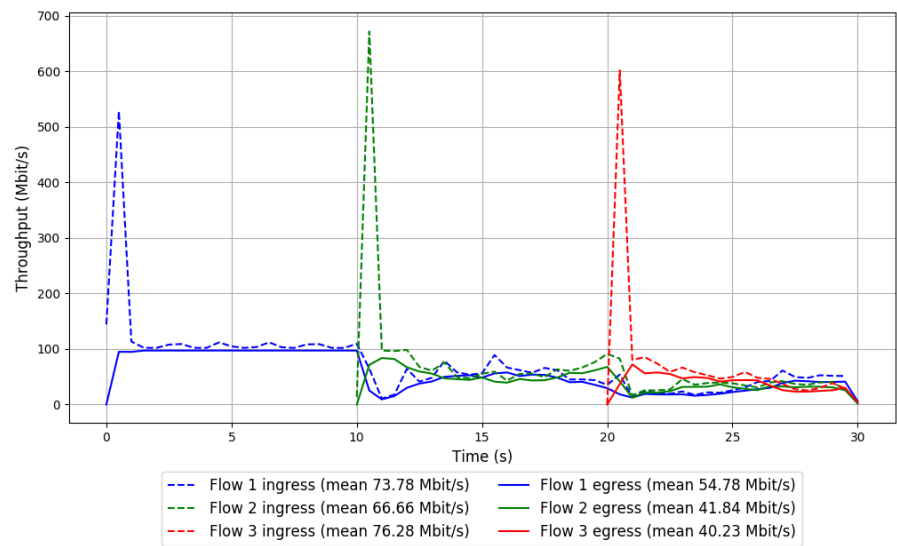
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 73.20 Mbit/s) --- Flow 1 egress (mean 54.34 Mbit/s)
Flow 2 ingress (mean 68.25 Mbit/s) --- Flow 2 egress (mean 44.85 Mbit/s)
Flow 3 ingress (mean 71.08 Mbit/s) --- Flow 3 egress (mean 34.84 Mbit/s)

Flow 1 (95th percentile 116.34 ms) · Flow 2 (95th percentile 114.72 ms) · Flow 3 (95th percentile 129.20 ms)

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```
Run 4: Statistics of FillP

Start at: 2018-01-17 04:06:54
End at: 2018-01-17 04:07:24
Local clock offset: 0.884 ms
Remote clock offset: -6.331 ms


# Below is generated by plot.py at 2018-01-17 07:25:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.74 Mbit/s
95th percentile per-packet one-way delay: 110.959 ms
Loss rate: 33.18%
-- Flow 1:
Average throughput: 54.78 Mbit/s
95th percentile per-packet one-way delay: 109.203 ms
Loss rate: 25.68%
-- Flow 2:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 109.833 ms
Loss rate: 37.18%
-- Flow 3:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 122.592 ms
Loss rate: 48.06%
```

Run 4: Report of FillP — Data Link

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```
Run 5: Statistics of FillP

Start at: 2018-01-17 04:30:18
End at: 2018-01-17 04:30:48
Local clock offset: 0.824 ms
Remote clock offset: 4.485 ms

# Below is generated by plot.py at 2018-01-17 07:25:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 121.912 ms
Loss rate: 32.70%
-- Flow 1:
Average throughput: 51.26 Mbit/s
95th percentile per-packet one-way delay: 120.148 ms
Loss rate: 26.69%
-- Flow 2:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 120.078 ms
Loss rate: 34.55%
-- Flow 3:
Average throughput: 46.68 Mbit/s
95th percentile per-packet one-way delay: 127.932 ms
Loss rate: 44.79%
```
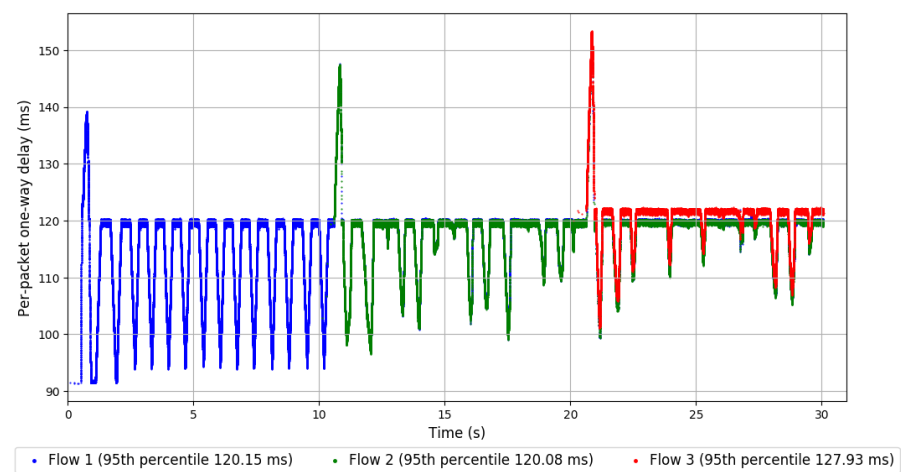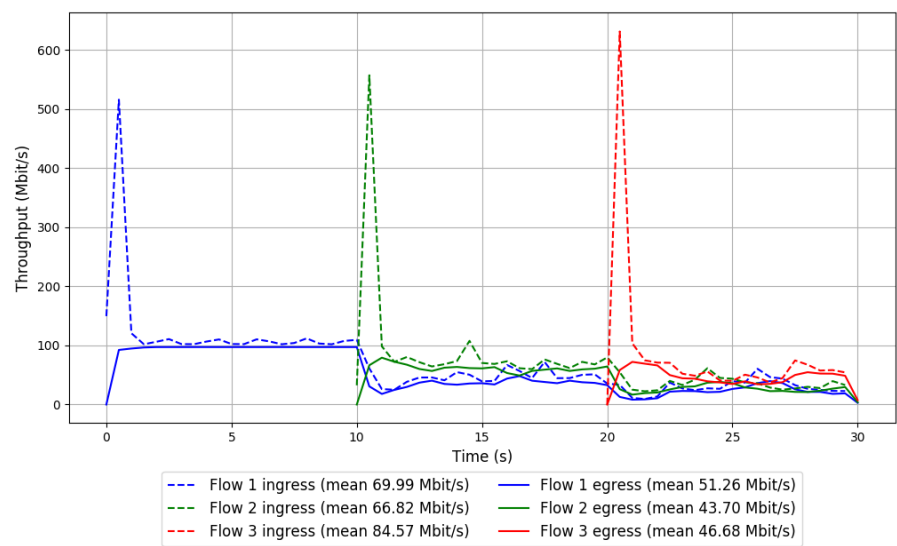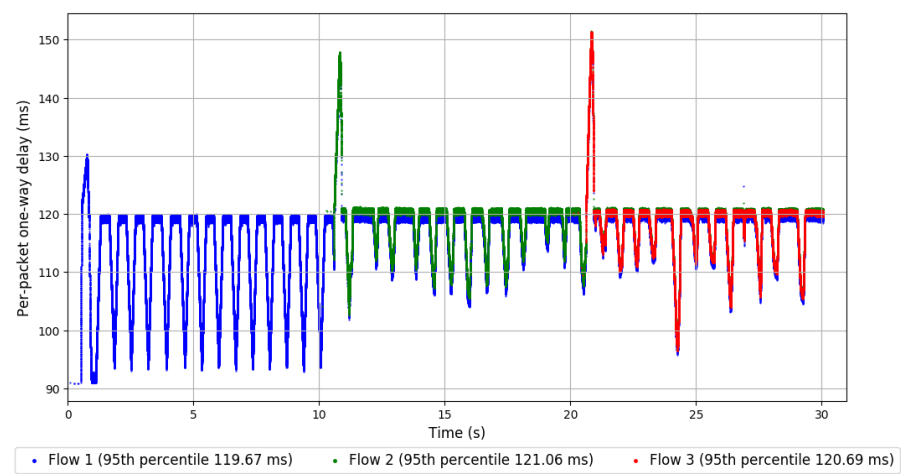
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 69.99 Mbit/s)   Flow 1 egress (mean 51.26 Mbit/s)
Flow 2 ingress (mean 66.82 Mbit/s)   Flow 2 egress (mean 43.70 Mbit/s)
Flow 3 ingress (mean 84.57 Mbit/s)   Flow 3 egress (mean 46.68 Mbit/s)

Flow 1 (95th percentile 120.15 ms)   Flow 2 (95th percentile 120.08 ms)   Flow 3 (95th percentile 127.93 ms)

```
Run 6: Statistics of FillP

Start at: 2018-01-17 04:53:42
End at: 2018-01-17 04:54:12
Local clock offset: 0.734 ms
Remote clock offset: 3.428 ms


# Below is generated by plot.py at 2018-01-17 07:26:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 120.865 ms
Loss rate: 33.07%
-- Flow 1:
Average throughput: 55.62 Mbit/s
95th percentile per-packet one-way delay: 119.665 ms
Loss rate: 25.31%
-- Flow 2:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 121.056 ms
Loss rate: 42.87%
-- Flow 3:
Average throughput: 61.26 Mbit/s
95th percentile per-packet one-way delay: 120.692 ms
Loss rate: 40.08%
```
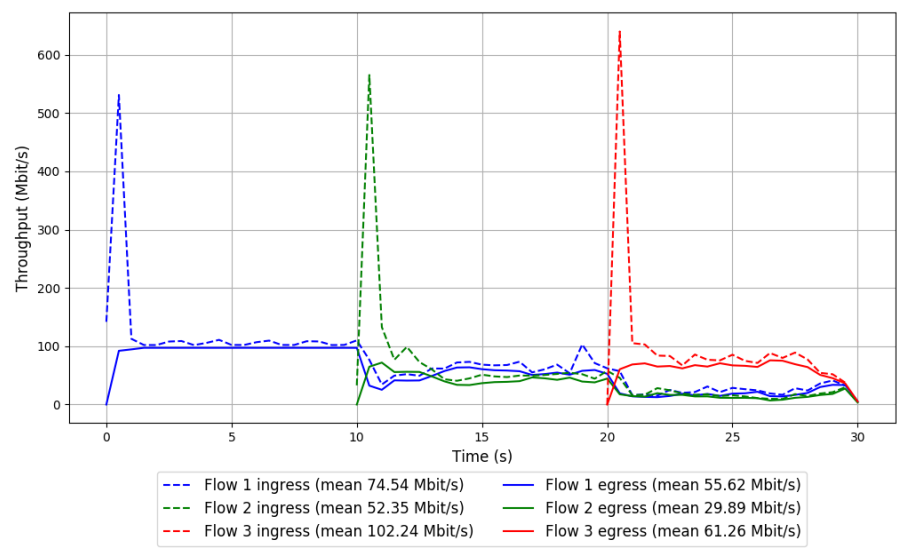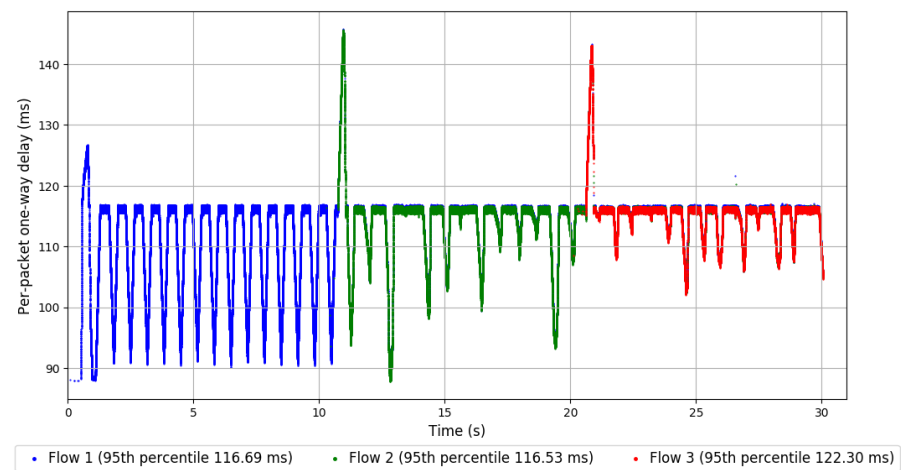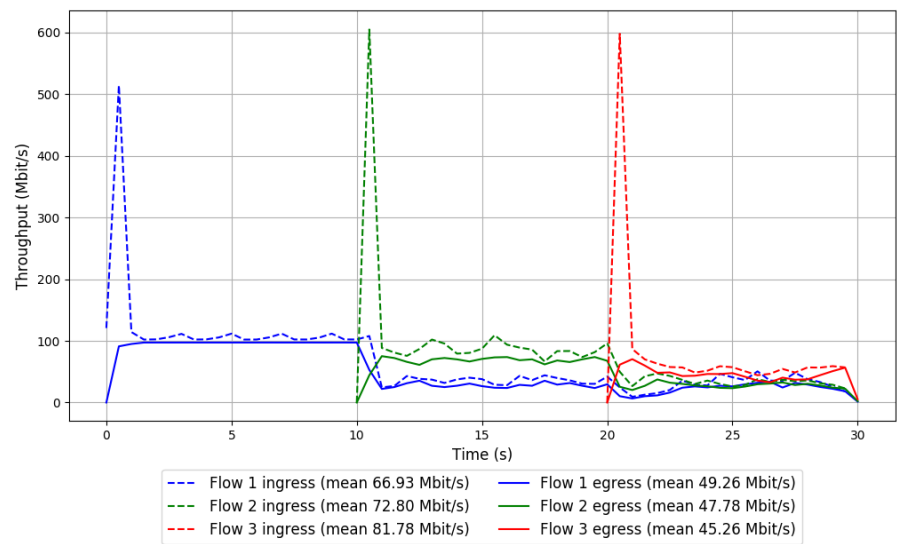
Run 6: Report of FillP — Data Link

Flow 1 ingress (mean 74.54 Mbit/s) Flow 1 egress (mean 55.62 Mbit/s)
Flow 2 ingress (mean 52.35 Mbit/s) Flow 2 egress (mean 29.89 Mbit/s)
Flow 3 ingress (mean 102.24 Mbit/s) Flow 3 egress (mean 61.26 Mbit/s)

Flow 1 (95th percentile 119.67 ms)   Flow 2 (95th percentile 121.06 ms)   Flow 3 (95th percentile 120.69 ms)

```
Run 7: Statistics of FillP

Start at: 2018-01-17 05:17:00
End at: 2018-01-17 05:17:30
Local clock offset: 0.732 ms
Remote clock offset: 0.617 ms


# Below is generated by plot.py at 2018-01-17 07:26:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 116.665 ms
Loss rate: 32.75%
-- Flow 1:
Average throughput: 49.26 Mbit/s
95th percentile per-packet one-way delay: 116.688 ms
Loss rate: 26.36%
-- Flow 2:
Average throughput: 47.78 Mbit/s
95th percentile per-packet one-way delay: 116.527 ms
Loss rate: 34.91%
-- Flow 3:
Average throughput: 45.26 Mbit/s
95th percentile per-packet one-way delay: 122.302 ms
Loss rate: 44.67%
```
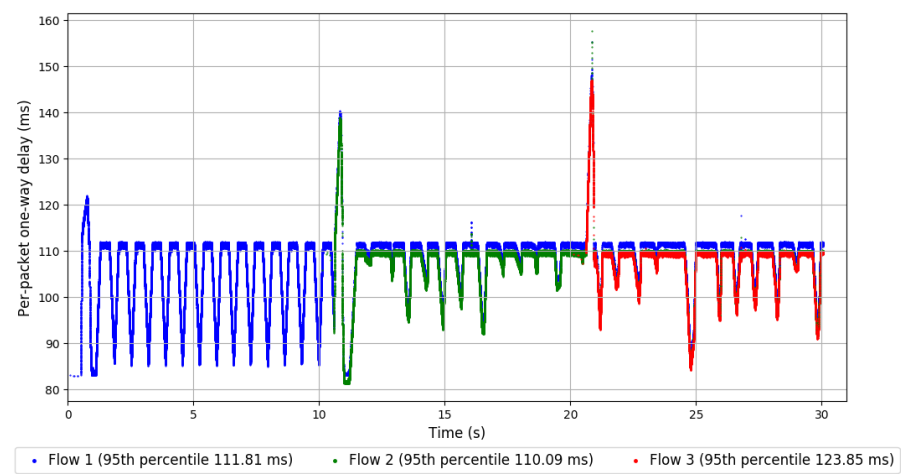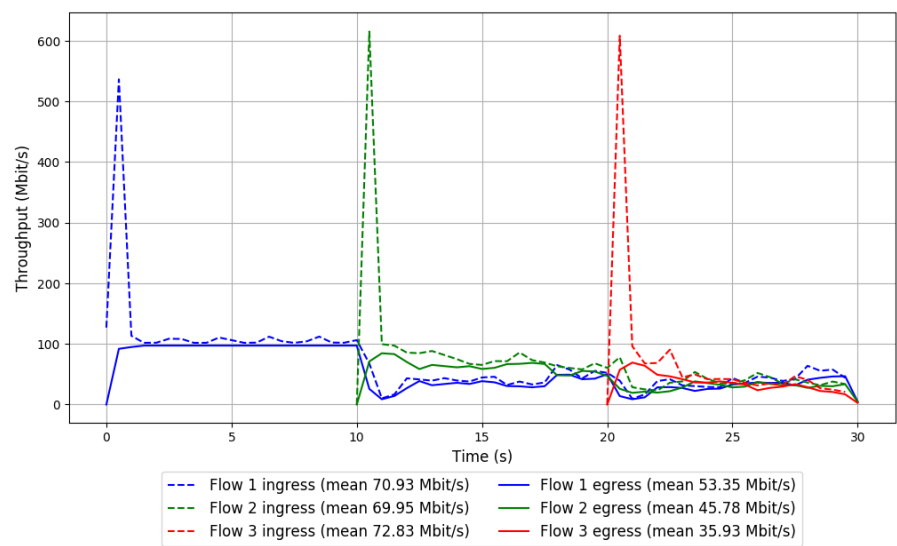
Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 66.93 Mbit/s) --- Flow 1 egress (mean 49.26 Mbit/s)
Flow 2 ingress (mean 72.80 Mbit/s) --- Flow 2 egress (mean 47.78 Mbit/s)
Flow 3 ingress (mean 81.78 Mbit/s) --- Flow 3 egress (mean 45.26 Mbit/s)

Flow 1 (95th percentile 116.69 ms)   Flow 2 (95th percentile 116.53 ms)   Flow 3 (95th percentile 122.30 ms)
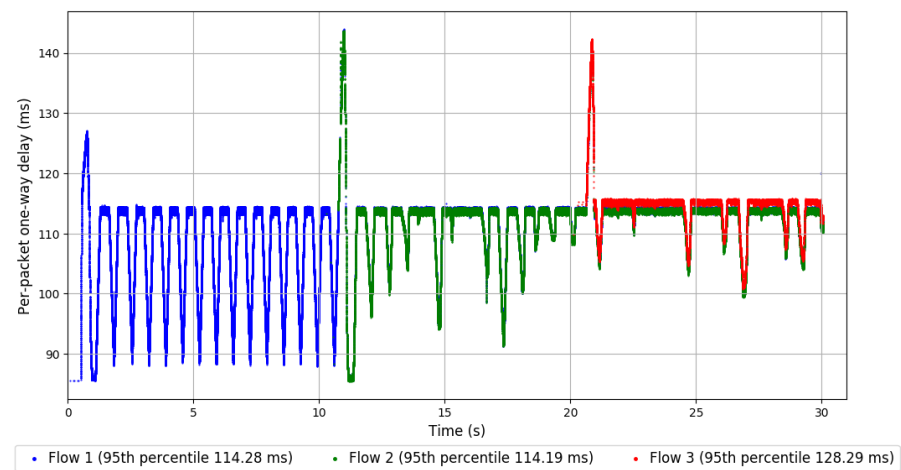
```
Run 8: Statistics of FillP

Start at: 2018-01-17 05:40:24
End at: 2018-01-17 05:40:54
Local clock offset: 0.666 ms
Remote clock offset: -5.585 ms

# Below is generated by plot.py at 2018-01-17 07:26:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 111.799 ms
Loss rate: 32.37%
-- Flow 1:
Average throughput: 53.35 Mbit/s
95th percentile per-packet one-way delay: 111.814 ms
Loss rate: 24.72%
-- Flow 2:
Average throughput: 45.78 Mbit/s
95th percentile per-packet one-way delay: 110.091 ms
Loss rate: 34.54%
-- Flow 3:
Average throughput: 35.93 Mbit/s
95th percentile per-packet one-way delay: 123.848 ms
Loss rate: 50.66%
```

