Pantheon Report

Generated at 2018-02-16 04:45:20 (UTC).

Data path: GCE Sydney Ethernet (*remote*) →GCE Iowa Ethernet (*local*).

Repeated the test of 17 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.
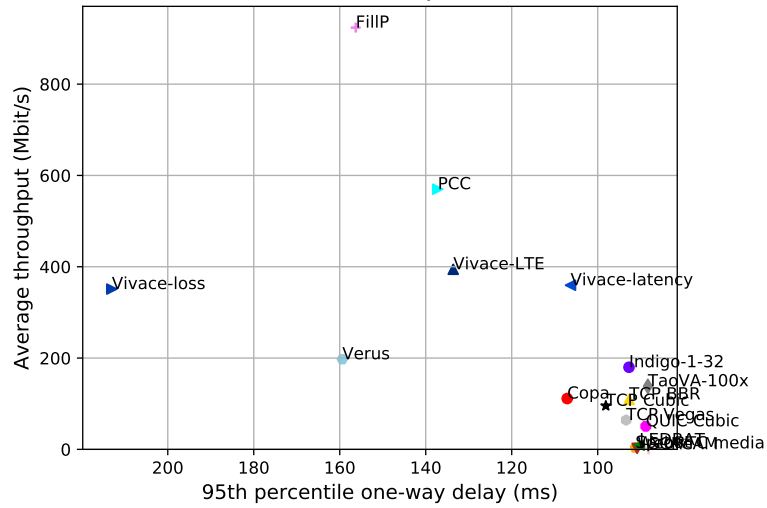
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

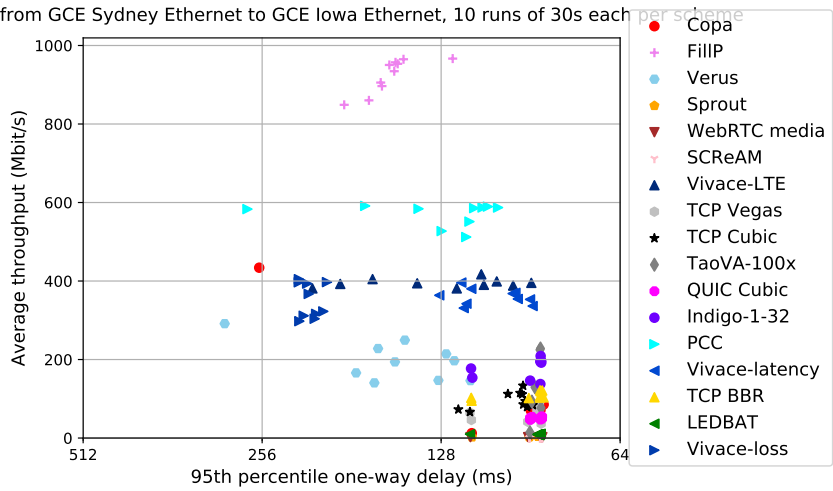Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

```
Git summary:
branch: master @ cccb2d77344969a7bac1df6edf6c0cfb6c77a6f8
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 8400b8926887fc4cf8c795a1d7ce2c8ac041ec72
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE Sydney Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE Sydney Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	109.46	92.71	0.70
TCP Cubic	10	95.37	98.12	0.75
LEDBAT	10	9.29	90.34	1.30
PCC	10	569.88	137.20	1.78
QUIC Cubic	9	50.48	88.82	0.99
SCReAM	10	0.22	88.16	0.61
WebRTC media	10	2.12	90.84	0.82
Sprout	10	3.41	91.26	0.75
TaoVA-100x	7	138.20	88.34	0.86
TCP Vegas	10	64.09	93.39	0.65
Verus	10	197.37	159.42	2.30
Copa	10	111.29	107.09	4.06
FillP	10	923.82	156.29	3.87
Indigo-1-32	10	179.84	92.73	0.74
Vivace-latency	10	359.49	106.33	0.89
Vivace-loss	10	351.13	213.01	4.65
Vivace-LTE	10	394.47	133.61	0.94

```
Run 1: Statistics of TCP BBR

Start at: 2018-02-15 22:01:29
End at: 2018-02-15 22:01:59

# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.69 Mbit/s
95th percentile per-packet one-way delay: 87.268 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 121.69 Mbit/s
95th percentile per-packet one-way delay: 87.268 ms
Loss rate: 0.64%
```
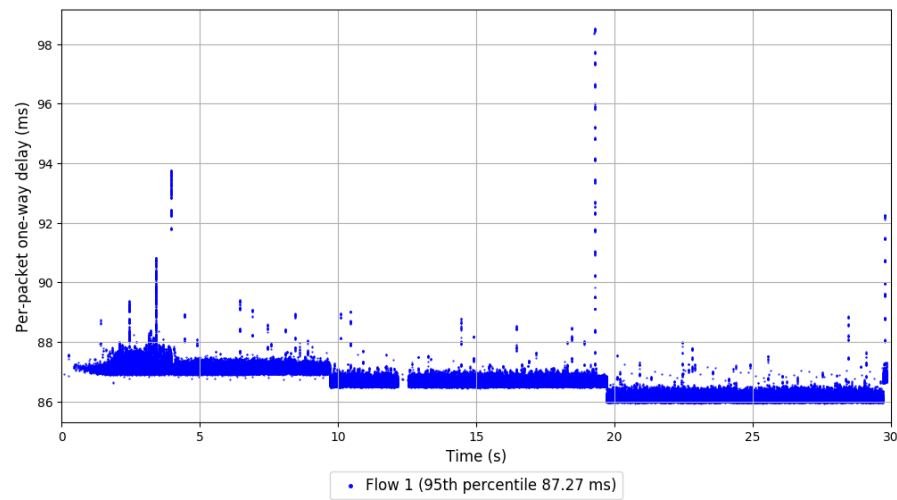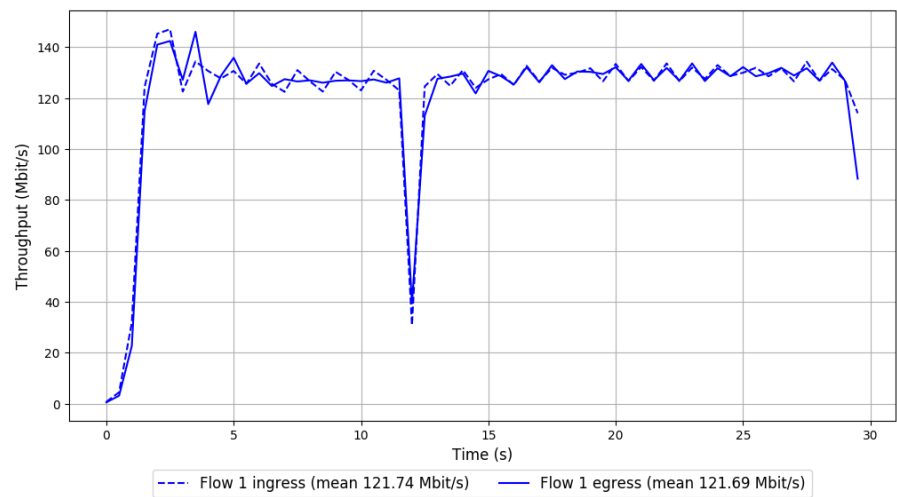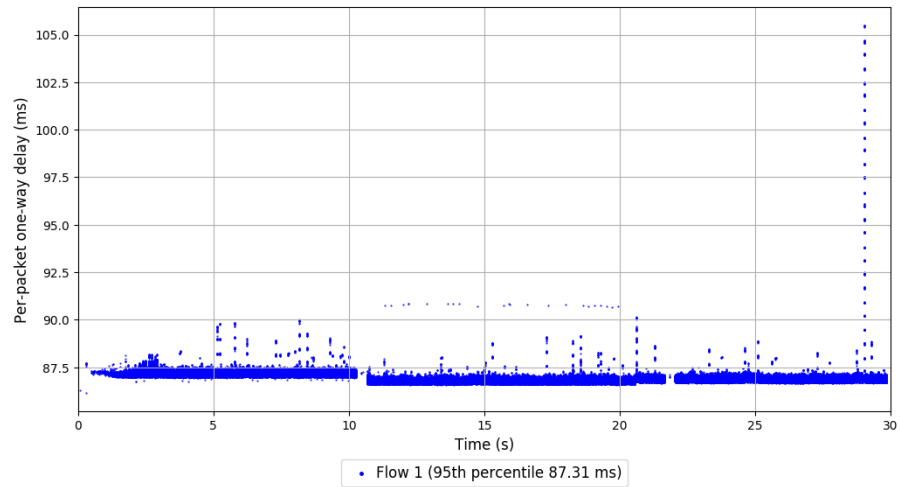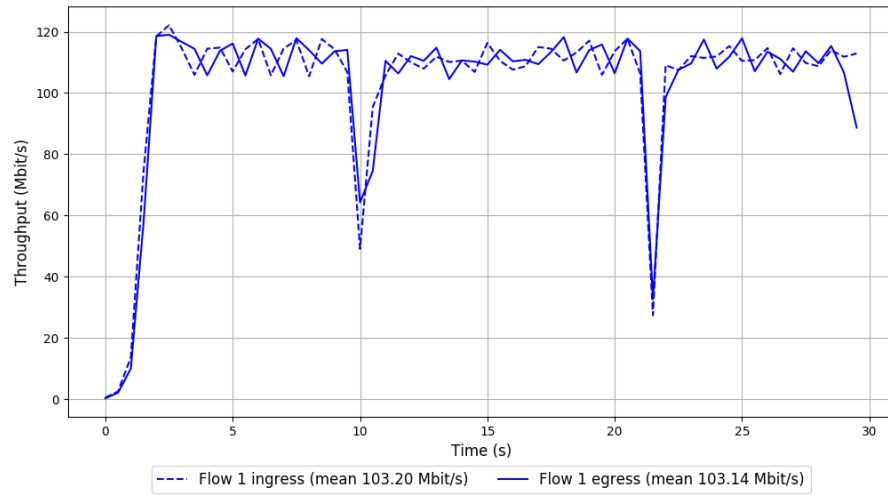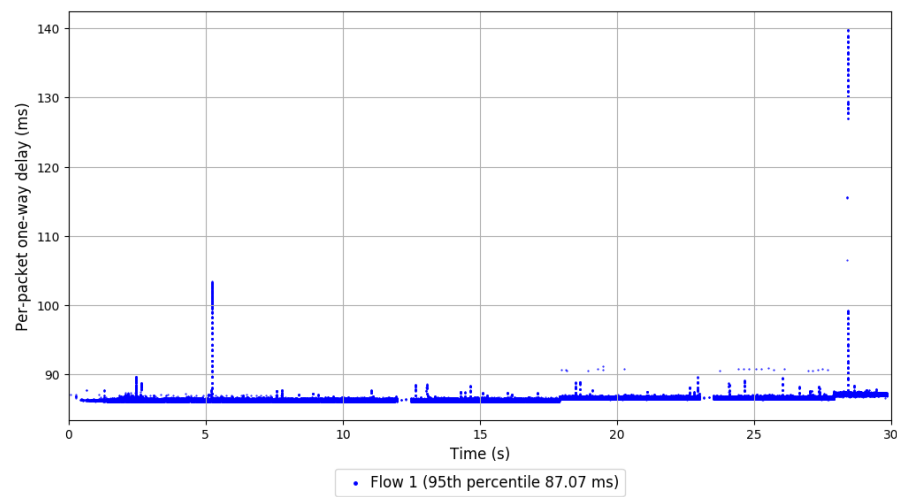
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-02-15 22:17:08
End at: 2018-02-15 22:17:38

# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 103.14 Mbit/s
95th percentile per-packet one-way delay: 87.306 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 103.14 Mbit/s
95th percentile per-packet one-way delay: 87.306 ms
Loss rate: 0.76%
```
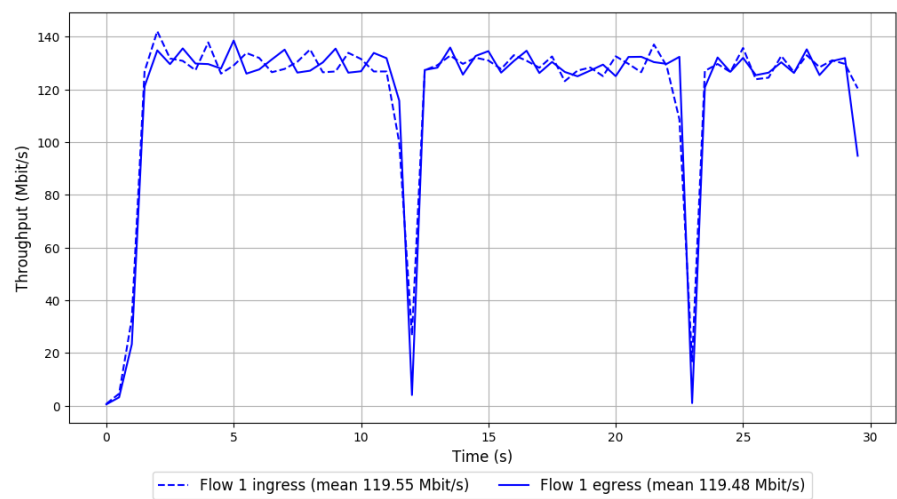
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-02-15 22:33:20
End at: 2018-02-15 22:33:50

# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 119.48 Mbit/s
95th percentile per-packet one-way delay: 87.074 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 119.48 Mbit/s
95th percentile per-packet one-way delay: 87.074 ms
Loss rate: 0.67%
```
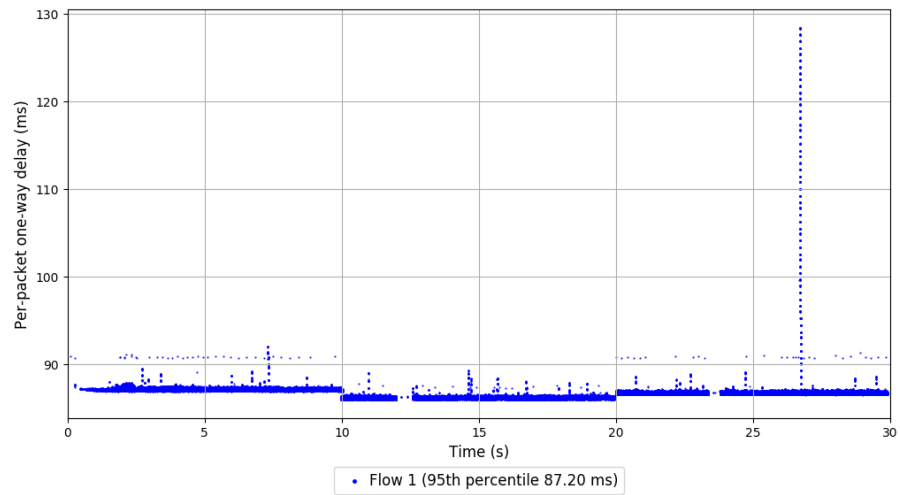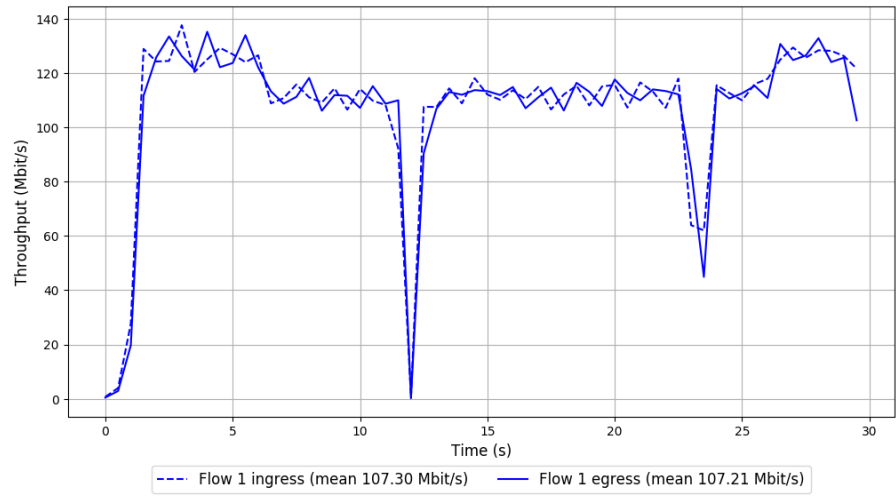
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 119.55 Mbit/s)   Flow 1 egress (mean 119.48 Mbit/s)

Flow 1 (95th percentile 87.07 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2018-02-15 22:48:38
End at: 2018-02-15 22:49:08

# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 107.21 Mbit/s
95th percentile per-packet one-way delay: 87.203 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 107.21 Mbit/s
95th percentile per-packet one-way delay: 87.203 ms
Loss rate: 0.67%
```
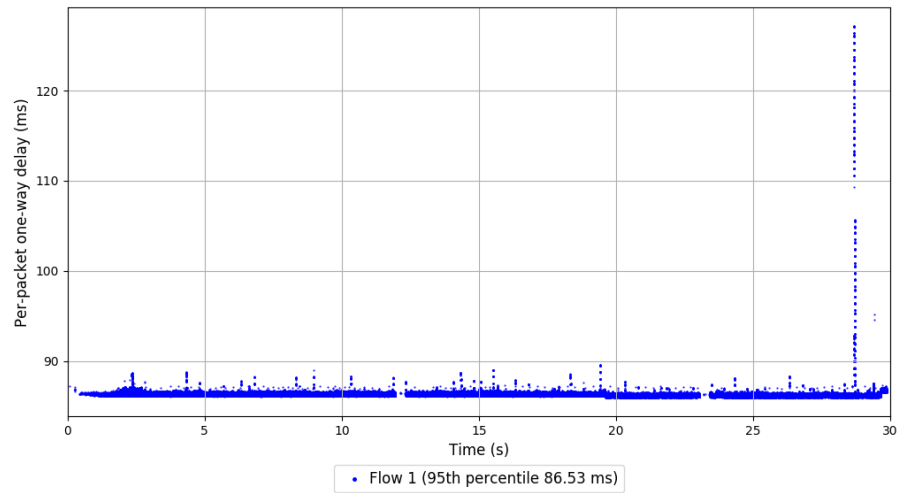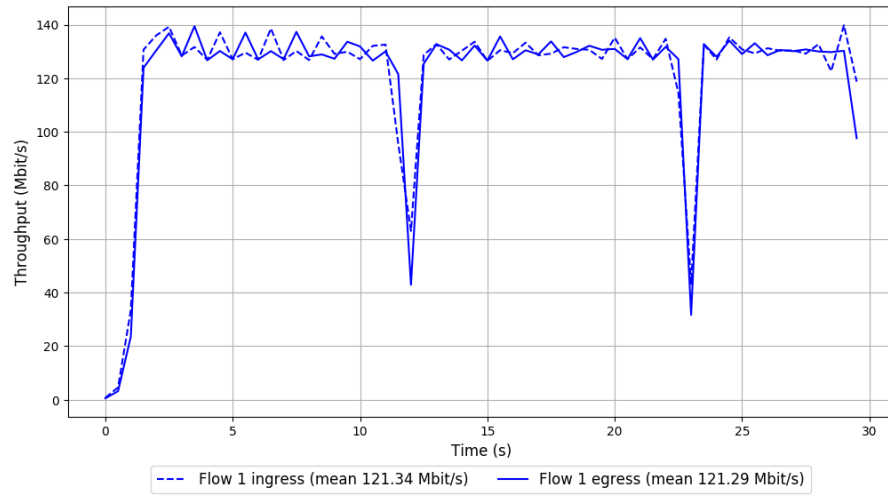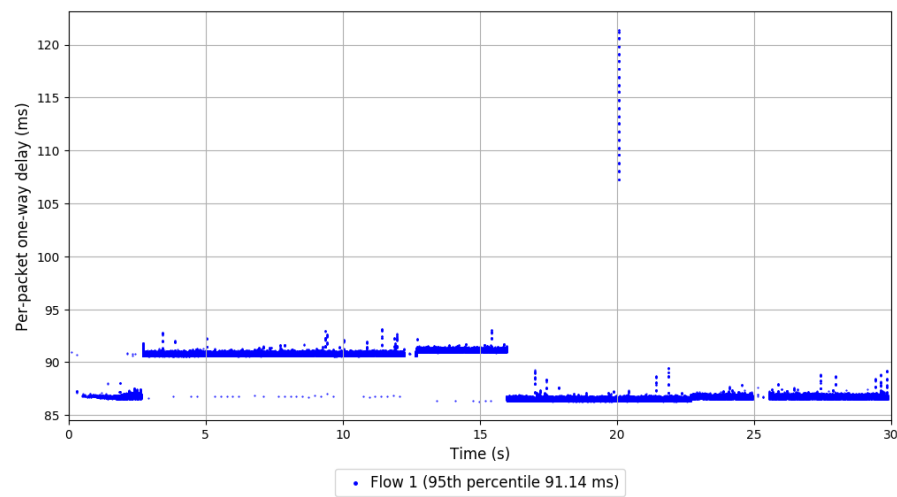
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 107.30 Mbit/s)   Flow 1 egress (mean 107.21 Mbit/s)

Flow 1 (95th percentile 87.20 ms)

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```
Run 5: Statistics of TCP BBR

Start at: 2018-02-15 23:04:09
End at: 2018-02-15 23:04:39

# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.29 Mbit/s
95th percentile per-packet one-way delay: 86.525 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 121.29 Mbit/s
95th percentile per-packet one-way delay: 86.525 ms
Loss rate: 0.66%
```
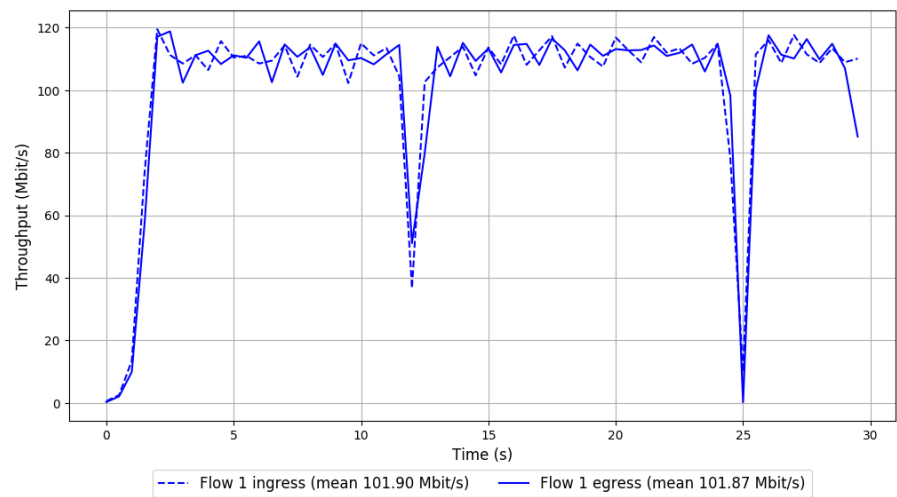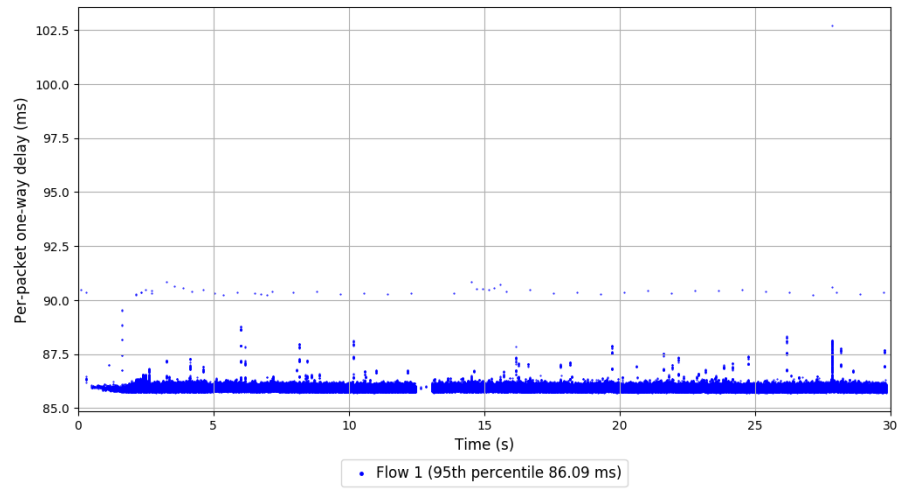
Run 5: Report of TCP BBR — Data Link

```
Run 6: Statistics of TCP BBR

Start at: 2018-02-15 23:19:56
End at: 2018-02-15 23:20:26

# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 101.87 Mbit/s
95th percentile per-packet one-way delay: 91.144 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 101.87 Mbit/s
95th percentile per-packet one-way delay: 91.144 ms
Loss rate: 0.71%
```
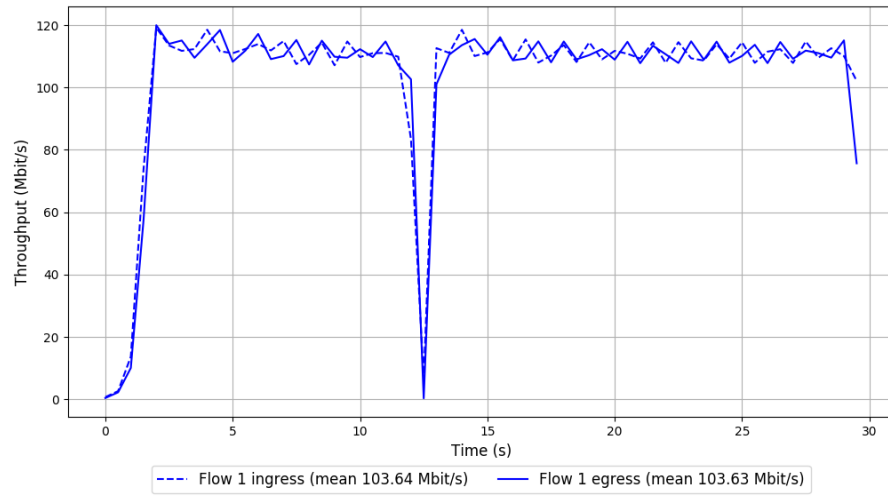
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 101.90 Mbit/s)   Flow 1 egress (mean 101.87 Mbit/s)

Flow 1 (95th percentile 91.14 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-02-15 23:35:43
End at: 2018-02-15 23:36:13


# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 103.63 Mbit/s
95th percentile per-packet one-way delay: 86.092 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 103.63 Mbit/s
95th percentile per-packet one-way delay: 86.092 ms
Loss rate: 0.69%
```
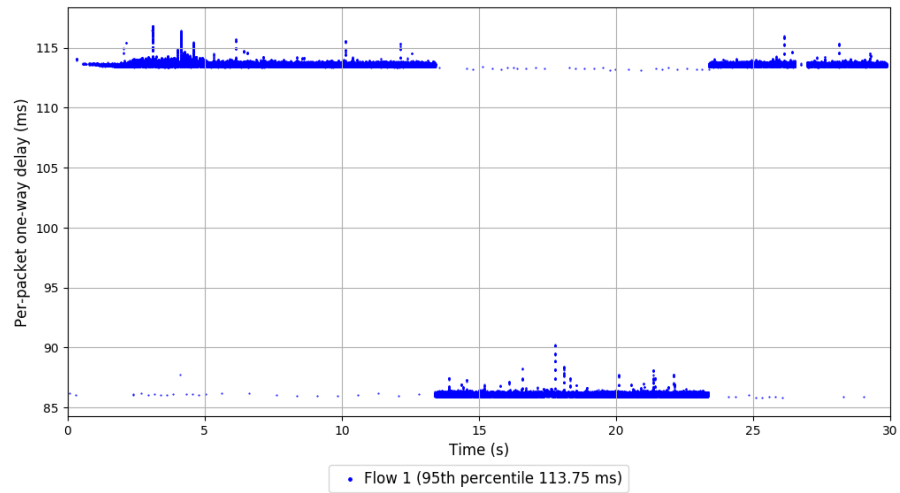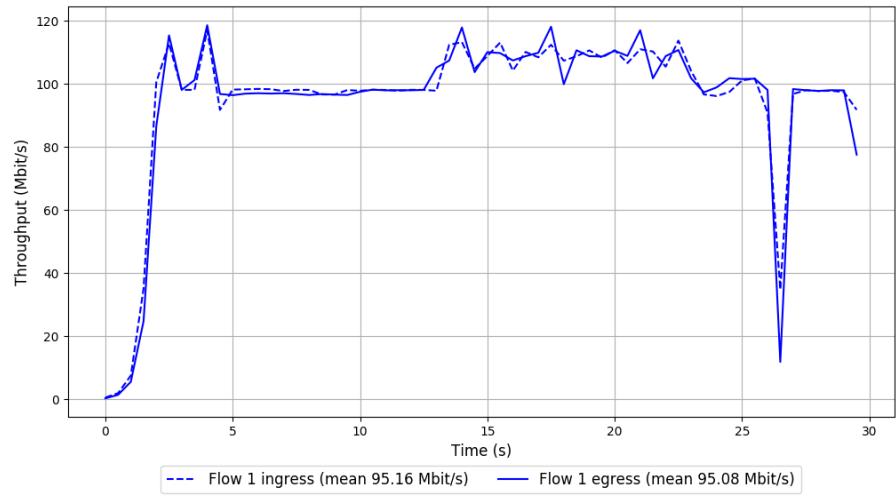
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2018-02-15 23:51:15
End at: 2018-02-15 23:51:45

# Below is generated by plot.py at 2018-02-16 03:19:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.08 Mbit/s
95th percentile per-packet one-way delay: 113.748 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 95.08 Mbit/s
95th percentile per-packet one-way delay: 113.748 ms
Loss rate: 0.74%
```
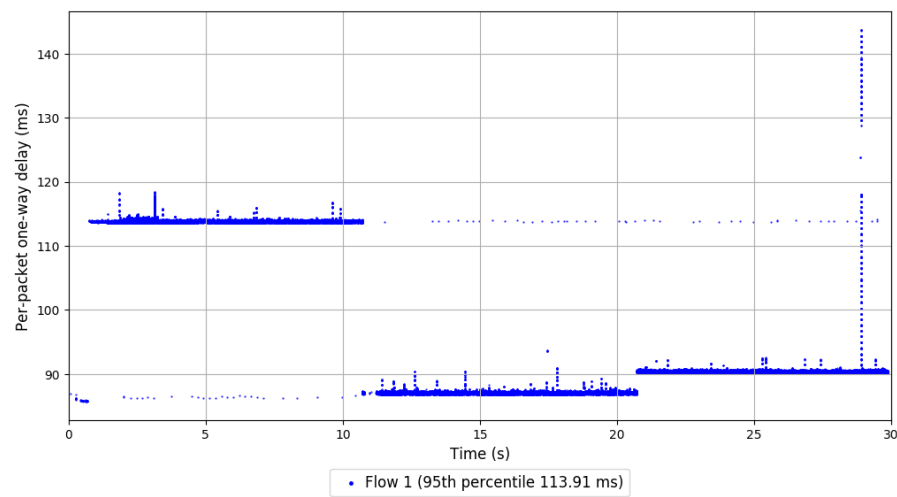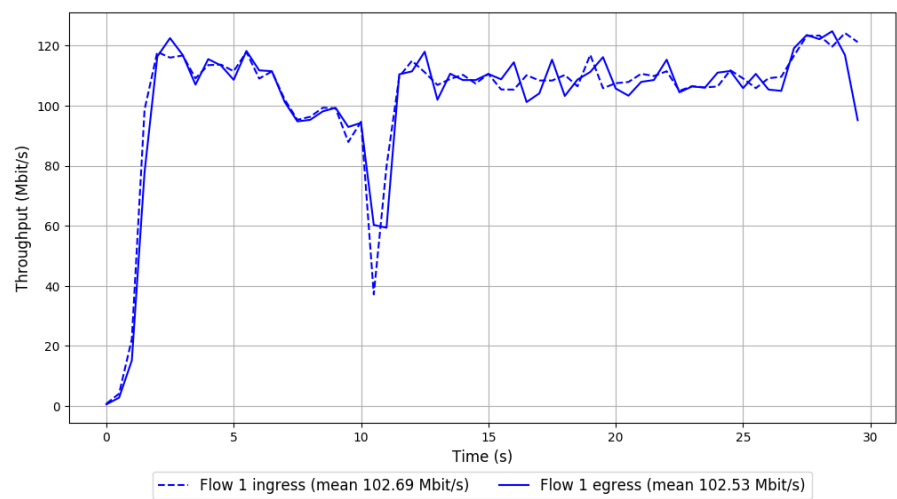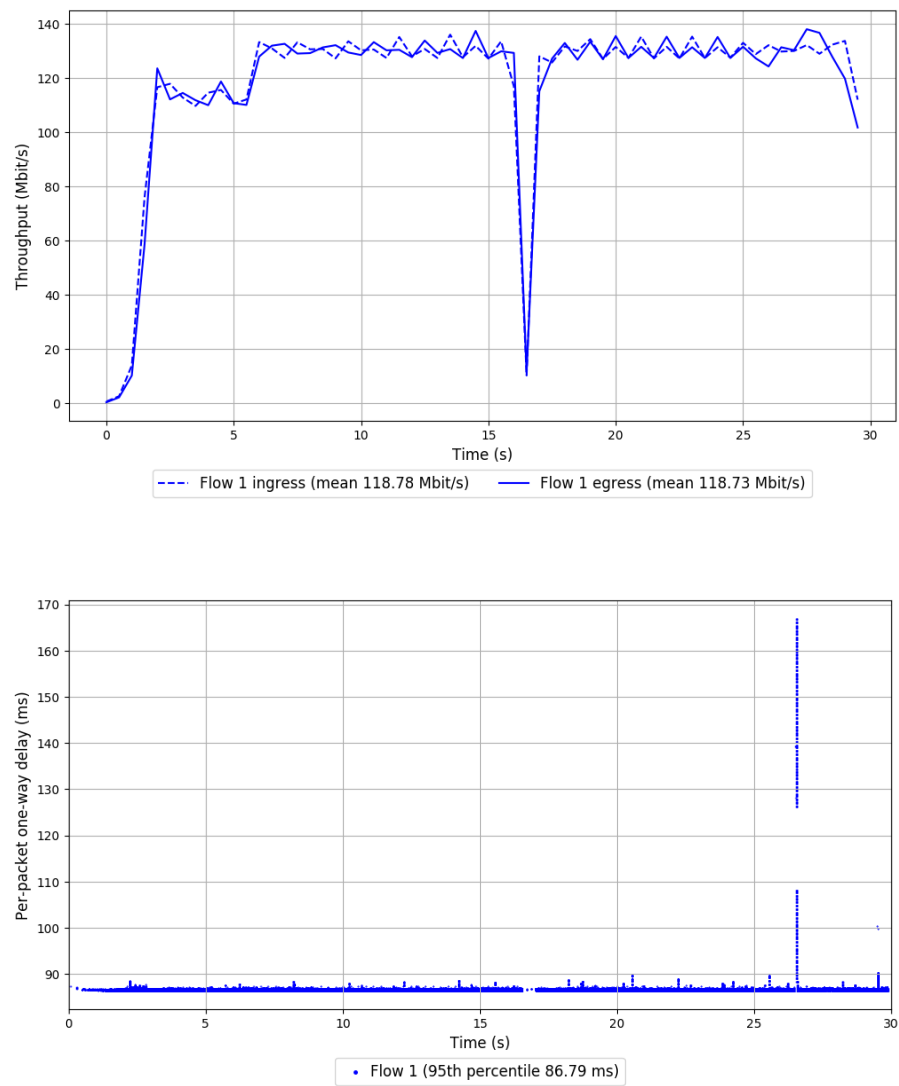
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 95.16 Mbit/s)   Flow 1 egress (mean 95.08 Mbit/s)

Flow 1 (95th percentile 113.75 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2018-02-16 00:06:28
End at: 2018-02-16 00:06:58

# Below is generated by plot.py at 2018-02-16 03:21:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 102.53 Mbit/s
95th percentile per-packet one-way delay: 113.910 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 102.53 Mbit/s
95th percentile per-packet one-way delay: 113.910 ms
Loss rate: 0.82%
```
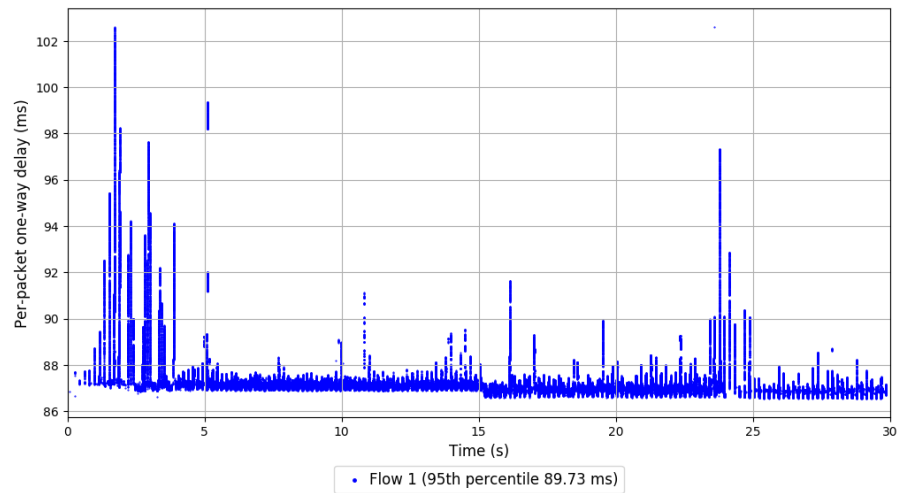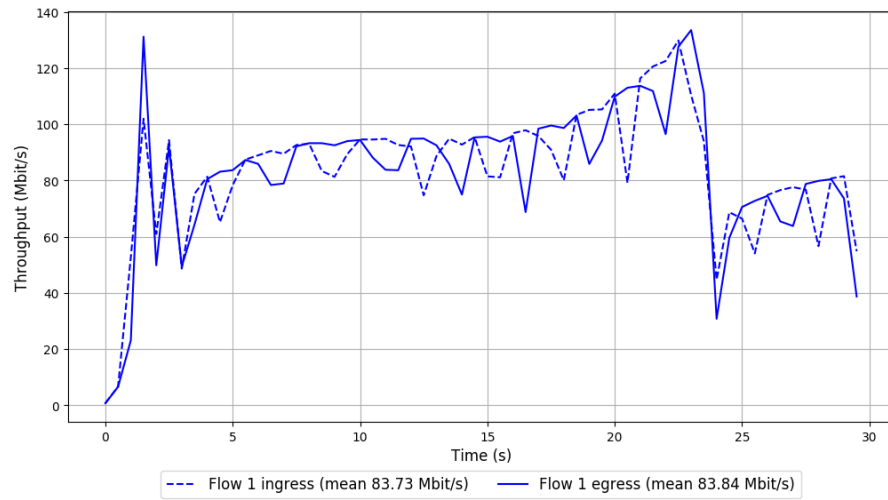
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 102.69 Mbit/s) ----   Flow 1 egress (mean 102.53 Mbit/s) ———

Flow 1 (95th percentile 113.91 ms) •

```
Run 10: Statistics of TCP BBR

Start at: 2018-02-16 00:21:59
End at: 2018-02-16 00:22:29

# Below is generated by plot.py at 2018-02-16 03:21:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.73 Mbit/s
95th percentile per-packet one-way delay: 86.790 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 118.73 Mbit/s
95th percentile per-packet one-way delay: 86.790 ms
Loss rate: 0.63%
```
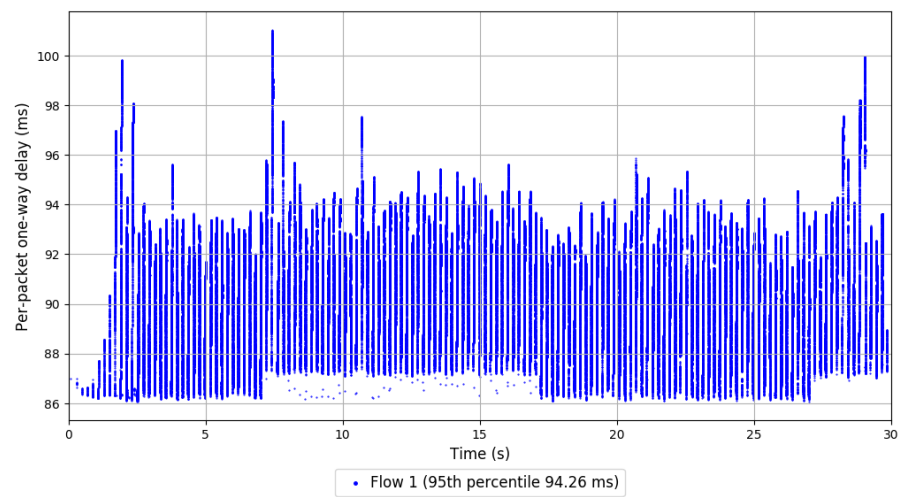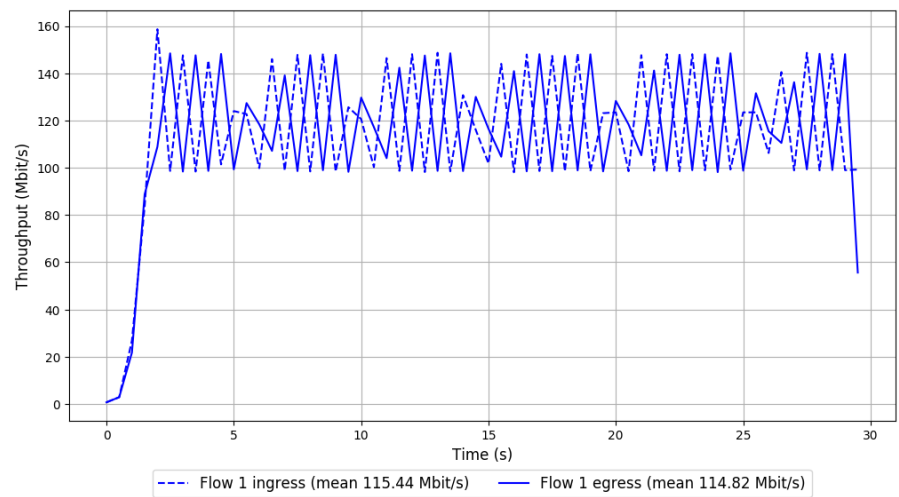
Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 118.78 Mbit/s) Flow 1 egress (mean 118.73 Mbit/s)

Flow 1 (95th percentile 86.79 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2018-02-15 22:00:43
End at: 2018-02-15 22:01:13

# Below is generated by plot.py at 2018-02-16 03:21:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.84 Mbit/s
95th percentile per-packet one-way delay: 89.735 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 83.84 Mbit/s
95th percentile per-packet one-way delay: 89.735 ms
Loss rate: 0.49%
```
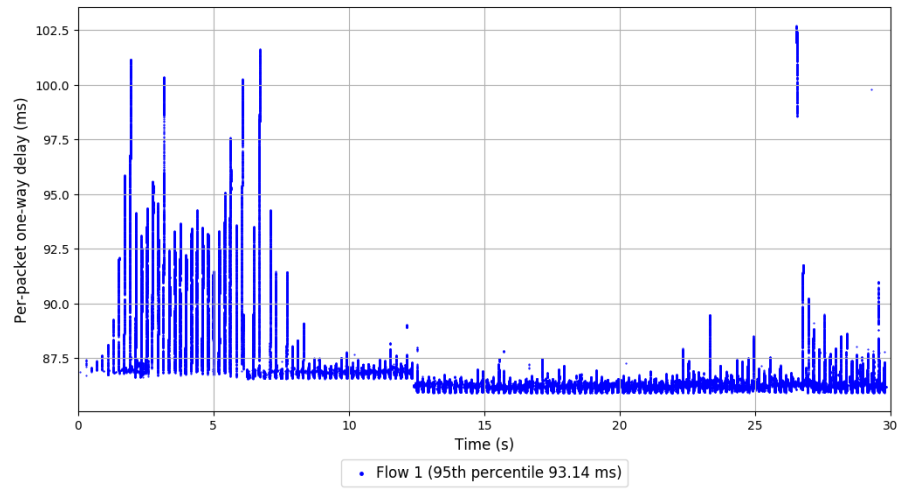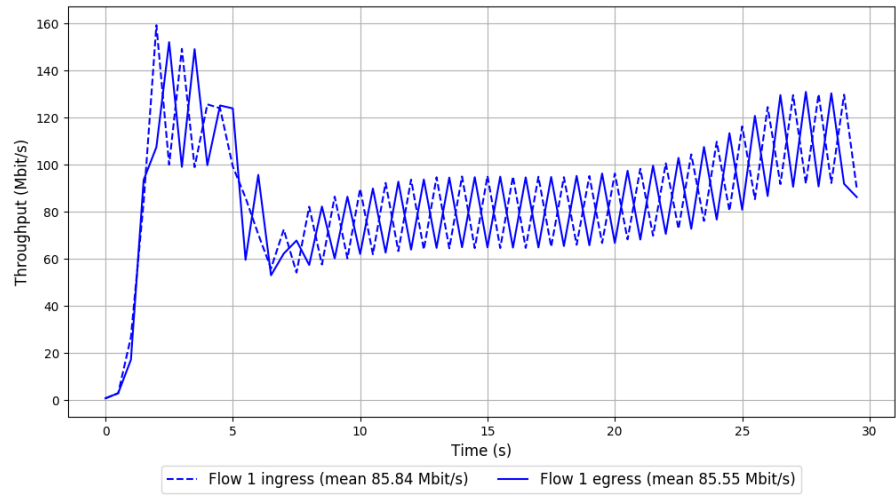
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-02-15 22:16:21
End at: 2018-02-15 22:16:51

# Below is generated by plot.py at 2018-02-16 03:21:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 114.82 Mbit/s
95th percentile per-packet one-way delay: 94.264 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 114.82 Mbit/s
95th percentile per-packet one-way delay: 94.264 ms
Loss rate: 0.63%
```
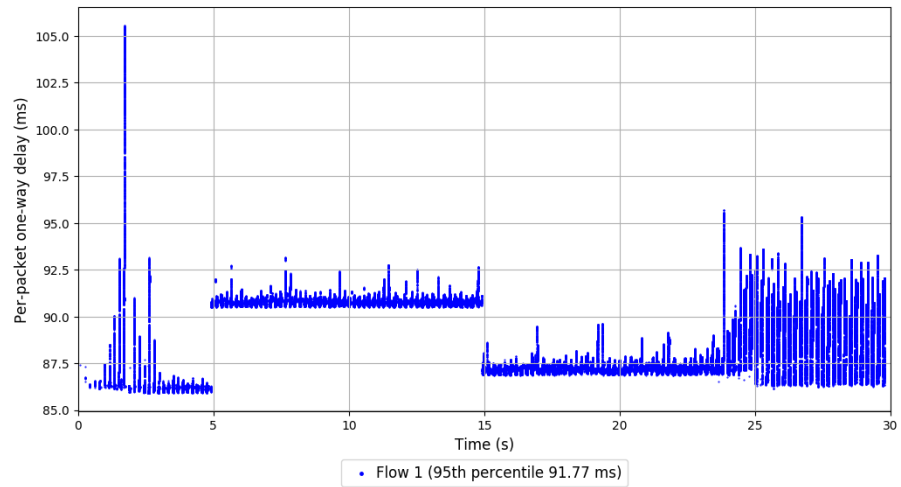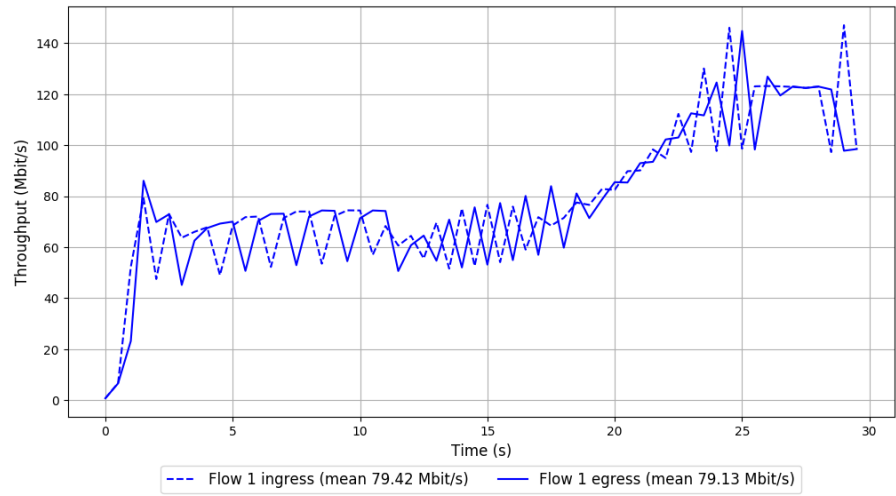
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-02-15 22:32:36
End at: 2018-02-15 22:33:06

# Below is generated by plot.py at 2018-02-16 03:21:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.55 Mbit/s
95th percentile per-packet one-way delay: 93.140 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 85.55 Mbit/s
95th percentile per-packet one-way delay: 93.140 ms
Loss rate: 0.86%
```
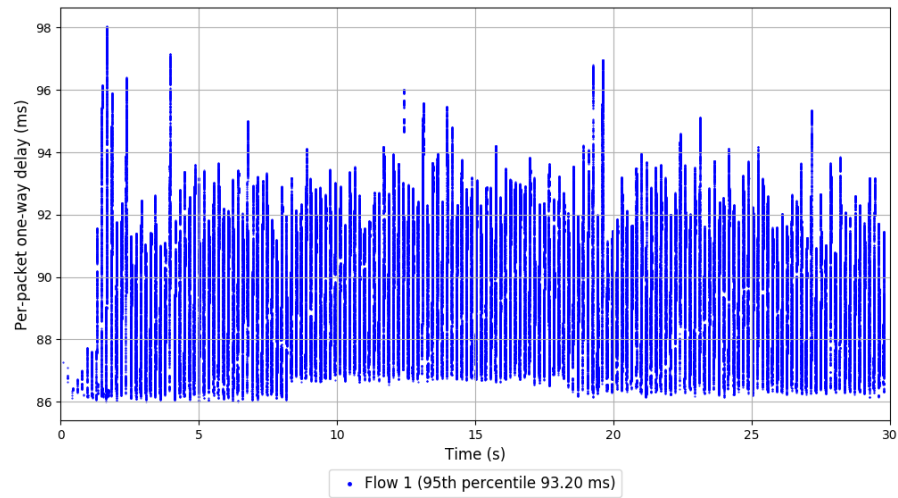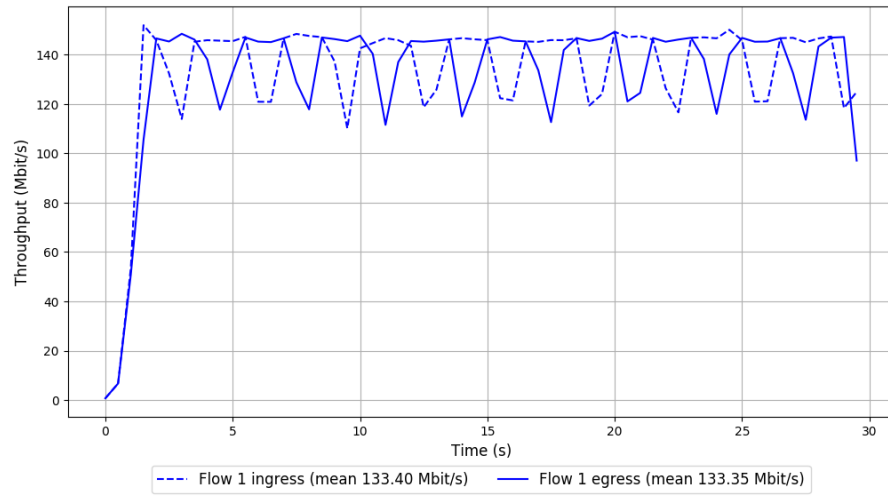
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 85.84 Mbit/s)   Flow 1 egress (mean 85.55 Mbit/s)

Flow 1 (95th percentile 93.14 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-02-15 22:47:53
End at: 2018-02-15 22:48:23

# Below is generated by plot.py at 2018-02-16 03:21:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.13 Mbit/s
95th percentile per-packet one-way delay: 91.773 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 79.13 Mbit/s
95th percentile per-packet one-way delay: 91.773 ms
Loss rate: 1.04%
```
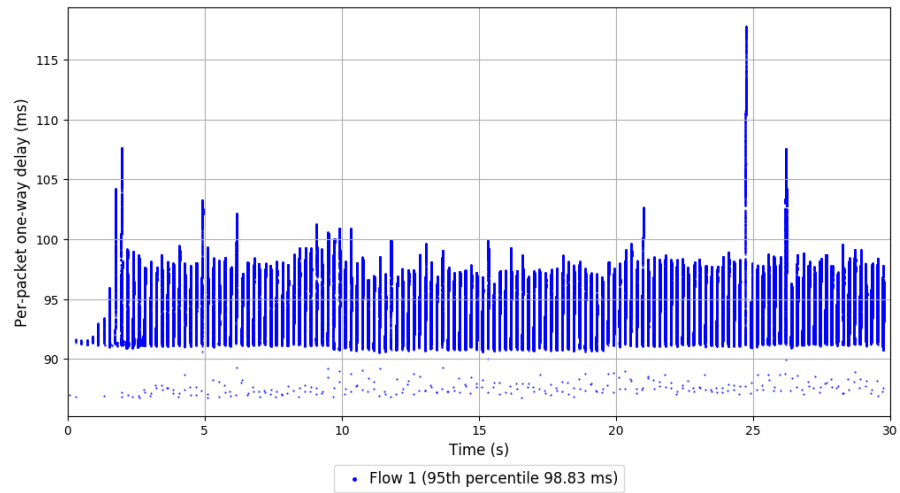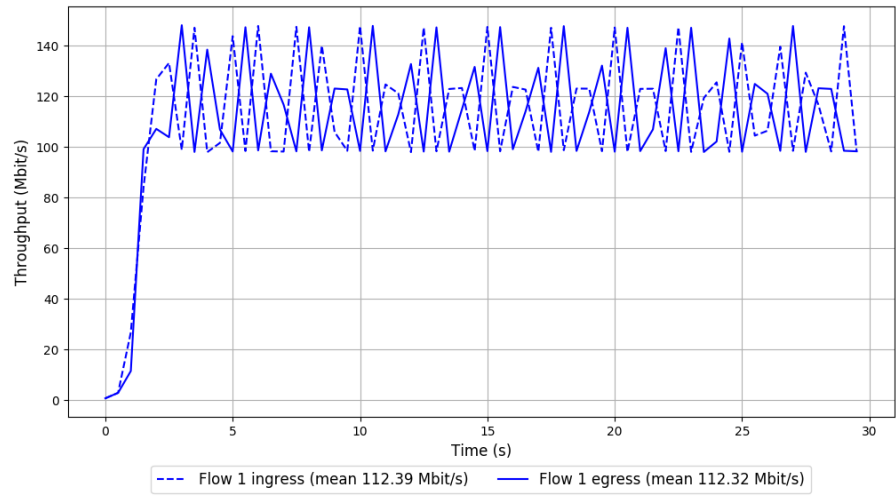
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 79.42 Mbit/s)   Flow 1 egress (mean 79.13 Mbit/s)

Flow 1 (95th percentile 91.77 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-02-15 23:03:20
End at: 2018-02-15 23:03:50

# Below is generated by plot.py at 2018-02-16 03:22:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.35 Mbit/s
95th percentile per-packet one-way delay: 93.202 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 133.35 Mbit/s
95th percentile per-packet one-way delay: 93.202 ms
Loss rate: 0.61%
```
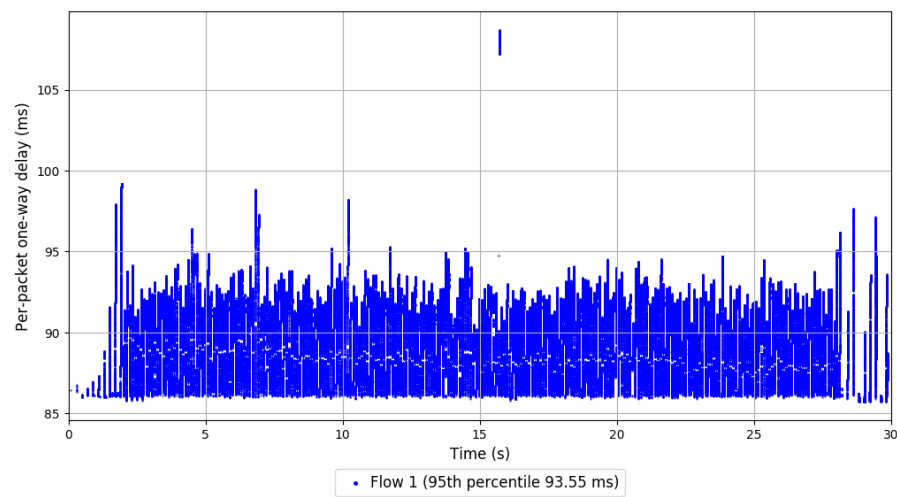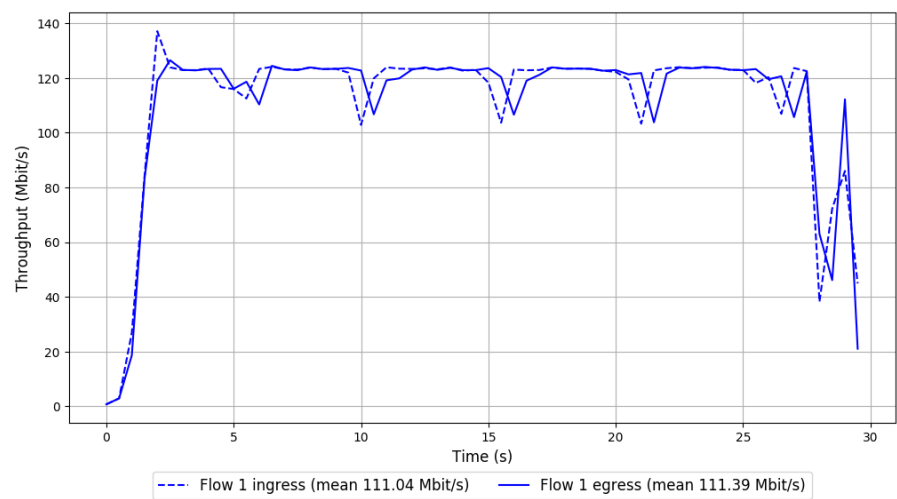
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 133.40 Mbit/s)   Flow 1 egress (mean 133.35 Mbit/s)

Flow 1 (95th percentile 93.20 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-02-15 23:19:09
End at: 2018-02-15 23:19:39

# Below is generated by plot.py at 2018-02-16 03:22:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 112.32 Mbit/s
95th percentile per-packet one-way delay: 98.833 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 112.32 Mbit/s
95th percentile per-packet one-way delay: 98.833 ms
Loss rate: 0.73%
```
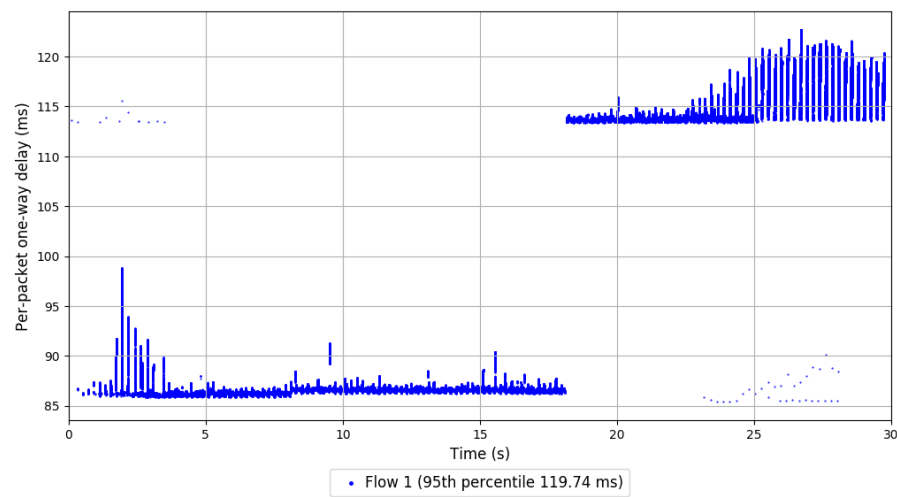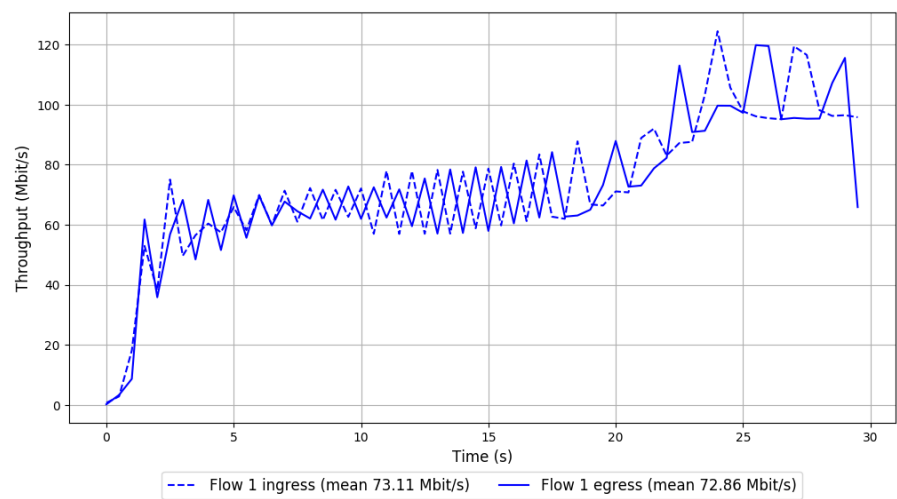
Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 112.39 Mbit/s)   Flow 1 egress (mean 112.32 Mbit/s)

Flow 1 (95th percentile 98.83 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2018-02-15 23:34:56
End at: 2018-02-15 23:35:26

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 111.39 Mbit/s
95th percentile per-packet one-way delay: 93.546 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 111.39 Mbit/s
95th percentile per-packet one-way delay: 93.546 ms
Loss rate: 0.36%
```
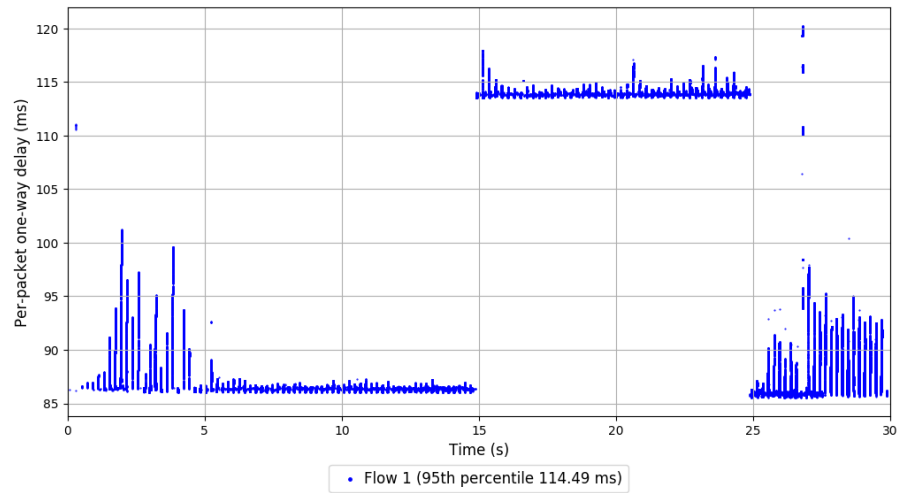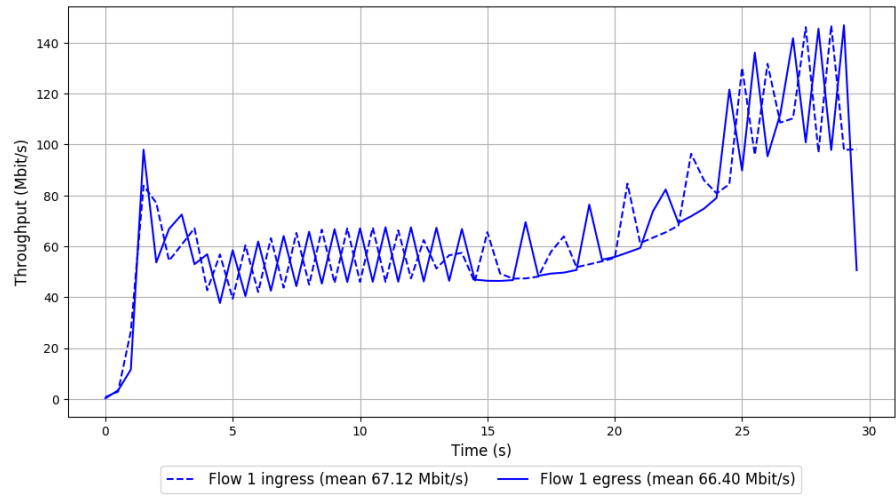
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 111.04 Mbit/s) --- Flow 1 egress (mean 111.39 Mbit/s)

Flow 1 (95th percentile 93.55 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2018-02-15 23:50:30
End at: 2018-02-15 23:51:00

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.86 Mbit/s
95th percentile per-packet one-way delay: 119.736 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 72.86 Mbit/s
95th percentile per-packet one-way delay: 119.736 ms
Loss rate: 1.09%
```
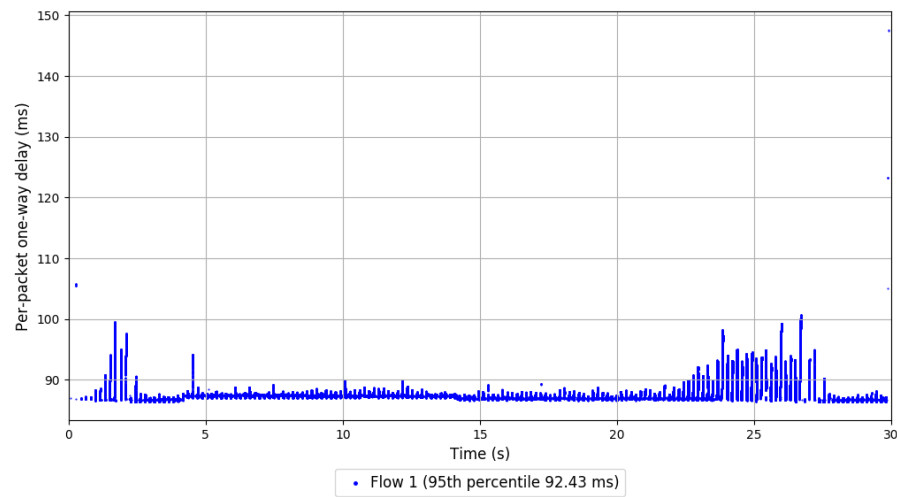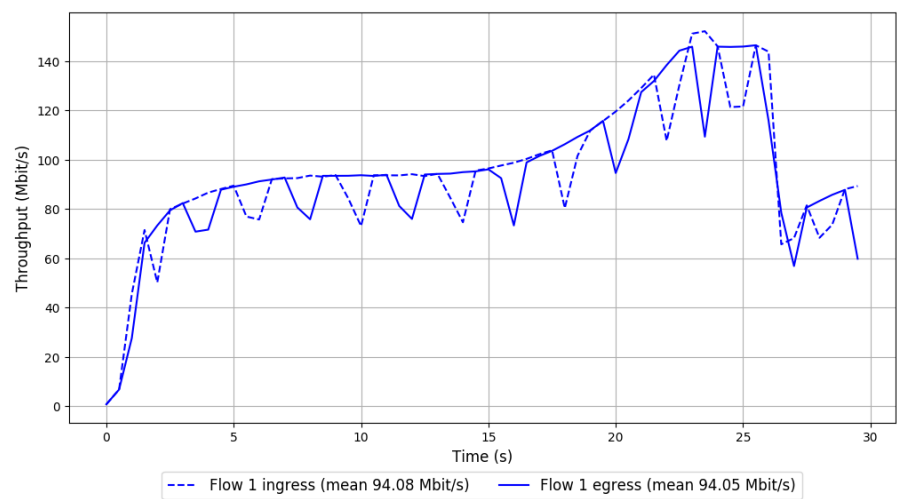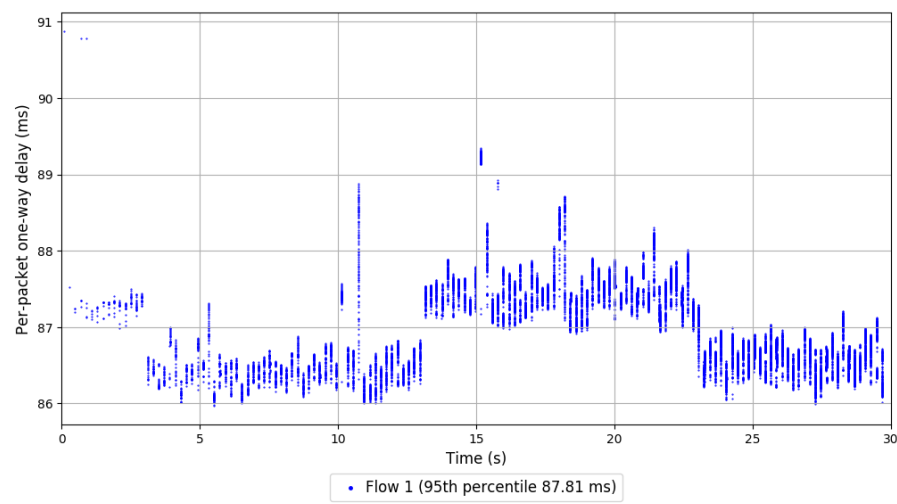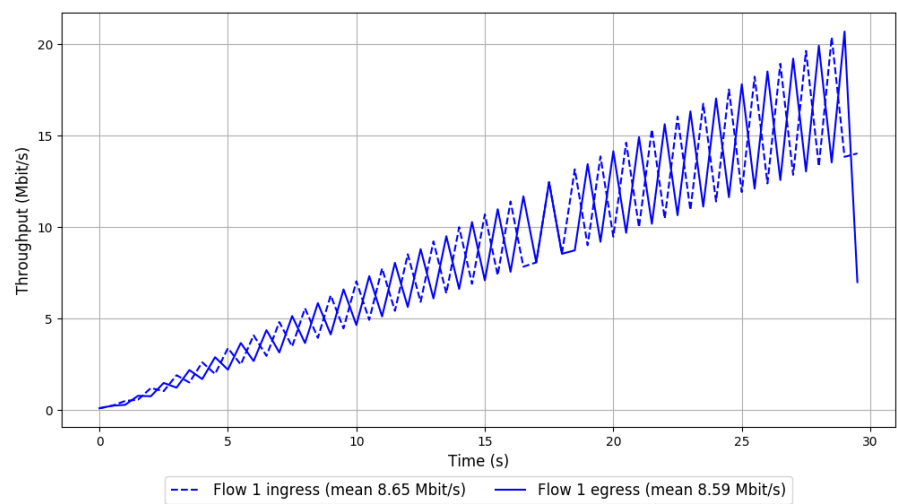
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 73.11 Mbit/s)   Flow 1 egress (mean 72.86 Mbit/s)