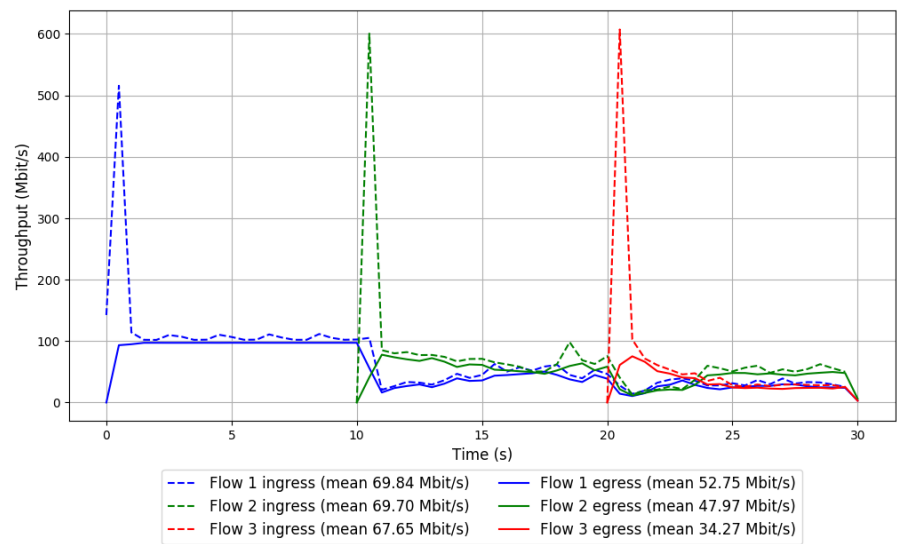Run 8: Report of FillP — Data Link

```
Run 9: Statistics of FillP

Start at: 2018-01-17 06:03:44
End at: 2018-01-17 06:04:14
Local clock offset: 0.628 ms
Remote clock offset: -1.305 ms


# Below is generated by plot.py at 2018-01-17 07:26:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 115.450 ms
Loss rate: 30.88%
-- Flow 1:
Average throughput: 52.75 Mbit/s
95th percentile per-packet one-way delay: 114.281 ms
Loss rate: 24.41%
-- Flow 2:
Average throughput: 47.97 Mbit/s
95th percentile per-packet one-way delay: 114.186 ms
Loss rate: 31.71%
-- Flow 3:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 128.288 ms
Loss rate: 49.33%
```

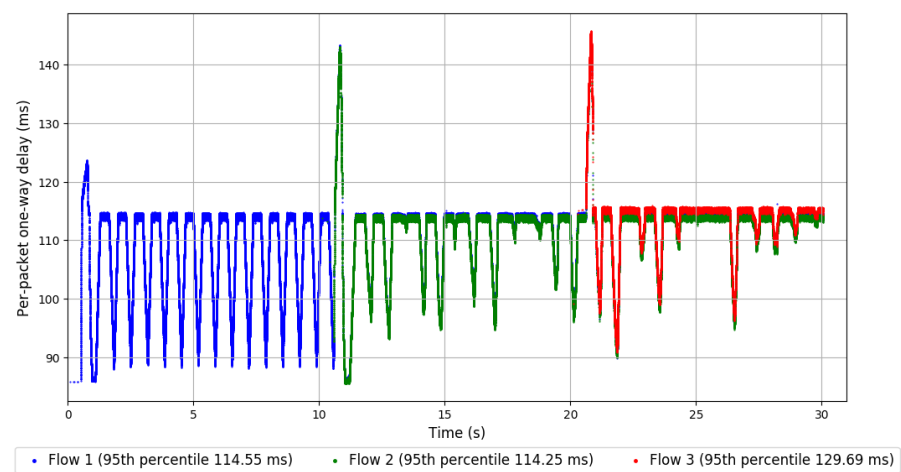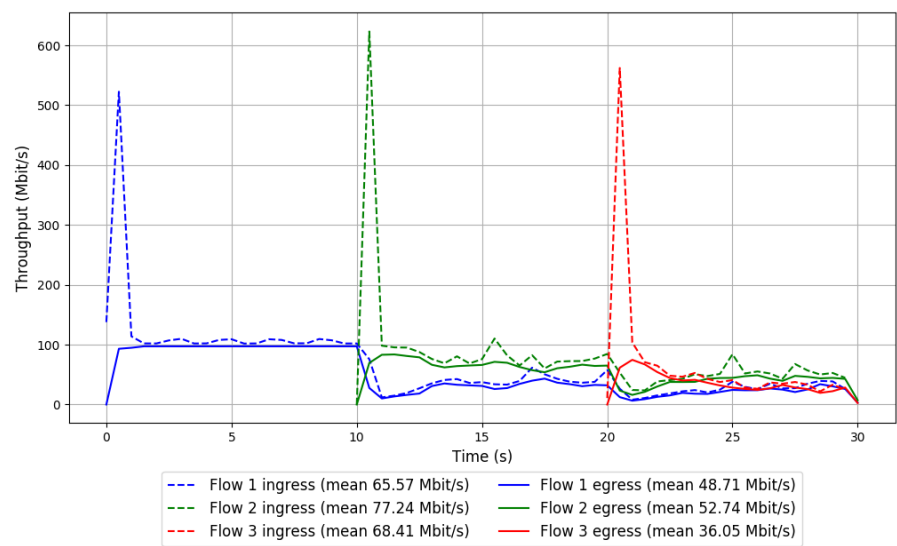Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-01-17 06:27:13
End at: 2018-01-17 06:27:43
Local clock offset: 0.709 ms
Remote clock offset: -0.288 ms

# Below is generated by plot.py at 2018-01-17 07:26:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 115.378 ms
Loss rate: 31.38%
-- Flow 1:
Average throughput: 48.71 Mbit/s
95th percentile per-packet one-way delay: 114.546 ms
Loss rate: 25.65%
-- Flow 2:
Average throughput: 52.74 Mbit/s
95th percentile per-packet one-way delay: 114.246 ms
Loss rate: 31.71%
-- Flow 3:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 129.692 ms
Loss rate: 47.22%
```
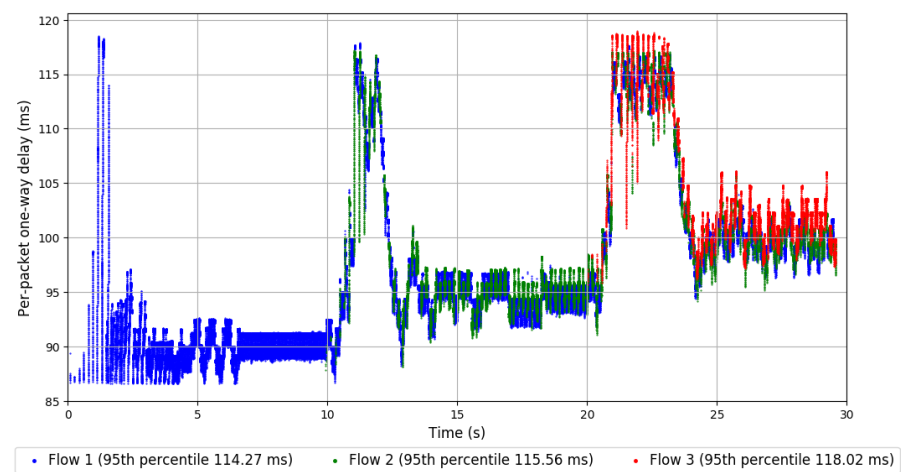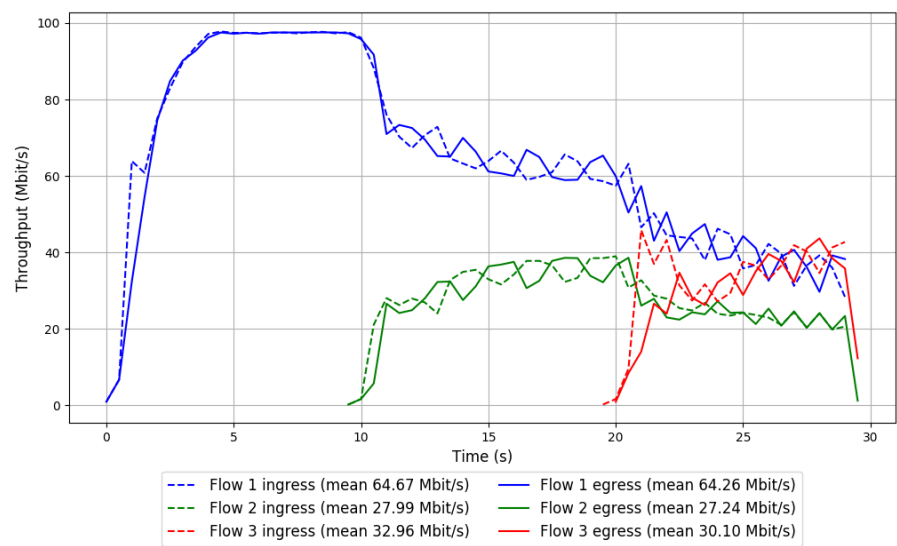
Run 10: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 65.57 Mbit/s) ——— Flow 1 egress (mean 48.71 Mbit/s)
- - - - Flow 2 ingress (mean 77.24 Mbit/s) ——— Flow 2 egress (mean 52.74 Mbit/s)
- - - - Flow 3 ingress (mean 68.41 Mbit/s) ——— Flow 3 egress (mean 36.05 Mbit/s)

- Flow 1 (95th percentile 114.55 ms)   - Flow 2 (95th percentile 114.25 ms)   - Flow 3 (95th percentile 129.69 ms)

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```
Run 1: Statistics of Indigo

Start at: 2018-01-17 02:53:19
End at: 2018-01-17 02:53:49
Local clock offset: 1.005 ms
Remote clock offset: -0.916 ms


# Below is generated by plot.py at 2018-01-17 07:27:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.95 Mbit/s
95th percentile per-packet one-way delay: 115.037 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 64.26 Mbit/s
95th percentile per-packet one-way delay: 114.272 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 27.24 Mbit/s
95th percentile per-packet one-way delay: 115.561 ms
Loss rate: 2.64%
-- Flow 3:
Average throughput: 30.10 Mbit/s
95th percentile per-packet one-way delay: 118.019 ms
Loss rate: 8.64%
```
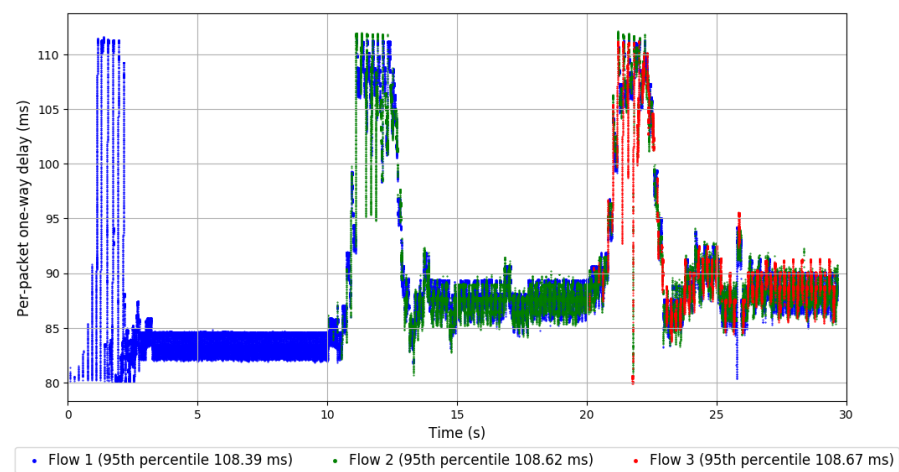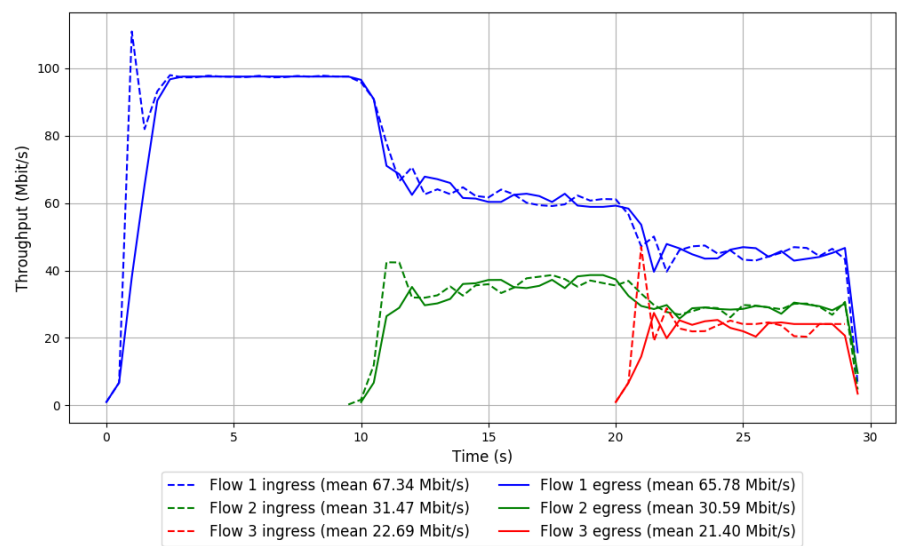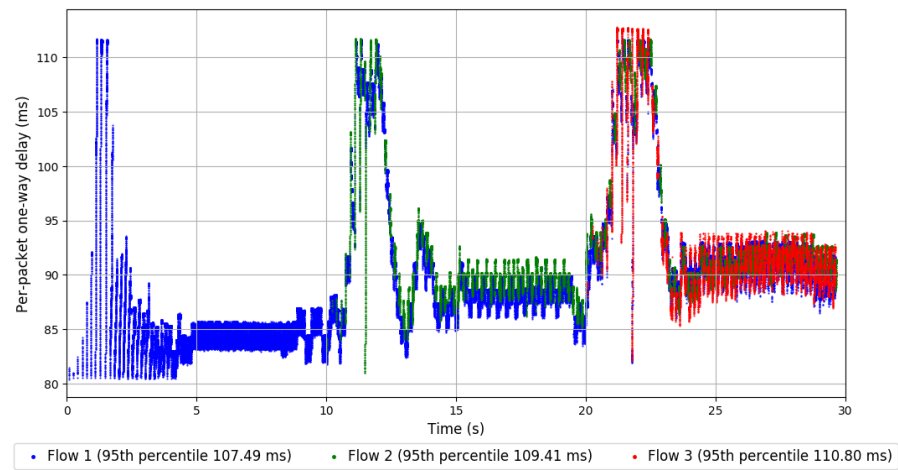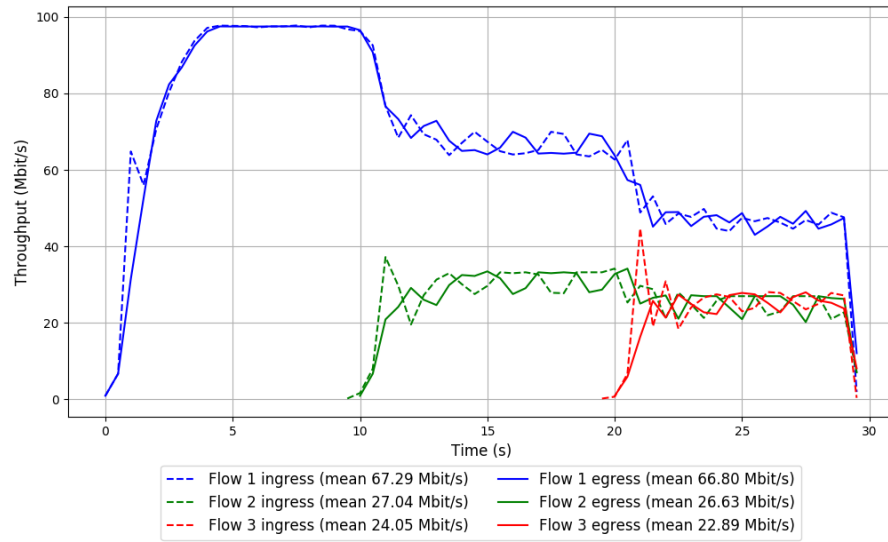
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 64.67 Mbit/s) — Flow 1 egress (mean 64.26 Mbit/s)
Flow 2 ingress (mean 27.99 Mbit/s) — Flow 2 egress (mean 27.24 Mbit/s)
Flow 3 ingress (mean 32.96 Mbit/s) — Flow 3 egress (mean 30.10 Mbit/s)

Flow 1 (95th percentile 114.27 ms)   Flow 2 (95th percentile 115.56 ms)   Flow 3 (95th percentile 118.02 ms)

```
Run 2: Statistics of Indigo

Start at: 2018-01-17 03:16:32
End at: 2018-01-17 03:17:02
Local clock offset: 1.085 ms
Remote clock offset: -6.371 ms


# Below is generated by plot.py at 2018-01-17 07:27:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.88 Mbit/s
95th percentile per-packet one-way delay: 108.476 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 65.78 Mbit/s
95th percentile per-packet one-way delay: 108.391 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 108.620 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 21.40 Mbit/s
95th percentile per-packet one-way delay: 108.665 ms
Loss rate: 5.66%
```

Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-01-17 03:39:49
End at: 2018-01-17 03:40:19
Local clock offset: 0.968 ms
Remote clock offset: -6.842 ms

# Below is generated by plot.py at 2018-01-17 07:27:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.76 Mbit/s
95th percentile per-packet one-way delay: 108.547 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 66.80 Mbit/s
95th percentile per-packet one-way delay: 107.491 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 26.63 Mbit/s
95th percentile per-packet one-way delay: 109.409 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 22.89 Mbit/s
95th percentile per-packet one-way delay: 110.801 ms
Loss rate: 4.82%
```
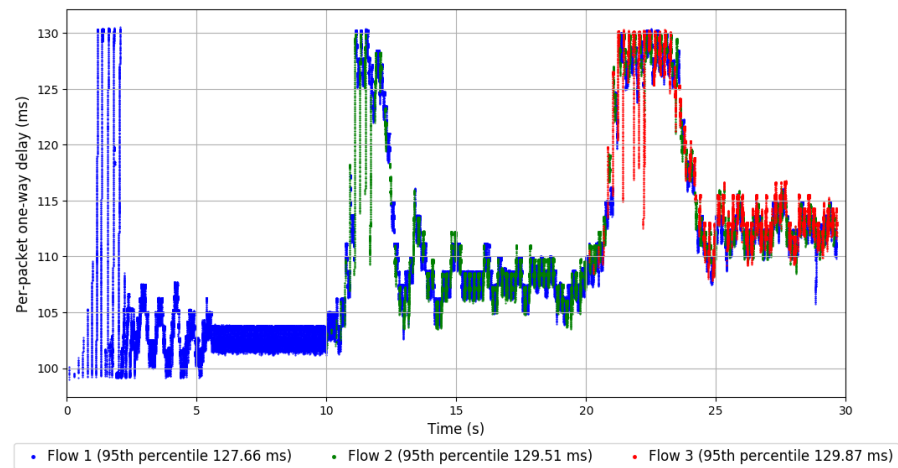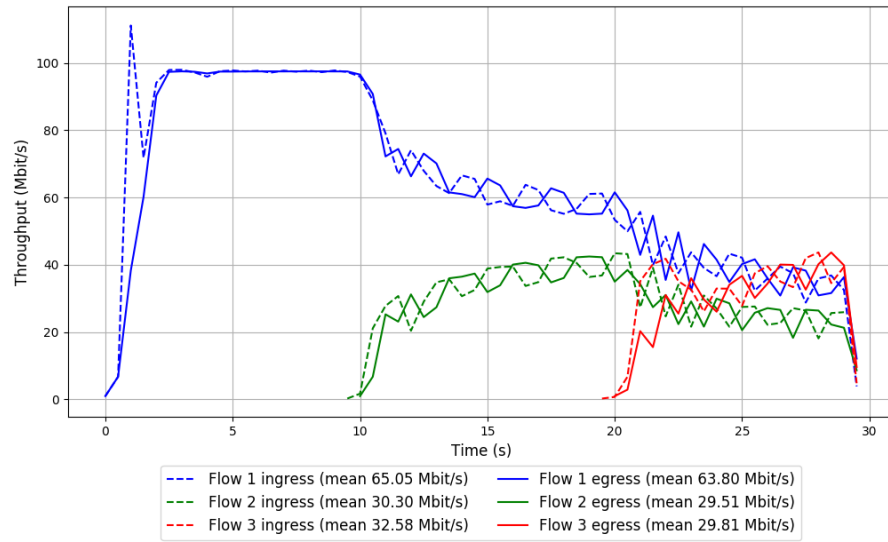
Run 3: Report of Indigo — Data Link

Run 4: Statistics of Indigo

Start at: 2018-01-17 04:03:08
End at: 2018-01-17 04:03:38
Local clock offset: 0.844 ms
Remote clock offset: 0.072 ms

Run 4: Report of Indigo — Data Link

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```
Run 5: Statistics of Indigo

Start at: 2018-01-17 04:26:24
End at: 2018-01-17 04:26:54
Local clock offset: 0.845 ms
Remote clock offset: 10.16 ms


# Below is generated by plot.py at 2018-01-17 07:27:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.91 Mbit/s
95th percentile per-packet one-way delay: 128.561 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 63.80 Mbit/s
95th percentile per-packet one-way delay: 127.658 ms
Loss rate: 1.88%
-- Flow 2:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 129.509 ms
Loss rate: 2.57%
-- Flow 3:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 129.868 ms
Loss rate: 8.50%
```
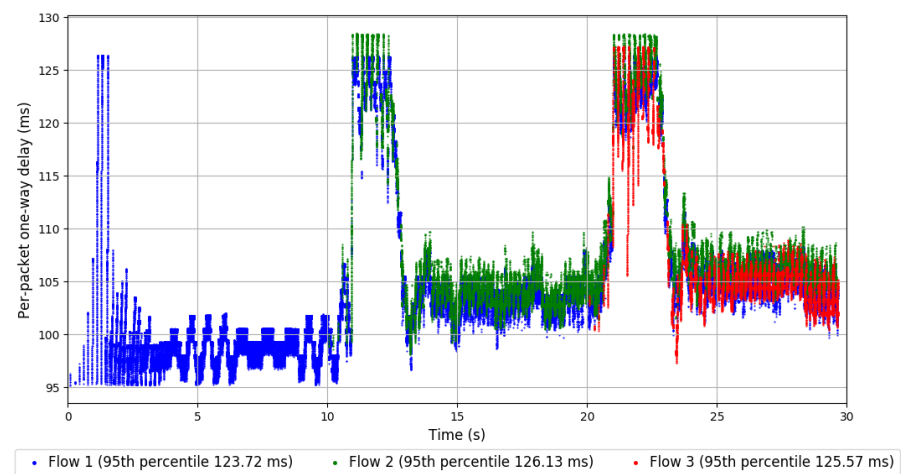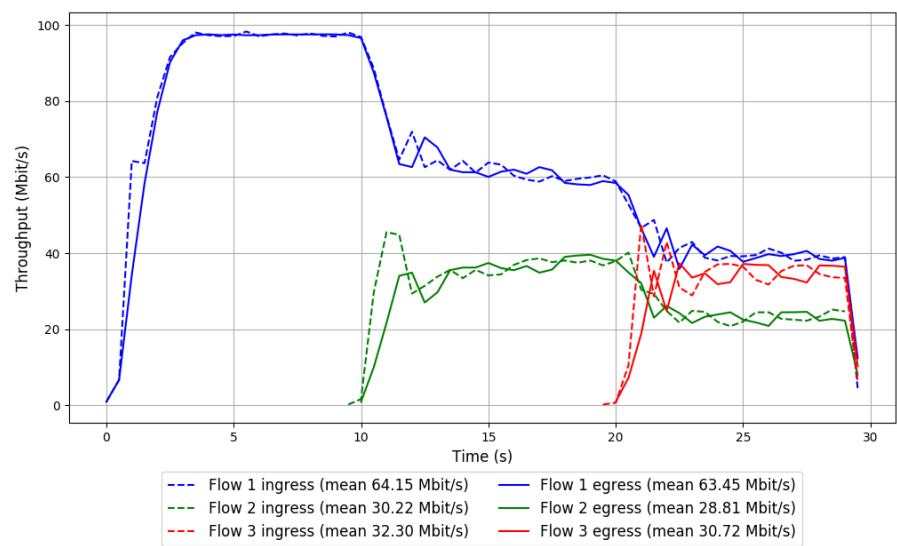
Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 65.05 Mbit/s) — — — Flow 1 egress (mean 63.80 Mbit/s)
Flow 2 ingress (mean 30.30 Mbit/s) — — — Flow 2 egress (mean 29.51 Mbit/s)
Flow 3 ingress (mean 32.58 Mbit/s) — — — Flow 3 egress (mean 29.81 Mbit/s)

Flow 1 (95th percentile 127.66 ms)   Flow 2 (95th percentile 129.51 ms)   Flow 3 (95th percentile 129.87 ms)

```
Run 6: Statistics of Indigo

Start at: 2018-01-17 04:49:48
End at: 2018-01-17 04:50:18
Local clock offset: 0.735 ms
Remote clock offset: 8.222 ms


# Below is generated by plot.py at 2018-01-17 07:27:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.42 Mbit/s
95th percentile per-packet one-way delay: 124.635 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 63.45 Mbit/s
95th percentile per-packet one-way delay: 123.715 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 28.81 Mbit/s
95th percentile per-packet one-way delay: 126.126 ms
Loss rate: 4.64%
-- Flow 3:
Average throughput: 30.72 Mbit/s
95th percentile per-packet one-way delay: 125.566 ms
Loss rate: 4.92%
```
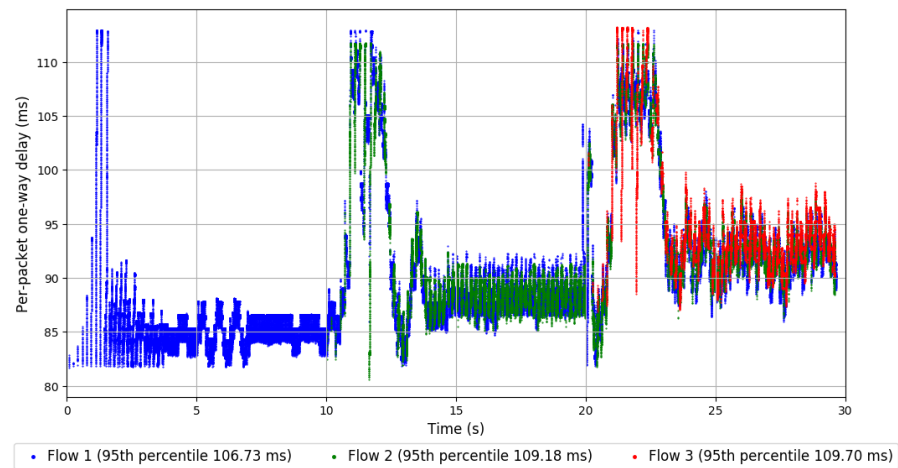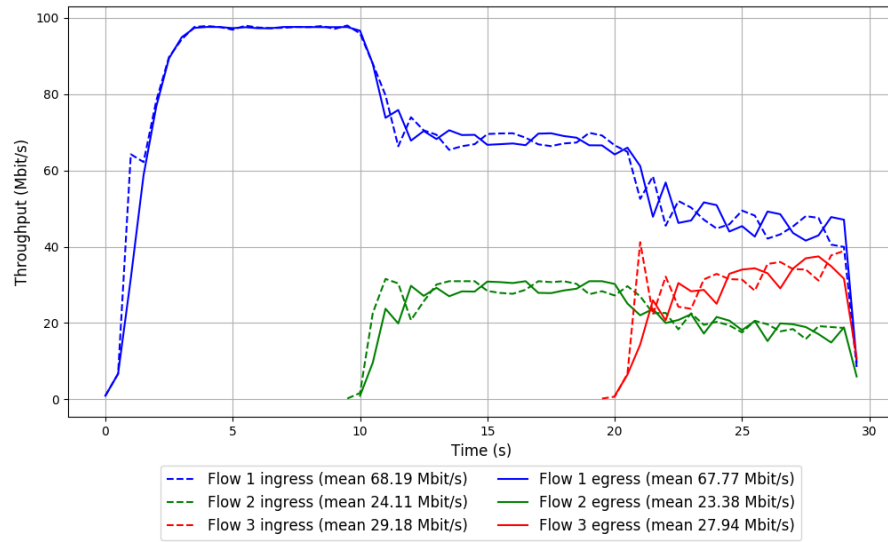
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-01-17 05:13:14
End at: 2018-01-17 05:13:44
Local clock offset: 0.661 ms
Remote clock offset: 0.666 ms
```
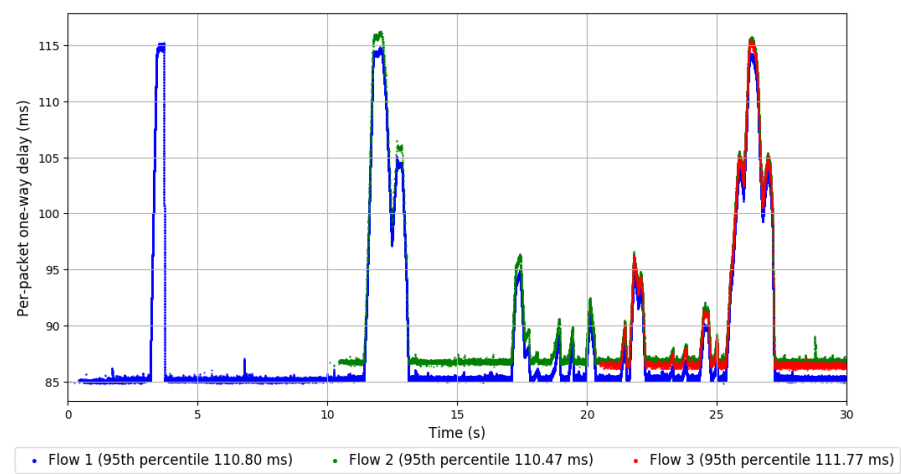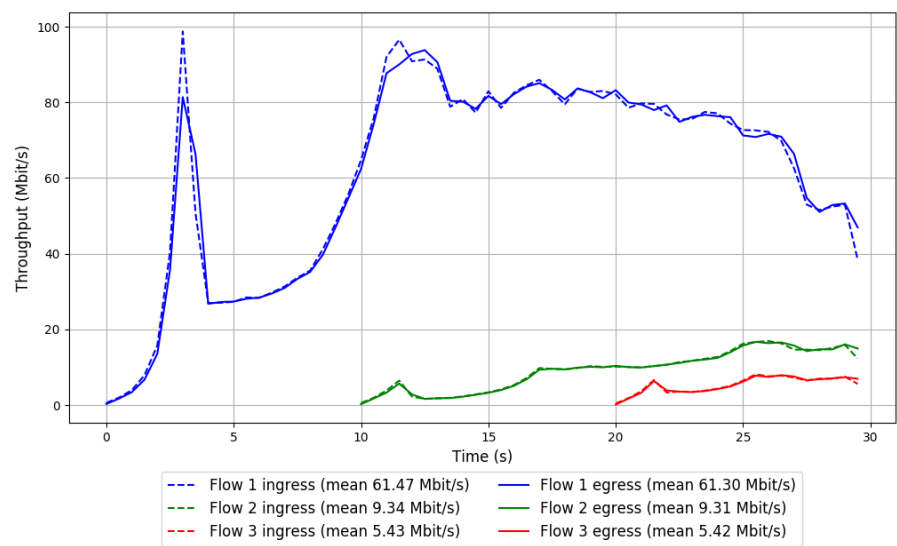
Run 7: Report of Indigo — Data Link

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```
Run 8: Statistics of Indigo

Start at: 2018-01-17 05:36:30
End at: 2018-01-17 05:37:00
Local clock offset: 0.601 ms
Remote clock offset: -6.59 ms

# Below is generated by plot.py at 2018-01-17 07:28:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.23 Mbit/s
95th percentile per-packet one-way delay: 107.111 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 67.77 Mbit/s
95th percentile per-packet one-way delay: 106.731 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 109.178 ms
Loss rate: 2.99%
-- Flow 3:
Average throughput: 27.94 Mbit/s
95th percentile per-packet one-way delay: 109.703 ms
Loss rate: 4.32%
```

Run 8: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 68.19 Mbit/s) — Flow 1 egress (mean 67.77 Mbit/s)
- - - Flow 2 ingress (mean 24.11 Mbit/s) — Flow 2 egress (mean 23.38 Mbit/s)
- - - Flow 3 ingress (mean 29.18 Mbit/s) — Flow 3 egress (mean 27.94 Mbit/s)

- Flow 1 (95th percentile 106.73 ms)   - Flow 2 (95th percentile 109.18 ms)   - Flow 3 (95th percentile 109.70 ms)

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```
Run 9: Statistics of Indigo

Start at: 2018-01-17 05:59:57
End at: 2018-01-17 06:00:27
Local clock offset: 0.67 ms
Remote clock offset: -0.528 ms
```

Run 9: Report of Indigo — Data Link

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```
Run 10: Statistics of Indigo

Start at: 2018-01-17 06:23:27
End at: 2018-01-17 06:23:57
Local clock offset: 0.713 ms
Remote clock offset: -5.573 ms
```

Run 10: Report of Indigo — Data Link
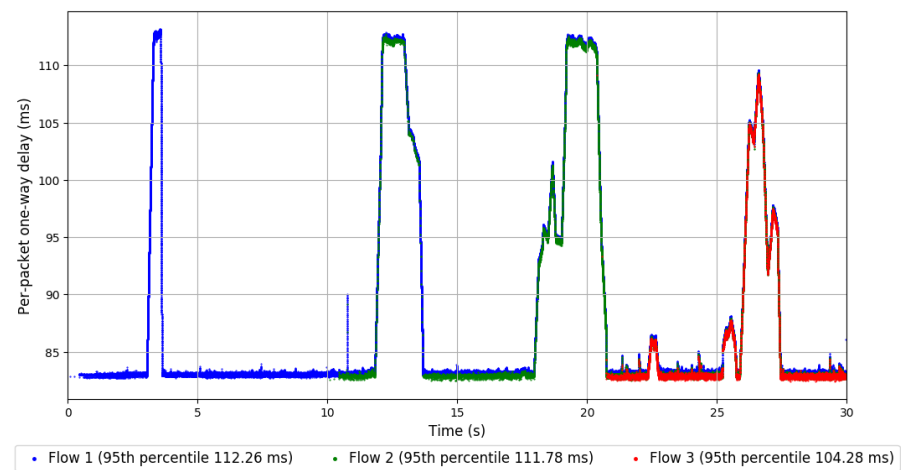
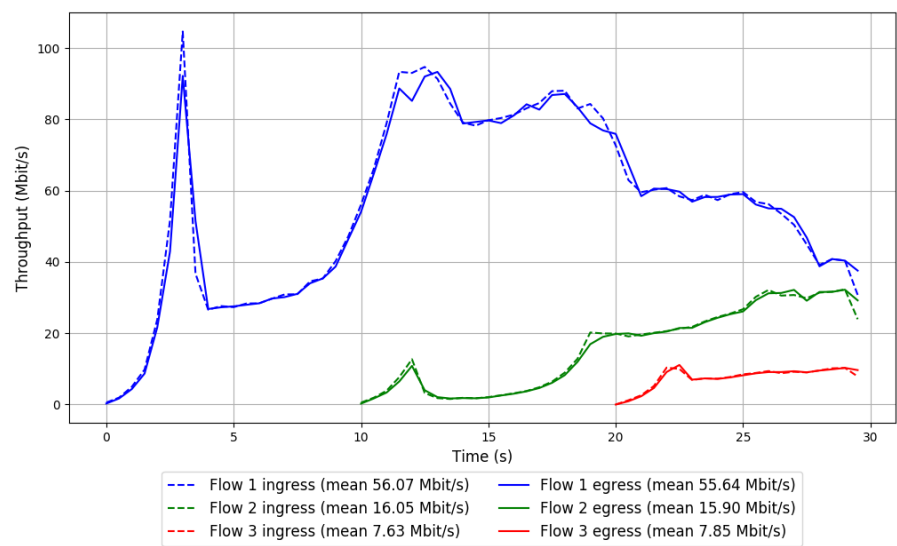Figure is missing

Figure is missing

```
Run 1: Statistics of Vivace-latency

Start at: 2018-01-17 02:51:58
End at: 2018-01-17 02:52:28
Local clock offset: 1.003 ms
Remote clock offset: -0.944 ms


# Below is generated by plot.py at 2018-01-17 07:28:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.27 Mbit/s
95th percentile per-packet one-way delay: 110.807 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 61.30 Mbit/s
95th percentile per-packet one-way delay: 110.797 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 110.467 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 5.42 Mbit/s
95th percentile per-packet one-way delay: 111.769 ms
Loss rate: 0.13%
```
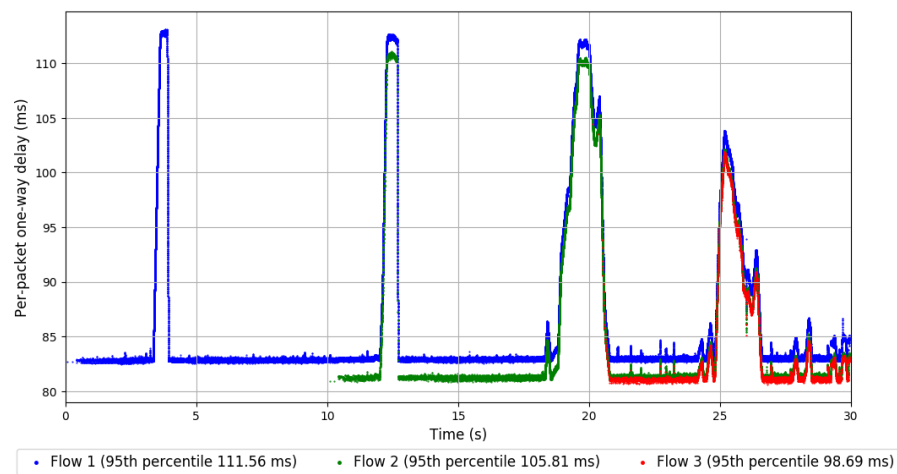
Run 1: Report of Vivace-latency — Data Link

```
Run 2: Statistics of Vivace-latency

Start at: 2018-01-17 03:15:11
End at: 2018-01-17 03:15:41
Local clock offset: 1.015 ms
Remote clock offset: -5.448 ms


# Below is generated by plot.py at 2018-01-17 07:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.73 Mbit/s
95th percentile per-packet one-way delay: 112.195 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 55.64 Mbit/s
95th percentile per-packet one-way delay: 112.258 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 15.90 Mbit/s
95th percentile per-packet one-way delay: 111.785 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 104.275 ms
Loss rate: 0.00%
```

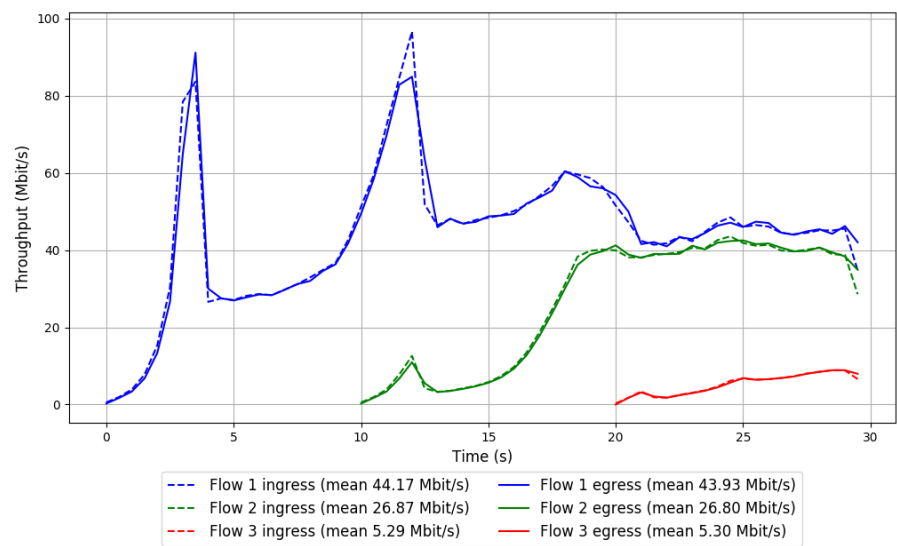Run 2: Report of Vivace-latency — Data Link