Flow 1 (95th percentile 119.74 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-02-16 00:05:43
End at: 2018-02-16 00:06:14


# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.40 Mbit/s
95th percentile per-packet one-way delay: 114.492 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 66.40 Mbit/s
95th percentile per-packet one-way delay: 114.492 ms
Loss rate: 1.19%
```

Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 67.12 Mbit/s)   ——— Flow 1 egress (mean 66.40 Mbit/s)
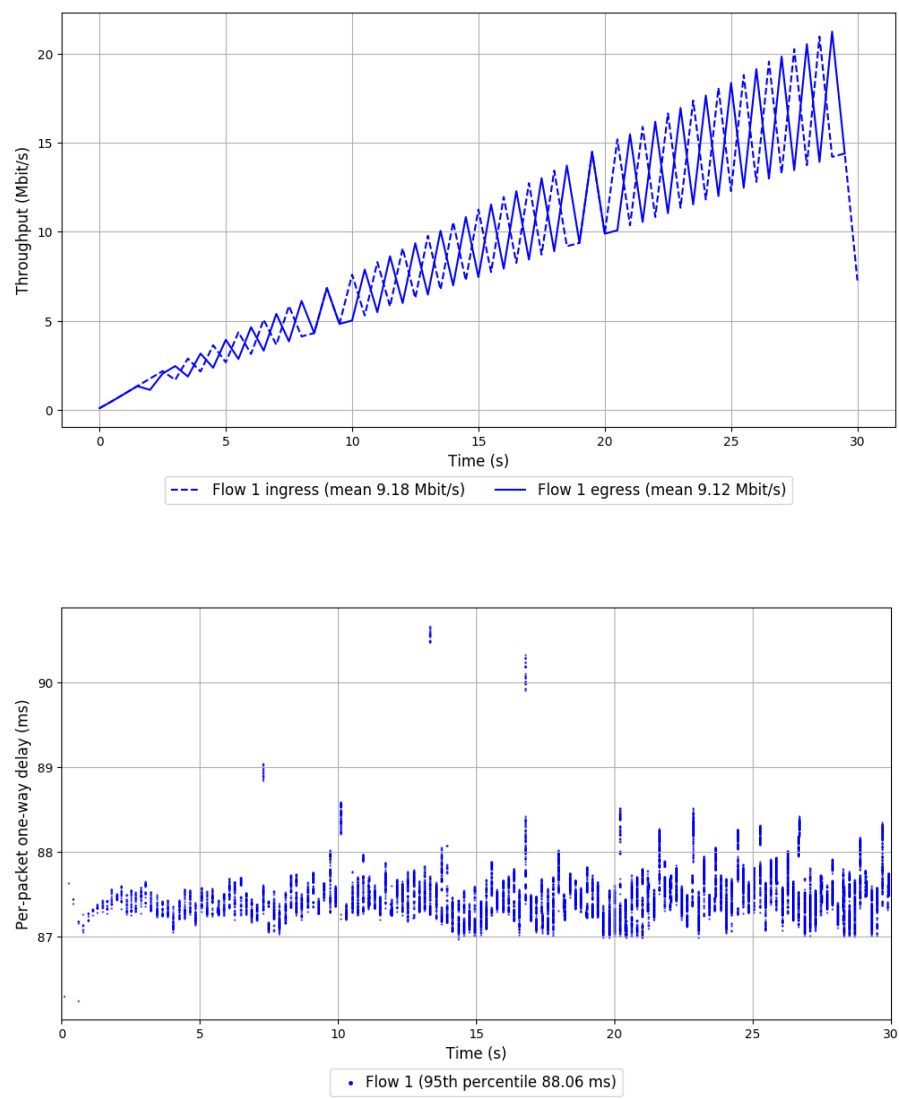

• Flow 1 (95th percentile 114.49 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-02-16 00:21:14
End at: 2018-02-16 00:21:44

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.05 Mbit/s
95th percentile per-packet one-way delay: 92.434 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 94.05 Mbit/s
95th percentile per-packet one-way delay: 92.434 ms
Loss rate: 0.53%
```

Run 10: Report of TCP Cubic — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-02-15 22:05:05
End at: 2018-02-15 22:05:35

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 87.813 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 87.813 ms
Loss rate: 1.37%
```
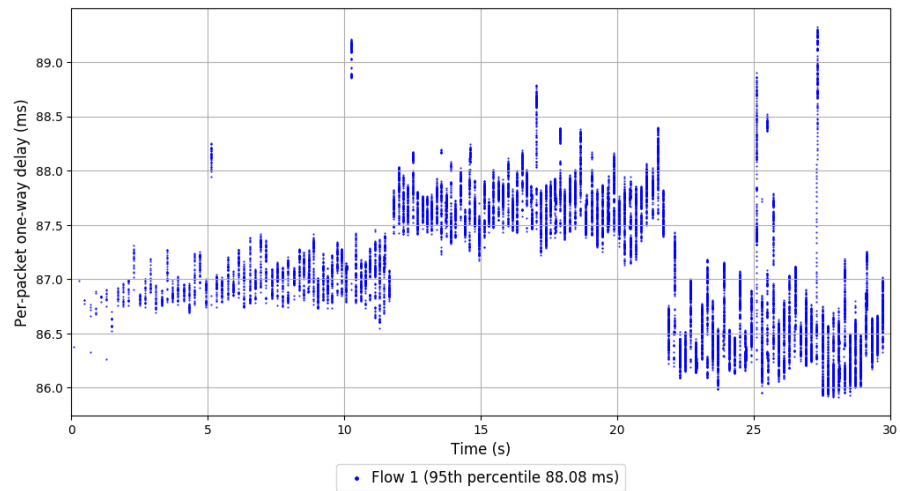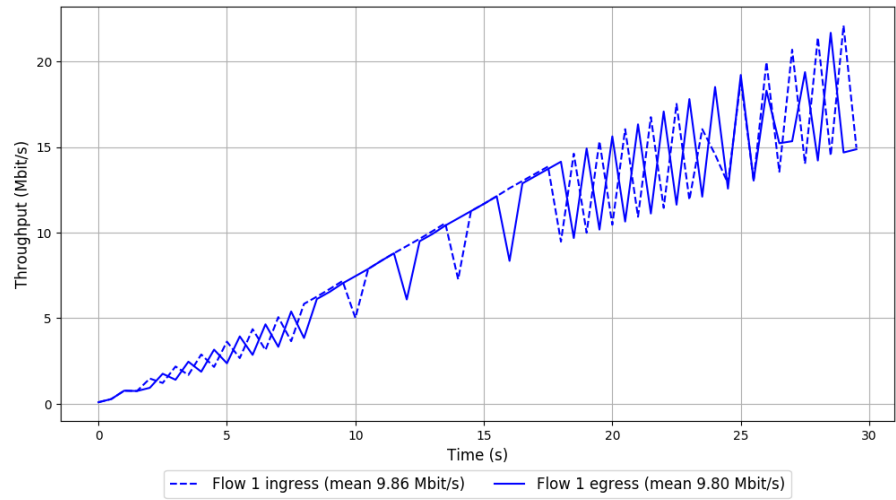
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-02-15 22:20:42
End at: 2018-02-15 22:21:12

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 88.061 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 88.061 ms
Loss rate: 1.32%
```
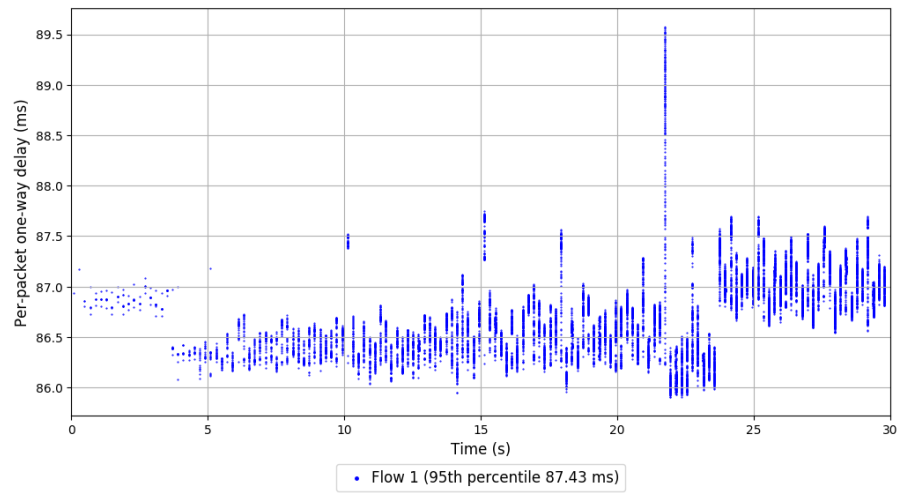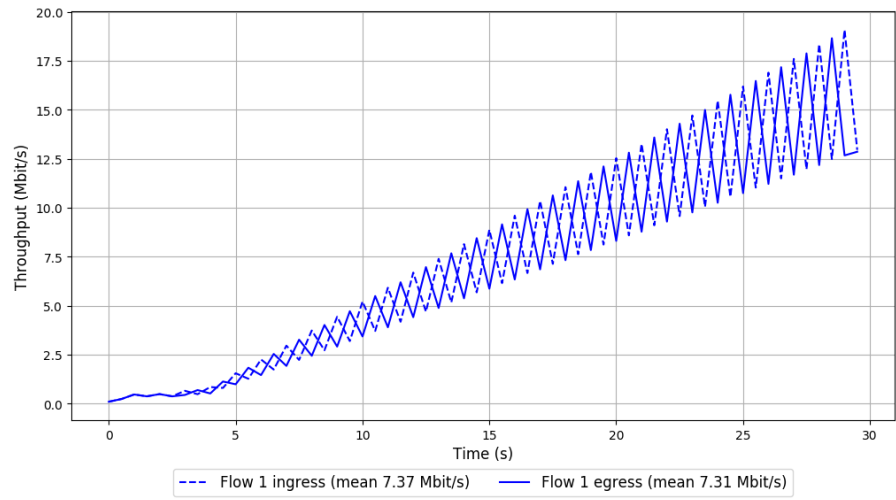
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.18 Mbit/s) --- Flow 1 egress (mean 9.12 Mbit/s)

Flow 1 (95th percentile 88.06 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2018-02-15 22:36:37
End at: 2018-02-15 22:37:07

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 88.078 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 88.078 ms
Loss rate: 1.28%
```
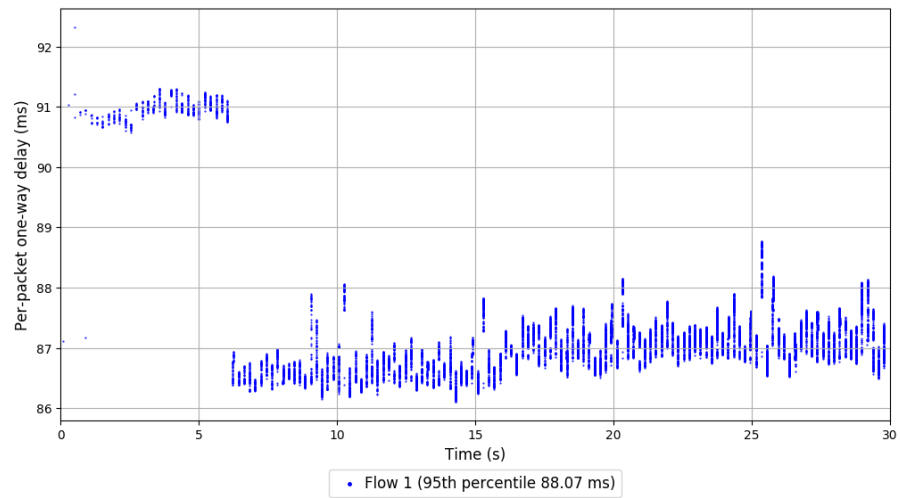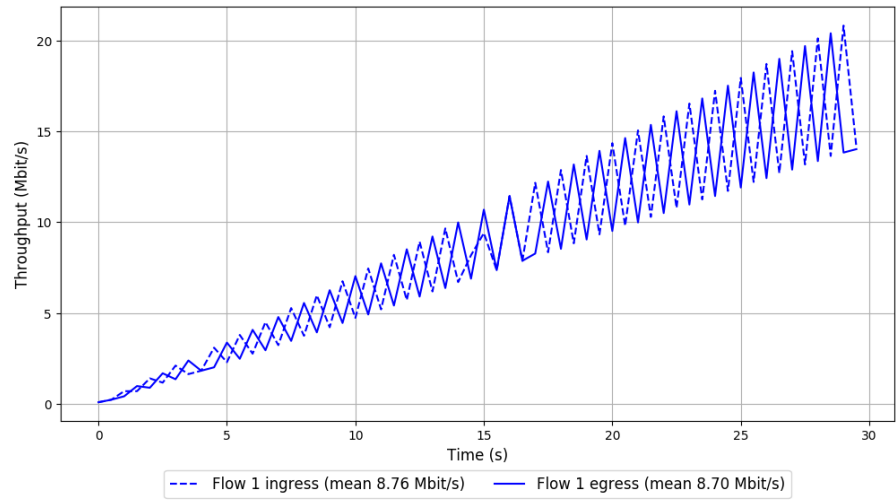
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.86 Mbit/s) --- Flow 1 egress (mean 9.80 Mbit/s)

Flow 1 (95th percentile 88.08 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2018-02-15 22:51:55
End at: 2018-02-15 22:52:25

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 87.432 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 87.432 ms
Loss rate: 1.47%
```
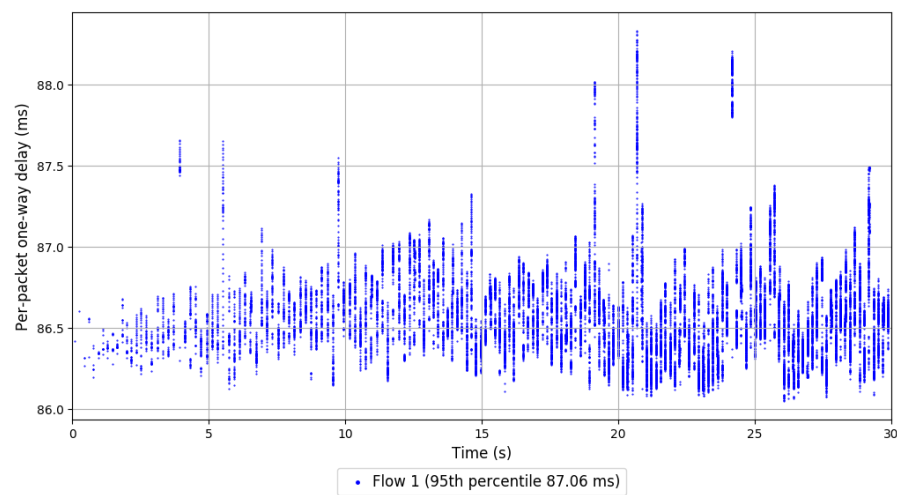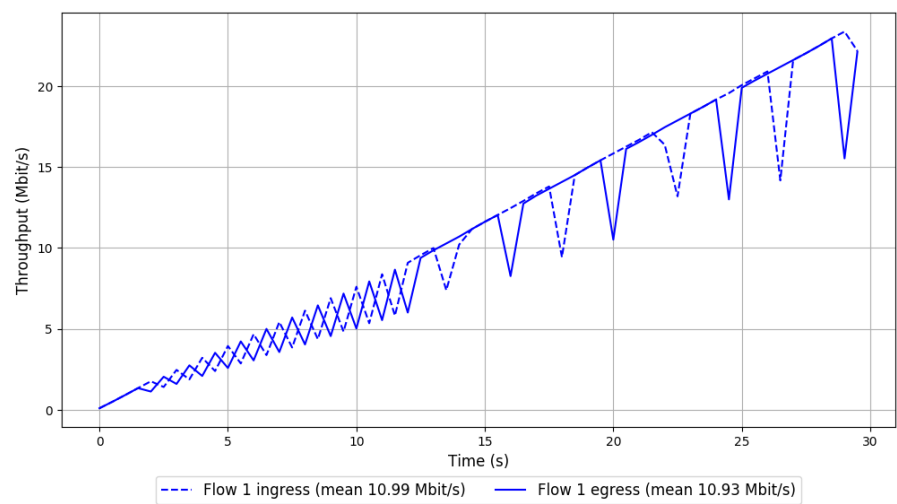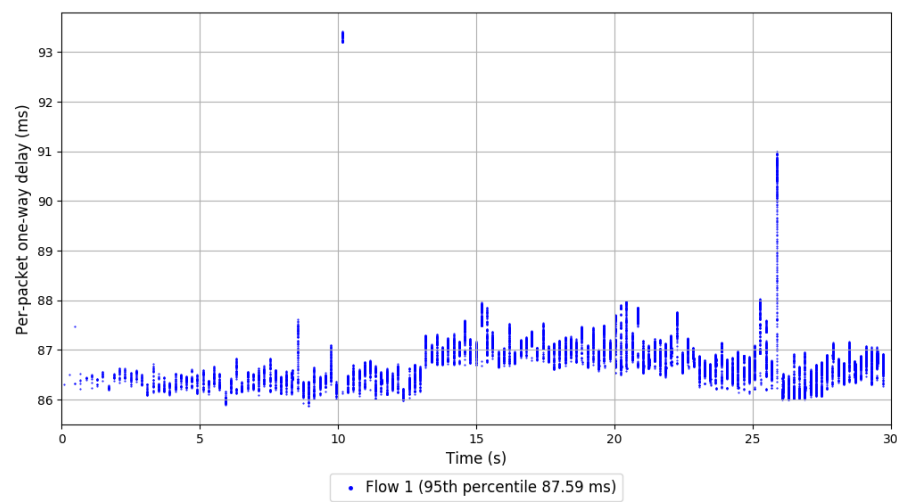
Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 7.37 Mbit/s)   Flow 1 egress (mean 7.31 Mbit/s)

Flow 1 (95th percentile 87.43 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-02-15 23:07:42
End at: 2018-02-15 23:08:12

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.70 Mbit/s
95th percentile per-packet one-way delay: 88.073 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 8.70 Mbit/s
95th percentile per-packet one-way delay: 88.073 ms
Loss rate: 1.35%
```
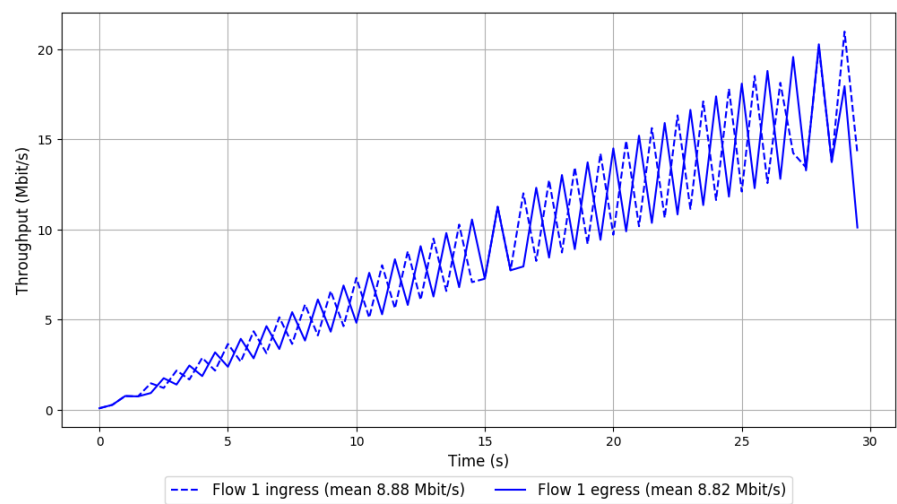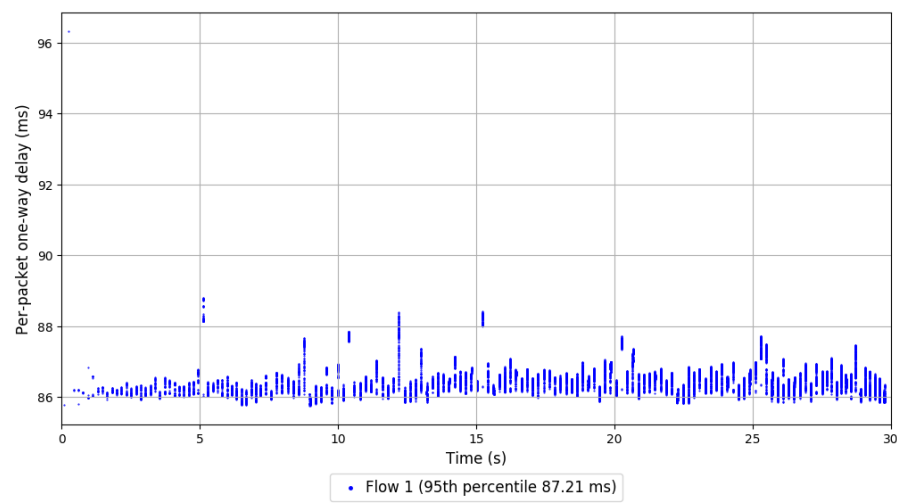
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 8.76 Mbit/s)   Flow 1 egress (mean 8.70 Mbit/s)

Flow 1 (95th percentile 88.07 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-02-15 23:23:22
End at: 2018-02-15 23:23:52

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 87.055 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 87.055 ms
Loss rate: 1.20%
```
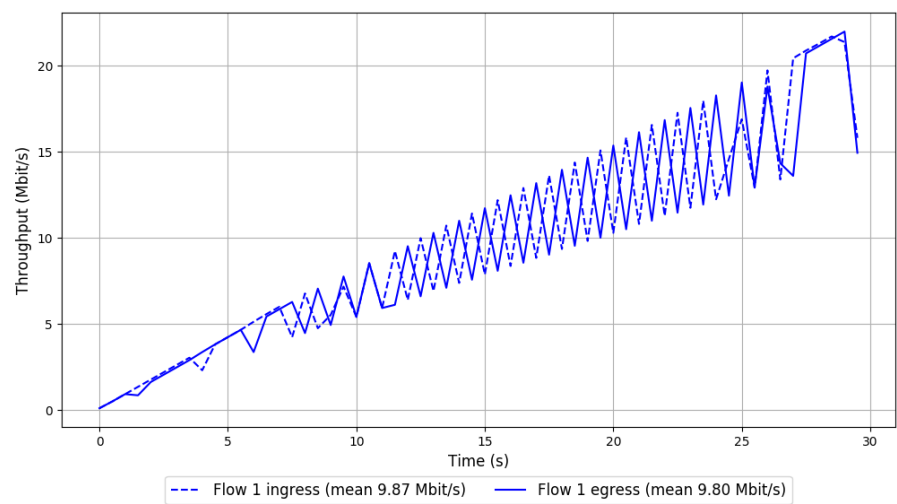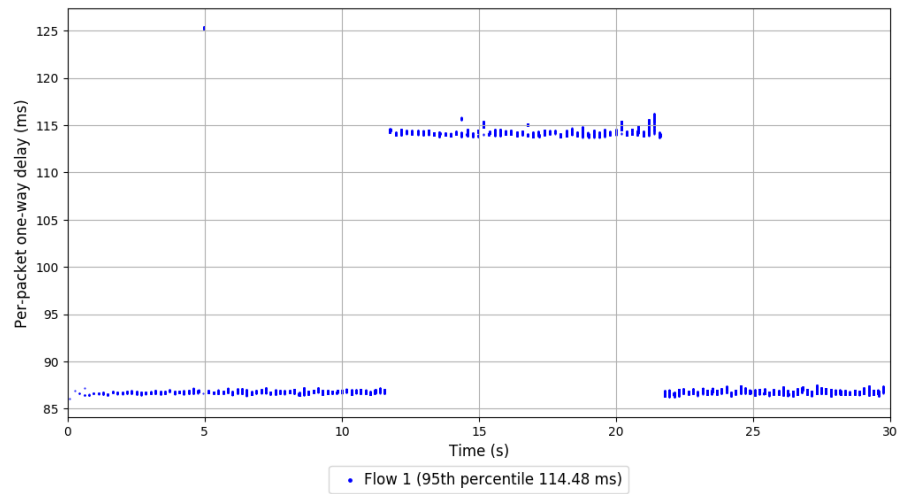
Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2018-02-15 23:39:05
End at: 2018-02-15 23:39:35

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.82 Mbit/s
95th percentile per-packet one-way delay: 87.590 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 8.82 Mbit/s
95th percentile per-packet one-way delay: 87.590 ms
Loss rate: 1.35%
```
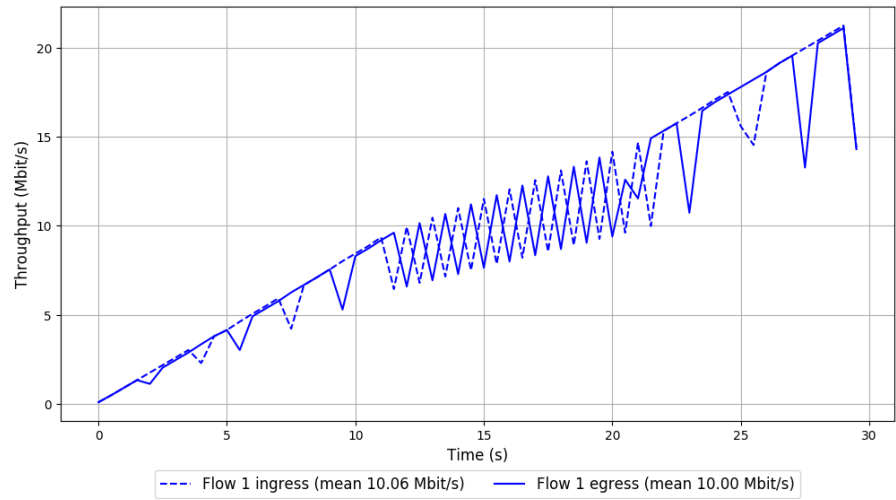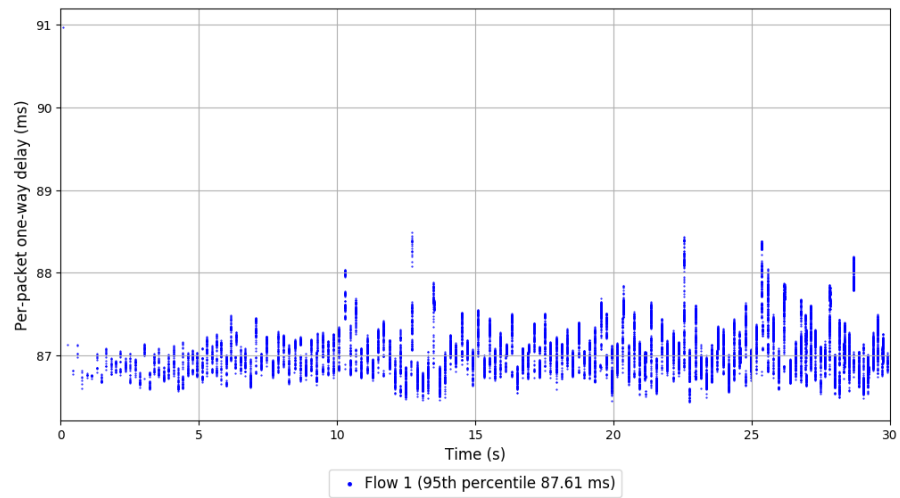
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 8.88 Mbit/s) ——— Flow 1 egress (mean 8.82 Mbit/s)

• Flow 1 (95th percentile 87.59 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-02-15 23:54:37
End at: 2018-02-15 23:55:07

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 87.206 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 87.206 ms
Loss rate: 1.28%
```
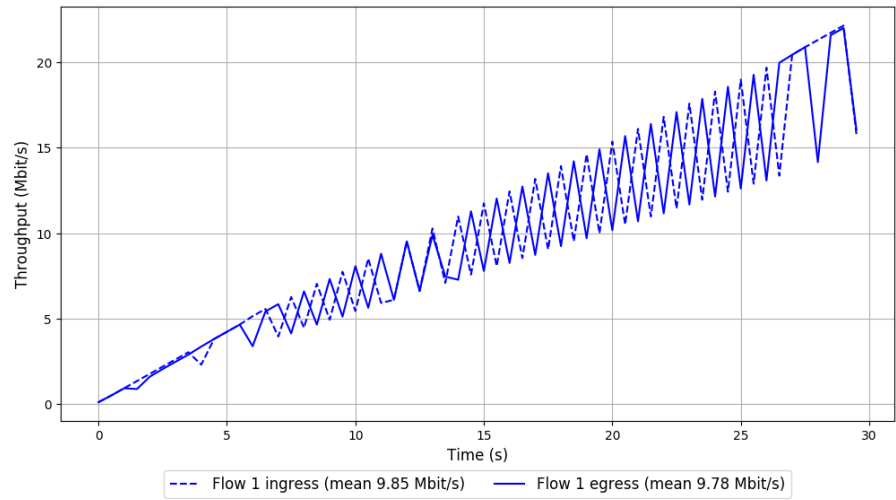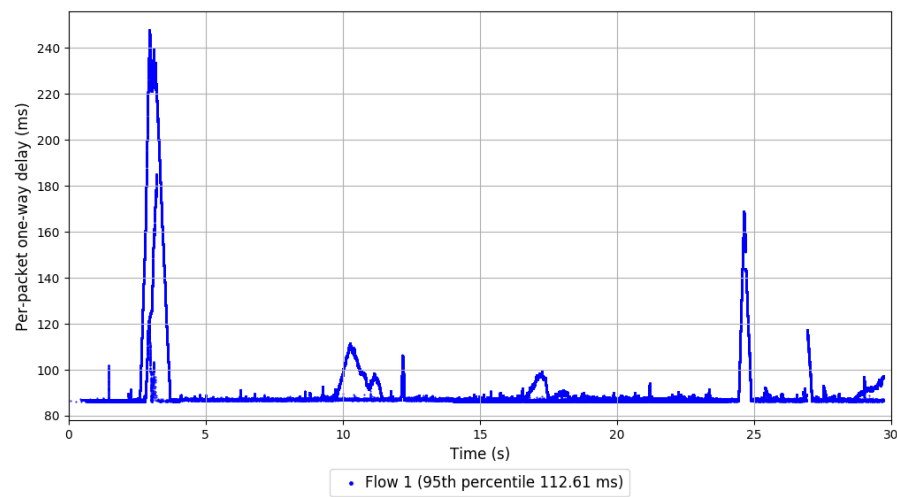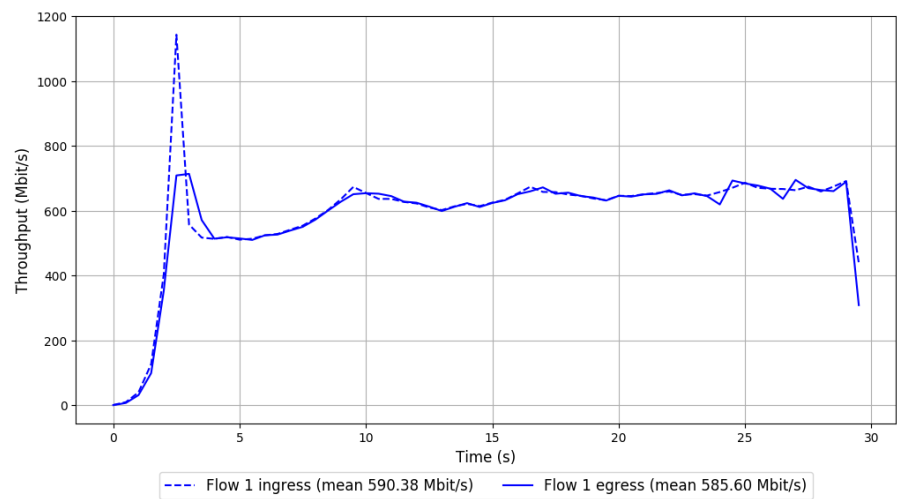
Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.87 Mbit/s)   Flow 1 egress (mean 9.80 Mbit/s)

Flow 1 (95th percentile 87.21 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-02-16 00:09:47
End at: 2018-02-16 00:10:17

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 114.480 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 114.480 ms
Loss rate: 1.20%
```
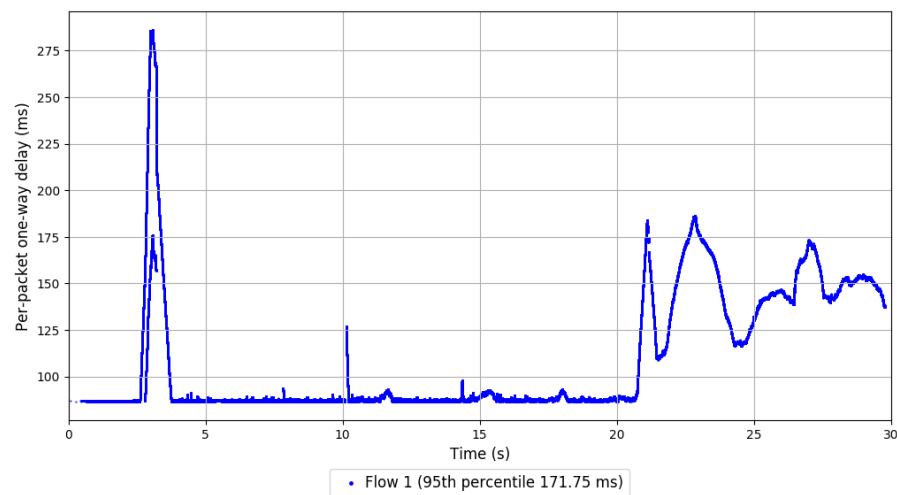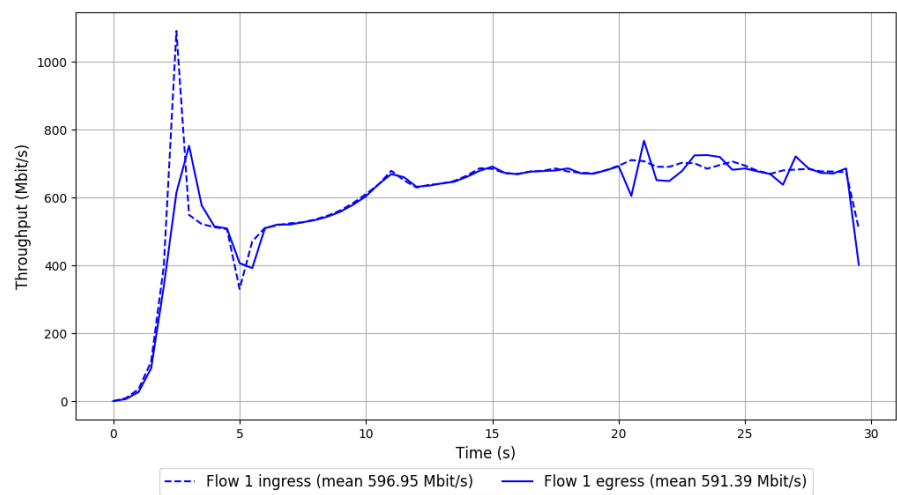
Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 10.06 Mbit/s) — Flow 1 egress (mean 10.00 Mbit/s)

• Flow 1 (95th percentile 114.48 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-02-16 00:25:18
End at: 2018-02-16 00:25:48

# Below is generated by plot.py at 2018-02-16 03:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 87.607 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 87.607 ms
Loss rate: 1.22%
```
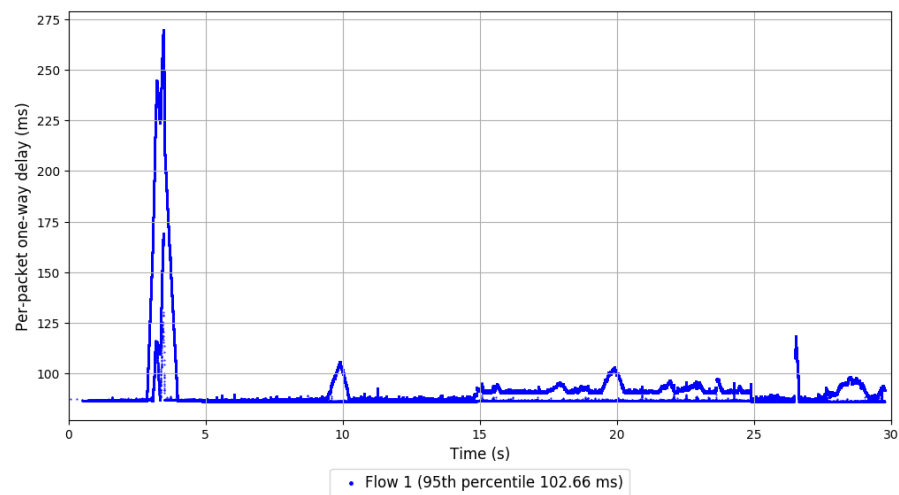
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2018-02-15 22:09:54
End at: 2018-02-15 22:10:24

# Below is generated by plot.py at 2018-02-16 03:32:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 585.60 Mbit/s
95th percentile per-packet one-way delay: 112.614 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 585.60 Mbit/s
95th percentile per-packet one-way delay: 112.614 ms
Loss rate: 1.40%
```
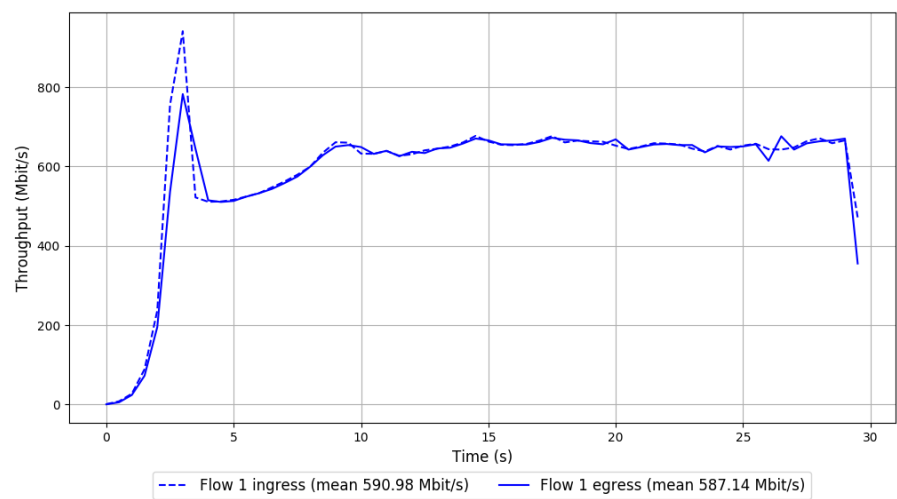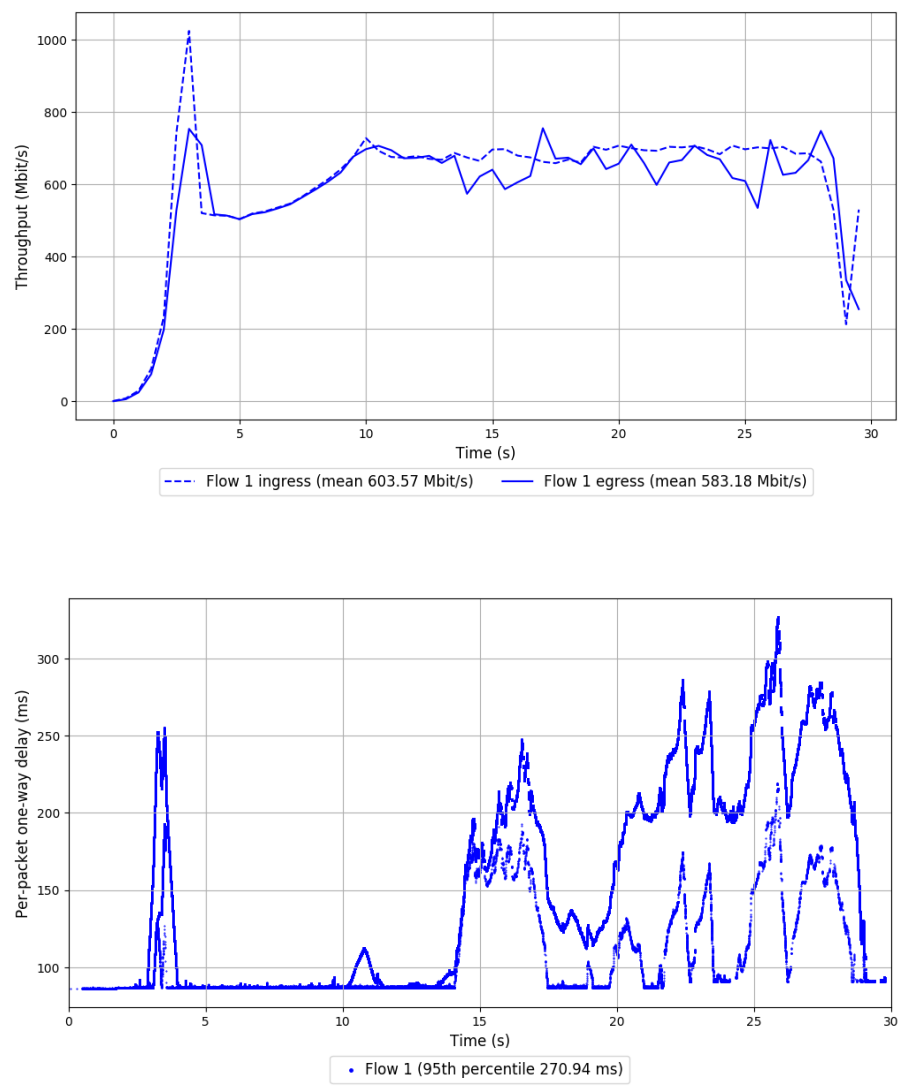
Run 1: Report of PCC — Data Link

Flow 1 ingress (mean 590.38 Mbit/s)   Flow 1 egress (mean 585.60 Mbit/s)

• Flow 1 (95th percentile 112.61 ms)

```
Run 2: Statistics of PCC

Start at: 2018-02-15 22:25:34
End at: 2018-02-15 22:26:04

# Below is generated by plot.py at 2018-02-16 03:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 591.39 Mbit/s
95th percentile per-packet one-way delay: 171.750 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 591.39 Mbit/s
95th percentile per-packet one-way delay: 171.750 ms
Loss rate: 1.52%
```
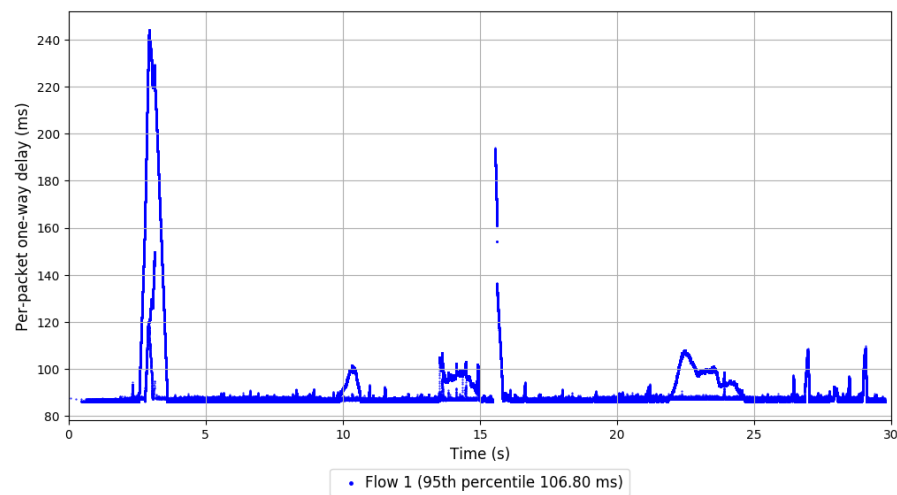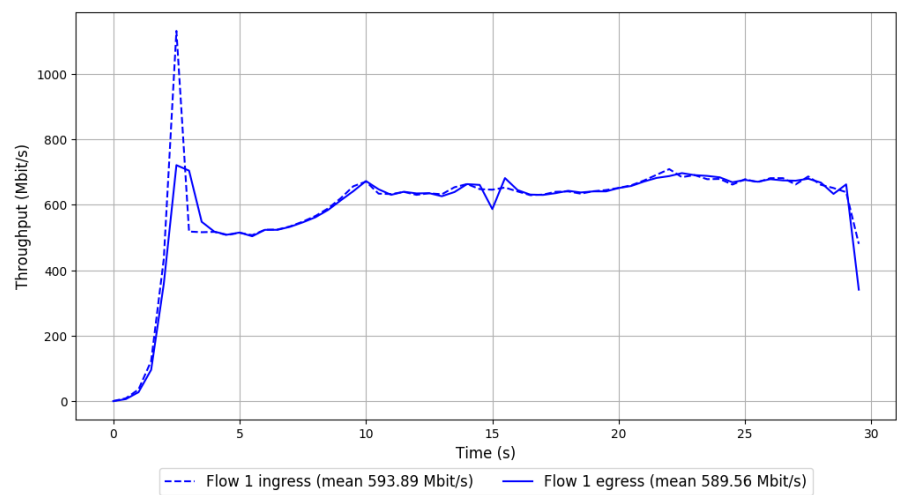
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 596.95 Mbit/s) — — —   Flow 1 egress (mean 591.39 Mbit/s) ———

• Flow 1 (95th percentile 171.75 ms)

67

```
Run 3: Statistics of PCC

Start at: 2018-02-15 22:41:23
End at: 2018-02-15 22:41:53

# Below is generated by plot.py at 2018-02-16 03:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 587.14 Mbit/s
95th percentile per-packet one-way delay: 102.659 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 587.14 Mbit/s
95th percentile per-packet one-way delay: 102.659 ms
Loss rate: 1.31%
```
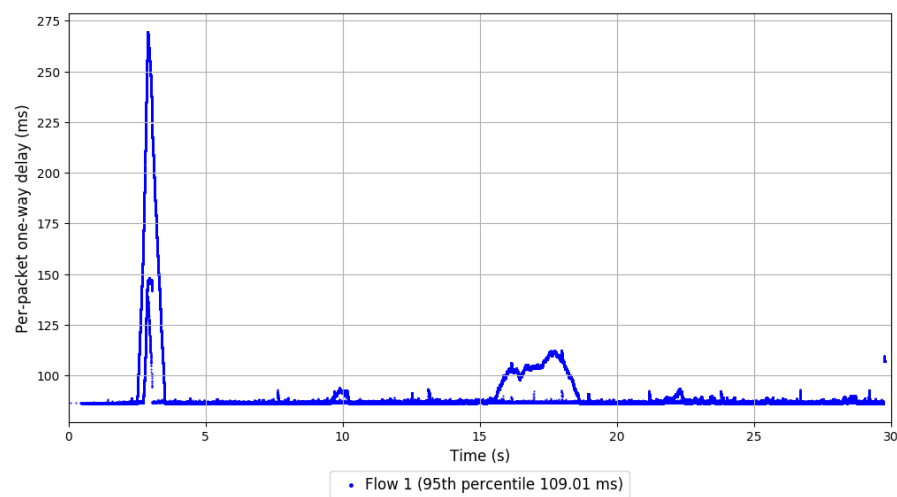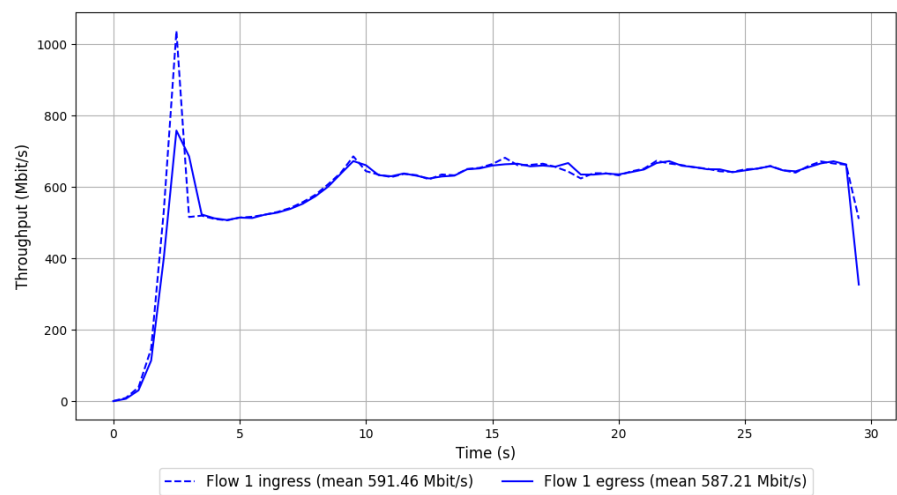
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 590.98 Mbit/s) --- Flow 1 egress (mean 587.14 Mbit/s)

• Flow 1 (95th percentile 102.66 ms)

```
Run 4: Statistics of PCC

Start at: 2018-02-15 22:56:47
End at: 2018-02-15 22:57:17

# Below is generated by plot.py at 2018-02-16 03:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 583.18 Mbit/s
95th percentile per-packet one-way delay: 270.939 ms
Loss rate: 4.03%
-- Flow 1:
Average throughput: 583.18 Mbit/s
95th percentile per-packet one-way delay: 270.939 ms
Loss rate: 4.03%
```
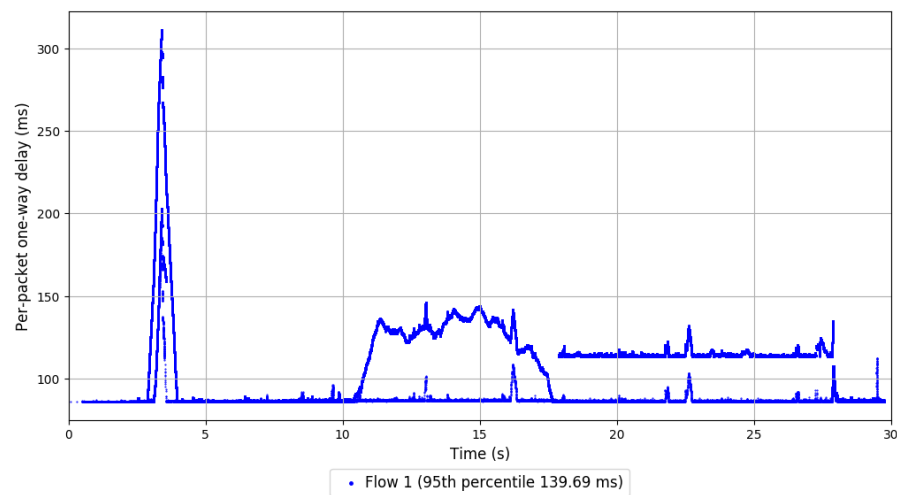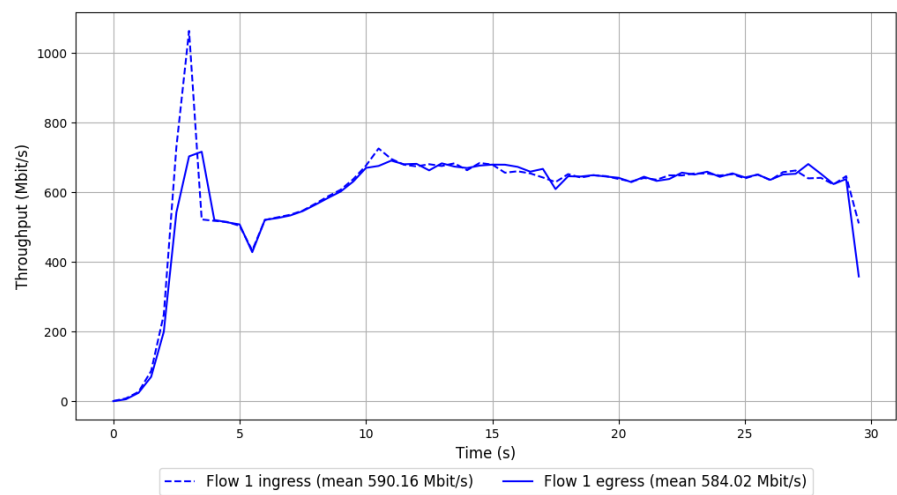
Run 4: Report of PCC — Data Link

Flow 1 ingress (mean 603.57 Mbit/s)   Flow 1 egress (mean 583.18 Mbit/s)

• Flow 1 (95th percentile 270.94 ms)

```
Run 5: Statistics of PCC

Start at: 2018-02-15 23:12:29
End at: 2018-02-15 23:12:59

# Below is generated by plot.py at 2018-02-16 03:33:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 589.56 Mbit/s
95th percentile per-packet one-way delay: 106.795 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 589.56 Mbit/s
95th percentile per-packet one-way delay: 106.795 ms
Loss rate: 1.40%
```
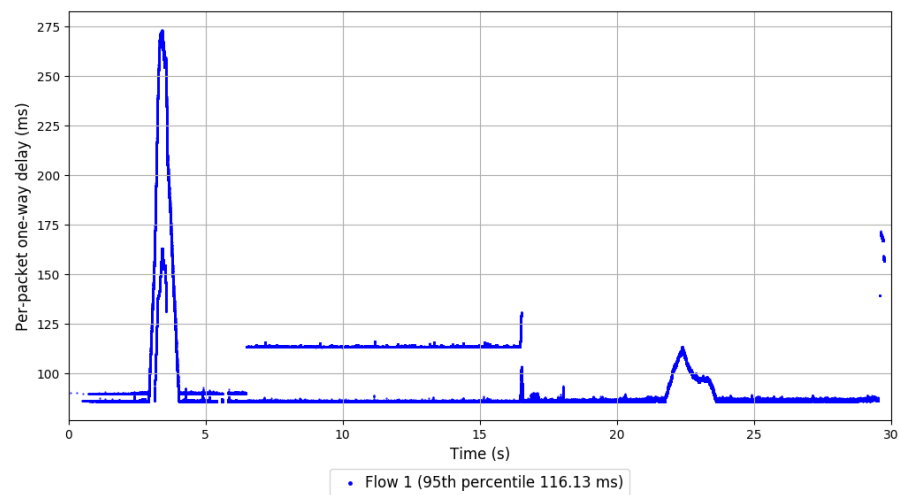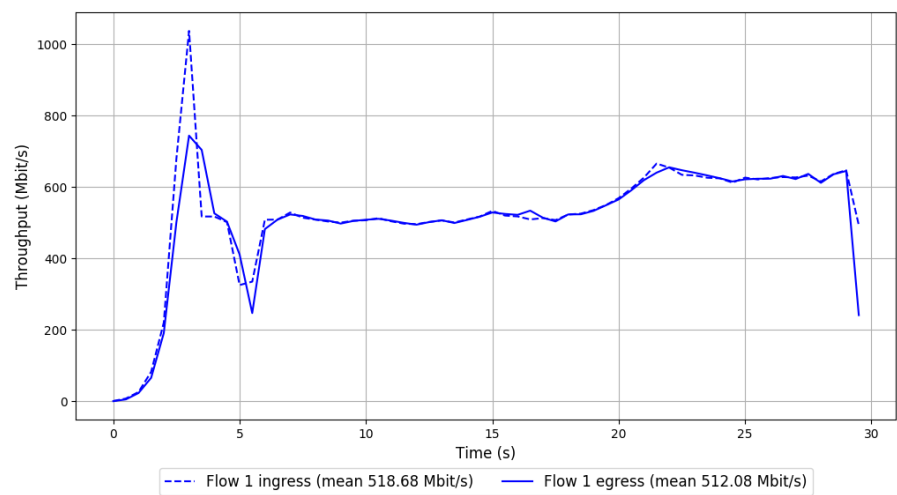
Run 5: Report of PCC — Data Link

Flow 1 ingress (mean 593.89 Mbit/s) — Flow 1 egress (mean 589.56 Mbit/s)

• Flow 1 (95th percentile 106.80 ms)

73

```
Run 6: Statistics of PCC

Start at: 2018-02-15 23:28:24
End at: 2018-02-15 23:28:54


# Below is generated by plot.py at 2018-02-16 03:33:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 587.21 Mbit/s
95th percentile per-packet one-way delay: 109.010 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 587.21 Mbit/s
95th percentile per-packet one-way delay: 109.010 ms
Loss rate: 1.39%
```
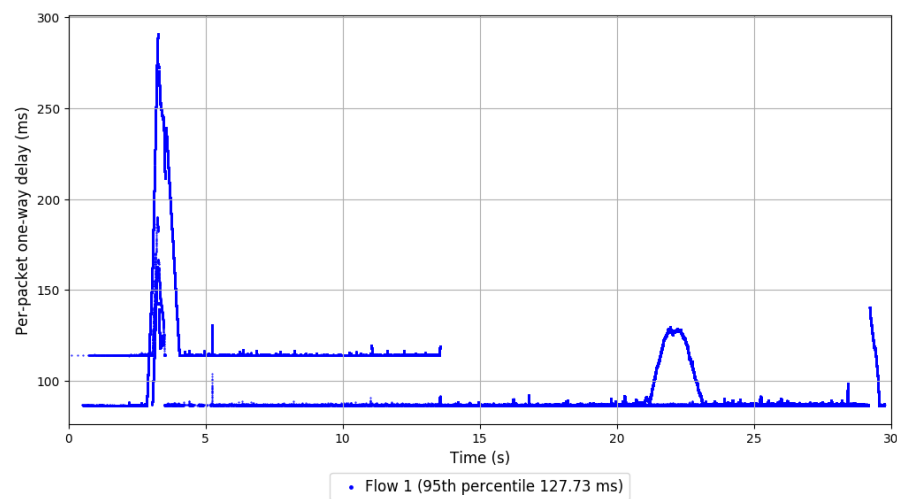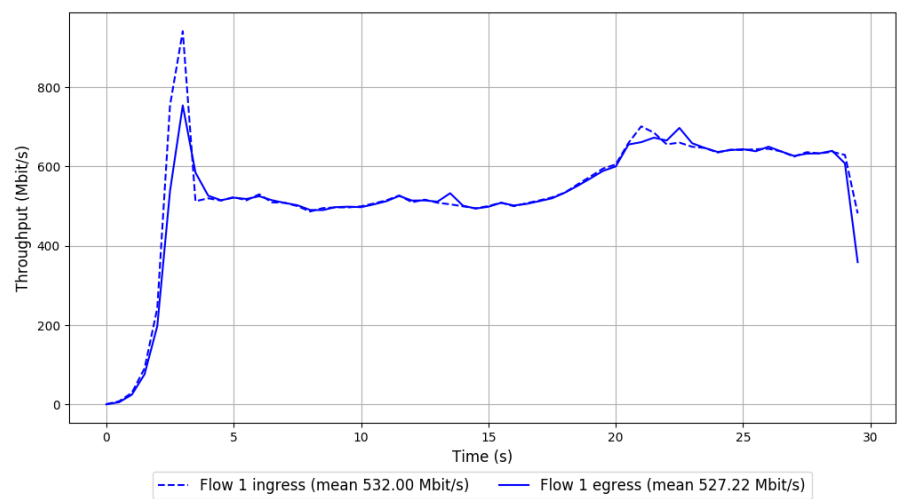
Run 6: Report of PCC — Data Link

Flow 1 ingress (mean 591.46 Mbit/s)   Flow 1 egress (mean 587.21 Mbit/s)

• Flow 1 (95th percentile 109.01 ms)

Run 7: Statistics of PCC

Start at: 2018-02-15 23:44:00
End at: 2018-02-15 23:44:30

Below is generated by plot.py at 2018-02-16 03:33:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 584.02 Mbit/s
95th percentile per-packet one-way delay: 139.690 ms
Loss rate: 1.71%
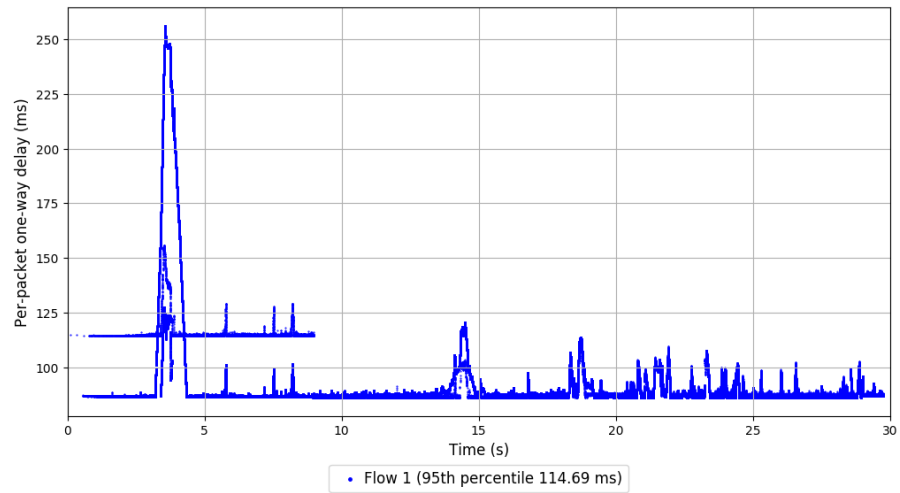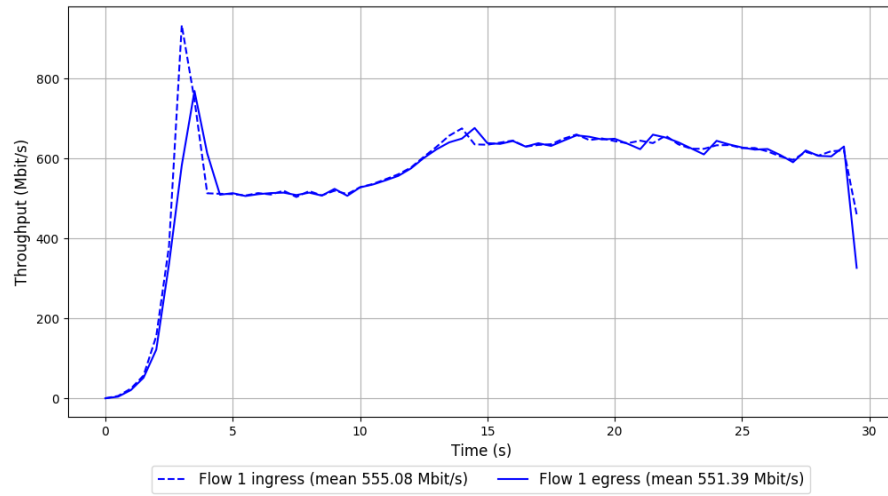-- Flow 1:
Average throughput: 584.02 Mbit/s
95th percentile per-packet one-way delay: 139.690 ms
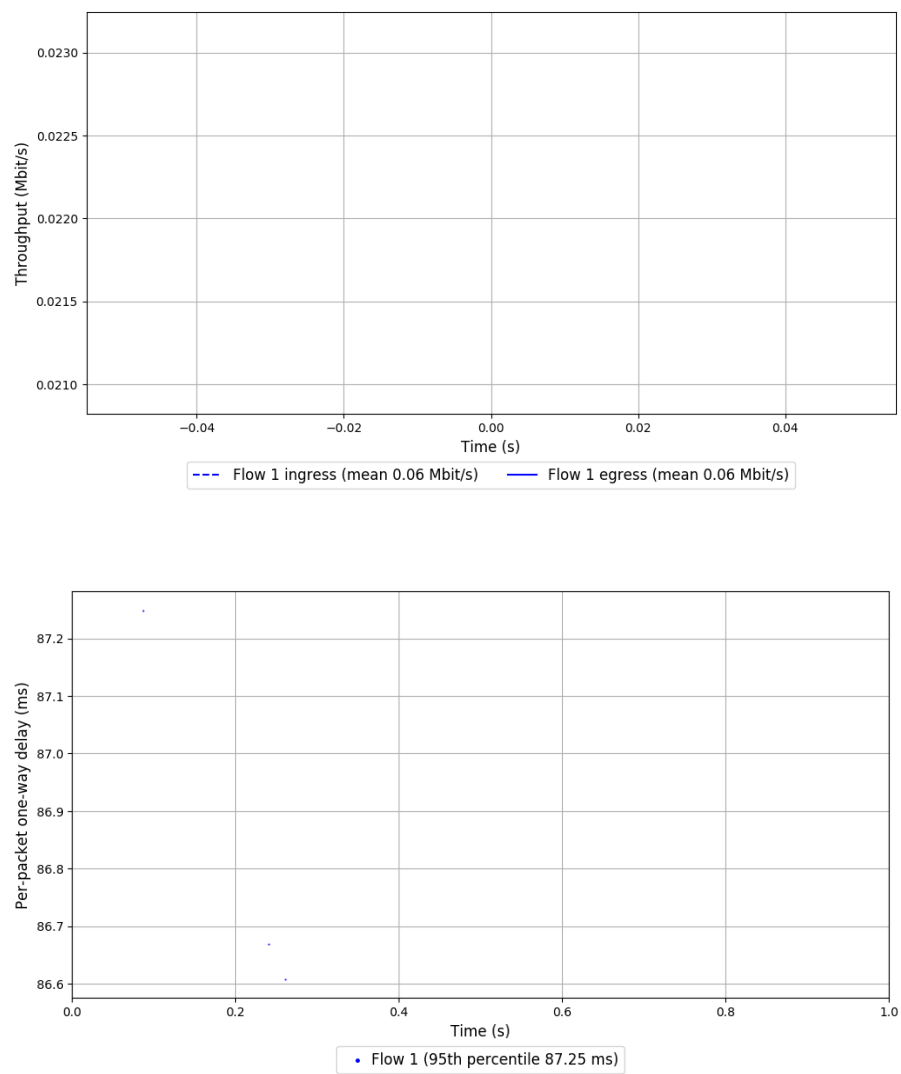Loss rate: 1.71%

Run 7: Report of PCC — Data Link

Flow 1 ingress (mean 590.16 Mbit/s)   Flow 1 egress (mean 584.02 Mbit/s)

Flow 1 (95th percentile 139.69 ms)