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```
Run 3: Statistics of Vivace-latency

Start at: 2018-01-17 03:38:28
End at: 2018-01-17 03:38:58
Local clock offset: 0.966 ms
Remote clock offset: -6.035 ms


# Below is generated by plot.py at 2018-01-17 07:28:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.49 Mbit/s
95th percentile per-packet one-way delay: 109.724 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 111.562 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 26.80 Mbit/s
95th percentile per-packet one-way delay: 105.808 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 98.693 ms
Loss rate: 0.00%
```

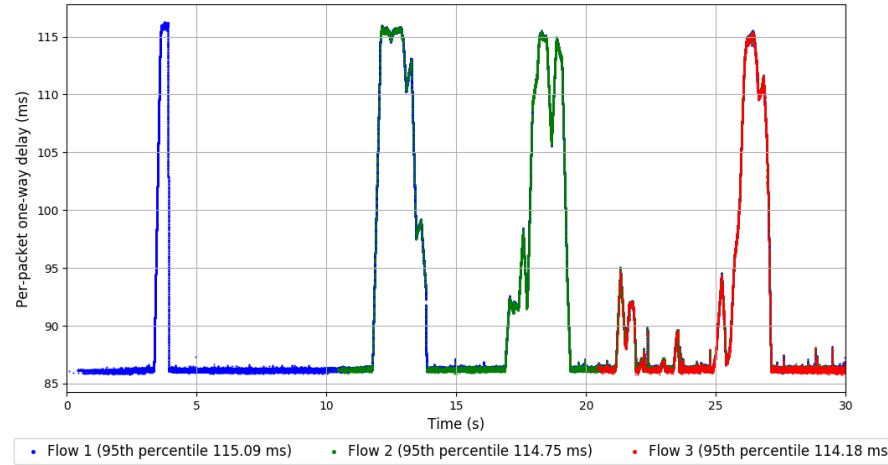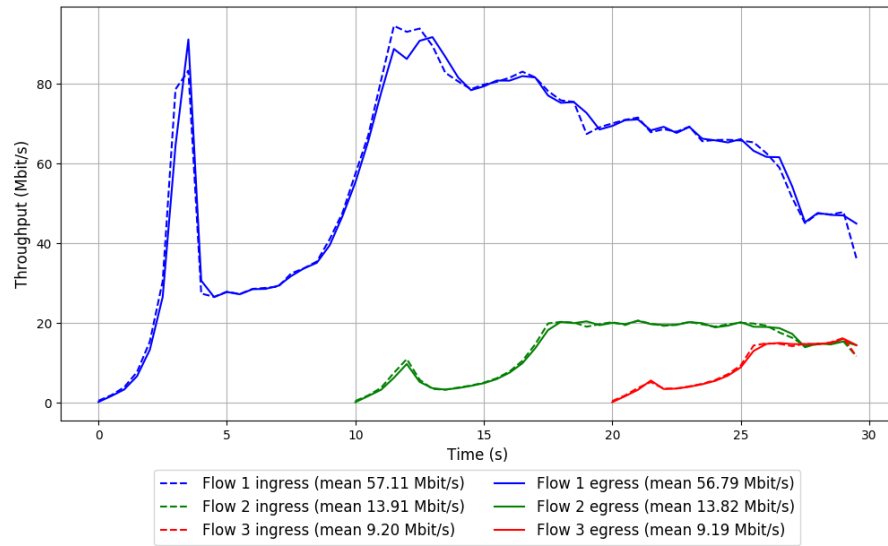## Run 3: Report of Vivace-latency — Data Link

```
Run 4: Statistics of Vivace-latency

Start at: 2018-01-17 04:01:47
End at: 2018-01-17 04:02:17
Local clock offset: 0.907 ms
Remote clock offset: -0.872 ms


# Below is generated by plot.py at 2018-01-17 07:29:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.00 Mbit/s
95th percentile per-packet one-way delay: 114.994 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 56.79 Mbit/s
95th percentile per-packet one-way delay: 115.088 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 13.82 Mbit/s
95th percentile per-packet one-way delay: 114.749 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 114.180 ms
Loss rate: 0.14%
```
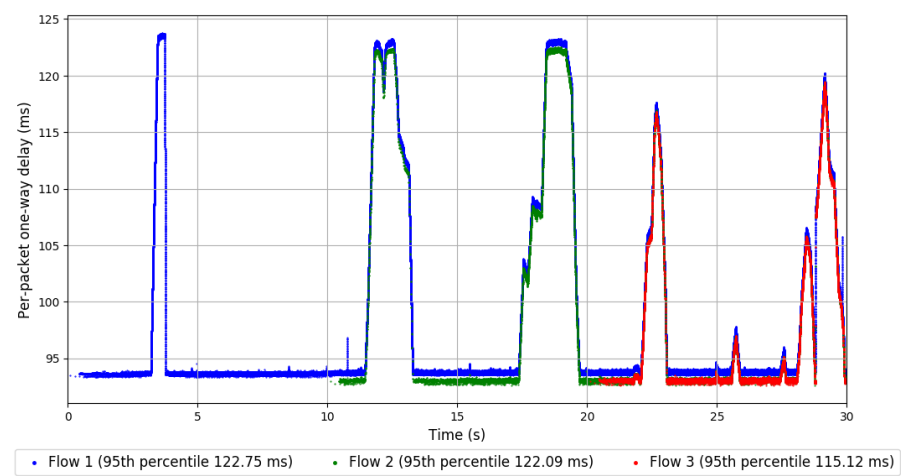
Run 4: Report of Vivace-latency — Data Link

```
Run 5: Statistics of Vivace-latency

Start at: 2018-01-17 04:25:03
End at: 2018-01-17 04:25:33
Local clock offset: 0.844 ms
Remote clock offset: 4.548 ms


# Below is generated by plot.py at 2018-01-17 07:29:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.07 Mbit/s
95th percentile per-packet one-way delay: 122.629 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 61.43 Mbit/s
95th percentile per-packet one-way delay: 122.748 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 8.98 Mbit/s
95th percentile per-packet one-way delay: 122.089 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 115.123 ms
Loss rate: 0.00%
```
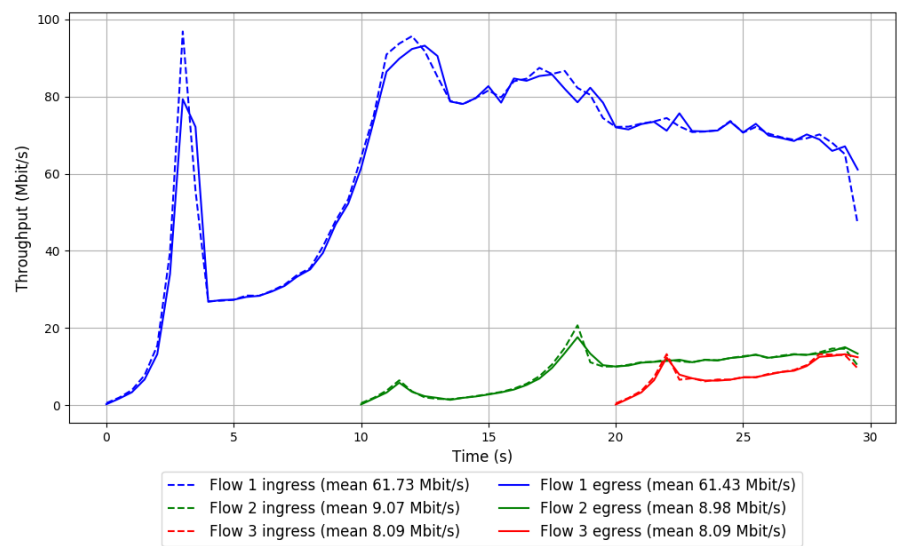
Run 5: Report of Vivace-latency — Data Link

```
Run 6: Statistics of Vivace-latency

Start at: 2018-01-17 04:48:27
End at: 2018-01-17 04:48:57
Local clock offset: 0.754 ms
Remote clock offset: 3.393 ms


# Below is generated by plot.py at 2018-01-17 07:29:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.17 Mbit/s
95th percentile per-packet one-way delay: 119.303 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 60.68 Mbit/s
95th percentile per-packet one-way delay: 119.512 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 115.133 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 110.735 ms
Loss rate: 0.00%
```
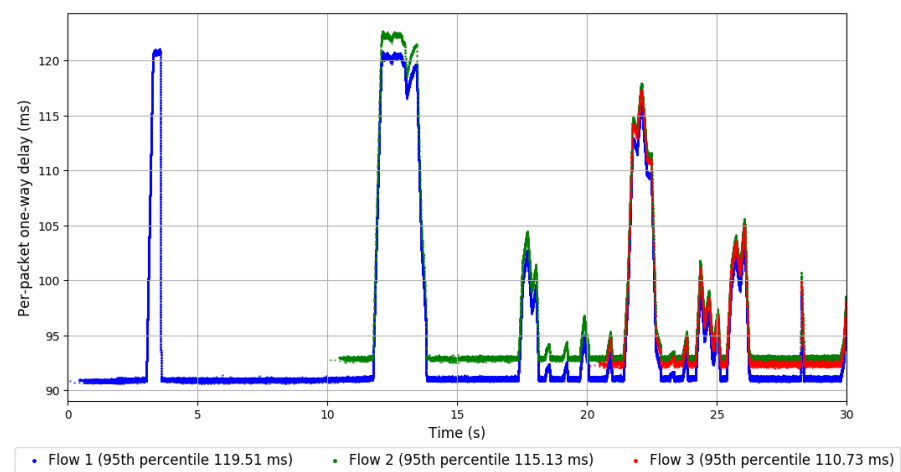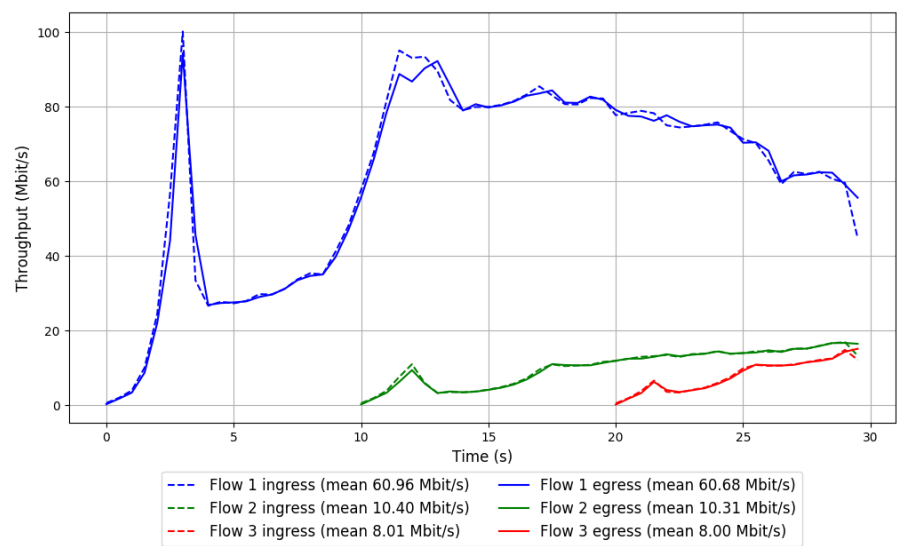
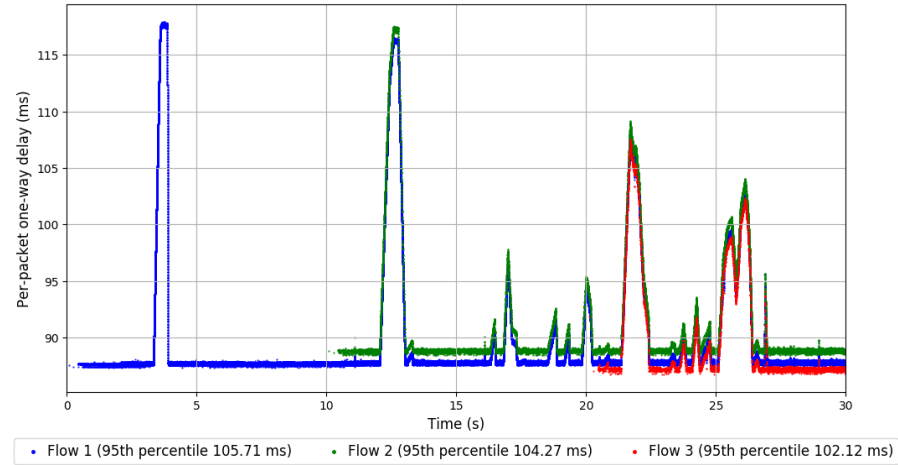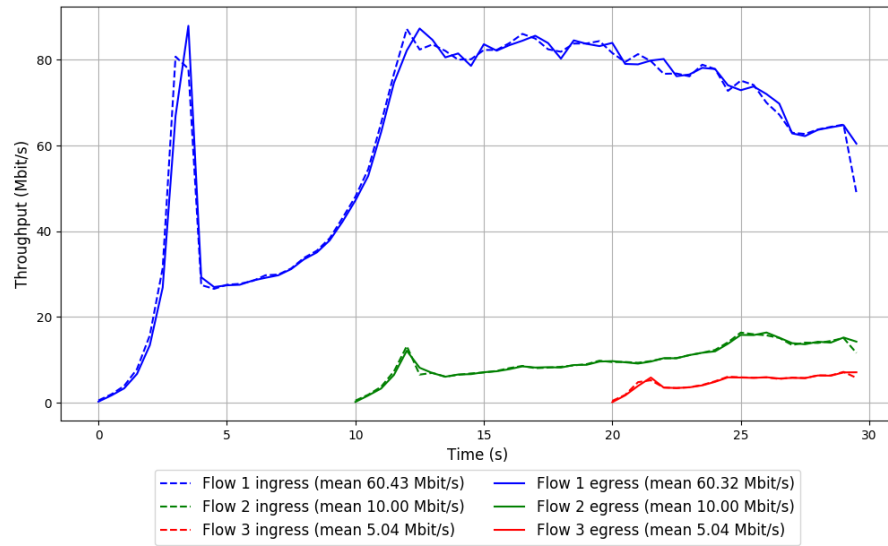Run 6: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 60.96 Mbit/s) --- Flow 1 egress (mean 60.68 Mbit/s)
Flow 2 ingress (mean 10.40 Mbit/s) --- Flow 2 egress (mean 10.31 Mbit/s)
Flow 3 ingress (mean 8.01 Mbit/s) --- Flow 3 egress (mean 8.00 Mbit/s)

Flow 1 (95th percentile 119.51 ms) • Flow 2 (95th percentile 115.13 ms) • Flow 3 (95th percentile 110.73 ms)

```
Run 7: Statistics of Vivace-latency

Start at: 2018-01-17 05:11:53
End at: 2018-01-17 05:12:23
Local clock offset: 0.711 ms
Remote clock offset: -0.109 ms


# Below is generated by plot.py at 2018-01-17 07:29:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.63 Mbit/s
95th percentile per-packet one-way delay: 105.550 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 60.32 Mbit/s
95th percentile per-packet one-way delay: 105.714 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 104.267 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 102.118 ms
Loss rate: 0.00%
```

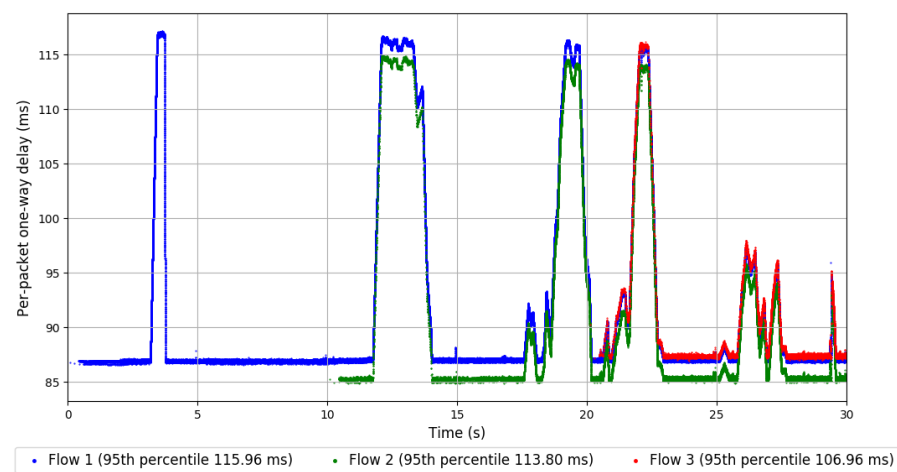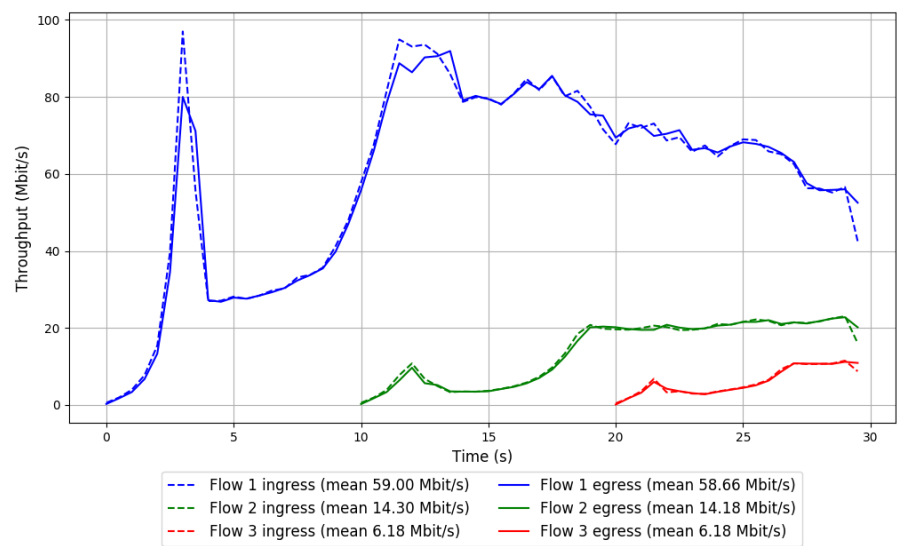Run 7: Report of Vivace-latency — Data Link

Run 8: Statistics of Vivace-latency

Start at: 2018-01-17 05:35:09
End at: 2018-01-17 05:35:39
Local clock offset: 0.662 ms
Remote clock offset: -1.755 ms

Below is generated by plot.py at 2018-01-17 07:30:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 70.13 Mbit/s
95th percentile per-packet one-way delay: 115.790 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 58.66 Mbit/s
95th percentile per-packet one-way delay: 115.957 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 14.18 Mbit/s
95th percentile per-packet one-way delay: 113.804 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 106.958 ms
Loss rate: 0.01%

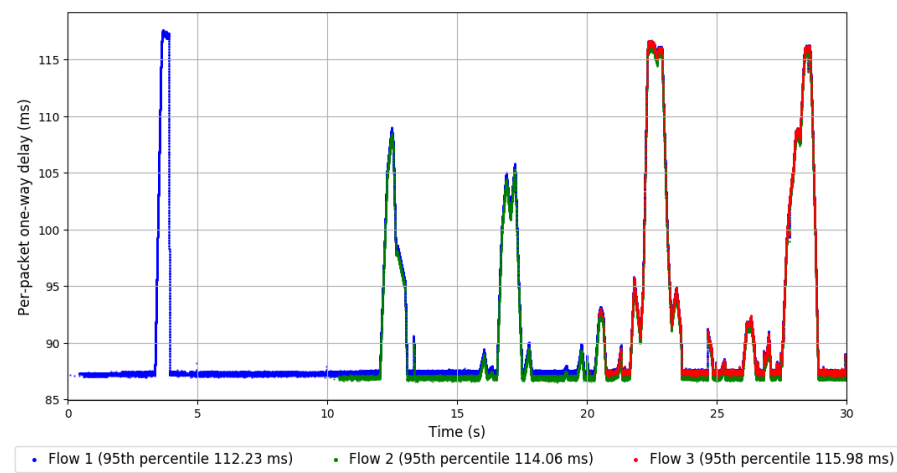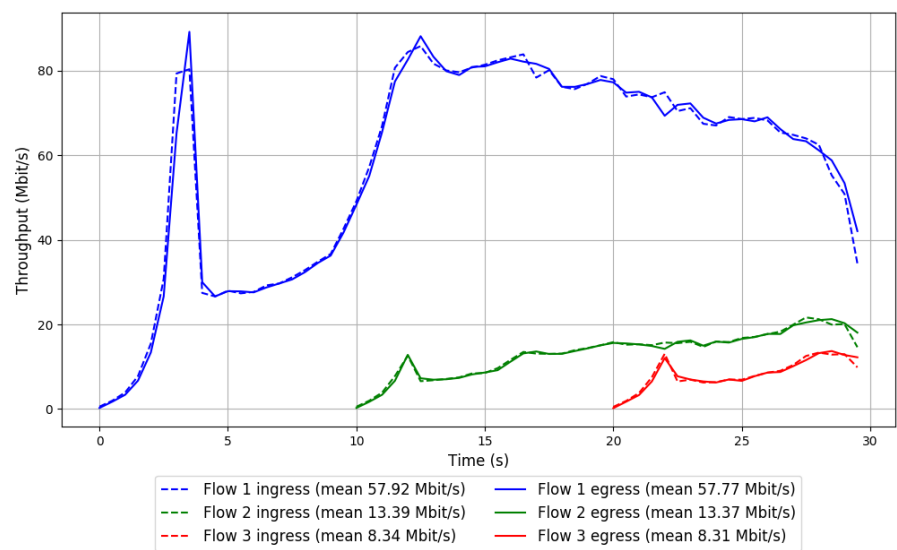Run 8: Report of Vivace-latency — Data Link