```
Run 8: Statistics of PCC

Start at: 2018-02-15 23:59:22
End at: 2018-02-15 23:59:52

# Below is generated by plot.py at 2018-02-16 03:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 512.08 Mbit/s
95th percentile per-packet one-way delay: 116.127 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 512.08 Mbit/s
95th percentile per-packet one-way delay: 116.127 ms
Loss rate: 1.95%
```
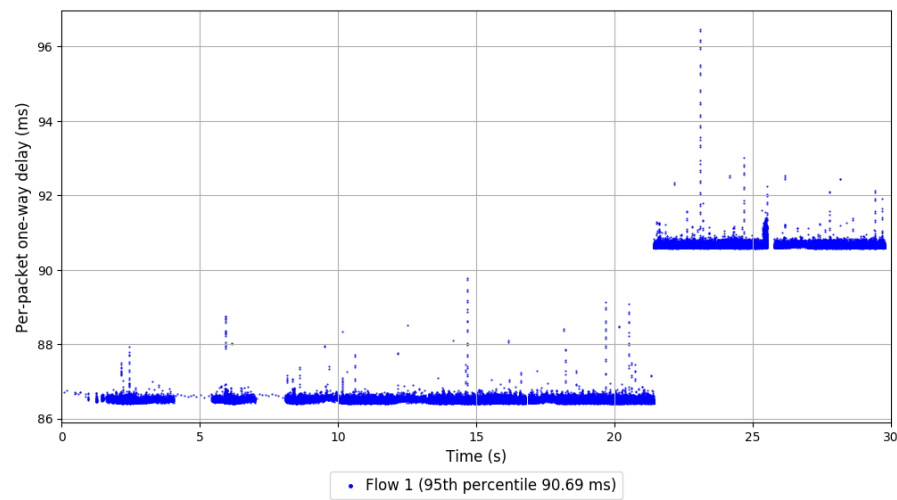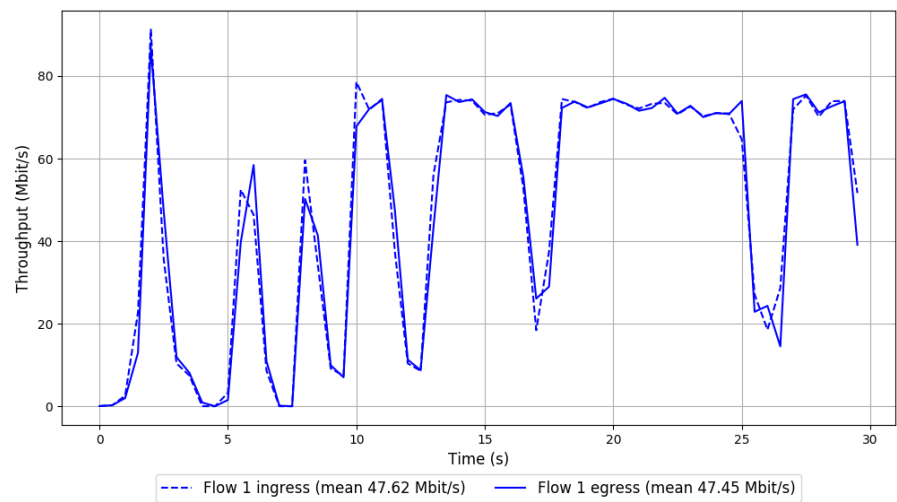
Run 8: Report of PCC — Data Link

Flow 1 ingress (mean 518.68 Mbit/s) — Flow 1 egress (mean 512.08 Mbit/s)

Flow 1 (95th percentile 116.13 ms)

```
Run 9: Statistics of PCC

Start at: 2018-02-16 00:14:45
End at: 2018-02-16 00:15:15

# Below is generated by plot.py at 2018-02-16 03:42:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 527.22 Mbit/s
95th percentile per-packet one-way delay: 127.731 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 527.22 Mbit/s
95th percentile per-packet one-way delay: 127.731 ms
Loss rate: 1.66%
```
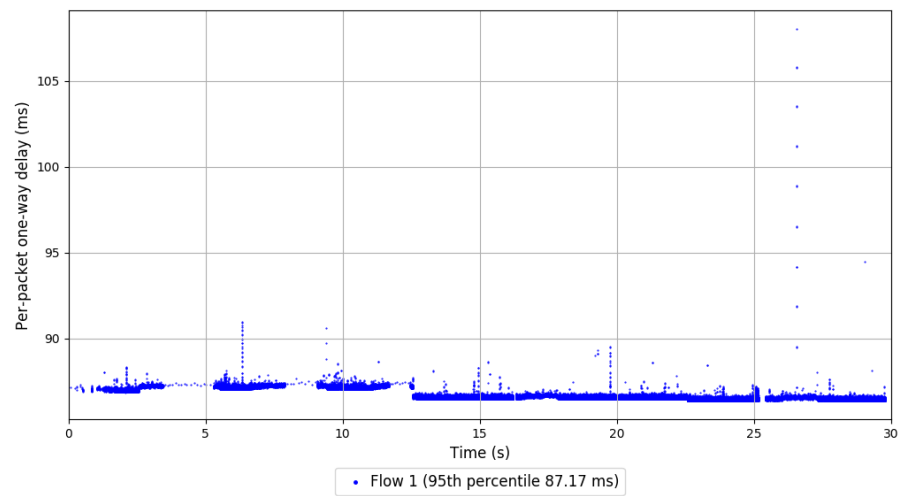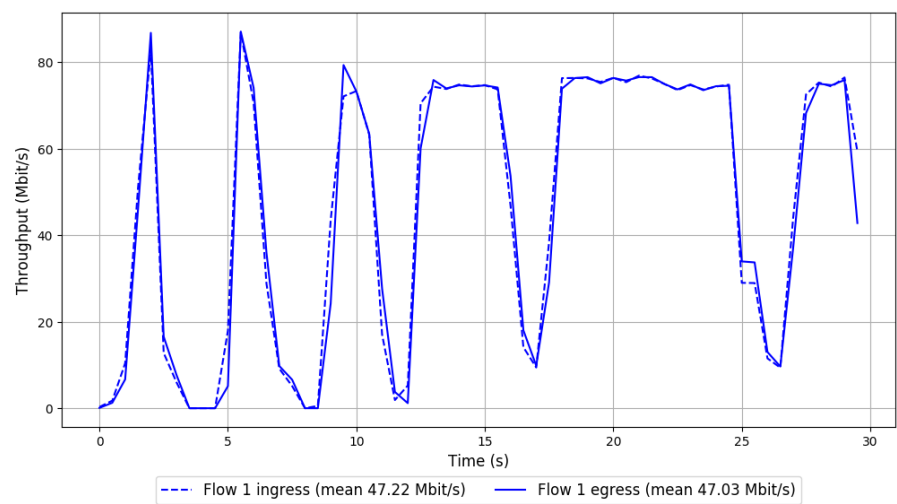
Run 9: Report of PCC — Data Link

Flow 1 ingress (mean 532.00 Mbit/s) --- Flow 1 egress (mean 527.22 Mbit/s)

Flow 1 (95th percentile 127.73 ms)

```
Run 10: Statistics of PCC

Start at: 2018-02-16 00:30:09
End at: 2018-02-16 00:30:39


# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 551.39 Mbit/s
95th percentile per-packet one-way delay: 114.685 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 551.39 Mbit/s
95th percentile per-packet one-way delay: 114.685 ms
Loss rate: 1.43%
```
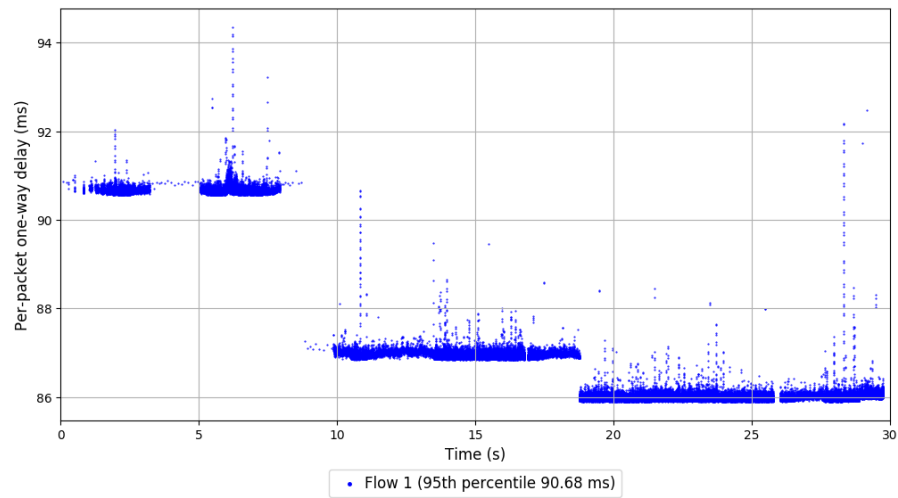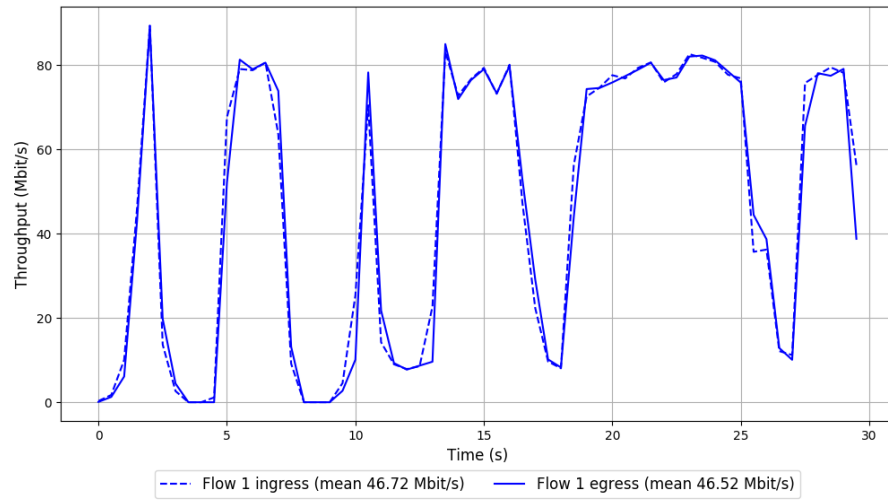
Run 10: Report of PCC — Data Link

Run 1: Statistics of QUIC Cubic

Start at: 2018-02-15 22:10:56
End at: 2018-02-15 22:11:26

Run 1: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.06 Mbit/s)   Flow 1 egress (mean 0.06 Mbit/s)

Flow 1 (95th percentile 87.25 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-15 22:26:37
End at: 2018-02-15 22:27:07

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.45 Mbit/s
95th percentile per-packet one-way delay: 90.691 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 47.45 Mbit/s
95th percentile per-packet one-way delay: 90.691 ms
Loss rate: 0.93%
```
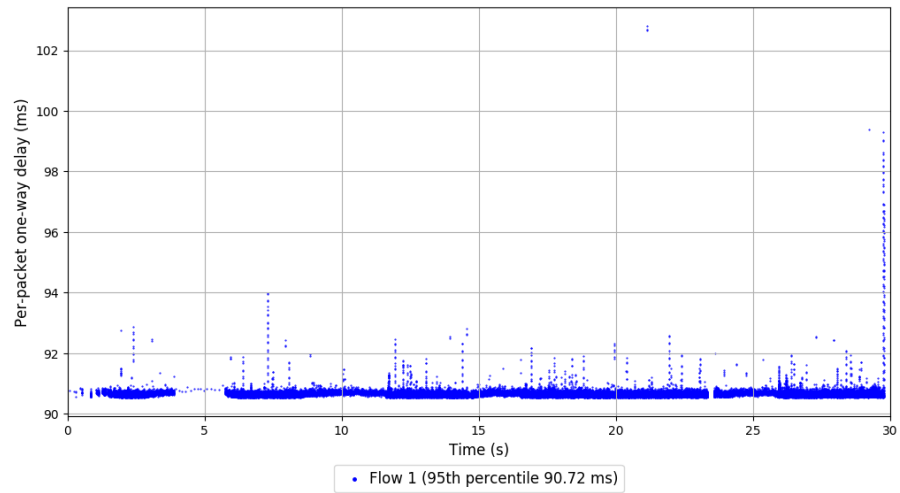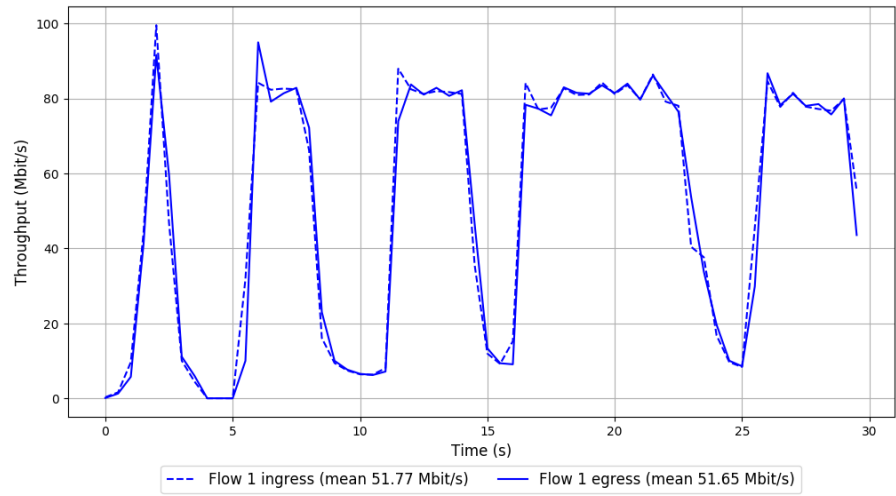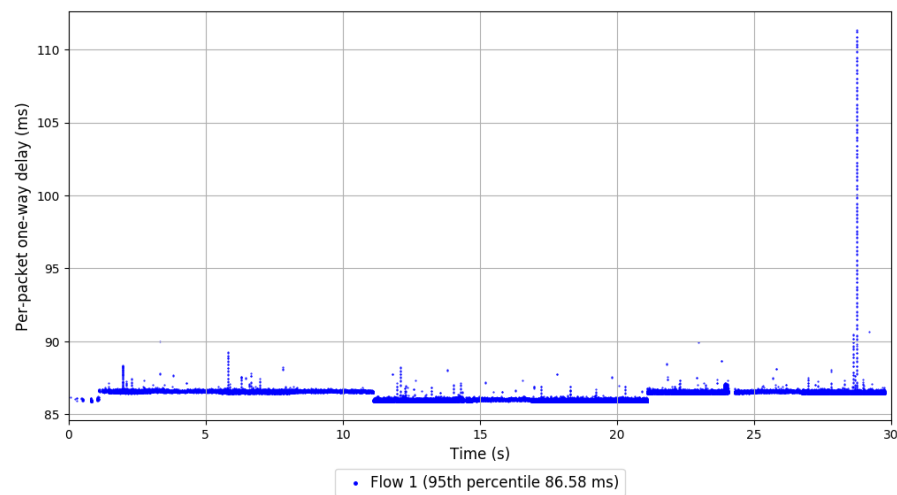
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-15 22:42:26
End at: 2018-02-15 22:42:56

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.03 Mbit/s
95th percentile per-packet one-way delay: 87.166 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 47.03 Mbit/s
95th percentile per-packet one-way delay: 87.166 ms
Loss rate: 1.06%
```
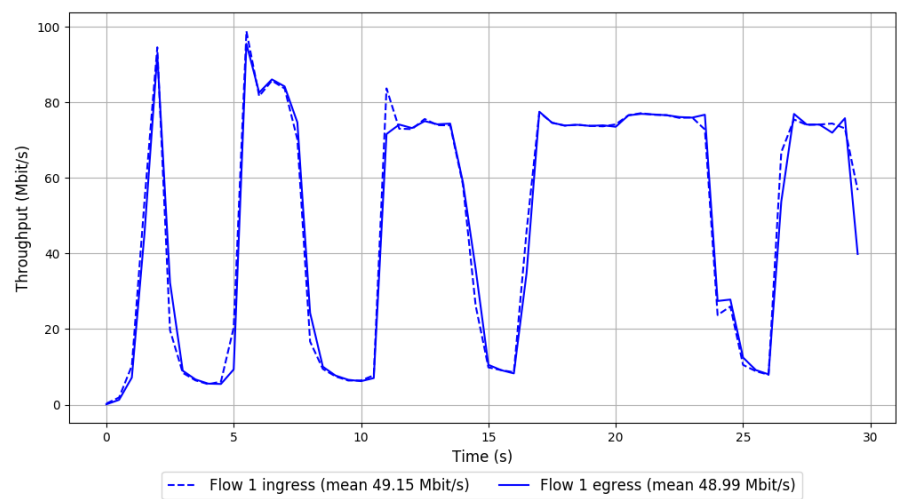
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-15 22:57:49
End at: 2018-02-15 22:58:19

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.52 Mbit/s
95th percentile per-packet one-way delay: 90.680 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 46.52 Mbit/s
95th percentile per-packet one-way delay: 90.680 ms
Loss rate: 1.12%
```
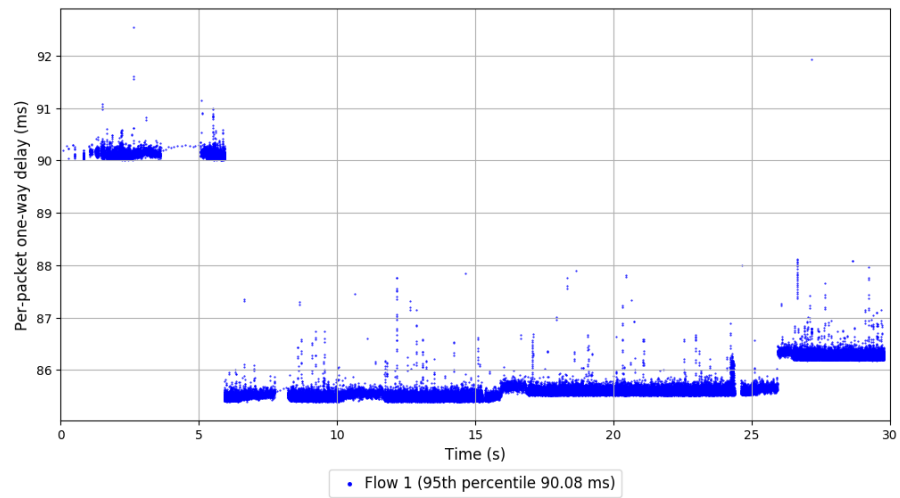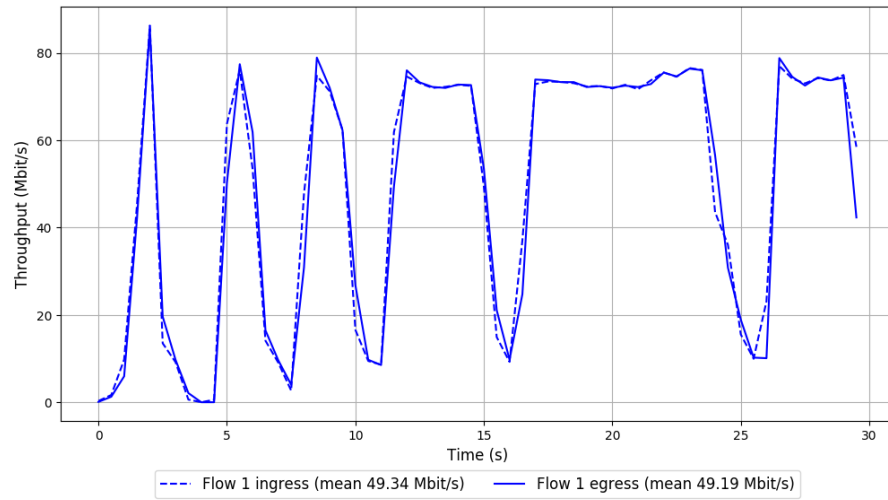
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 46.72 Mbit/s) --- Flow 1 egress (mean 46.52 Mbit/s)

• Flow 1 (95th percentile 90.68 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-15 23:13:33
End at: 2018-02-15 23:14:03

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.65 Mbit/s
95th percentile per-packet one-way delay: 90.722 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 51.65 Mbit/s
95th percentile per-packet one-way delay: 90.722 ms
Loss rate: 0.84%
```
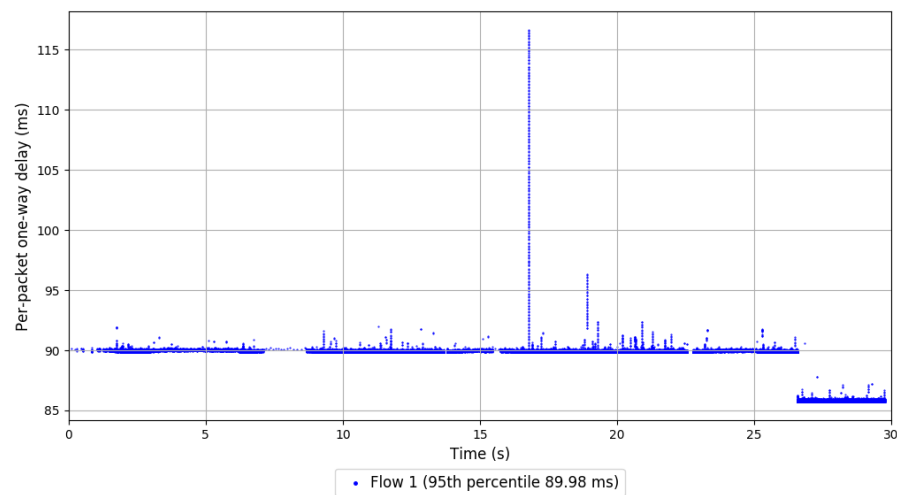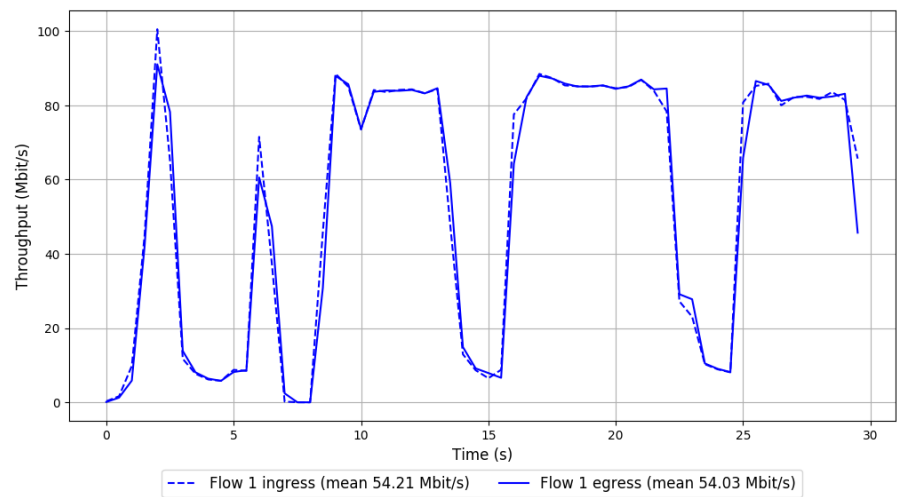
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 51.77 Mbit/s) ——— Flow 1 egress (mean 51.65 Mbit/s)

Flow 1 (95th percentile 90.72 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-15 23:29:27
End at: 2018-02-15 23:29:57

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.99 Mbit/s
95th percentile per-packet one-way delay: 86.581 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 48.99 Mbit/s
95th percentile per-packet one-way delay: 86.581 ms
Loss rate: 1.00%
```
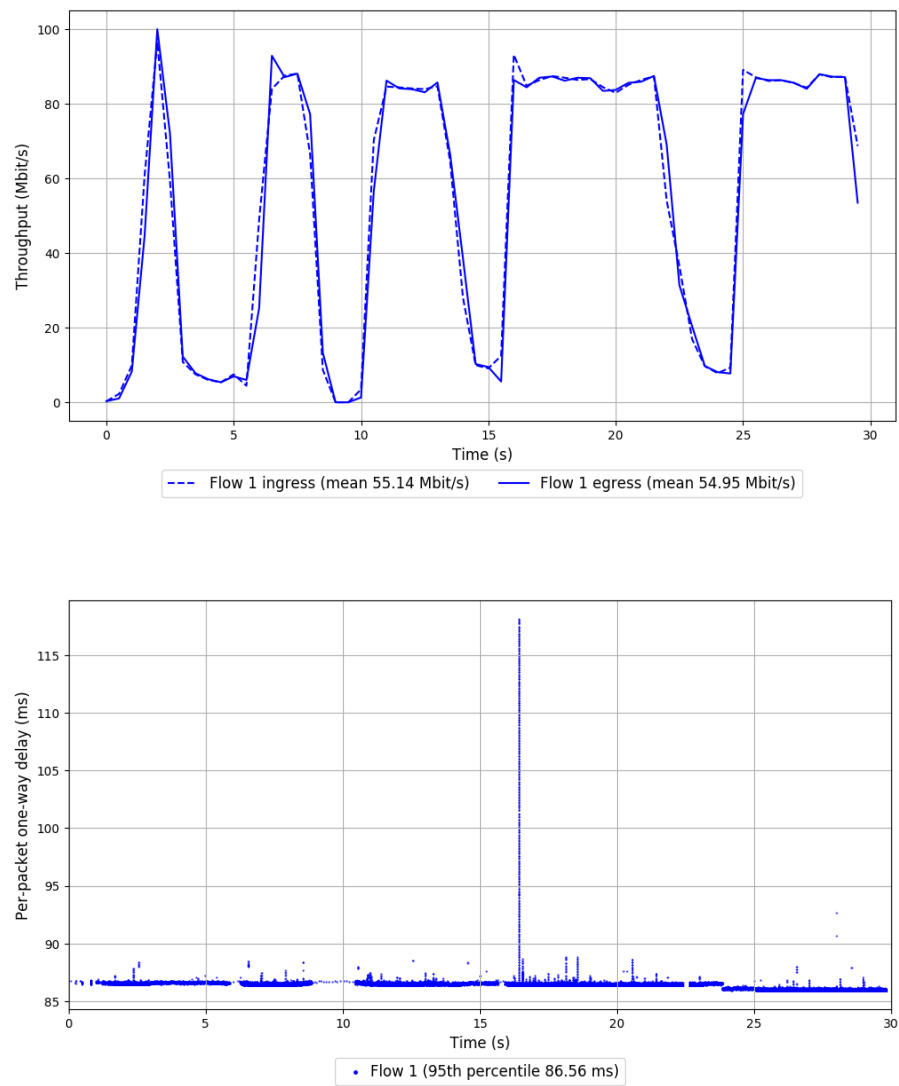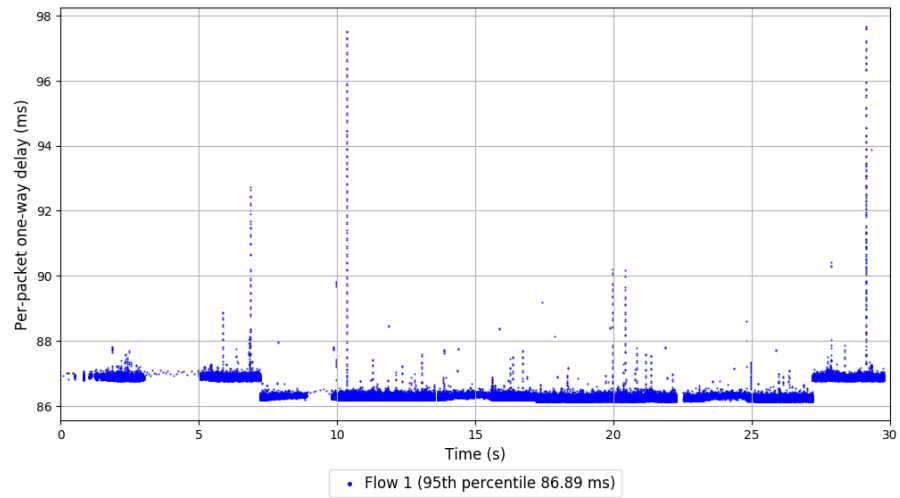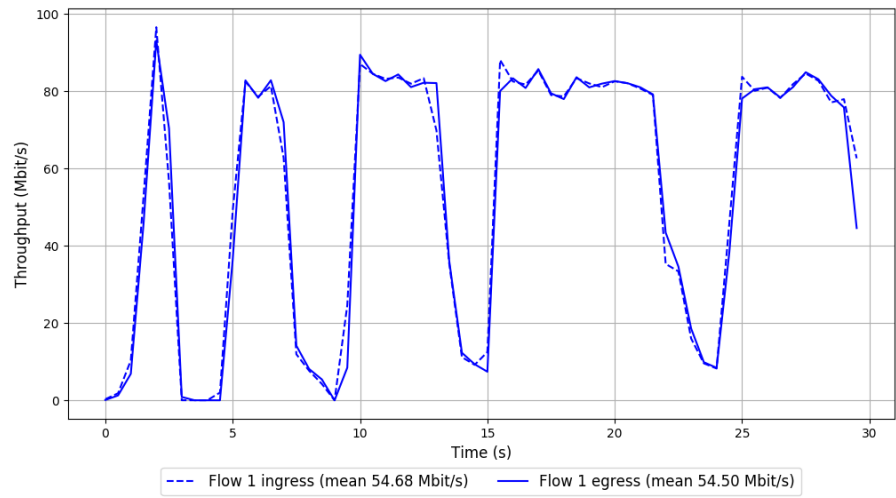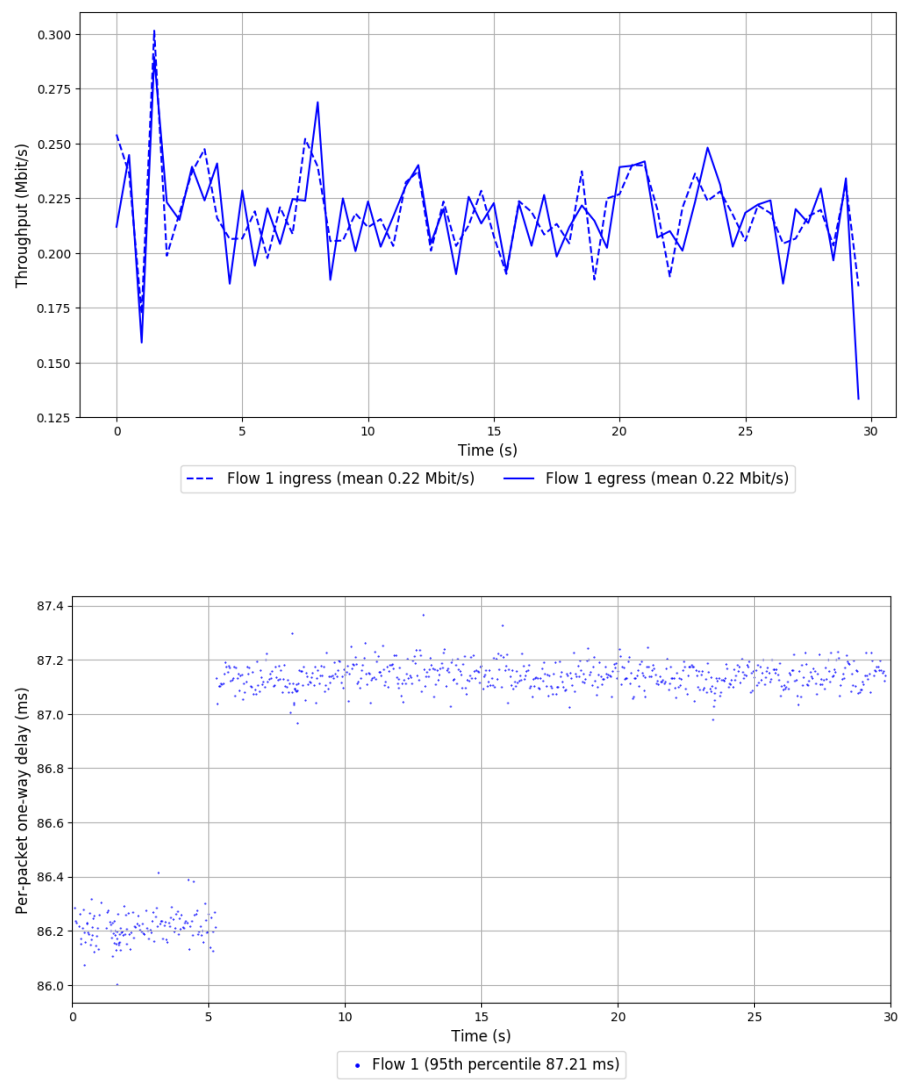
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 49.15 Mbit/s) ——— Flow 1 egress (mean 48.99 Mbit/s)

Flow 1 (95th percentile 86.58 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-15 23:45:02
End at: 2018-02-15 23:45:32

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.19 Mbit/s
95th percentile per-packet one-way delay: 90.084 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 49.19 Mbit/s
95th percentile per-packet one-way delay: 90.084 ms
Loss rate: 1.00%
```

Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 49.34 Mbit/s)   Flow 1 egress (mean 49.19 Mbit/s)

Flow 1 (95th percentile 90.08 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-16 00:00:22
End at: 2018-02-16 00:00:52

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.03 Mbit/s
95th percentile per-packet one-way delay: 89.982 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 54.03 Mbit/s
95th percentile per-packet one-way delay: 89.982 ms
Loss rate: 1.03%
```
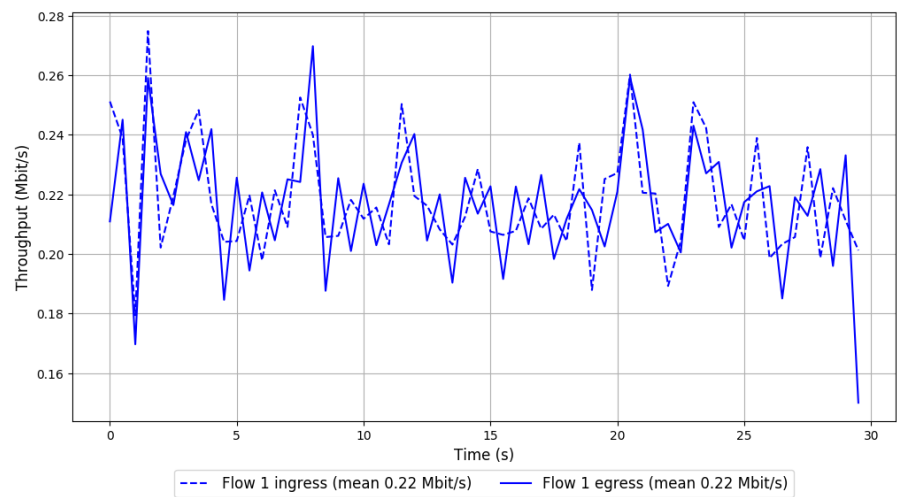
Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 54.21 Mbit/s) --- Flow 1 egress (mean 54.03 Mbit/s)

Flow 1 (95th percentile 89.98 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-16 00:15:44
End at: 2018-02-16 00:16:15


# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.95 Mbit/s
95th percentile per-packet one-way delay: 86.555 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 54.95 Mbit/s
95th percentile per-packet one-way delay: 86.555 ms
Loss rate: 0.91%
```
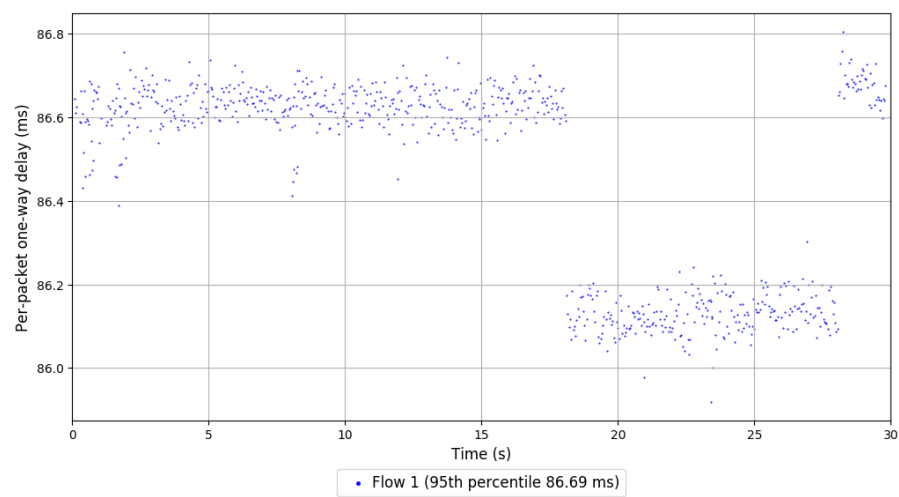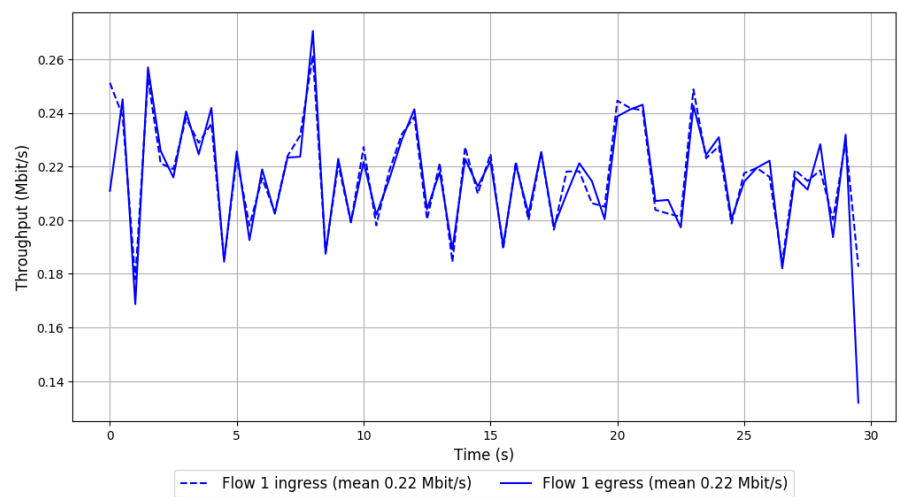
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 55.14 Mbit/s) --- Flow 1 egress (mean 54.95 Mbit/s)

Flow 1 (95th percentile 86.56 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-16 00:31:11
End at: 2018-02-16 00:31:41

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.50 Mbit/s
95th percentile per-packet one-way delay: 86.890 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 54.50 Mbit/s
95th percentile per-packet one-way delay: 86.890 ms
Loss rate: 0.99%
```
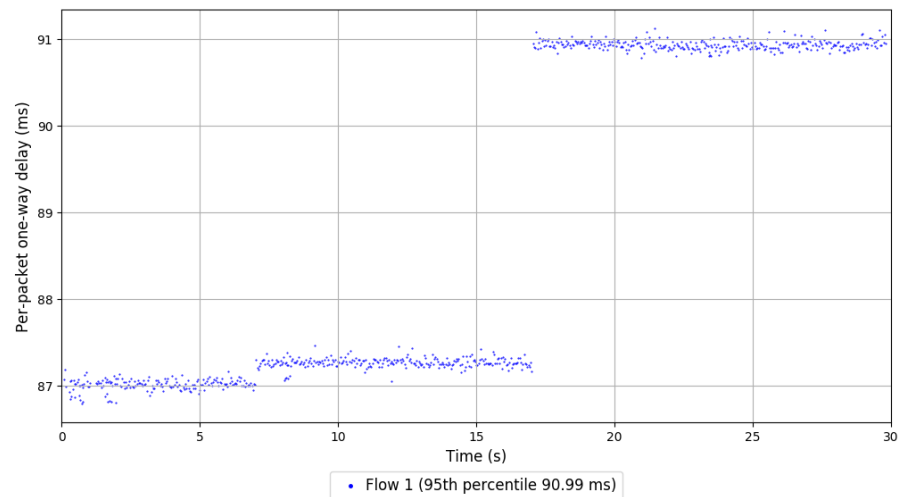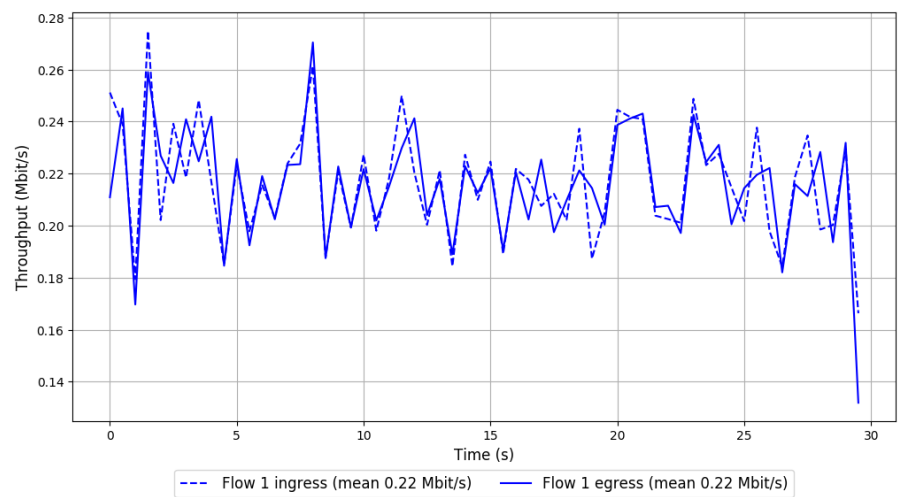
Run 10: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-02-15 22:07:33
End at: 2018-02-15 22:08:03

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.211 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.211 ms
Loss rate: 0.64%
```
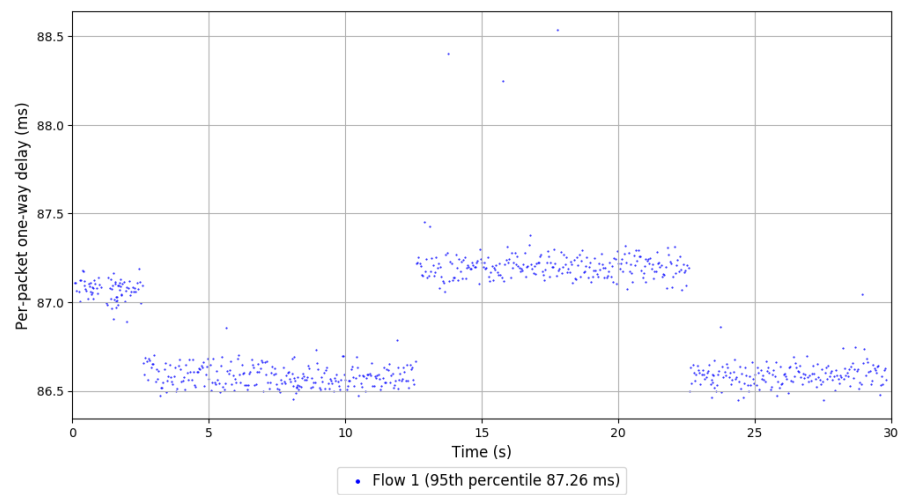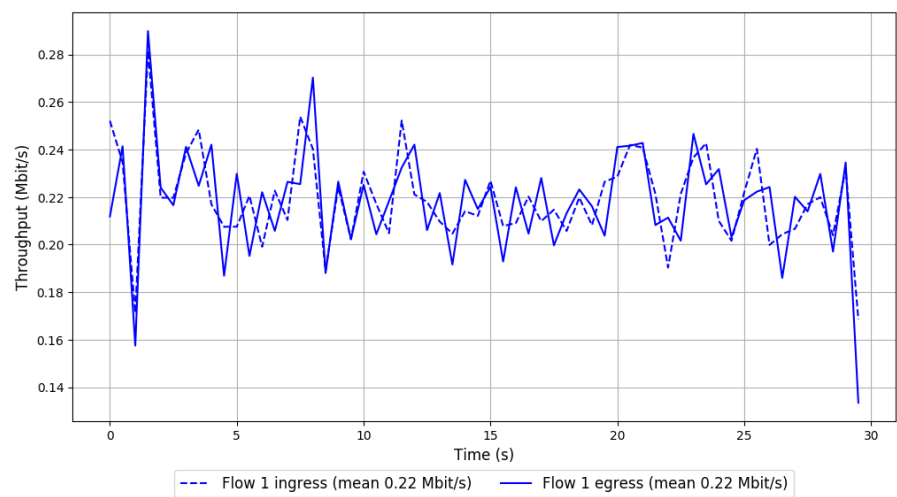
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-02-15 22:23:10
End at: 2018-02-15 22:23:40

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.302 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.302 ms
Loss rate: 0.64%
```
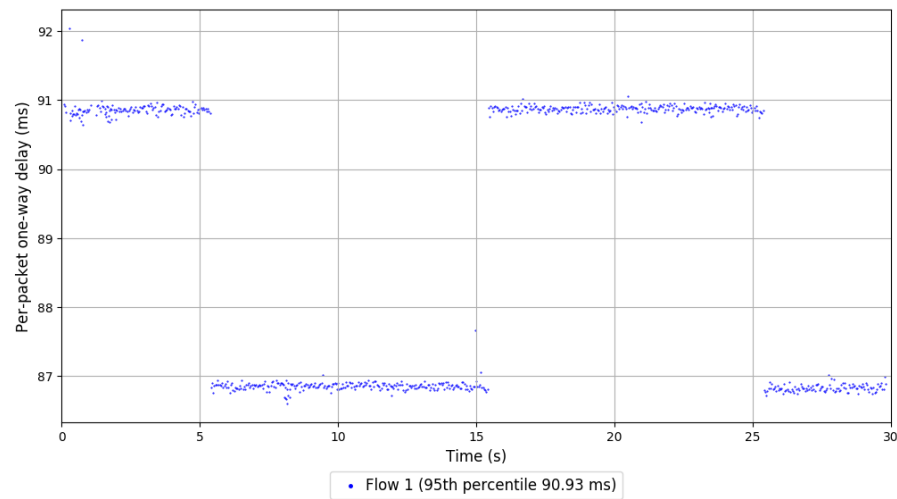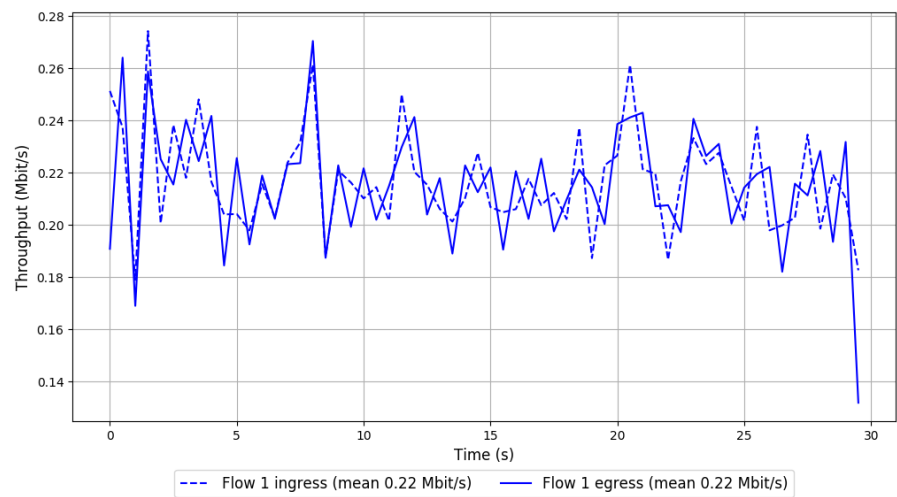
Run 2: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) --- Flow 1 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 87.30 ms)

```
Run 3: Statistics of SCReAM

Start at: 2018-02-15 22:39:00
End at: 2018-02-15 22:39:30

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.694 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.694 ms
Loss rate: 0.64%
```
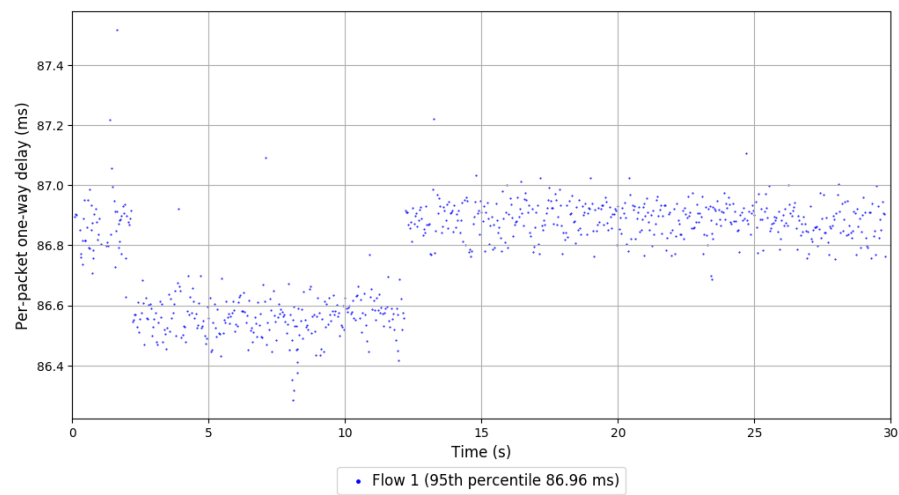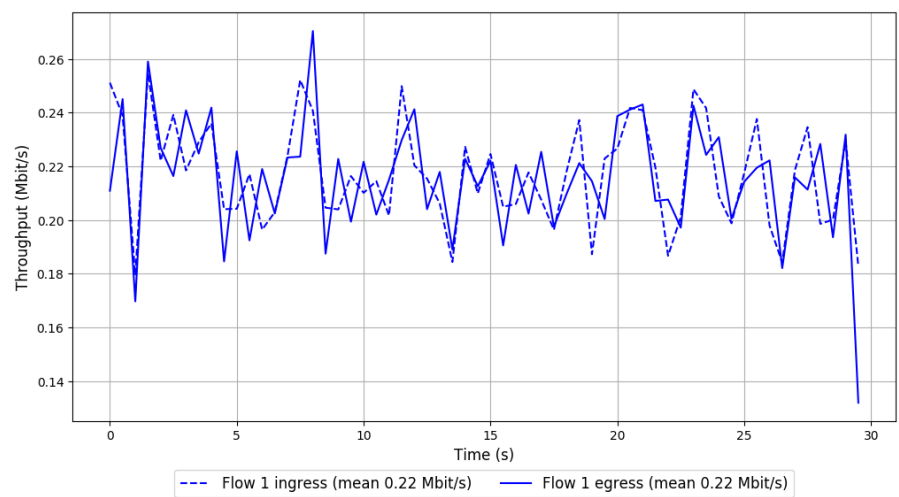
Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) ——— Flow 1 egress (mean 0.22 Mbit/s)

• Flow 1 (95th percentile 86.69 ms)

```
Run 4: Statistics of SCReAM

Start at: 2018-02-15 22:54:21
End at: 2018-02-15 22:54:51

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.993 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.993 ms
Loss rate: 0.51%
```
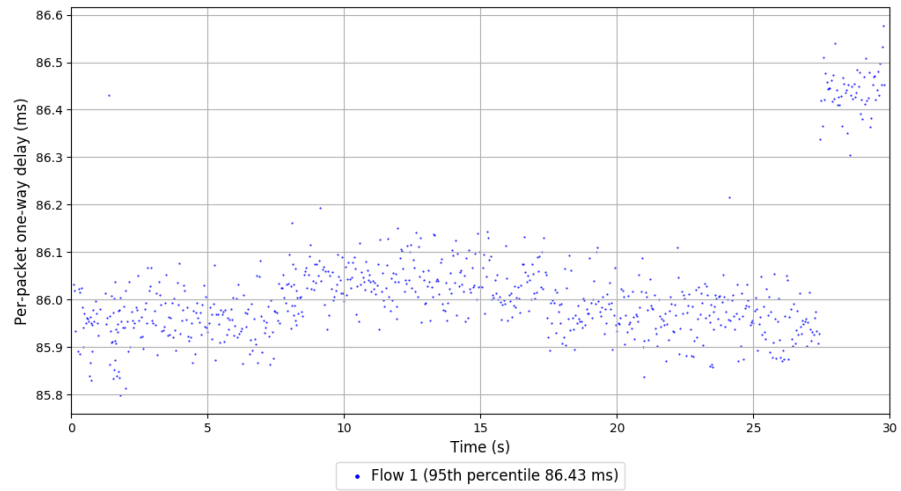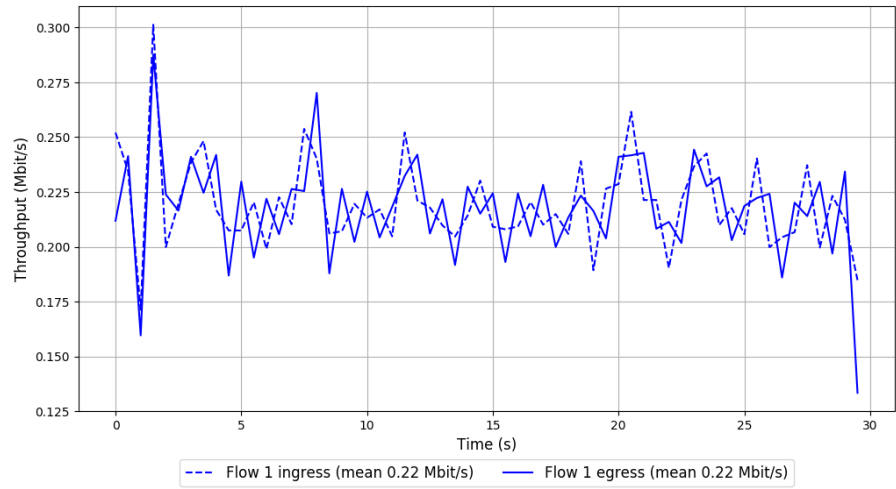
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-02-15 23:10:06
End at: 2018-02-15 23:10:36

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.257 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.257 ms
Loss rate: 0.52%
```
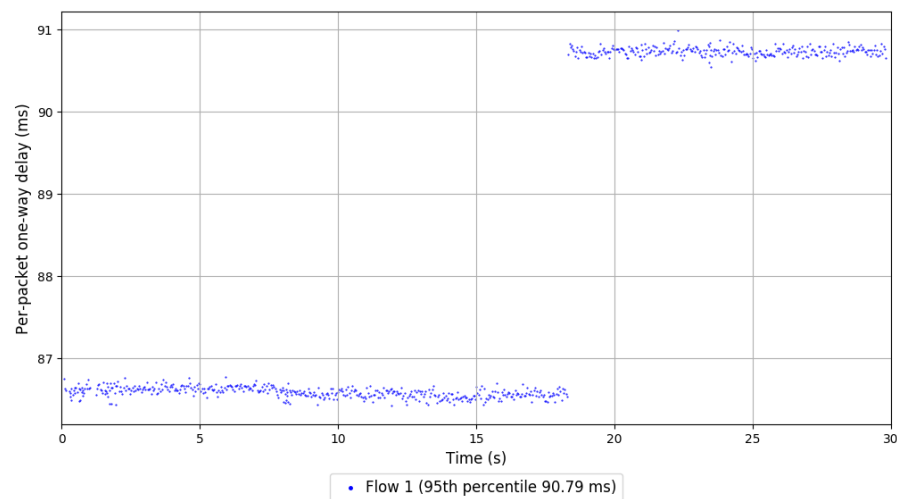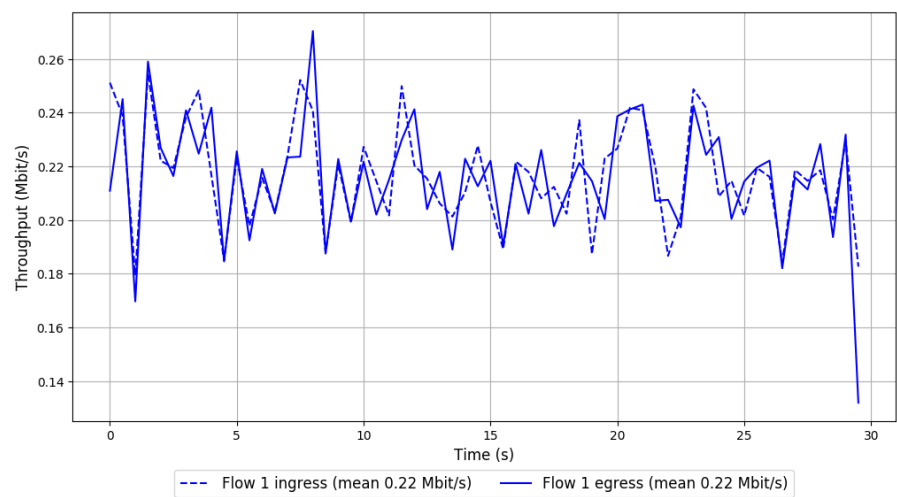
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-02-15 23:25:53
End at: 2018-02-15 23:26:23

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.931 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.931 ms
Loss rate: 0.64%
```
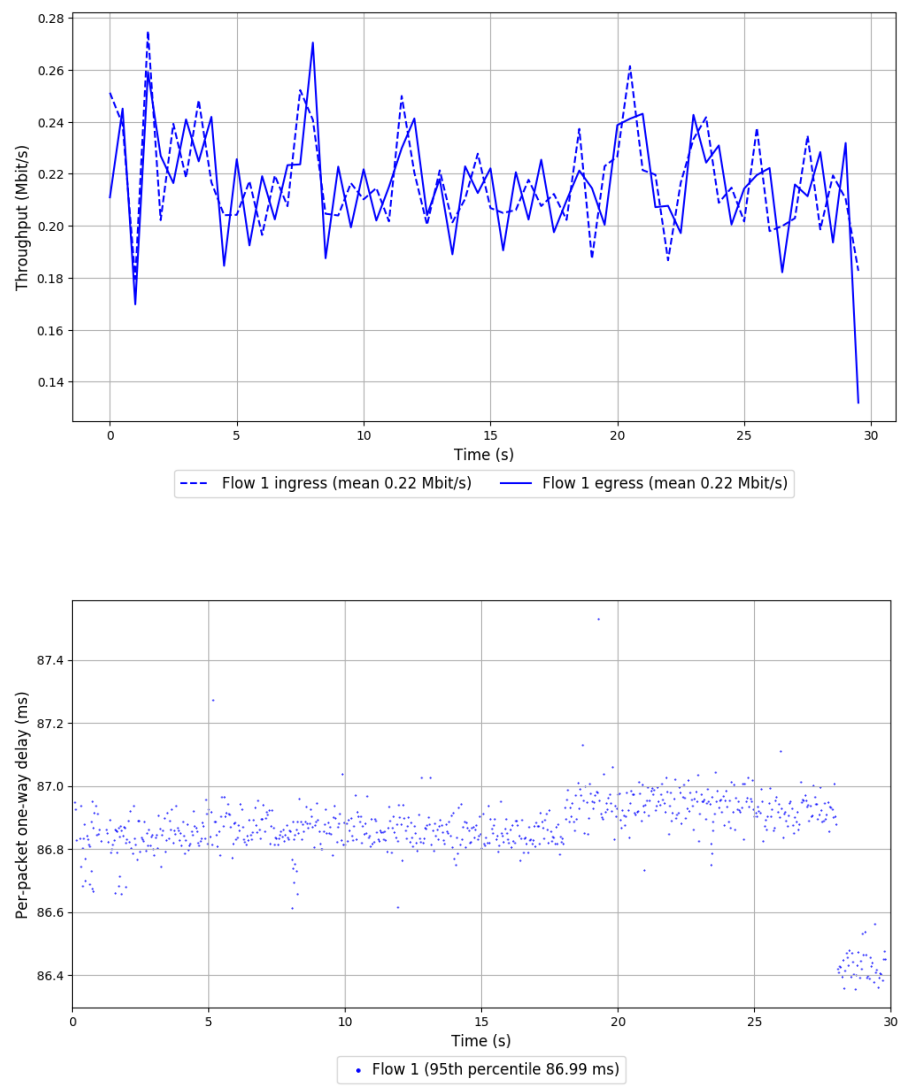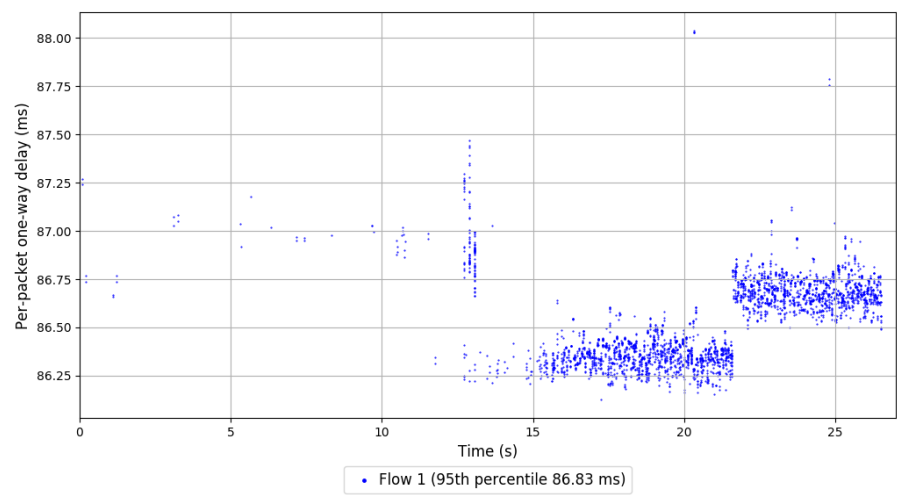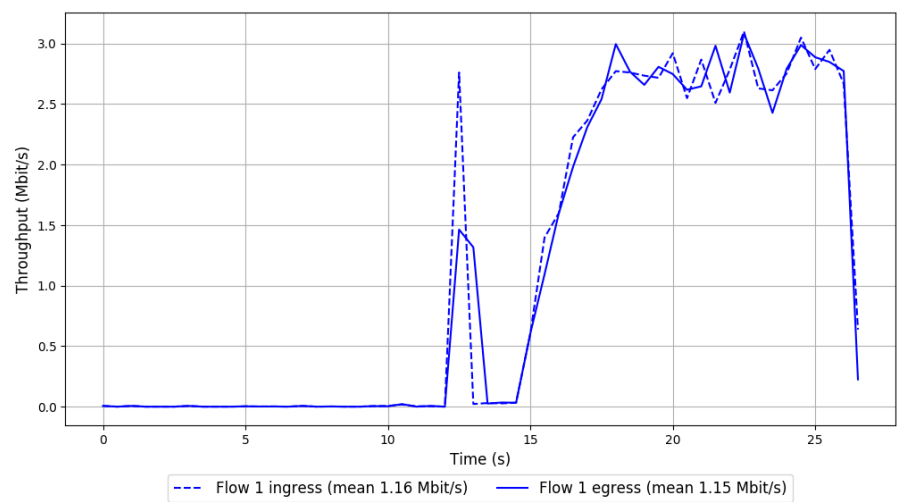
Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 90.93 ms)

```
Run 7: Statistics of SCReAM

Start at: 2018-02-15 23:41:36
End at: 2018-02-15 23:42:06

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.961 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.961 ms
Loss rate: 0.64%
```
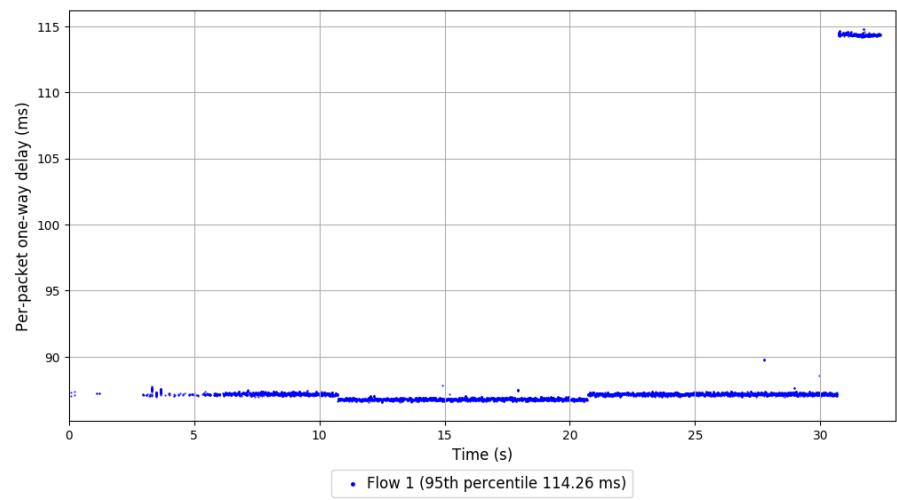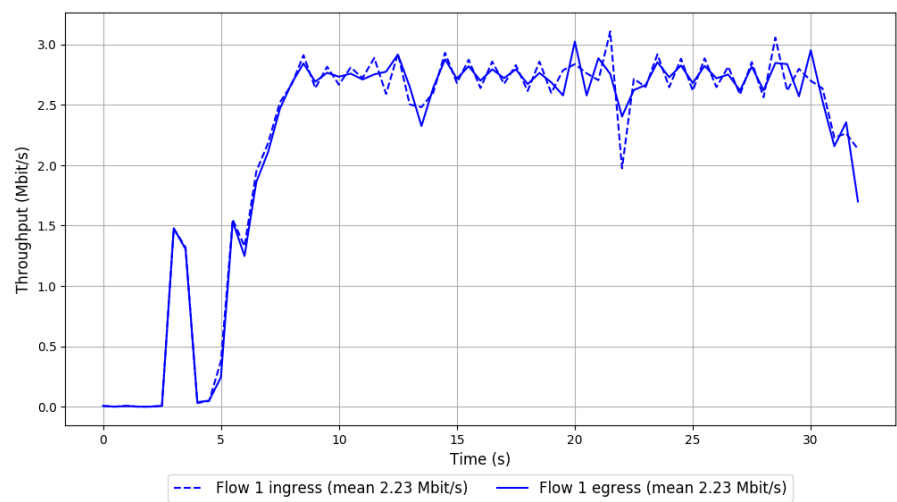
Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2018-02-15 23:57:01
End at: 2018-02-15 23:57:31


# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.426 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.426 ms
Loss rate: 0.64%
```

Run 8: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) — — — Flow 1 egress (mean 0.22 Mbit/s) ———

Flow 1 (95th percentile 86.43 ms)

```
Run 9: Statistics of SCReAM

Start at: 2018-02-16 00:12:10
End at: 2018-02-16 00:12:40

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.794 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.794 ms
Loss rate: 0.64%
```
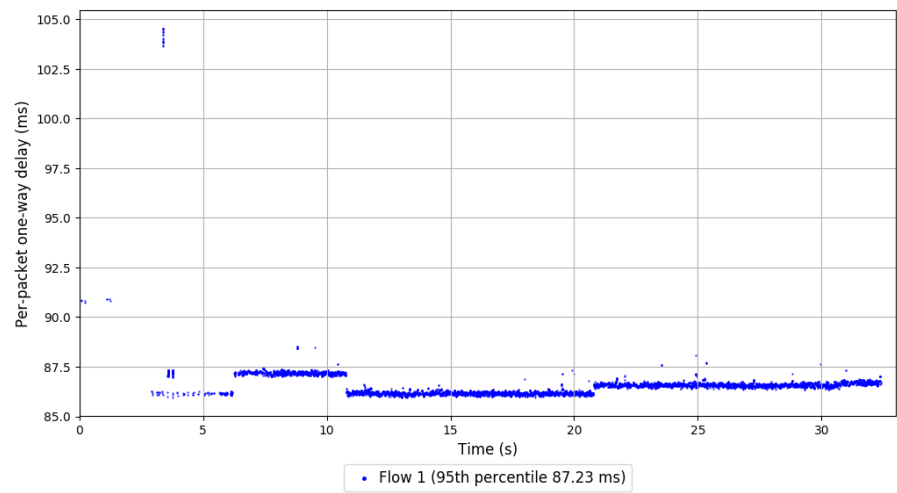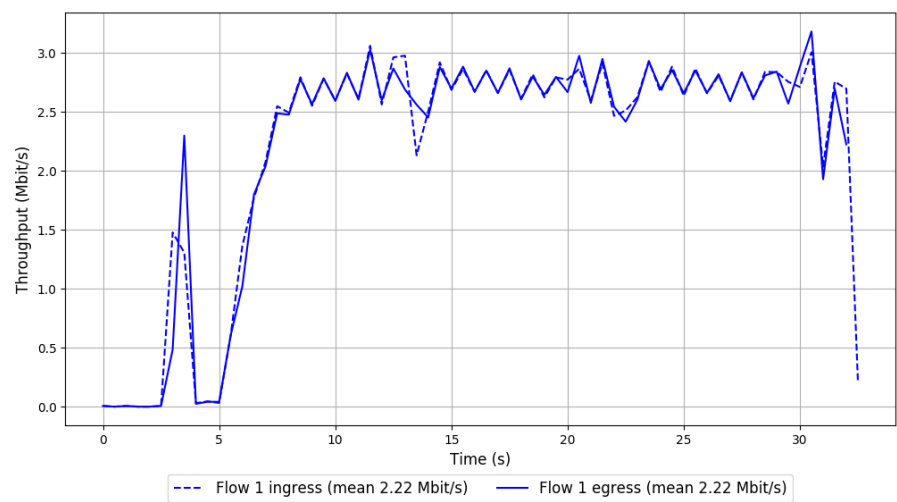
Run 9: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 90.79 ms)

```
Run 10: Statistics of SCReAM

Start at: 2018-02-16 00:27:40
End at: 2018-02-16 00:28:10

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.990 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.990 ms
Loss rate: 0.64%
```
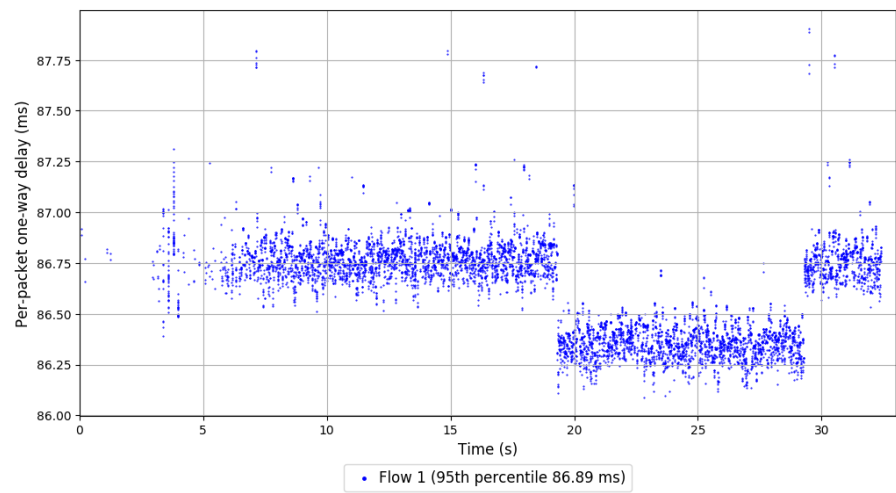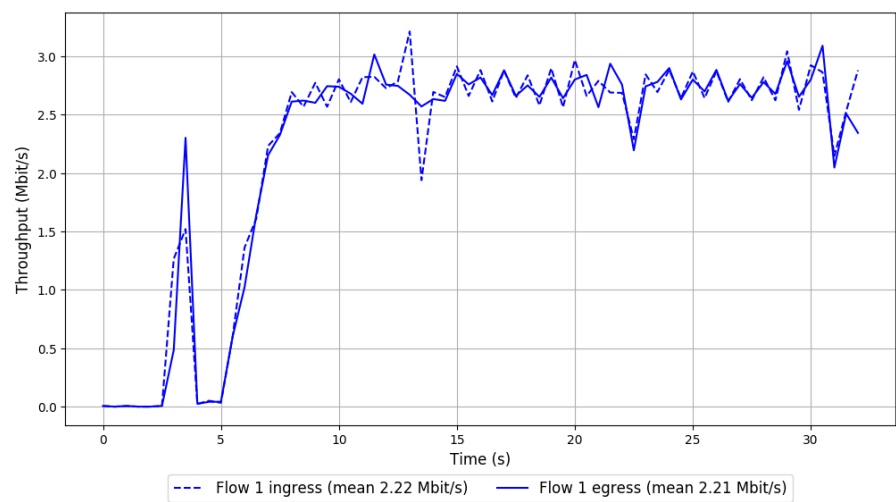
Run 10: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) —— Flow 1 egress (mean 0.22 Mbit/s)

• Flow 1 (95th percentile 86.99 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2018-02-15 22:06:53
End at: 2018-02-15 22:07:23

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 86.833 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 86.833 ms
Loss rate: 1.39%
```
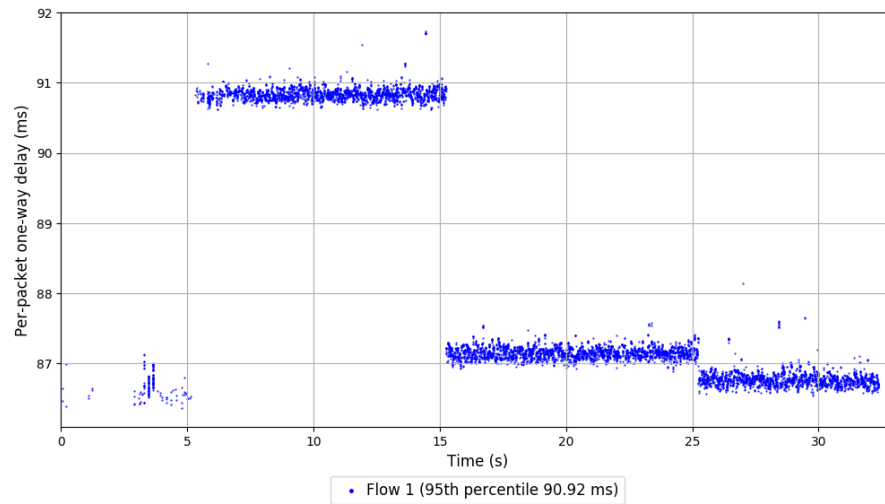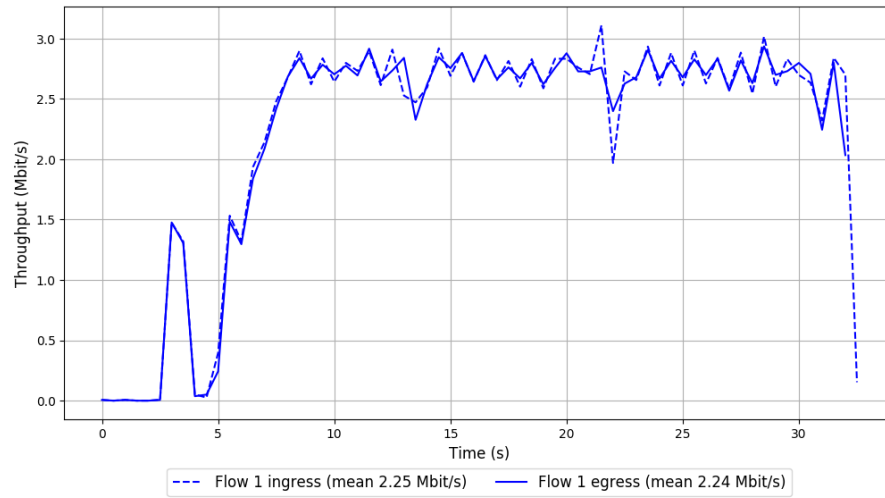
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-02-15 22:22:30
End at: 2018-02-15 22:23:00

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 114.257 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 114.257 ms
Loss rate: 0.63%
```
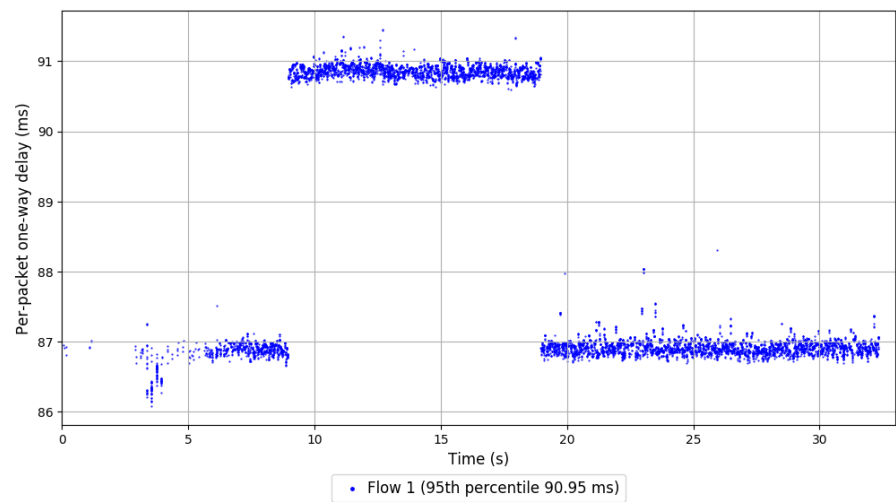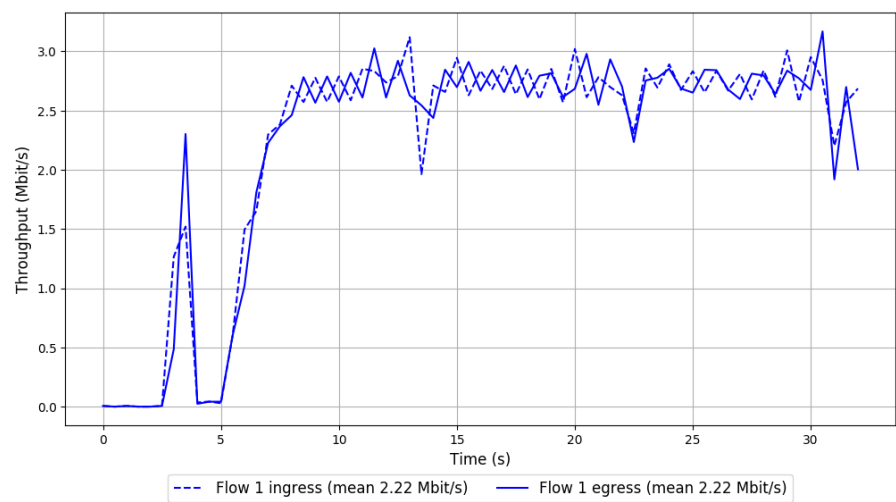
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-02-15 22:38:20
End at: 2018-02-15 22:38:50

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 87.233 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 87.233 ms
Loss rate: 0.78%
```
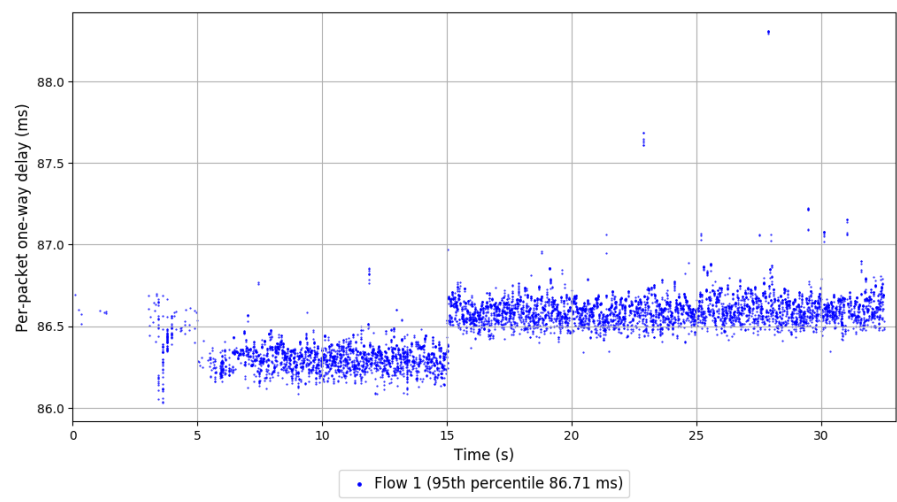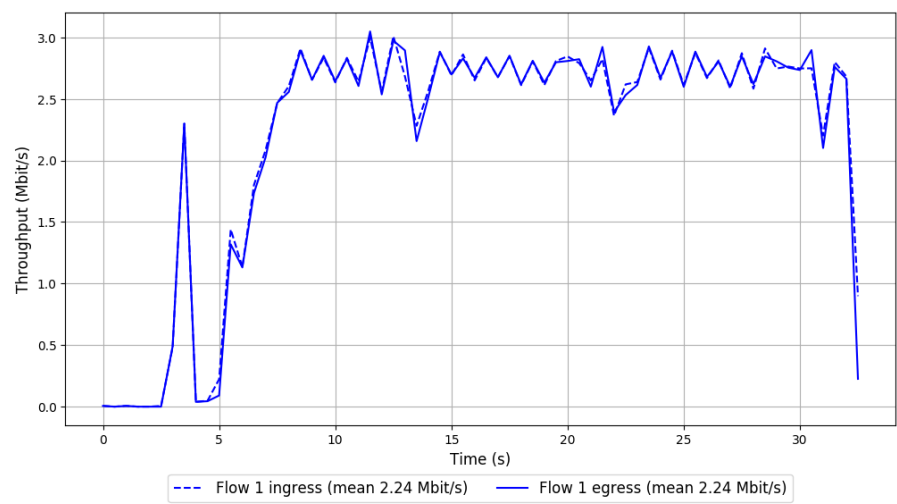
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-02-15 22:53:42
End at: 2018-02-15 22:54:12

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 86.891 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 86.891 ms
Loss rate: 0.67%
```
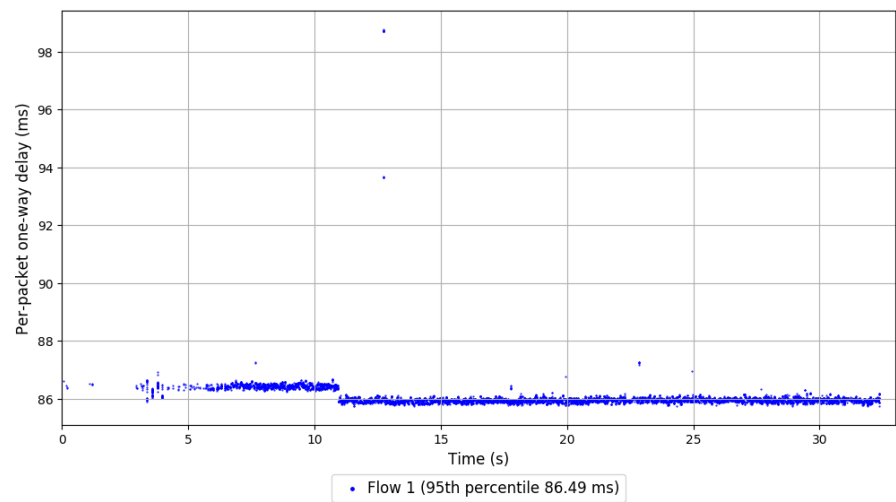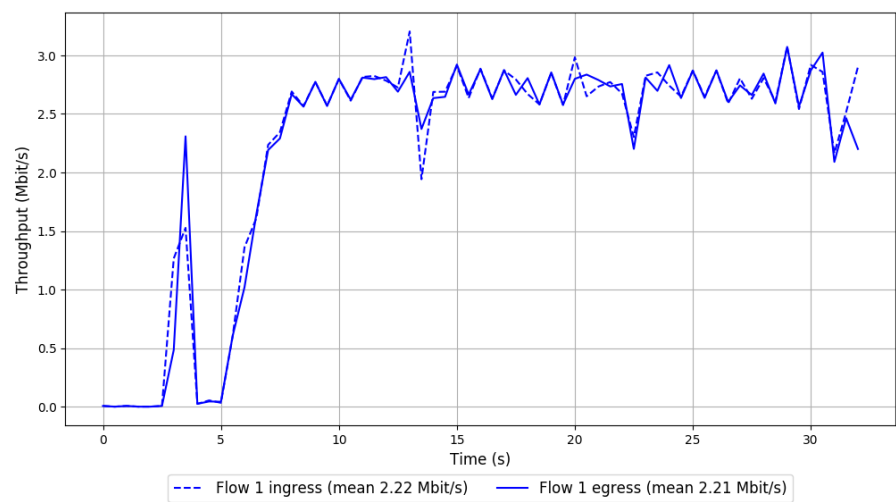
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-02-15 23:09:26
End at: 2018-02-15 23:09:56

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 90.918 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 90.918 ms
Loss rate: 0.87%
```
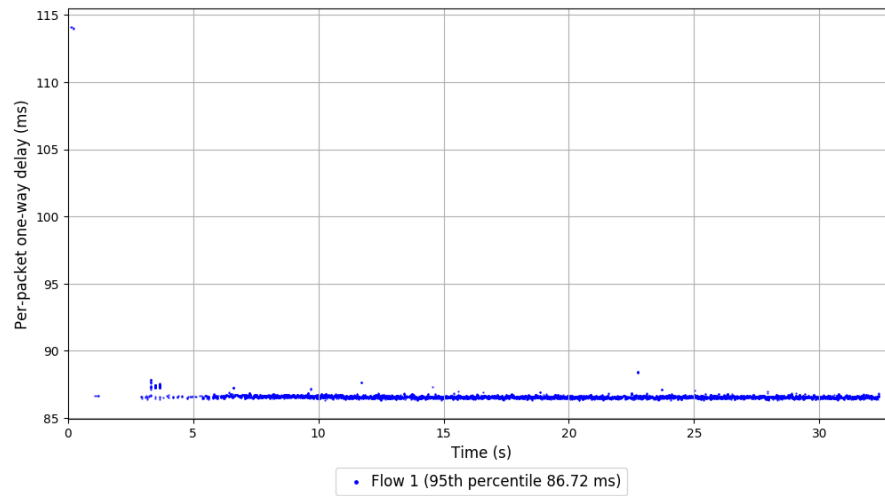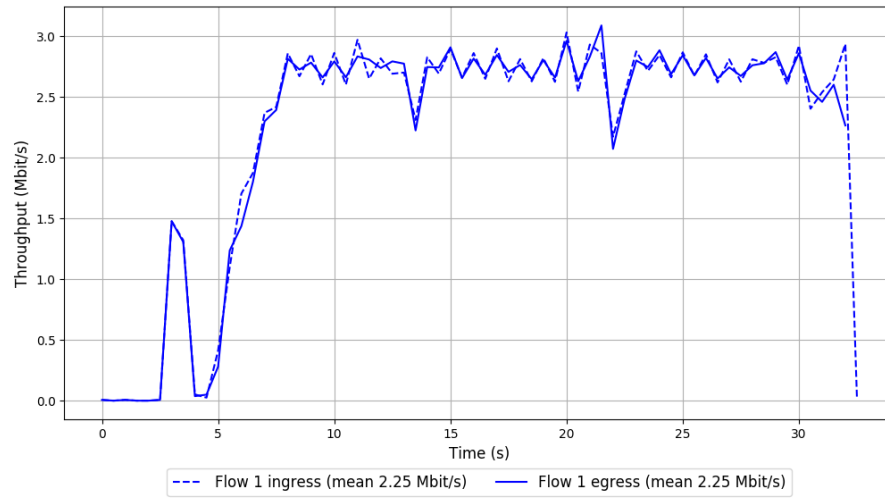
Run 5: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.25 Mbit/s)   Flow 1 egress (mean 2.24 Mbit/s)

Flow 1 (95th percentile 90.92 ms)

```
Run 6: Statistics of WebRTC media

Start at: 2018-02-15 23:25:12
End at: 2018-02-15 23:25:42

# Below is generated by plot.py at 2018-02-16 03:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 90.954 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 90.954 ms
Loss rate: 0.78%
```
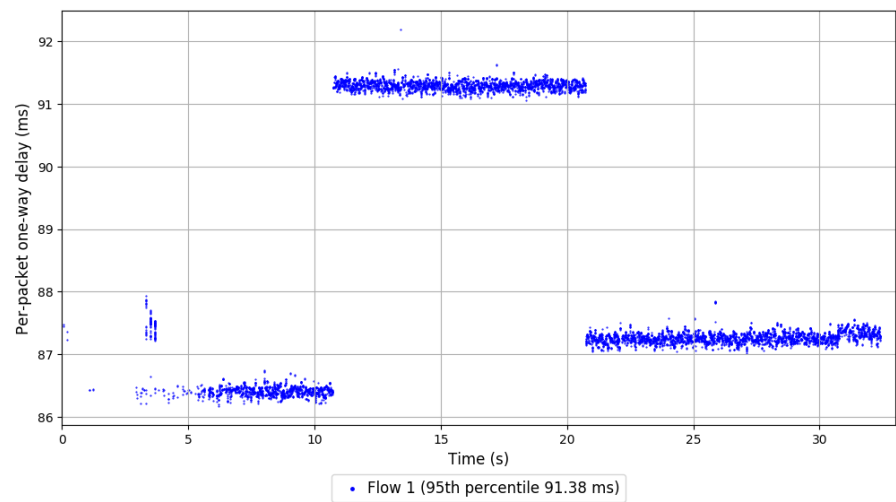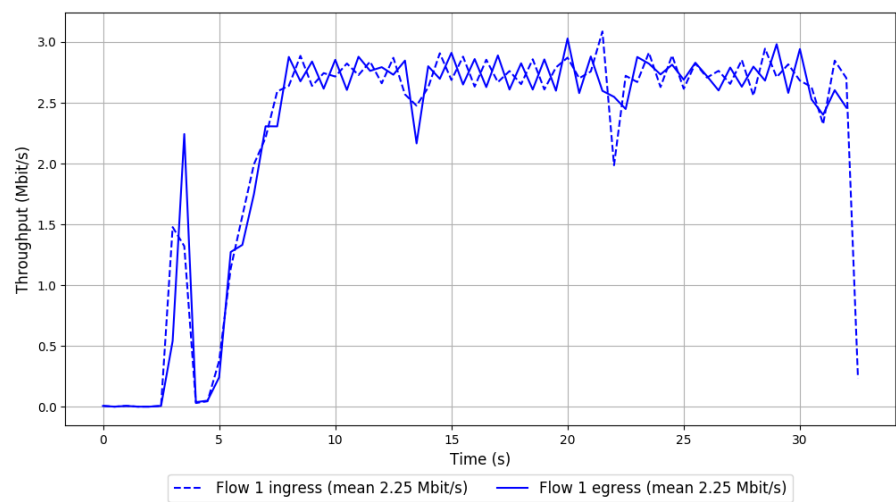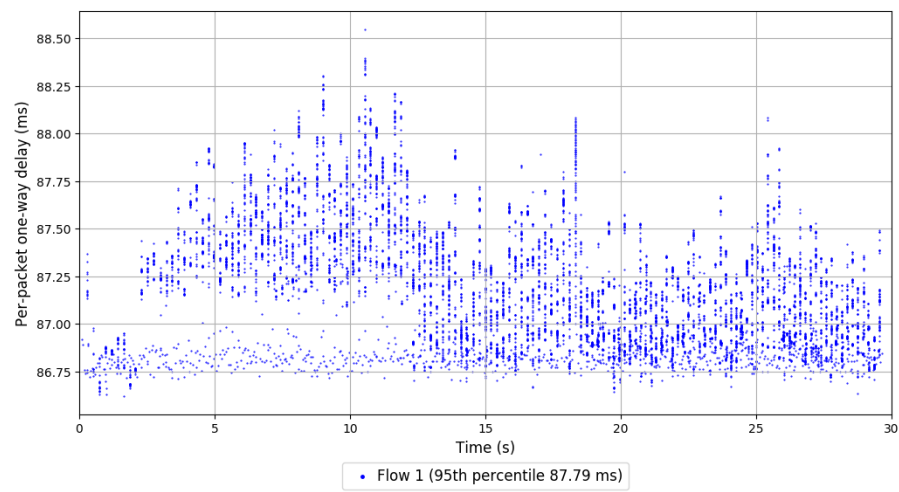
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-02-15 23:40:56
End at: 2018-02-15 23:41:26

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 86.710 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 86.710 ms
Loss rate: 0.77%
```
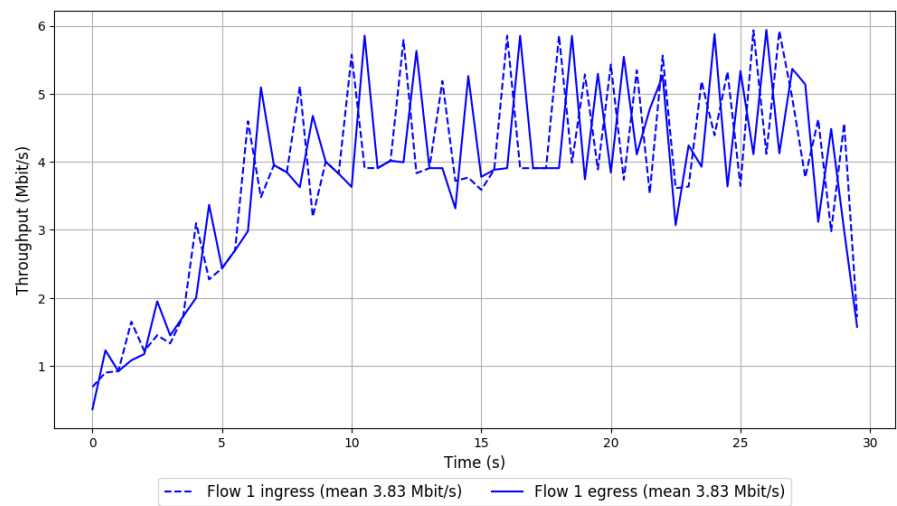
Run 7: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.24 Mbit/s)   Flow 1 egress (mean 2.24 Mbit/s)

Flow 1 (95th percentile 86.71 ms)

```
Run 8: Statistics of WebRTC media

Start at: 2018-02-15 23:56:20
End at: 2018-02-15 23:56:50

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 86.489 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 86.489 ms
Loss rate: 0.78%
```
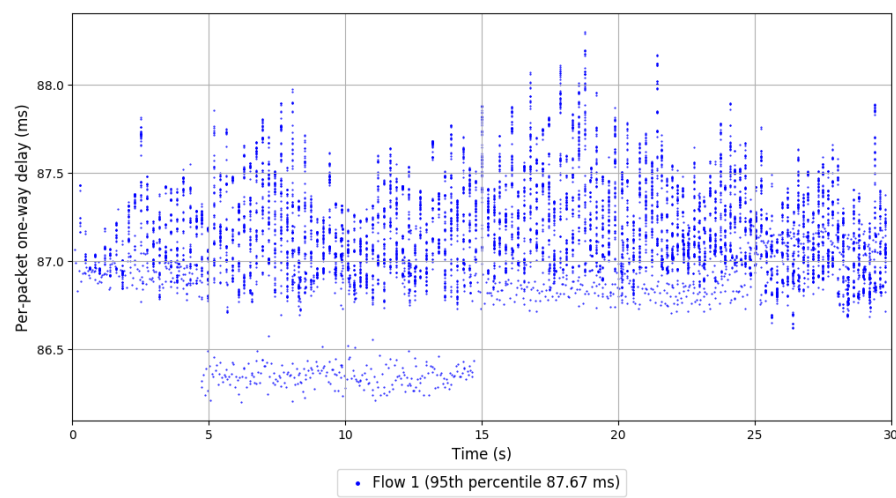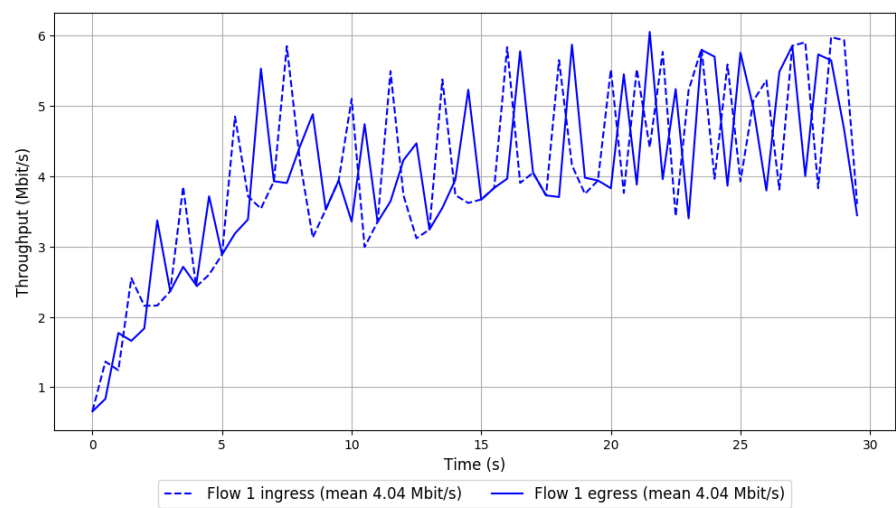
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-02-16 00:11:30
End at: 2018-02-16 00:12:00

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 86.721 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 86.721 ms
Loss rate: 0.78%
```
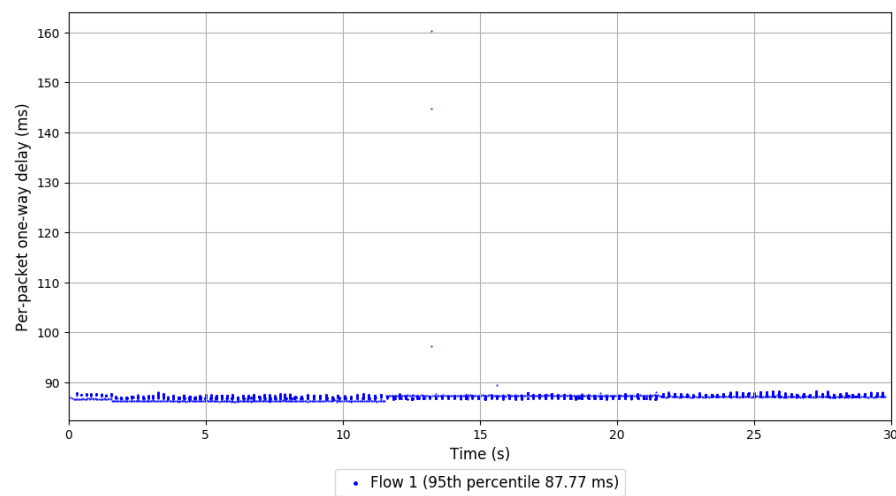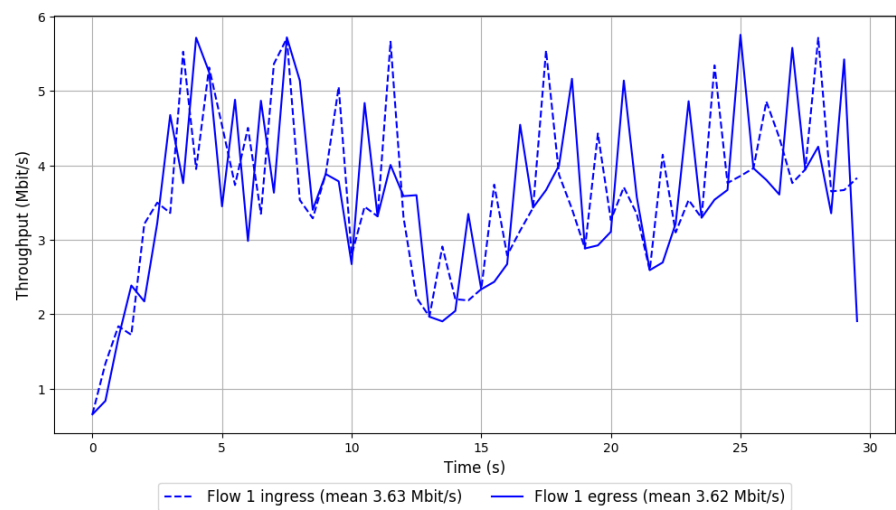
Run 9: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.25 Mbit/s) --- Flow 1 egress (mean 2.25 Mbit/s)

Flow 1 (95th percentile 86.72 ms)

```
Run 10: Statistics of WebRTC media

Start at: 2018-02-16 00:27:00
End at: 2018-02-16 00:27:30

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 91.376 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 91.376 ms
Loss rate: 0.78%
```
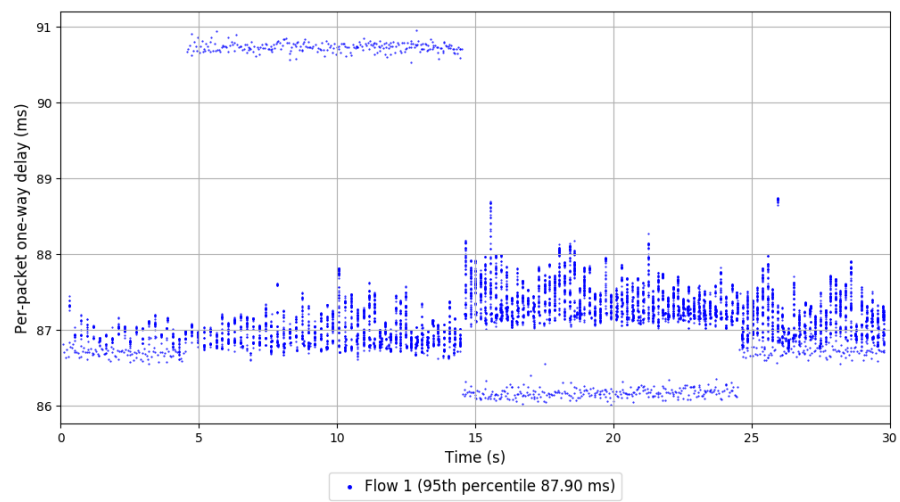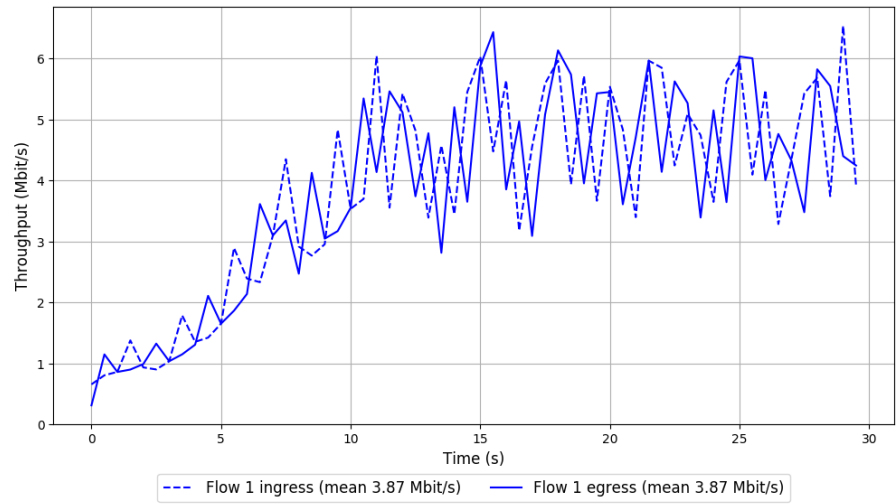
Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-02-15 22:02:16
End at: 2018-02-15 22:02:46