```
Run 9: Statistics of Vivace-latency

Start at: 2018-01-17 05:58:36
End at: 2018-01-17 05:59:06
Local clock offset: 0.673 ms
Remote clock offset: -0.296 ms


# Below is generated by plot.py at 2018-01-17 07:30:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.39 Mbit/s
95th percentile per-packet one-way delay: 113.451 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 57.77 Mbit/s
95th percentile per-packet one-way delay: 112.234 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 114.064 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 115.979 ms
Loss rate: 0.32%
```

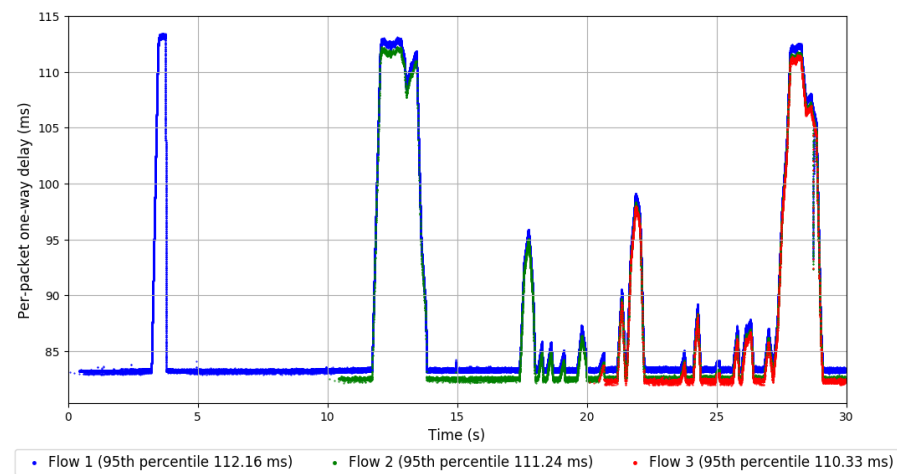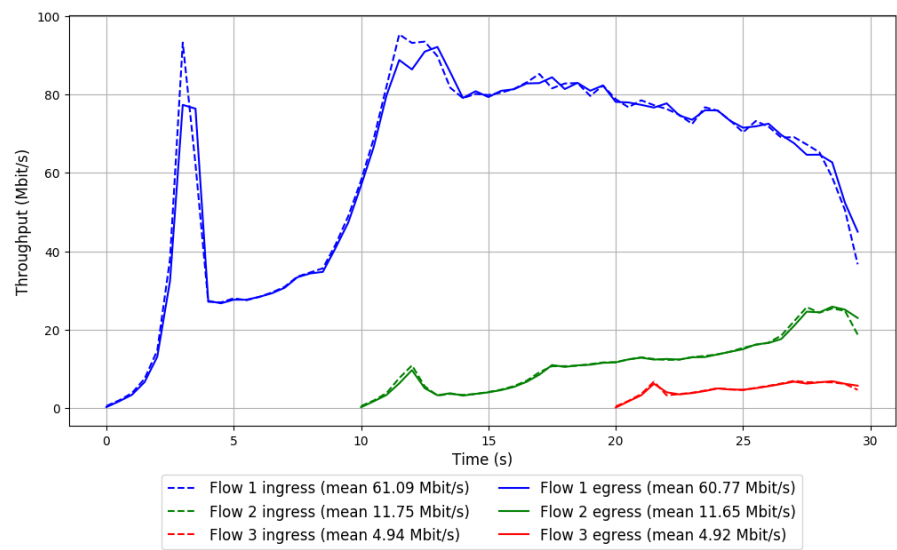Run 9: Report of Vivace-latency — Data Link

Run 10: Statistics of Vivace-latency

Start at: 2018-01-17 06:22:06
End at: 2018-01-17 06:22:36
Local clock offset: 0.732 ms
Remote clock offset: -5.132 ms

Below is generated by plot.py at 2018-01-17 07:30:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 70.14 Mbit/s
95th percentile per-packet one-way delay: 111.957 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 60.77 Mbit/s
95th percentile per-packet one-way delay: 112.161 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 11.65 Mbit/s
95th percentile per-packet one-way delay: 111.239 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 4.92 Mbit/s
95th percentile per-packet one-way delay: 110.327 ms
Loss rate: 0.30%

Run 10: Report of Vivace-latency — Data Link

```
Run 1: Statistics of Vivace-loss

Start at: 2018-01-17 03:10:04
End at: 2018-01-17 03:10:34
Local clock offset: 1.098 ms
Remote clock offset: 0.289 ms


# Below is generated by plot.py at 2018-01-17 07:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.06 Mbit/s
95th percentile per-packet one-way delay: 116.698 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 47.64 Mbit/s
95th percentile per-packet one-way delay: 116.436 ms
Loss rate: 3.90%
-- Flow 2:
Average throughput: 16.16 Mbit/s
95th percentile per-packet one-way delay: 118.474 ms
Loss rate: 3.49%
-- Flow 3:
Average throughput: 20.79 Mbit/s
95th percentile per-packet one-way delay: 116.872 ms
Loss rate: 4.25%
```
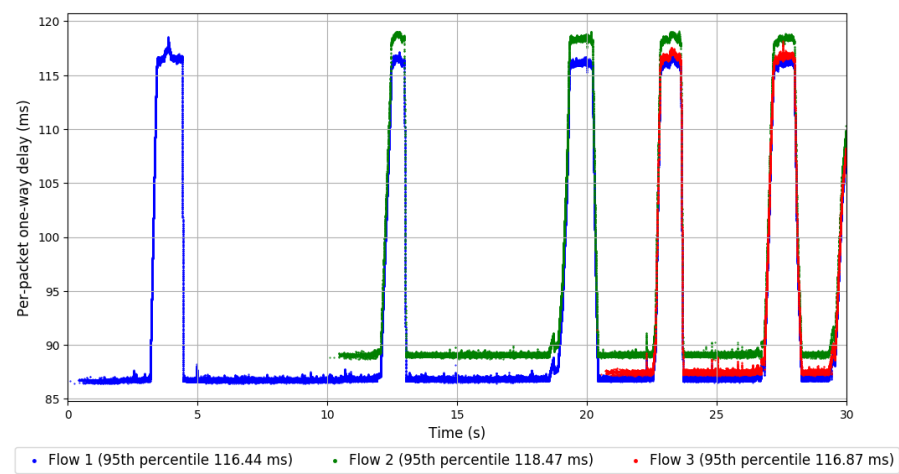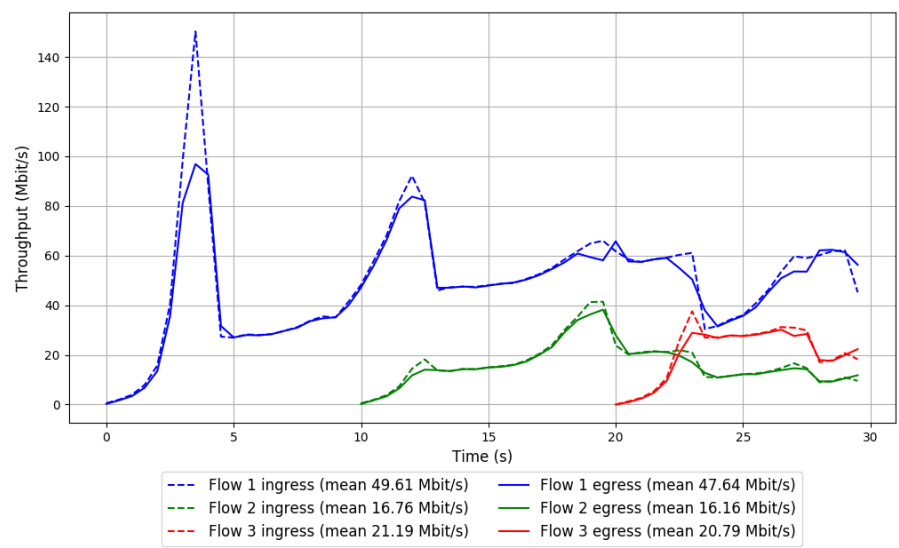
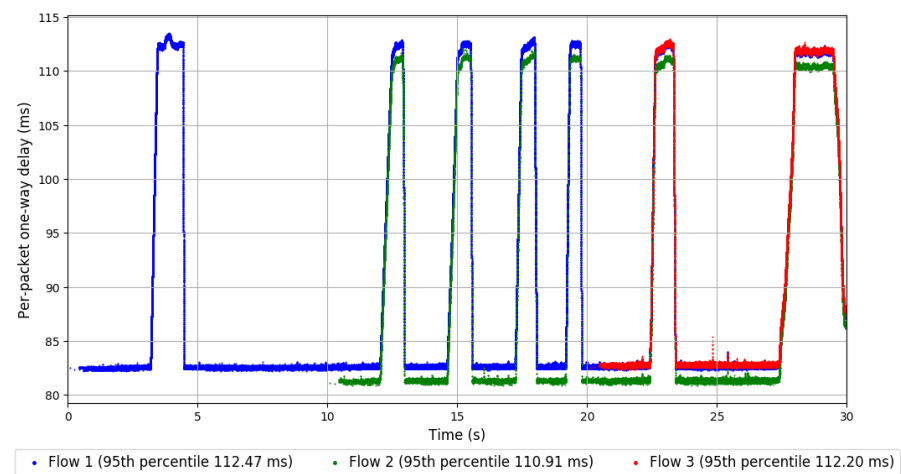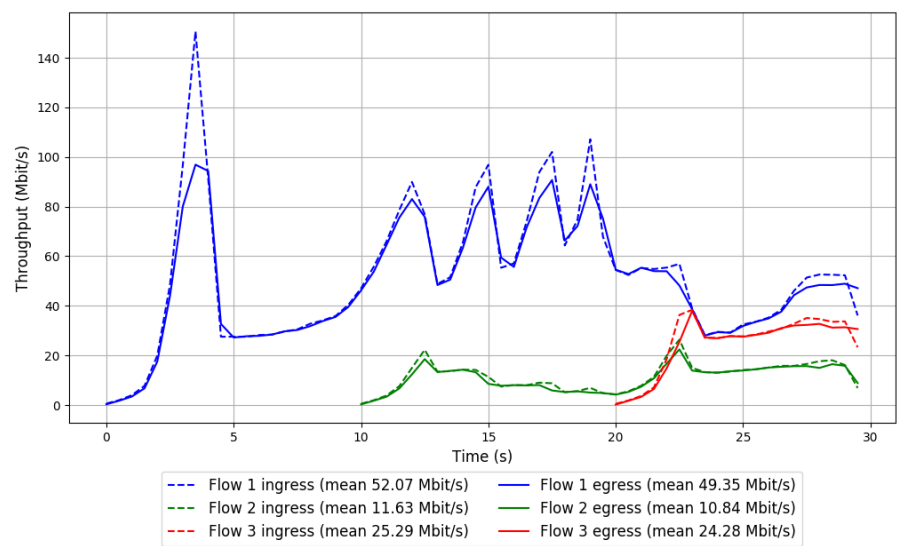Run 1: Report of Vivace-loss — Data Link

```
Run 2: Statistics of Vivace-loss

Start at: 2018-01-17 03:33:16
End at: 2018-01-17 03:33:46
Local clock offset: 0.928 ms
Remote clock offset: -5.949 ms


# Below is generated by plot.py at 2018-01-17 07:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.55 Mbit/s
95th percentile per-packet one-way delay: 112.426 ms
Loss rate: 5.23%
-- Flow 1:
Average throughput: 49.35 Mbit/s
95th percentile per-packet one-way delay: 112.466 ms
Loss rate: 5.21%
-- Flow 2:
Average throughput: 10.84 Mbit/s
95th percentile per-packet one-way delay: 110.913 ms
Loss rate: 6.75%
-- Flow 3:
Average throughput: 24.28 Mbit/s
95th percentile per-packet one-way delay: 112.199 ms
Loss rate: 3.95%
```

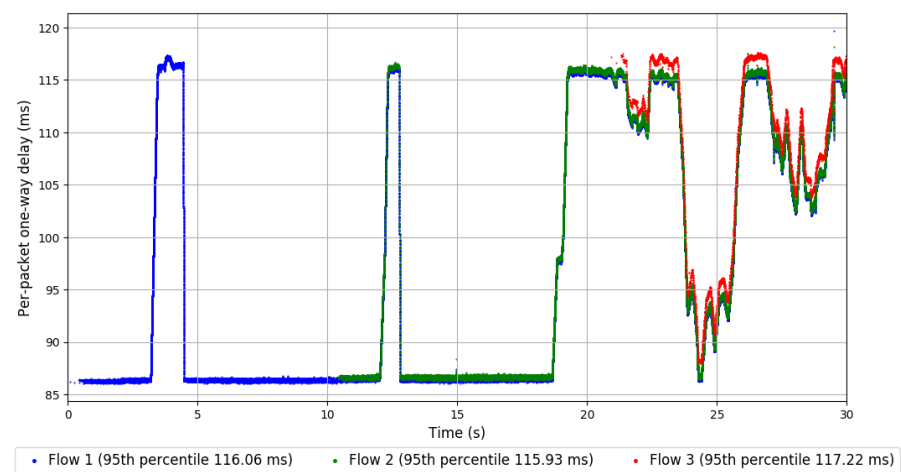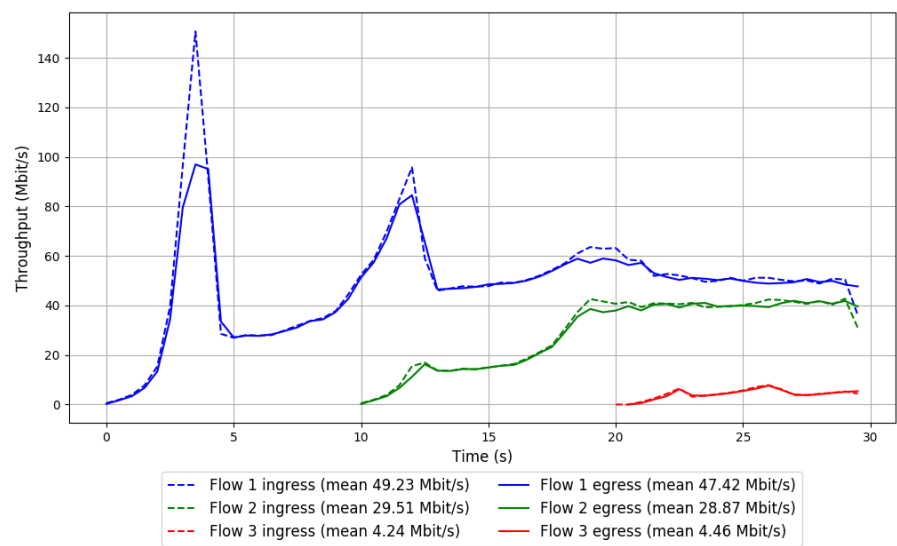Run 2: Report of Vivace-loss — Data Link

```
Run 3: Statistics of Vivace-loss

Start at: 2018-01-17 03:56:35
End at: 2018-01-17 03:57:05
Local clock offset: 0.895 ms
Remote clock offset: -0.953 ms


# Below is generated by plot.py at 2018-01-17 07:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.97 Mbit/s
95th percentile per-packet one-way delay: 116.027 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 47.42 Mbit/s
95th percentile per-packet one-way delay: 116.060 ms
Loss rate: 3.60%
-- Flow 2:
Average throughput: 28.87 Mbit/s
95th percentile per-packet one-way delay: 115.932 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 117.216 ms
Loss rate: 2.93%
```

Run 3: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 49.23 Mbit/s)   Flow 1 egress (mean 47.42 Mbit/s)
Flow 2 ingress (mean 29.51 Mbit/s)   Flow 2 egress (mean 28.87 Mbit/s)
Flow 3 ingress (mean 4.24 Mbit/s)   Flow 3 egress (mean 4.46 Mbit/s)

Flow 1 (95th percentile 116.06 ms)   Flow 2 (95th percentile 115.93 ms)   Flow 3 (95th percentile 117.22 ms)
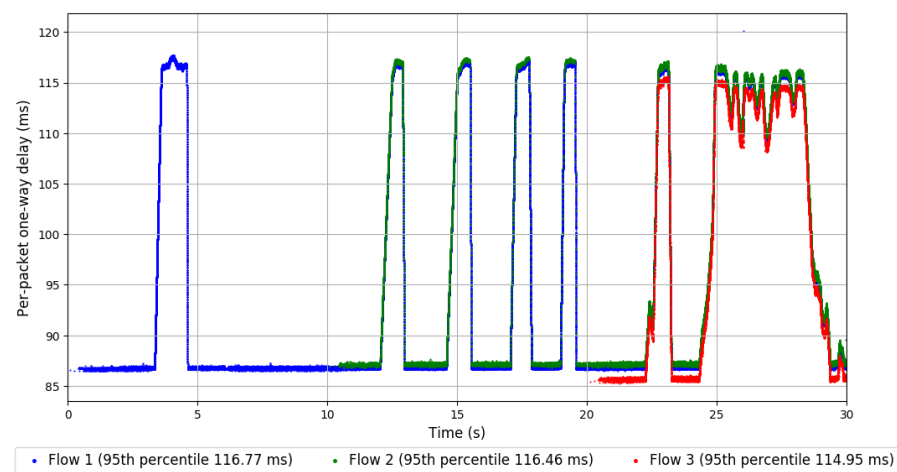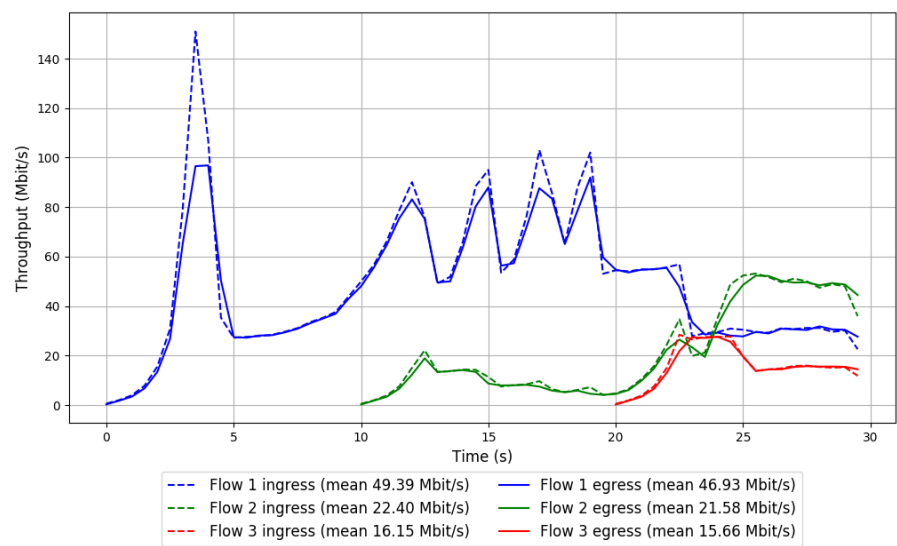
```
Run 4: Statistics of Vivace-loss

Start at: 2018-01-17 04:19:53
End at: 2018-01-17 04:20:23
Local clock offset: 0.854 ms
Remote clock offset: -1.564 ms


# Below is generated by plot.py at 2018-01-17 07:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.43 Mbit/s
95th percentile per-packet one-way delay: 116.708 ms
Loss rate: 4.55%
-- Flow 1:
Average throughput: 46.93 Mbit/s
95th percentile per-packet one-way delay: 116.767 ms
Loss rate: 4.98%
-- Flow 2:
Average throughput: 21.58 Mbit/s
95th percentile per-packet one-way delay: 116.464 ms
Loss rate: 3.64%
-- Flow 3:
Average throughput: 15.66 Mbit/s
95th percentile per-packet one-way delay: 114.954 ms
Loss rate: 3.02%
```

Run 4: Report of Vivace-loss — Data Link

```
Run 5: Statistics of Vivace-loss

Start at: 2018-01-17 04:43:17
End at: 2018-01-17 04:43:47
Local clock offset: 0.775 ms
Remote clock offset: 3.327 ms


# Below is generated by plot.py at 2018-01-17 07:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.66 Mbit/s
95th percentile per-packet one-way delay: 122.535 ms
Loss rate: 5.33%
-- Flow 1:
Average throughput: 46.30 Mbit/s
95th percentile per-packet one-way delay: 122.573 ms
Loss rate: 5.00%
-- Flow 2:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 122.438 ms
Loss rate: 6.01%
-- Flow 3:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 121.977 ms
Loss rate: 12.10%
```
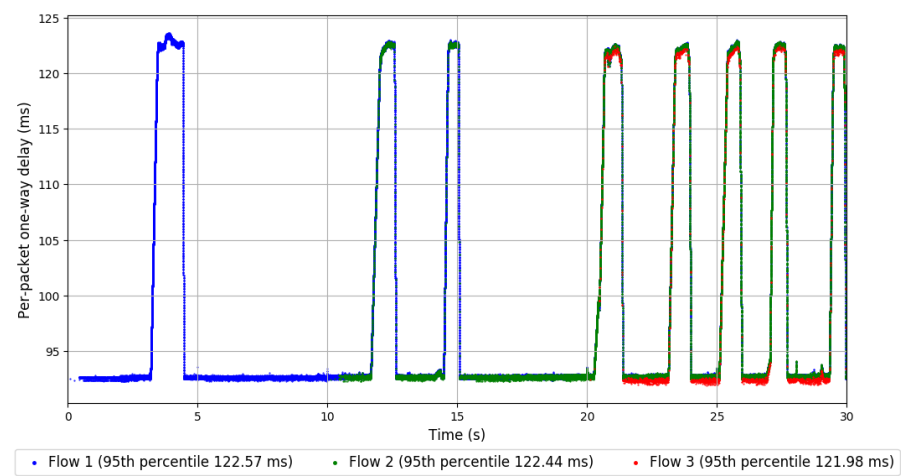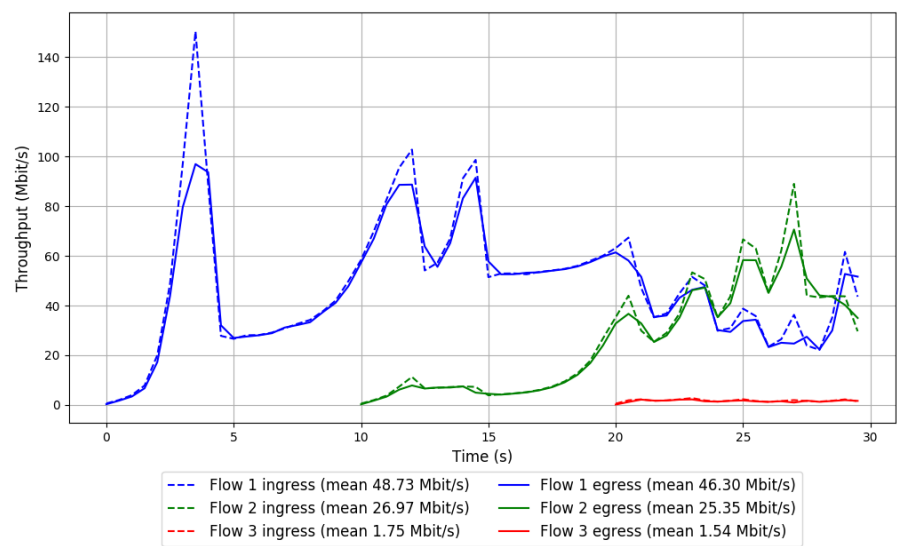
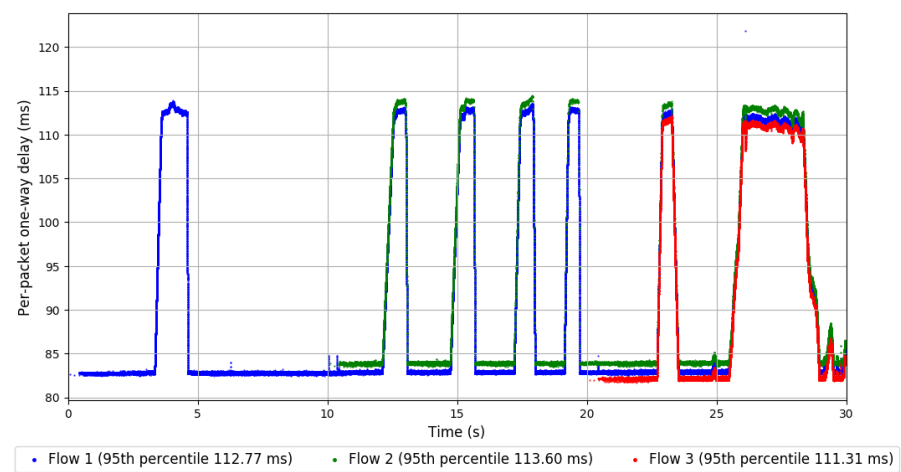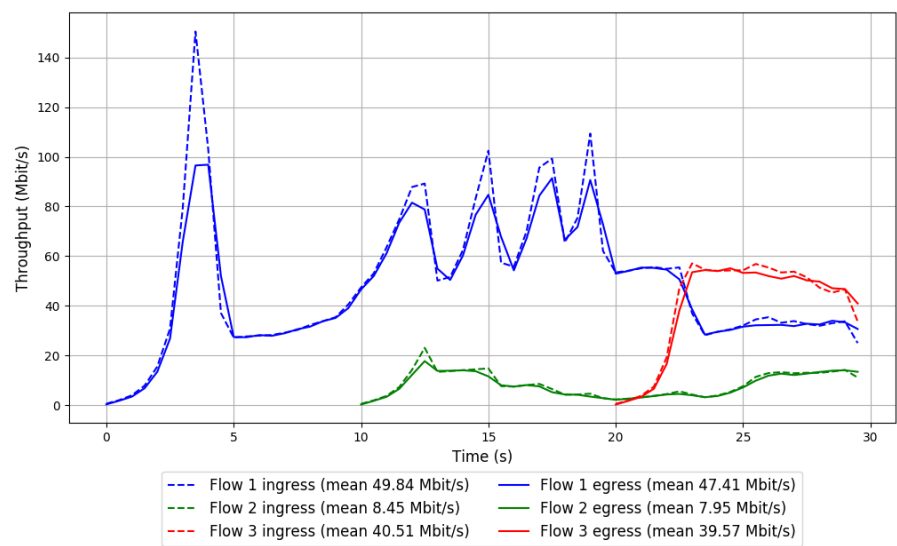Run 5: Report of Vivace-loss — Data Link

```
Run 6: Statistics of Vivace-loss

Start at: 2018-01-17 05:06:41
End at: 2018-01-17 05:07:11
Local clock offset: 0.647 ms
Remote clock offset: -5.383 ms


# Below is generated by plot.py at 2018-01-17 07:31:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.74 Mbit/s
95th percentile per-packet one-way delay: 112.766 ms
Loss rate: 4.44%
-- Flow 1:
Average throughput: 47.41 Mbit/s
95th percentile per-packet one-way delay: 112.772 ms
Loss rate: 4.86%
-- Flow 2:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 113.597 ms
Loss rate: 5.83%
-- Flow 3:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 111.314 ms
Loss rate: 2.29%
```

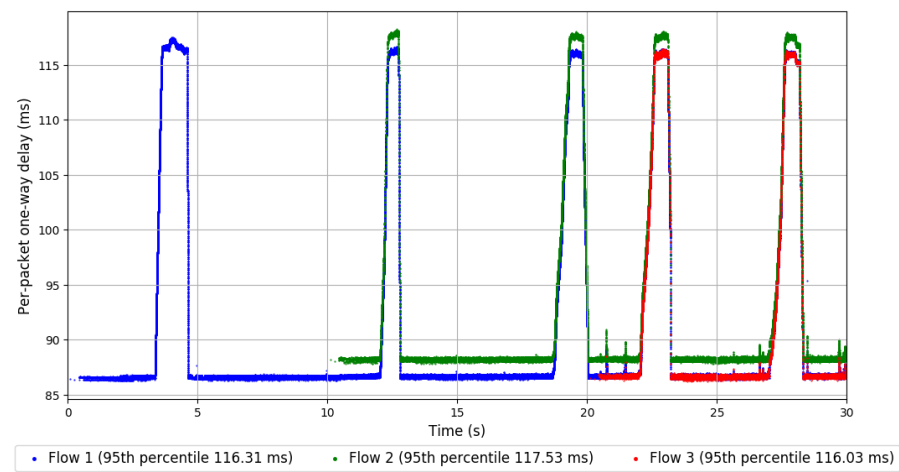# Run 6: Report of Vivace-loss — Data Link

```
Run 7: Statistics of Vivace-loss

Start at: 2018-01-17 05:30:03
End at: 2018-01-17 05:30:33
Local clock offset: 0.656 ms
Remote clock offset: -0.753 ms


# Below is generated by plot.py at 2018-01-17 07:32:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.11 Mbit/s
95th percentile per-packet one-way delay: 116.527 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 44.41 Mbit/s
95th percentile per-packet one-way delay: 116.309 ms
Loss rate: 3.43%
-- Flow 2:
Average throughput: 22.46 Mbit/s
95th percentile per-packet one-way delay: 117.527 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 8.43 Mbit/s
95th percentile per-packet one-way delay: 116.028 ms
Loss rate: 3.55%
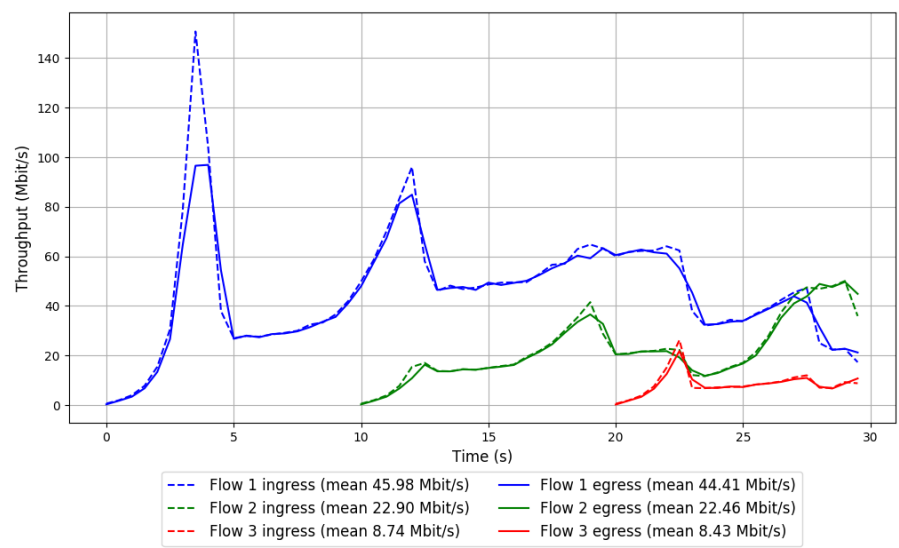```

Run 7: Report of Vivace-loss — Data Link





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```
Run 8: Statistics of Vivace-loss

Start at: 2018-01-17 05:53:24
End at: 2018-01-17 05:53:54
Local clock offset: 0.661 ms
Remote clock offset: 0.558 ms


# Below is generated by plot.py at 2018-01-17 07:32:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 119.736 ms
Loss rate: 4.82%
-- Flow 1:
Average throughput: 46.29 Mbit/s
95th percentile per-packet one-way delay: 119.808 ms
Loss rate: 4.90%
-- Flow 2:
Average throughput: 20.69 Mbit/s
95th percentile per-packet one-way delay: 118.556 ms
Loss rate: 4.35%
-- Flow 3:
Average throughput: 7.28 Mbit/s
95th percentile per-packet one-way delay: 117.011 ms
Loss rate: 5.97%
```

Run 8: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 48.72 Mbit/s) --- Flow 1 egress (mean 46.29 Mbit/s)
Flow 2 ingress (mean 21.66 Mbit/s) --- Flow 2 egress (mean 20.69 Mbit/s)
Flow 3 ingress (mean 7.77 Mbit/s) --- Flow 3 egress (mean 7.28 Mbit/s)

Flow 1 (95th percentile 119.81 ms)   Flow 2 (95th percentile 118.56 ms)   Flow 3 (95th percentile 117.01 ms)

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```
Run 9: Statistics of Vivace-loss

Start at: 2018-01-17 06:16:55
End at: 2018-01-17 06:17:25
Local clock offset: 0.719 ms
Remote clock offset: 0.843 ms


# Below is generated by plot.py at 2018-01-17 07:32:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.62 Mbit/s
95th percentile per-packet one-way delay: 118.409 ms
Loss rate: 4.84%
-- Flow 1:
Average throughput: 35.22 Mbit/s
95th percentile per-packet one-way delay: 116.876 ms
Loss rate: 5.09%
-- Flow 2:
Average throughput: 37.75 Mbit/s
95th percentile per-packet one-way delay: 118.825 ms
Loss rate: 4.39%
-- Flow 3:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 117.124 ms
Loss rate: 9.20%
```
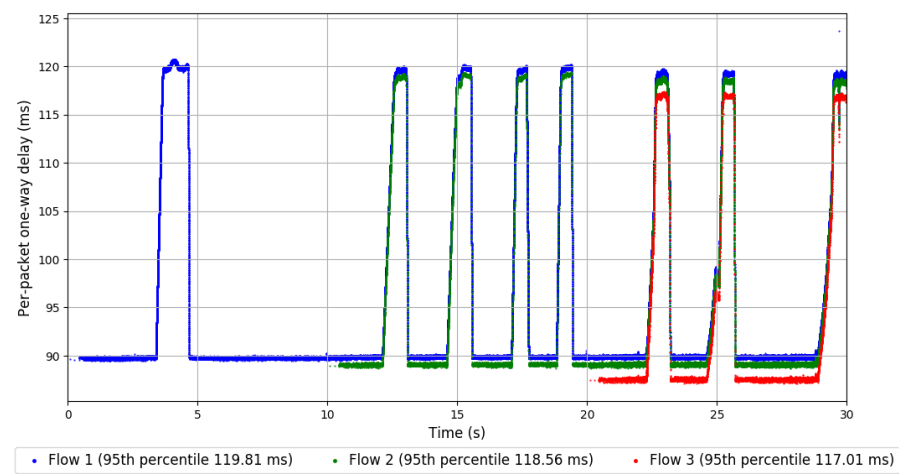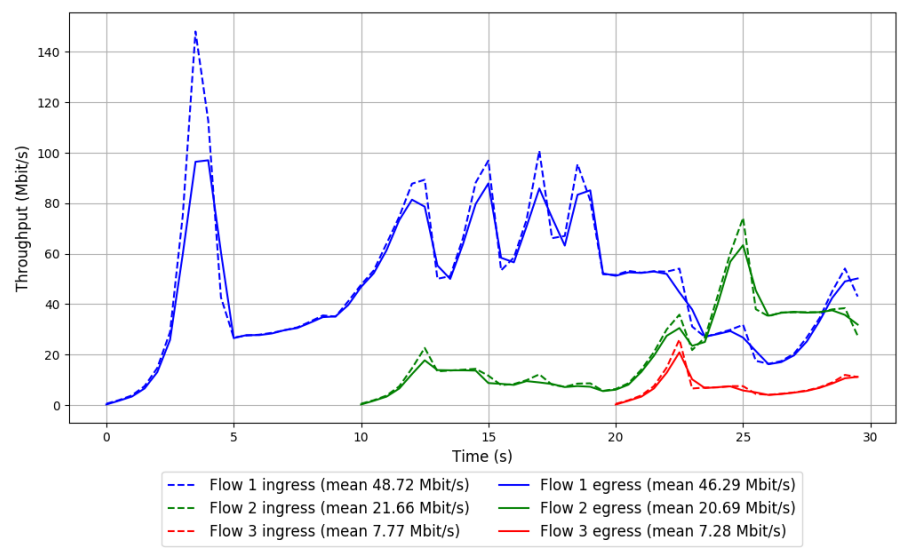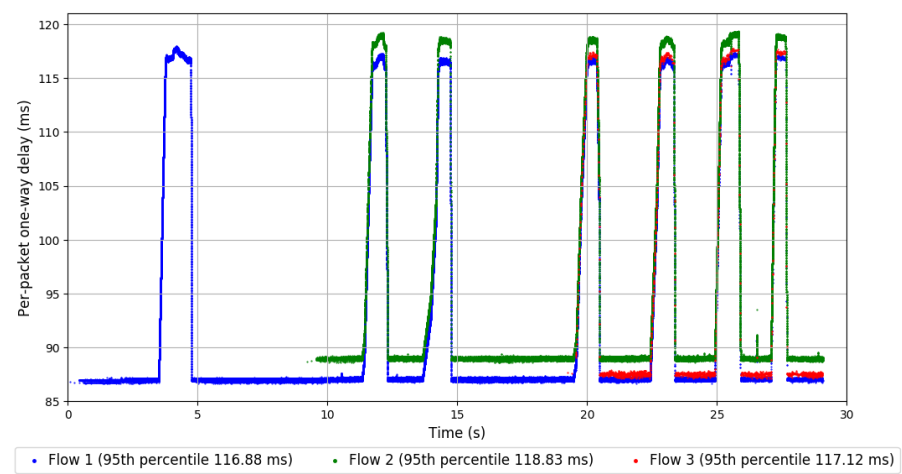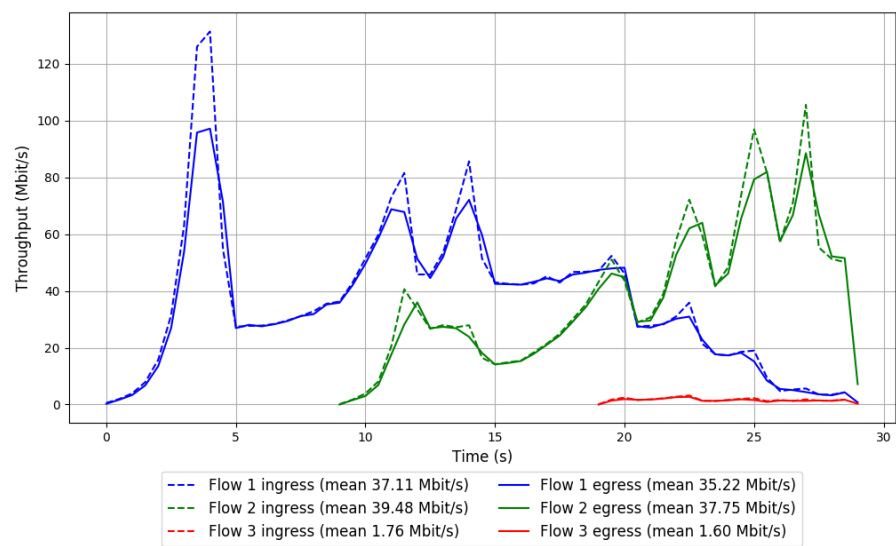
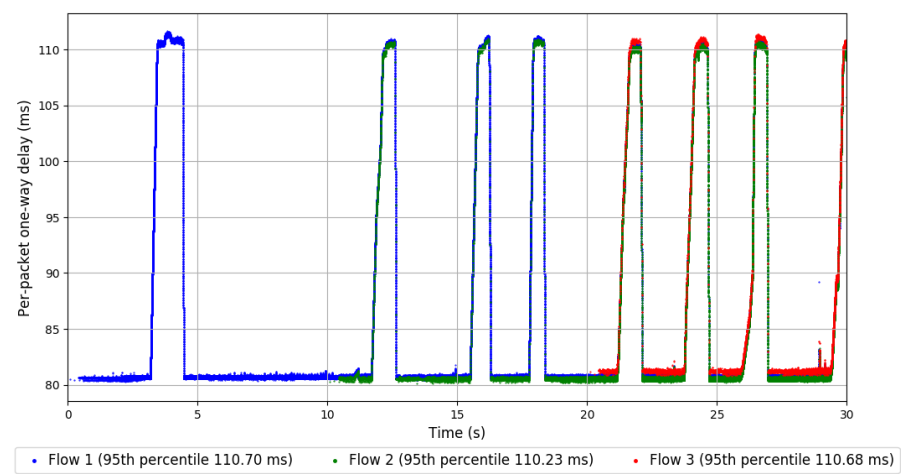Run 9: Report of Vivace-loss — Data Link

```
Run 10: Statistics of Vivace-loss

Start at: 2018-01-17 06:40:06
End at: 2018-01-17 06:40:36
Local clock offset: 0.61 ms
Remote clock offset: -4.923 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.45 Mbit/s
95th percentile per-packet one-way delay: 110.583 ms
Loss rate: 4.12%
-- Flow 1:
Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 110.701 ms
Loss rate: 4.07%
-- Flow 2:
Average throughput: 26.40 Mbit/s
95th percentile per-packet one-way delay: 110.234 ms
Loss rate: 3.98%
-- Flow 3:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 110.676 ms
Loss rate: 7.39%
```
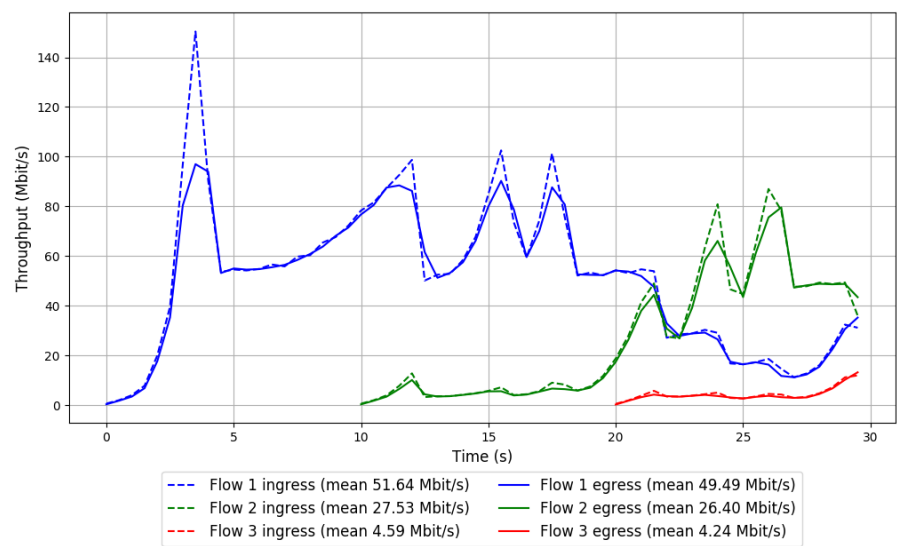
Run 10: Report of Vivace-loss — Data Link

- Flow 1 ingress (mean 51.64 Mbit/s)
- Flow 1 egress (mean 49.49 Mbit/s)
- Flow 2 ingress (mean 27.53 Mbit/s)
- Flow 2 egress (mean 26.40 Mbit/s)
- Flow 3 ingress (mean 4.59 Mbit/s)
- Flow 3 egress (mean 4.24 Mbit/s)

- Flow 1 (95th percentile 110.70 ms)
- Flow 2 (95th percentile 110.23 ms)
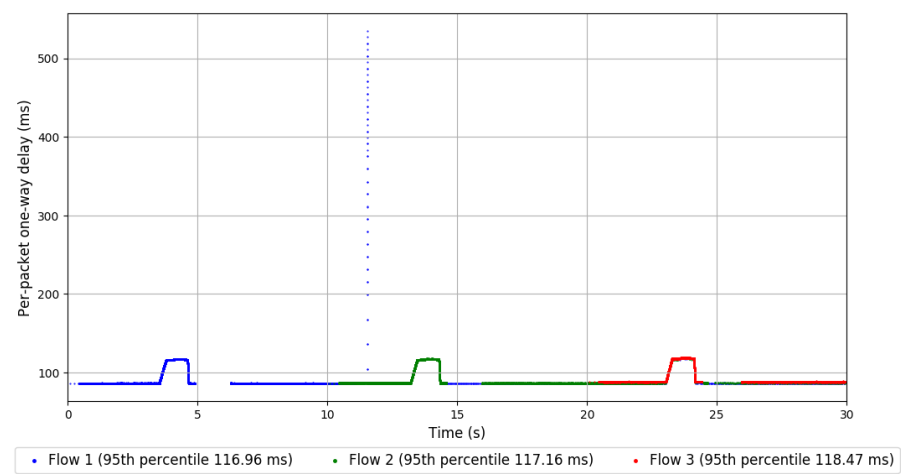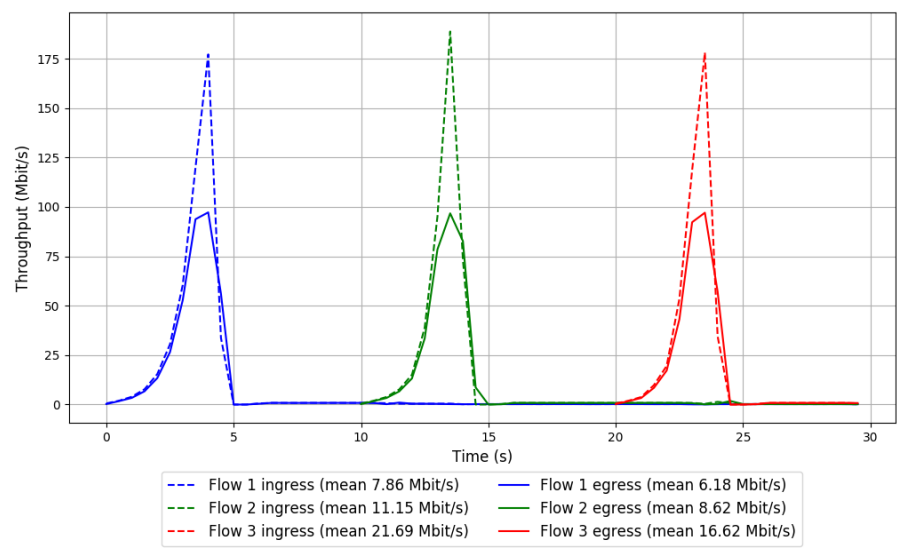- Flow 3 (95th percentile 110.68 ms)

```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-17 02:54:40
End at: 2018-01-17 02:55:10
Local clock offset: 0.93 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.38 Mbit/s
95th percentile per-packet one-way delay: 117.904 ms
Loss rate: 22.44%
-- Flow 1:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 116.959 ms
Loss rate: 21.35%
-- Flow 2:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 117.162 ms
Loss rate: 22.70%
-- Flow 3:
Average throughput: 16.62 Mbit/s
95th percentile per-packet one-way delay: 118.472 ms
Loss rate: 23.37%
```

Run 1: Report of Vivace-LTE — Data Link

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```
Run 2: Statistics of Vivace-LTE

Start at: 2018-01-17 03:17:53
End at: 2018-01-17 03:18:23
Local clock offset: 1.1 ms
Remote clock offset: 0.079 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.51 Mbit/s
95th percentile per-packet one-way delay: 118.327 ms
Loss rate: 22.29%
-- Flow 1:
Average throughput: 5.97 Mbit/s
95th percentile per-packet one-way delay: 118.770 ms
Loss rate: 21.89%
-- Flow 2:
Average throughput: 9.04 Mbit/s
95th percentile per-packet one-way delay: 117.222 ms
Loss rate: 21.85%
-- Flow 3:
Average throughput: 16.78 Mbit/s
95th percentile per-packet one-way delay: 117.518 ms
Loss rate: 23.20%
```

Run 2: Report of Vivace-LTE — Data Link

- Flow 1 ingress (mean 7.65 Mbit/s)
- Flow 1 egress (mean 5.97 Mbit/s)
- Flow 2 ingress (mean 11.57 Mbit/s)
- Flow 2 egress (mean 9.04 Mbit/s)
- Flow 3 ingress (mean 21.85 Mbit/s)
- Flow 3 egress (mean 16.78 Mbit/s)

- Flow 1 (95th percentile 118.77 ms)
- Flow 2 (95th percentile 117.22 ms)
- Flow 3 (95th percentile 117.52 ms)

```
Run 3: Statistics of Vivace-LTE

Start at: 2018-01-17 03:41:09
End at: 2018-01-17 03:41:39
Local clock offset: 0.967 ms
Remote clock offset: -0.332 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.79 Mbit/s
95th percentile per-packet one-way delay: 118.733 ms
Loss rate: 22.10%
-- Flow 1:
Average throughput: 5.99 Mbit/s
95th percentile per-packet one-way delay: 119.240 ms
Loss rate: 21.88%
-- Flow 2:
Average throughput: 8.85 Mbit/s
95th percentile per-packet one-way delay: 118.089 ms
Loss rate: 22.30%
-- Flow 3:
Average throughput: 18.02 Mbit/s
95th percentile per-packet one-way delay: 117.393 ms
Loss rate: 22.12%
```
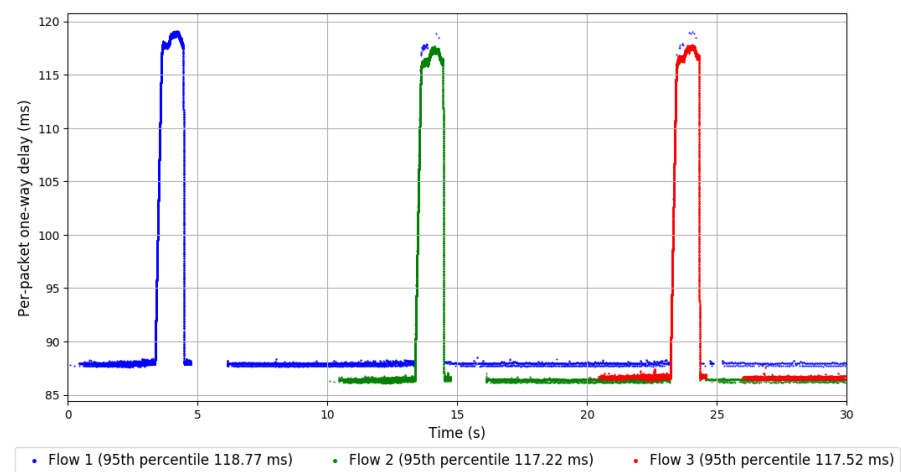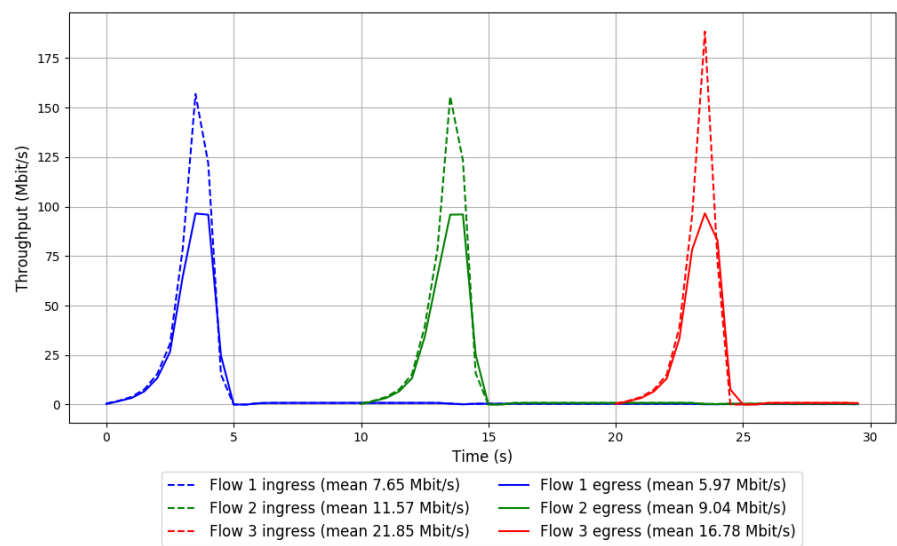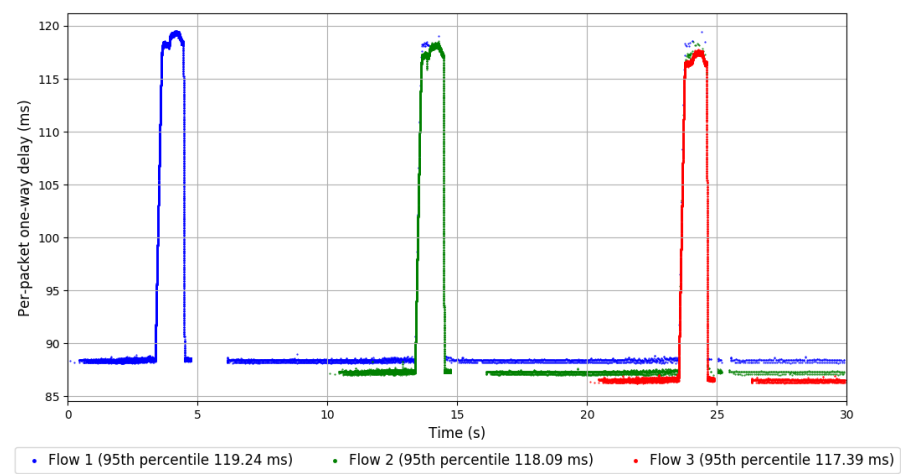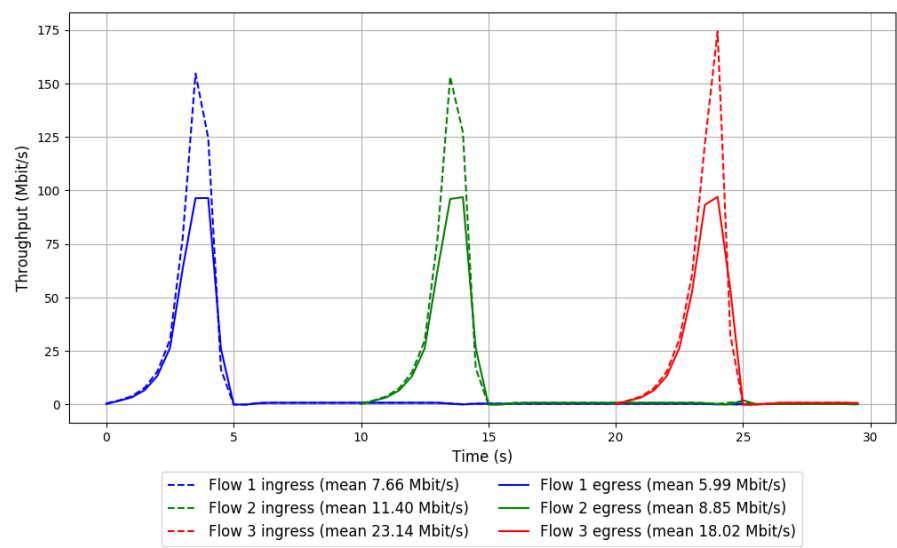
Run 3: Report of Vivace-LTE — Data Link

- Flow 1 ingress (mean 7.66 Mbit/s)
- Flow 2 ingress (mean 11.40 Mbit/s)
- Flow 3 ingress (mean 23.14 Mbit/s)
- Flow 1 egress (mean 5.99 Mbit/s)
- Flow 2 egress (mean 8.85 Mbit/s)
- Flow 3 egress (mean 18.02 Mbit/s)

- Flow 1 (95th percentile 119.24 ms)
- Flow 2 (95th percentile 118.09 ms)
- Flow 3 (95th percentile 117.39 ms)

```
Run 4: Statistics of Vivace-LTE

Start at: 2018-01-17 04:04:21
End at: 2018-01-17 04:04:51
Local clock offset: 0.837 ms
Remote clock offset: -0.8 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.12 Mbit/s
95th percentile per-packet one-way delay: 118.546 ms
Loss rate: 22.69%
-- Flow 1:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 118.642 ms
Loss rate: 22.12%
-- Flow 2:
Average throughput: 8.63 Mbit/s
95th percentile per-packet one-way delay: 118.562 ms
Loss rate: 22.66%
-- Flow 3:
Average throughput: 16.78 Mbit/s
95th percentile per-packet one-way delay: 118.202 ms
Loss rate: 23.31%
```
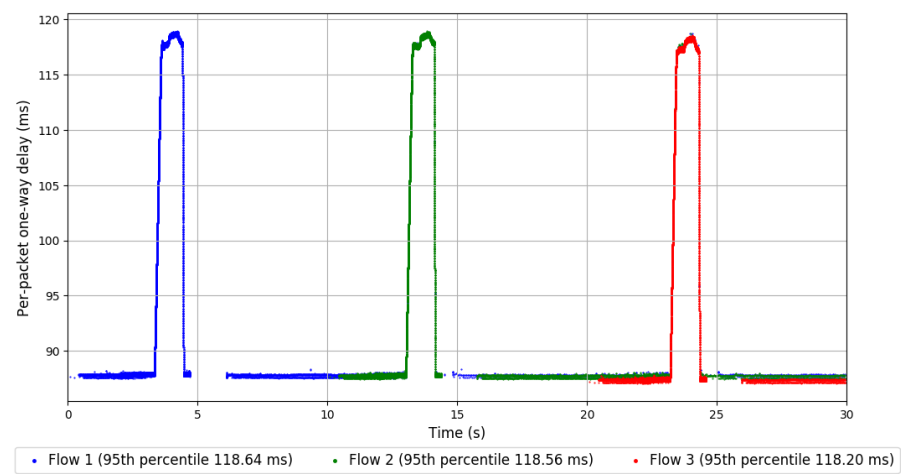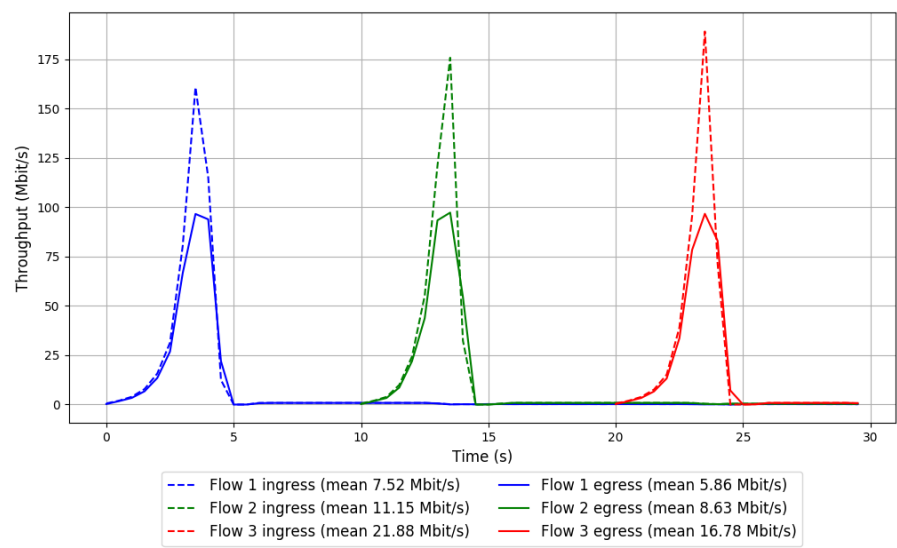
Run 4: Report of Vivace-LTE — Data Link

```
Run 5: Statistics of Vivace-LTE

Start at: 2018-01-17 04:27:45
End at: 2018-01-17 04:28:15
Local clock offset: 0.834 ms
Remote clock offset: 10.22 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.65 Mbit/s
95th percentile per-packet one-way delay: 129.700 ms
Loss rate: 22.14%
-- Flow 1:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 129.678 ms
Loss rate: 21.86%
-- Flow 2:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 129.876 ms
Loss rate: 22.81%
-- Flow 3:
Average throughput: 18.03 Mbit/s
95th percentile per-packet one-way delay: 128.348 ms
Loss rate: 21.77%
```
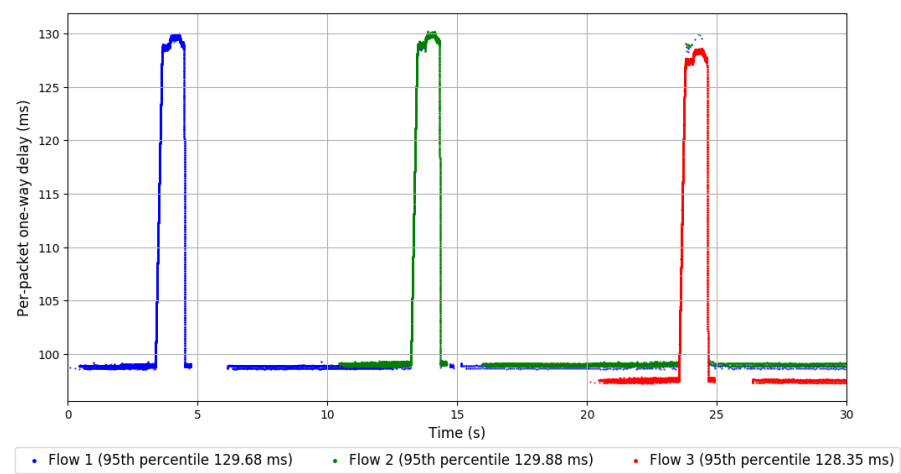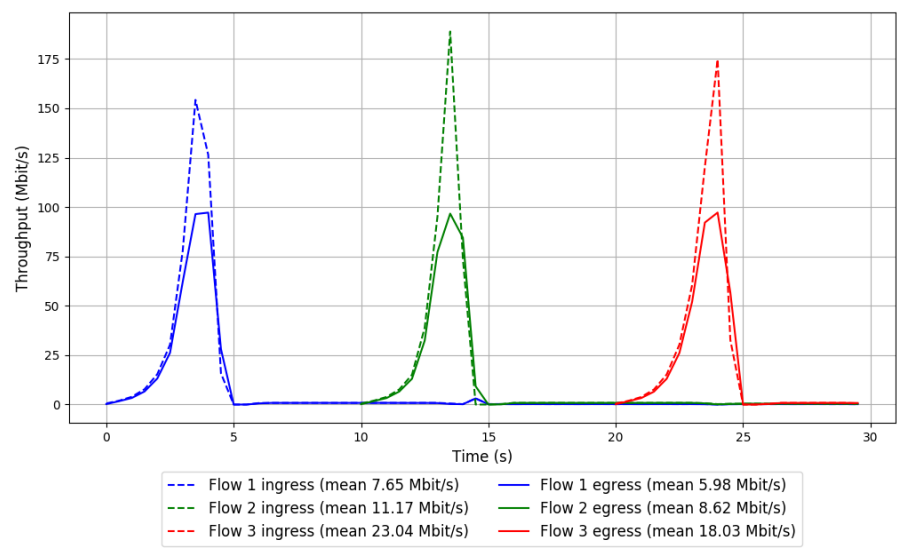
Run 5: Report of Vivace-LTE — Data Link

Legend:
- Flow 1 ingress (mean 7.65 Mbit/s) — Flow 1 egress (mean 5.98 Mbit/s)
- Flow 2 ingress (mean 11.17 Mbit/s) — Flow 2 egress (mean 8.62 Mbit/s)
- Flow 3 ingress (mean 23.04 Mbit/s) — Flow 3 egress (mean 18.03 Mbit/s)

Legend:
- Flow 1 (95th percentile 129.68 ms)
- Flow 2 (95th percentile 129.88 ms)
- Flow 3 (95th percentile 128.35 ms)

```
Run 6: Statistics of Vivace-LTE

Start at: 2018-01-17 04:51:09
End at: 2018-01-17 04:51:39
Local clock offset: 0.744 ms
Remote clock offset: 4.364 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.08 Mbit/s
95th percentile per-packet one-way delay: 122.497 ms
Loss rate: 22.70%
-- Flow 1:
Average throughput: 5.78 Mbit/s
95th percentile per-packet one-way delay: 122.329 ms
Loss rate: 22.47%
-- Flow 2:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 122.594 ms
Loss rate: 22.93%
-- Flow 3:
Average throughput: 17.10 Mbit/s
95th percentile per-packet one-way delay: 122.497 ms
Loss rate: 22.71%
```
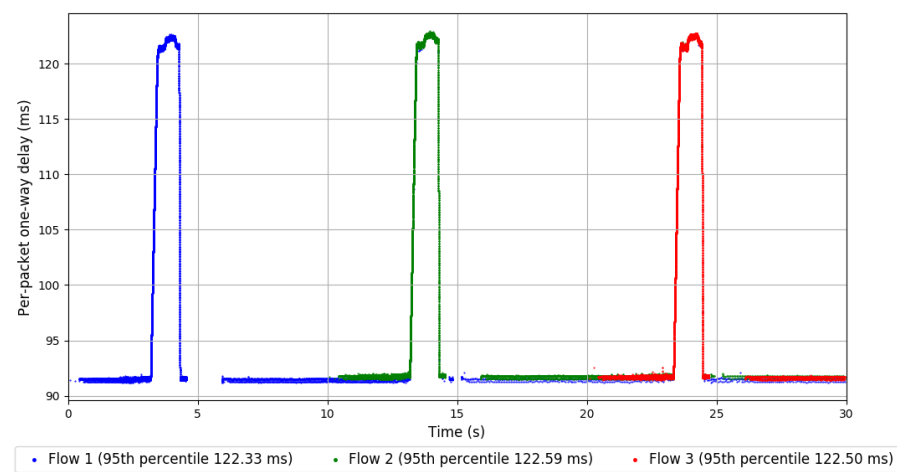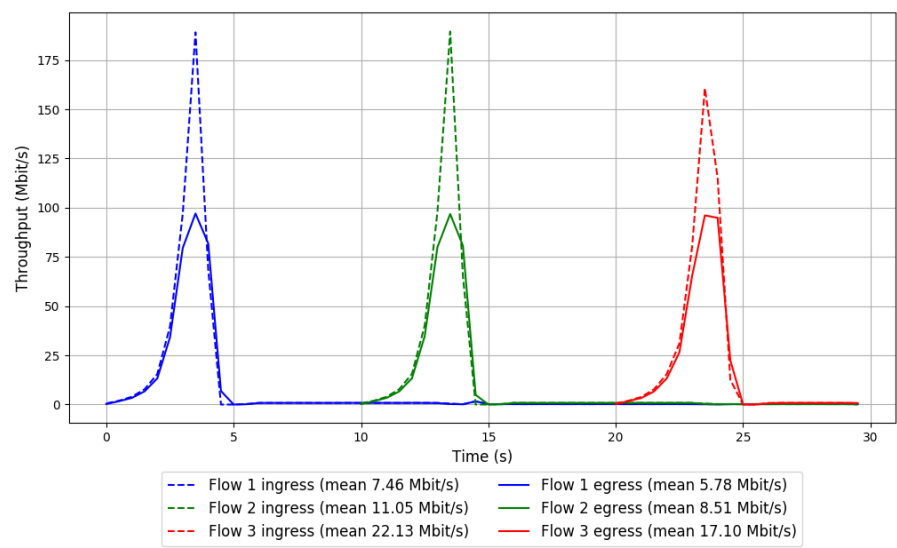
Run 6: Report of Vivace-LTE — Data Link

```
Run 7: Statistics of Vivace-LTE

Start at: 2018-01-17 05:14:27
End at: 2018-01-17 05:14:57
Local clock offset: 0.652 ms
Remote clock offset: 1.467 ms

# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.19 Mbit/s
95th percentile per-packet one-way delay: 120.810 ms
Loss rate: 22.47%
-- Flow 1:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 119.434 ms
Loss rate: 21.88%
-- Flow 2:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 121.123 ms
Loss rate: 22.30%
-- Flow 3:
Average throughput: 16.66 Mbit/s
95th percentile per-packet one-way delay: 119.697 ms
Loss rate: 23.26%
```
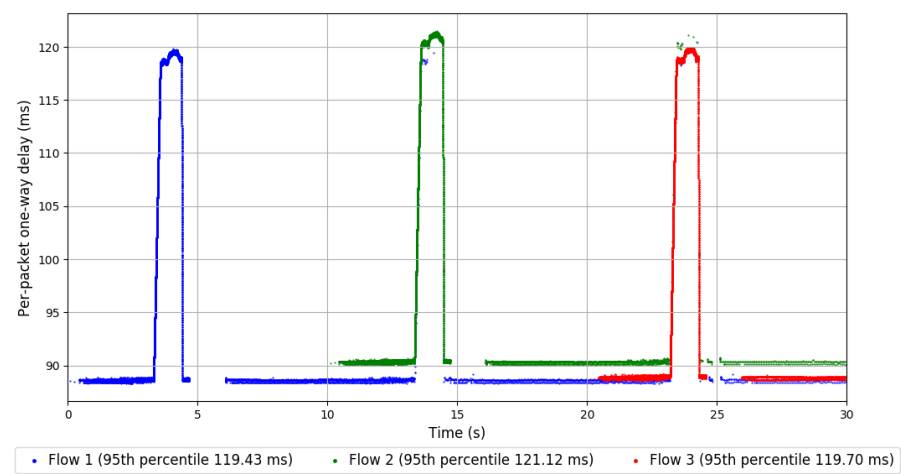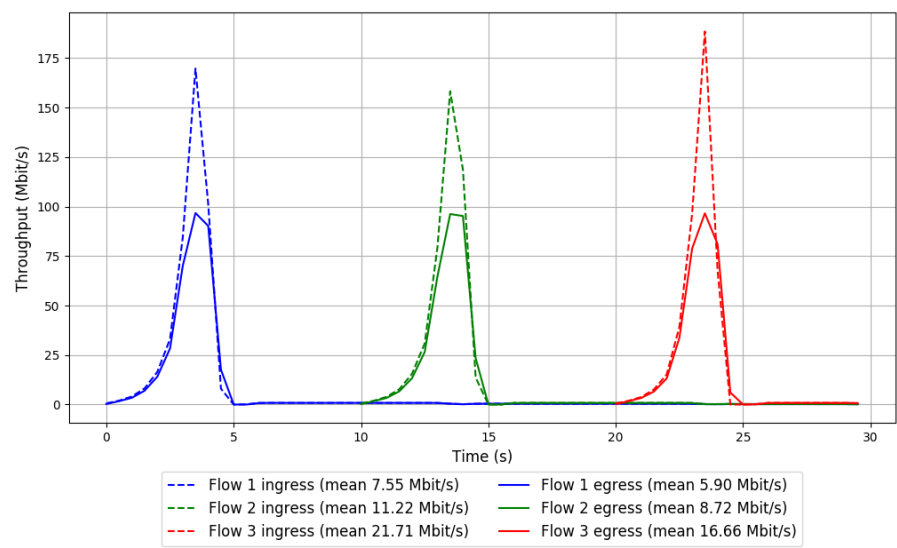
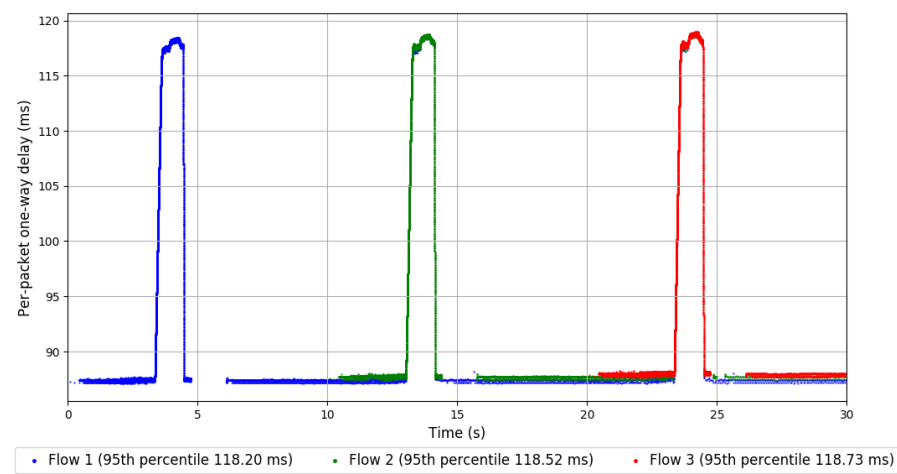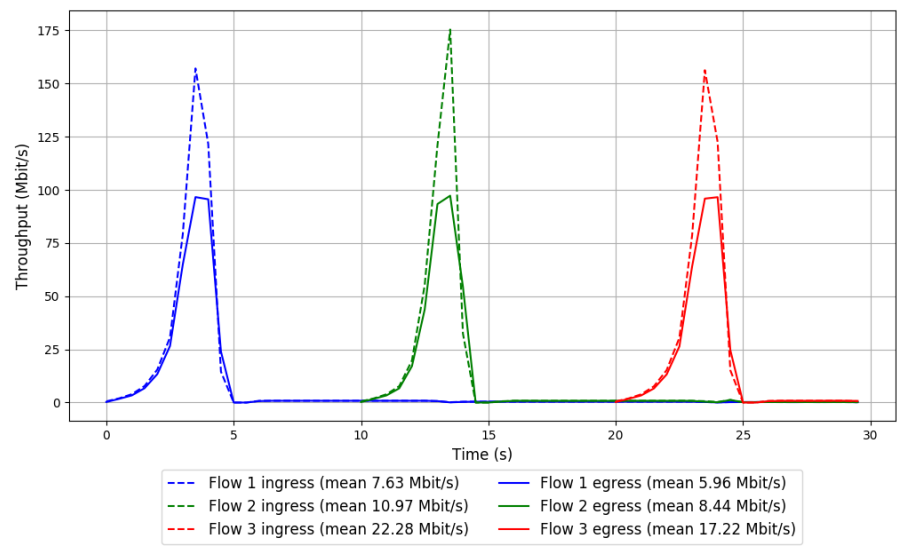# Run 7: Report of Vivace-LTE — Data Link

```
Run 8: Statistics of Vivace-LTE

Start at: 2018-01-17 05:37:51
End at: 2018-01-17 05:38:21
Local clock offset: 0.648 ms
Remote clock offset: -0.978 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.24 Mbit/s
95th percentile per-packet one-way delay: 118.565 ms
Loss rate: 22.57%
-- Flow 1:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 118.205 ms
Loss rate: 21.94%
-- Flow 2:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 118.523 ms
Loss rate: 23.09%
-- Flow 3:
Average throughput: 17.22 Mbit/s
95th percentile per-packet one-way delay: 118.732 ms
Loss rate: 22.71%
```

Run 8: Report of Vivace-LTE — Data Link

- Flow 1 ingress (mean 7.63 Mbit/s)
- Flow 1 egress (mean 5.96 Mbit/s)
- Flow 2 ingress (mean 10.97 Mbit/s)
- Flow 2 egress (mean 8.44 Mbit/s)
- Flow 3 ingress (mean 22.28 Mbit/s)
- Flow 3 egress (mean 17.22 Mbit/s)

- Flow 1 (95th percentile 118.20 ms)
- Flow 2 (95th percentile 118.52 ms)
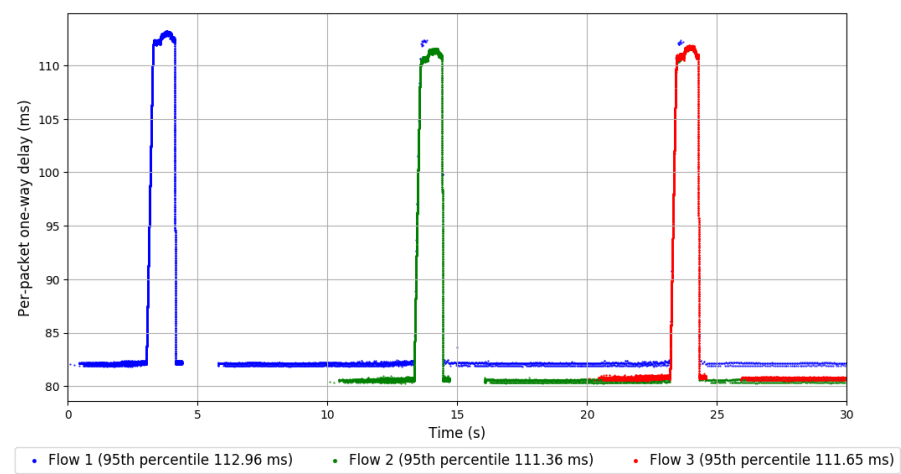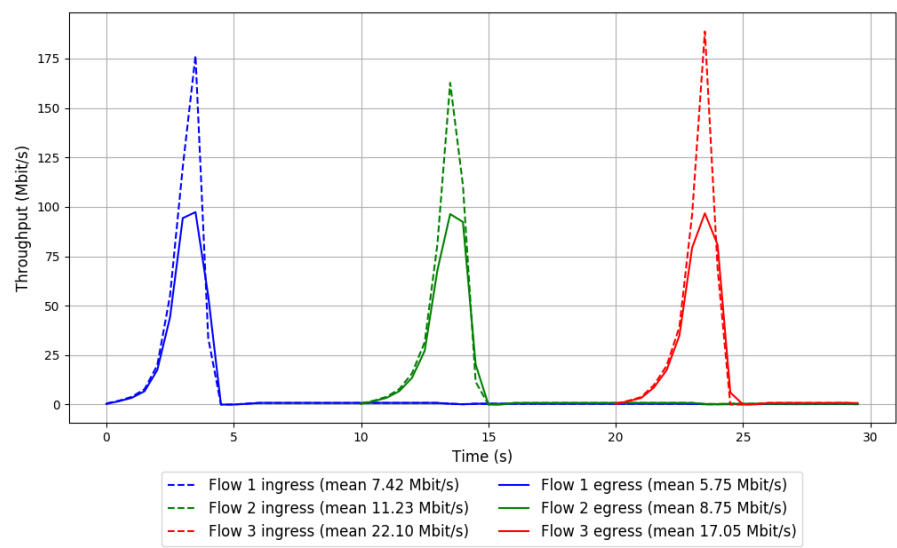- Flow 3 (95th percentile 118.73 ms)

```
Run 9: Statistics of Vivace-LTE

Start at: 2018-01-17 06:01:10
End at: 2018-01-17 06:01:40
Local clock offset: 0.623 ms
Remote clock offset: -6.256 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.19 Mbit/s
95th percentile per-packet one-way delay: 112.650 ms
Loss rate: 22.45%
-- Flow 1:
Average throughput: 5.75 Mbit/s
95th percentile per-packet one-way delay: 112.957 ms
Loss rate: 22.42%
-- Flow 2:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 111.360 ms
Loss rate: 22.10%
-- Flow 3:
Average throughput: 17.05 Mbit/s
95th percentile per-packet one-way delay: 111.650 ms
Loss rate: 22.85%
```

Run 9: Report of Vivace-LTE — Data Link

```
Run 10: Statistics of Vivace-LTE

Start at: 2018-01-17 06:24:40
End at: 2018-01-17 06:25:10
Local clock offset: 0.713 ms
Remote clock offset: -4.56 ms


# Below is generated by plot.py at 2018-01-17 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.46 Mbit/s
95th percentile per-packet one-way delay: 113.895 ms
Loss rate: 22.21%
-- Flow 1:
Average throughput: 5.97 Mbit/s
95th percentile per-packet one-way delay: 114.174 ms
Loss rate: 21.73%
-- Flow 2:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 112.555 ms
Loss rate: 22.24%
-- Flow 3:
Average throughput: 17.24 Mbit/s
95th percentile per-packet one-way delay: 112.485 ms
Loss rate: 22.66%
```

Run 10: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 7.62 Mbit/s) — — — Flow 1 egress (mean 5.97 Mbit/s) ———
Flow 2 ingress (mean 11.24 Mbit/s) — — — Flow 2 egress (mean 8.74 Mbit/s) ———
Flow 3 ingress (mean 22.30 Mbit/s) — — — Flow 3 egress (mean 17.24 Mbit/s) ———

Flow 1 (95th percentile 114.17 ms)   Flow 2 (95th percentile 112.56 ms)   Flow 3 (95th percentile 112.48 ms)