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 87.789 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 87.789 ms
Loss rate: 0.75%
```
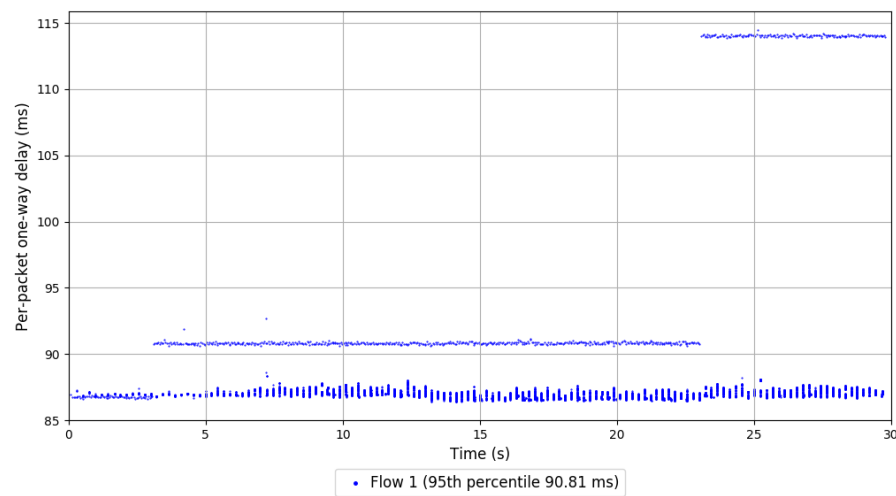
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-02-15 22:17:54
End at: 2018-02-15 22:18:24

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 87.671 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 87.671 ms
Loss rate: 0.73%
```
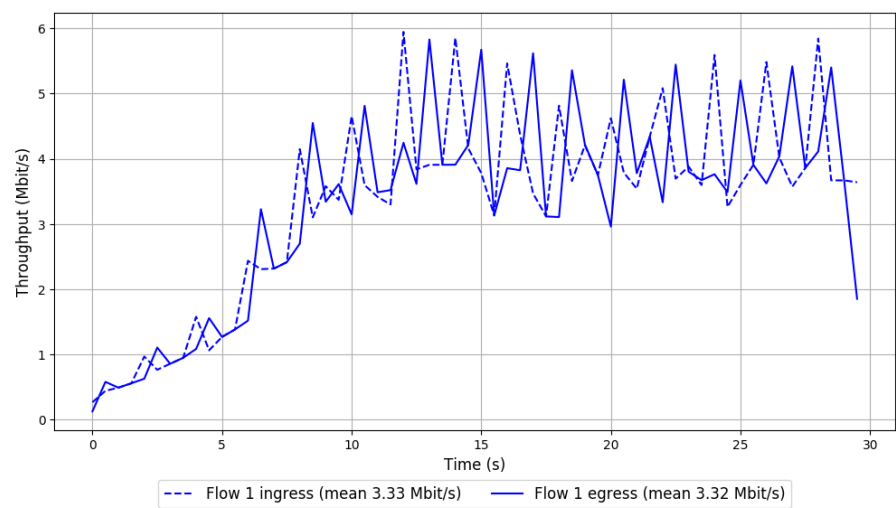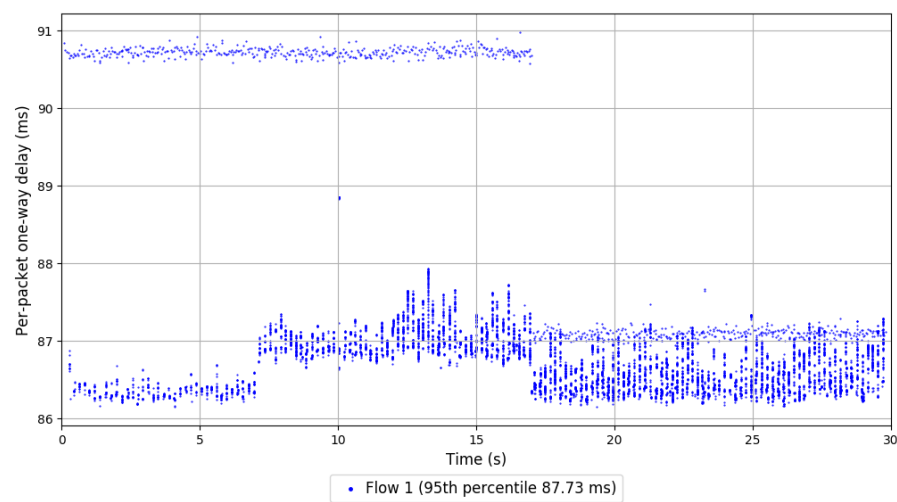
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-02-15 22:34:07
End at: 2018-02-15 22:34:37

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 87.772 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 87.772 ms
Loss rate: 0.89%
```
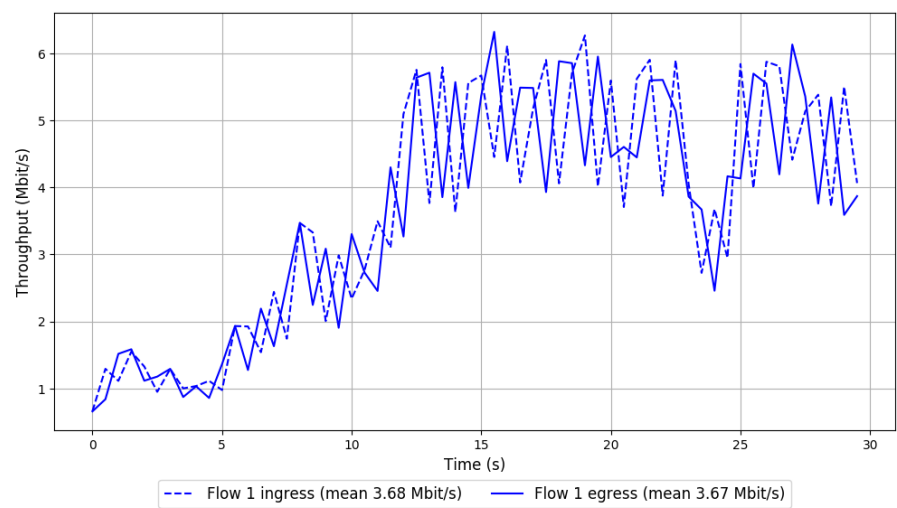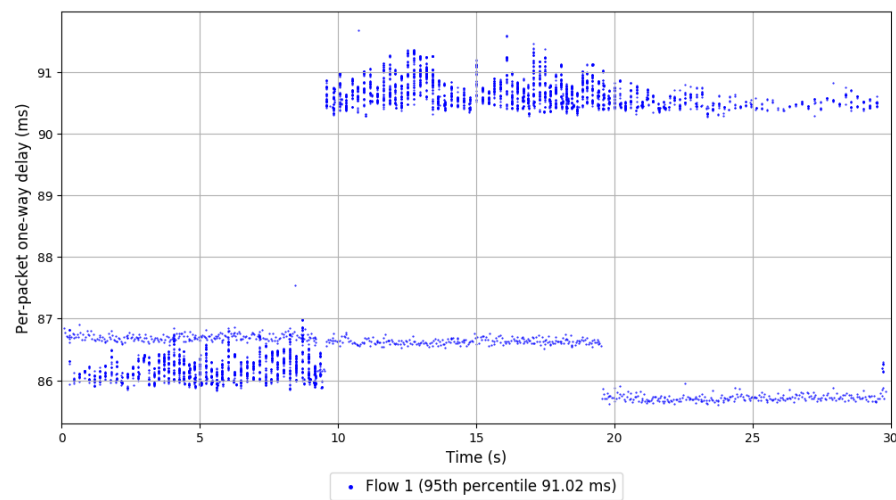
Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 3.63 Mbit/s) --- Flow 1 egress (mean 3.62 Mbit/s)

Flow 1 (95th percentile 87.77 ms)

```
Run 4: Statistics of Sprout

Start at: 2018-02-15 22:49:24
End at: 2018-02-15 22:49:54

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 87.903 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 87.903 ms
Loss rate: 0.78%
```
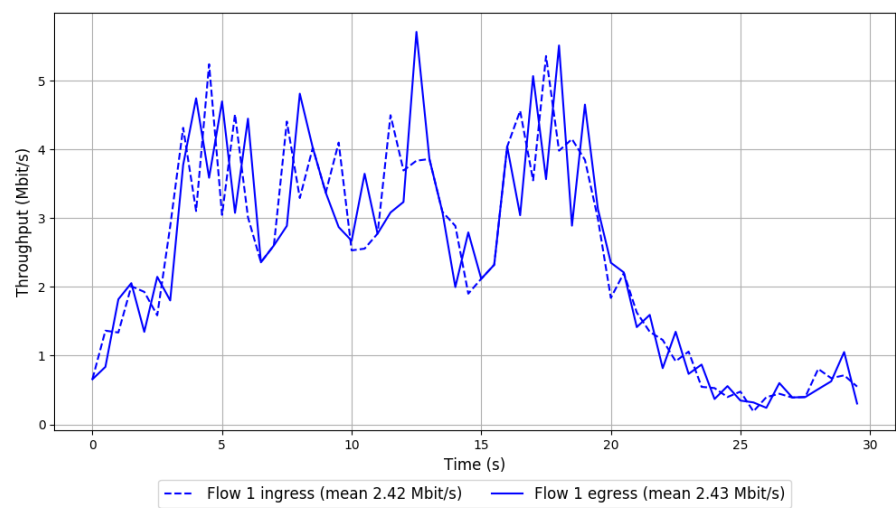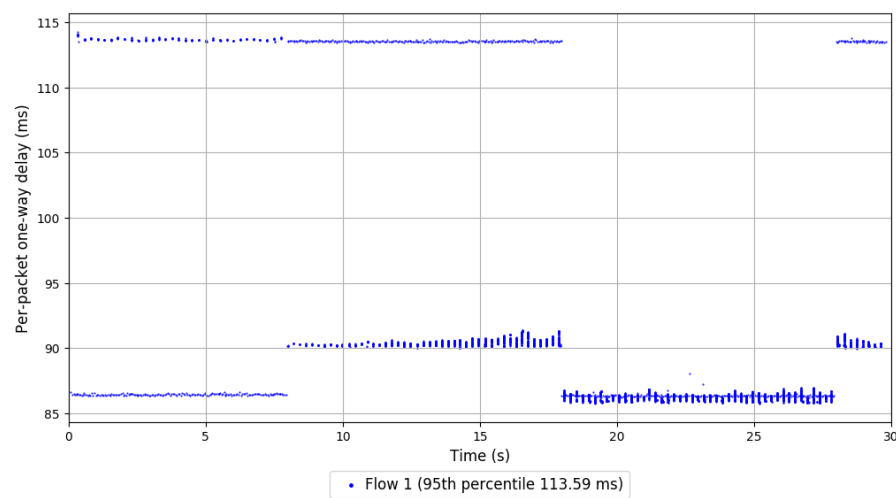
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-02-15 23:04:55
End at: 2018-02-15 23:05:25


# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 90.808 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 90.808 ms
Loss rate: 0.90%
```
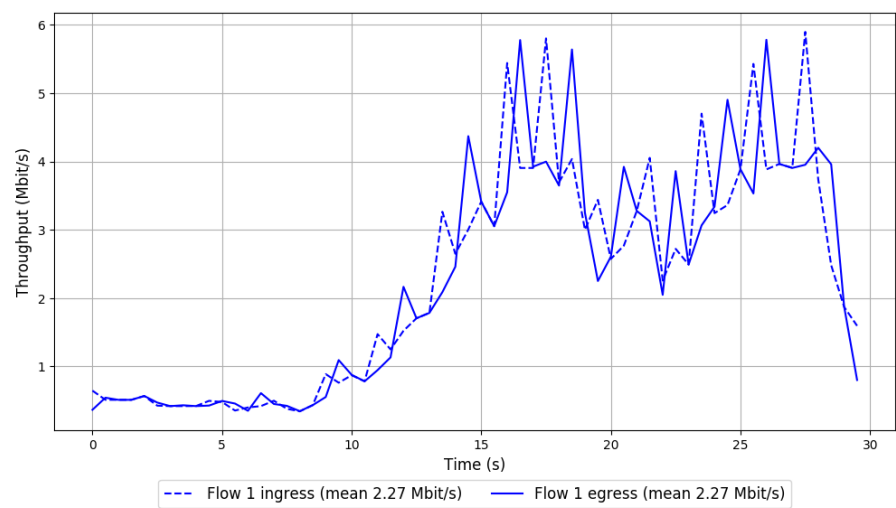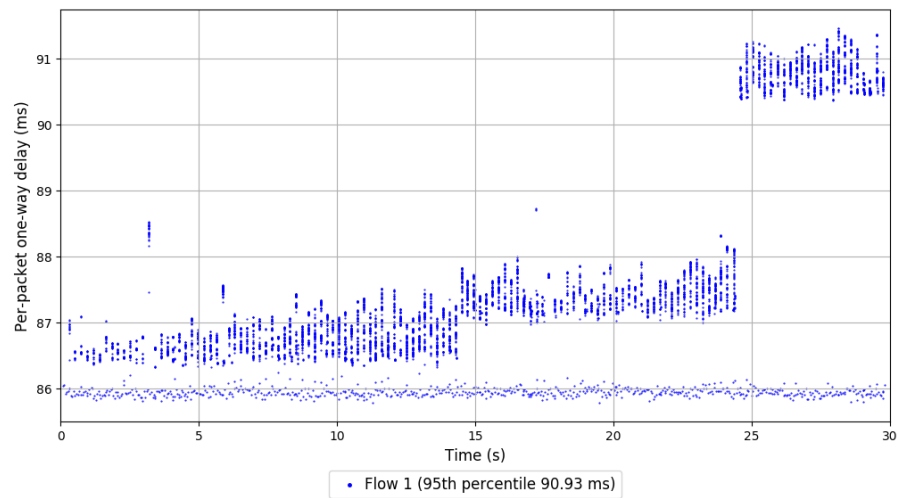
Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 3.33 Mbit/s)   Flow 1 egress (mean 3.32 Mbit/s)

Flow 1 (95th percentile 90.81 ms)

```
Run 6: Statistics of Sprout

Start at: 2018-02-15 23:20:41
End at: 2018-02-15 23:21:11


# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 87.732 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 87.732 ms
Loss rate: 0.96%
```
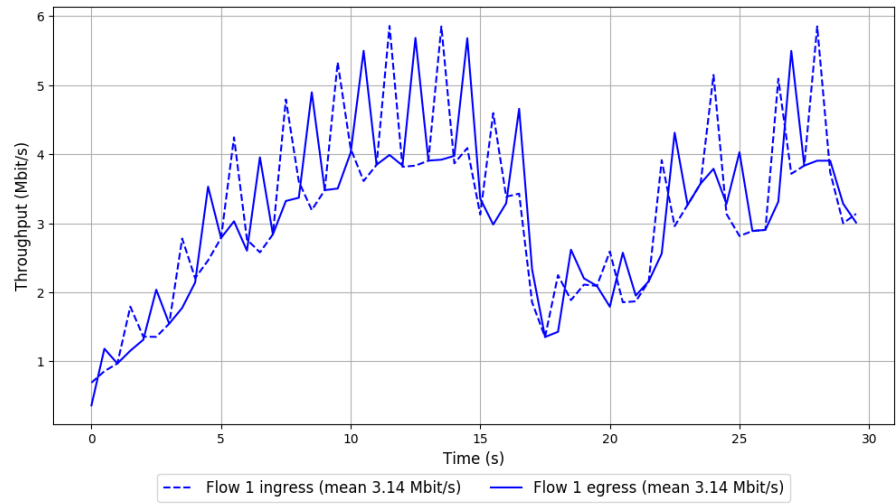
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-02-15 23:36:29
End at: 2018-02-15 23:36:59

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 91.015 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 91.015 ms
Loss rate: 0.17%
```
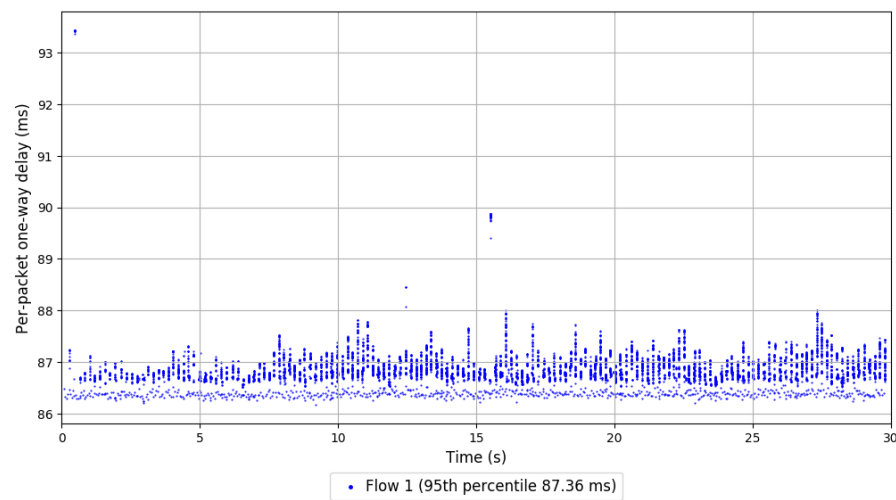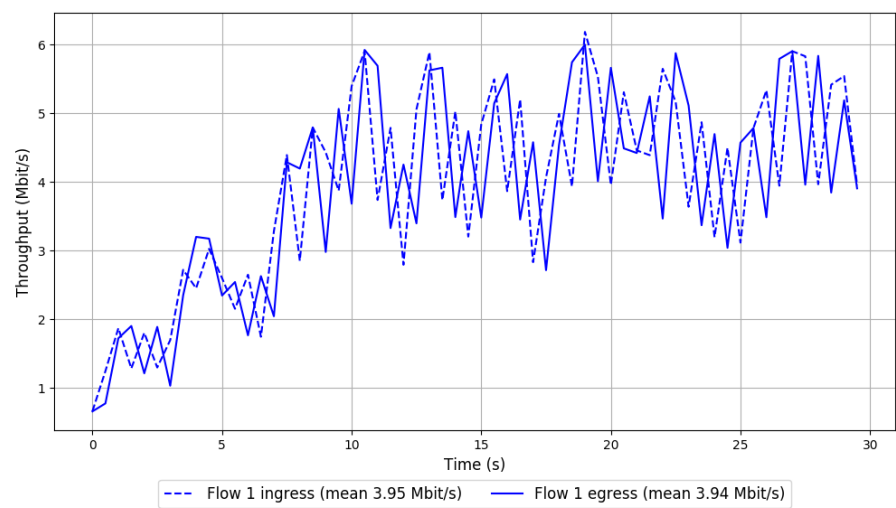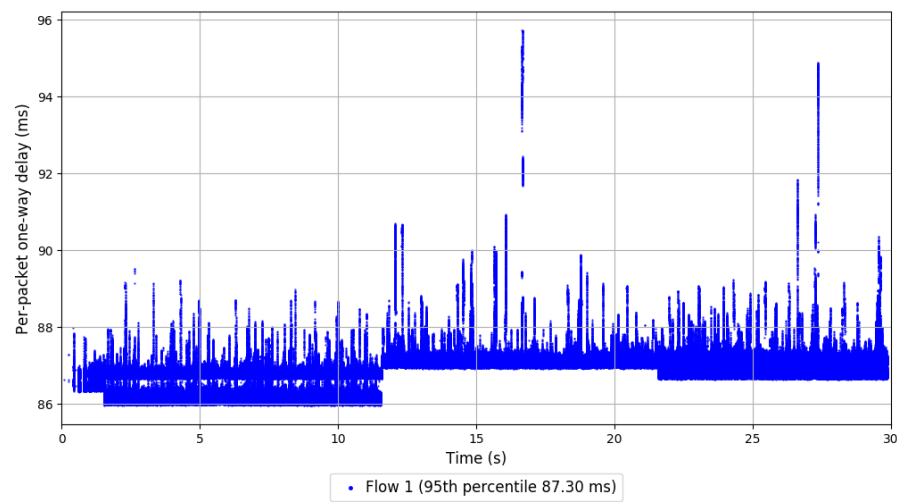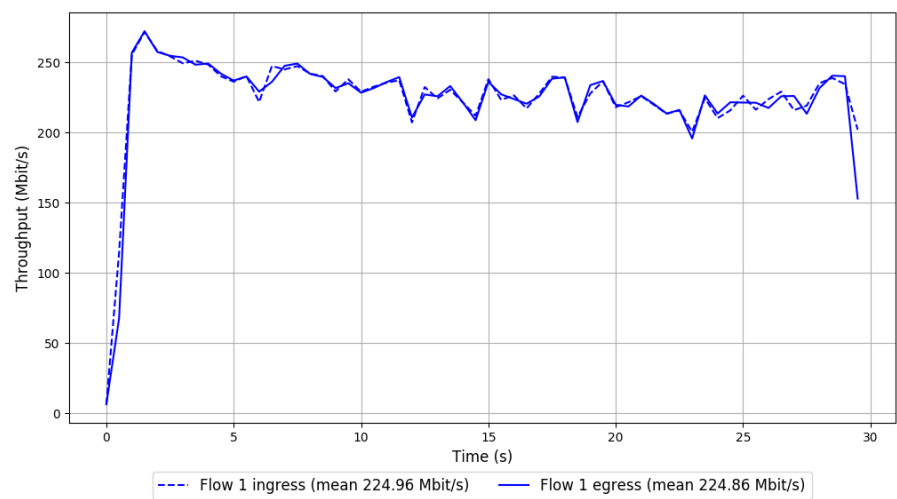
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-02-15 23:52:00
End at: 2018-02-15 23:52:30

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 113.586 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 113.586 ms
Loss rate: 0.59%
```
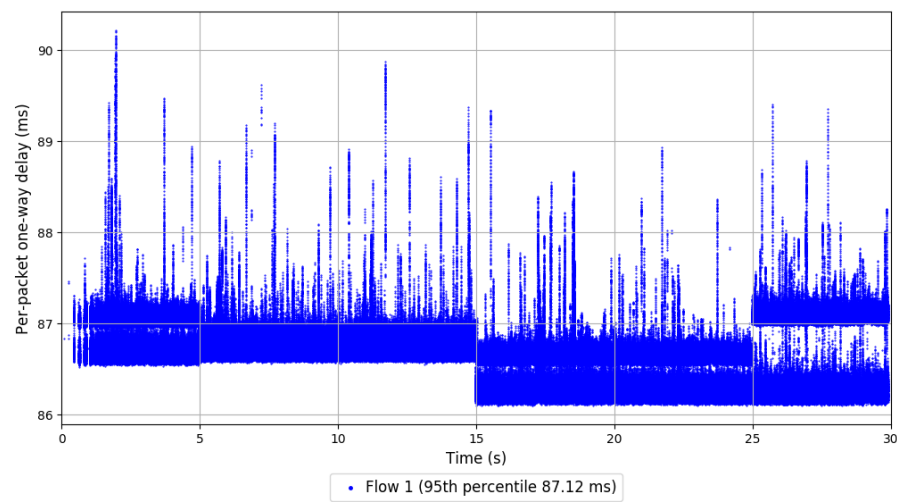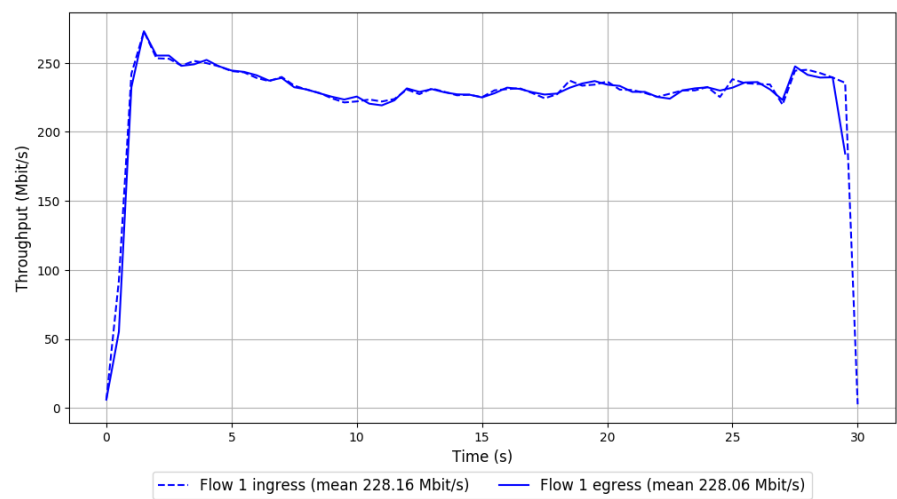
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-02-16 00:07:14
End at: 2018-02-16 00:07:44


# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 90.934 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 90.934 ms
Loss rate: 0.87%
```

Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-02-16 00:22:45
End at: 2018-02-16 00:23:15


# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 87.365 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 87.365 ms
Loss rate: 0.84%
```
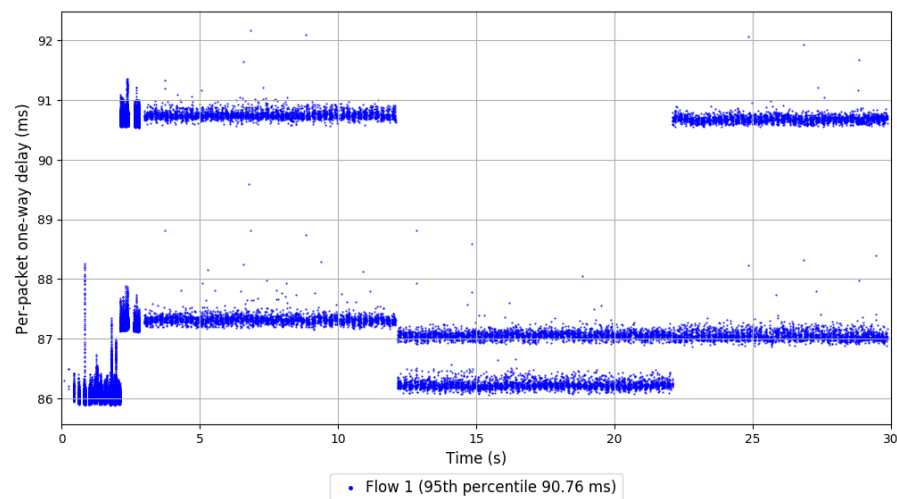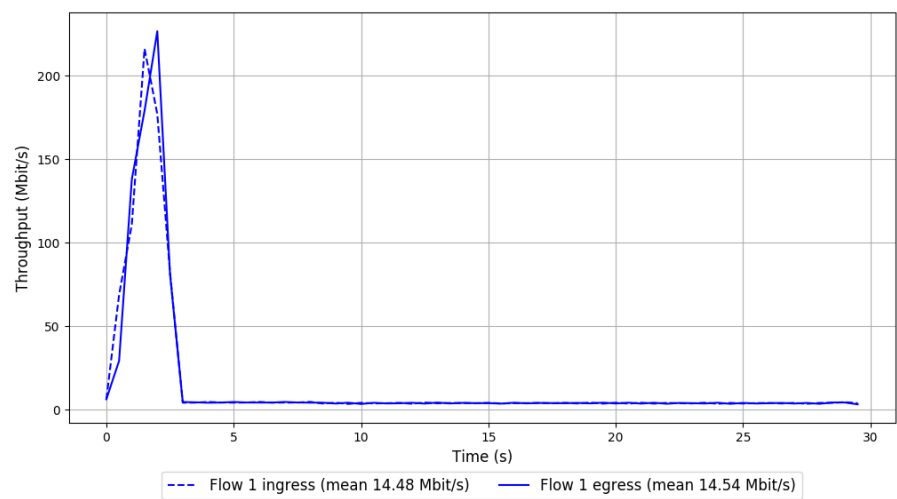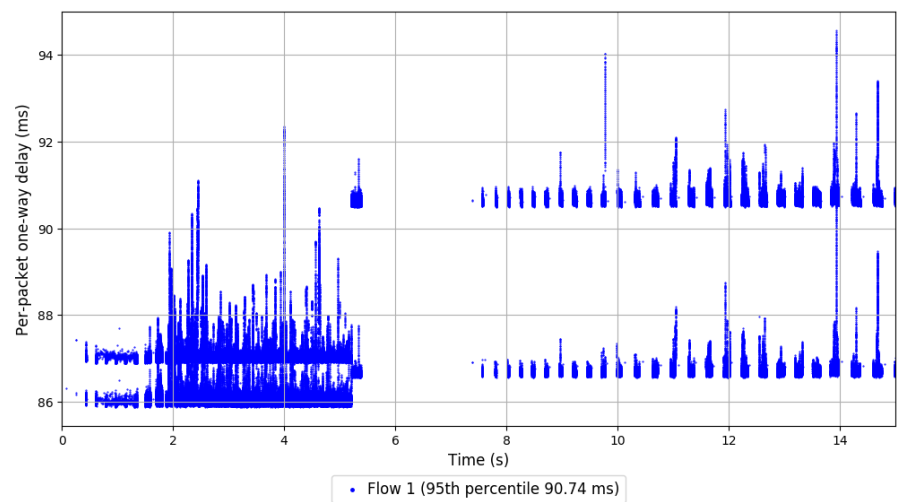
Run 10: Report of Sprout — Data Link

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

Start at: 2018-02-15 22:02:57
End at: 2018-02-15 22:03:27

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.86 Mbit/s
95th percentile per-packet one-way delay: 87.298 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 224.86 Mbit/s
95th percentile per-packet one-way delay: 87.298 ms
Loss rate: 0.62%
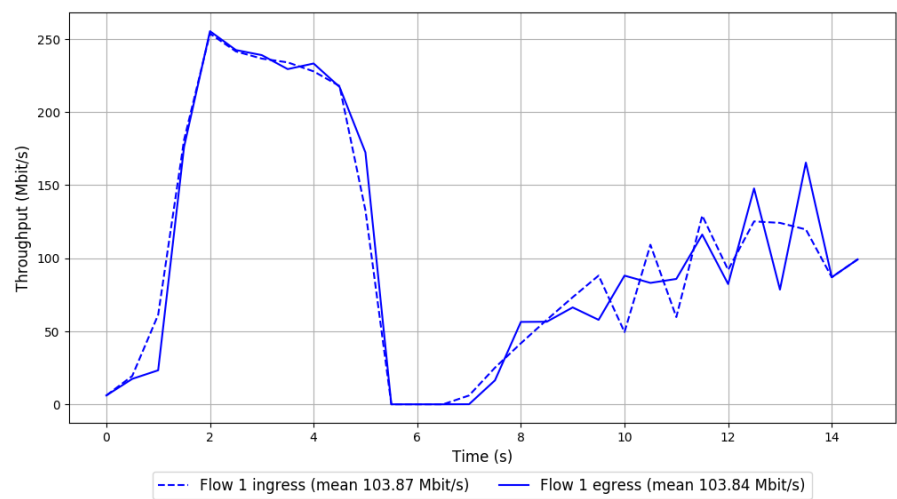```

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

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

Start at: 2018-02-15 22:18:33
End at: 2018-02-15 22:19:03

Below is generated by plot.py at 2018-02-16 03:43:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 228.06 Mbit/s
95th percentile per-packet one-way delay: 87.119 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 228.06 Mbit/s
95th percentile per-packet one-way delay: 87.119 ms
Loss rate: 0.72%
```
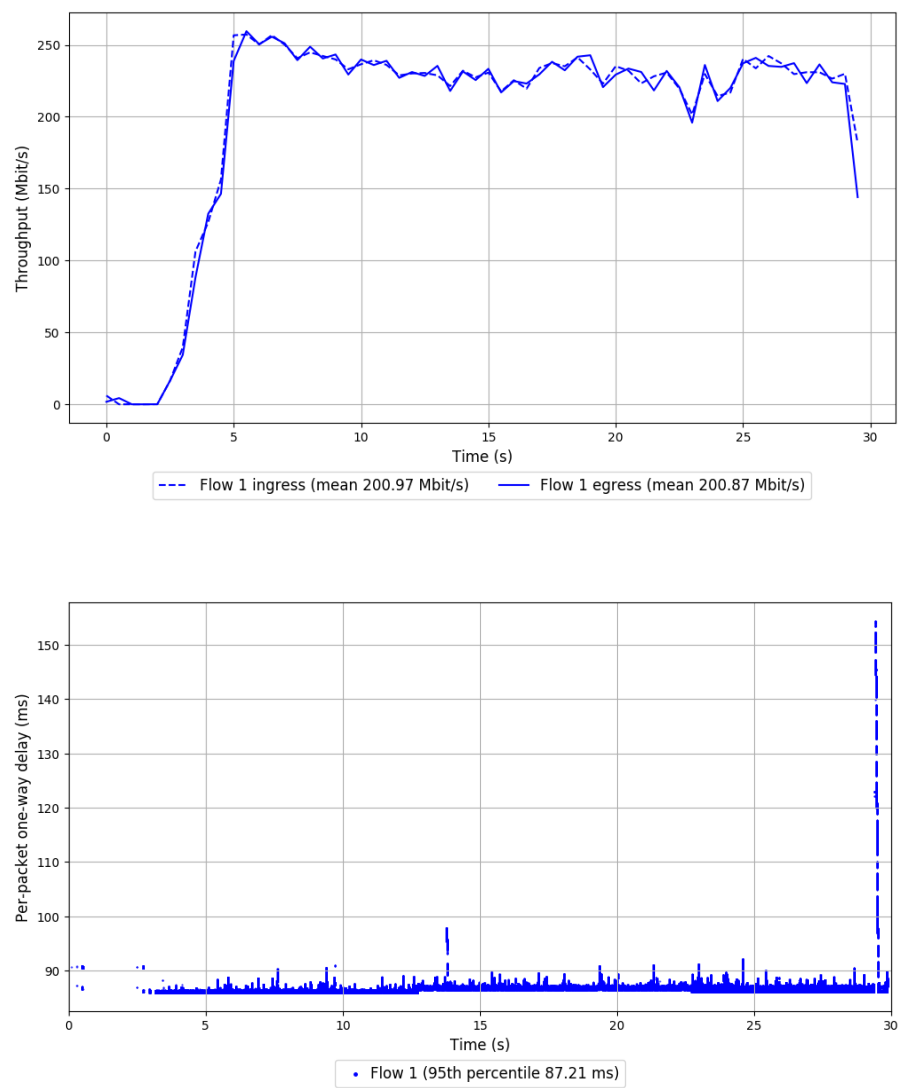
Run 2: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 228.16 Mbit/s) ----    Flow 1 egress (mean 228.06 Mbit/s) ——



• Flow 1 (95th percentile 87.12 ms)

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

Start at: 2018-02-15 22:34:46
End at: 2018-02-15 22:35:16

Below is generated by plot.py at 2018-02-16 03:43:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 14.54 Mbit/s
95th percentile per-packet one-way delay: 90.757 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 14.54 Mbit/s
95th percentile per-packet one-way delay: 90.757 ms
Loss rate: 0.18%
```
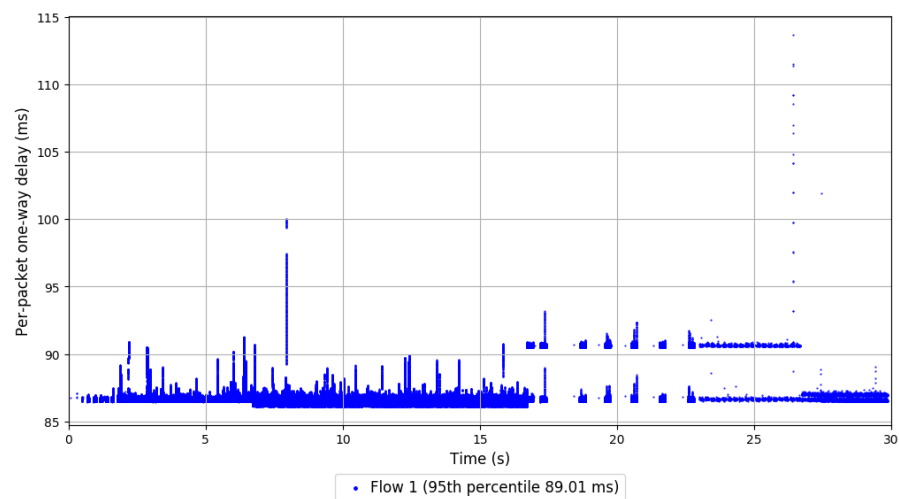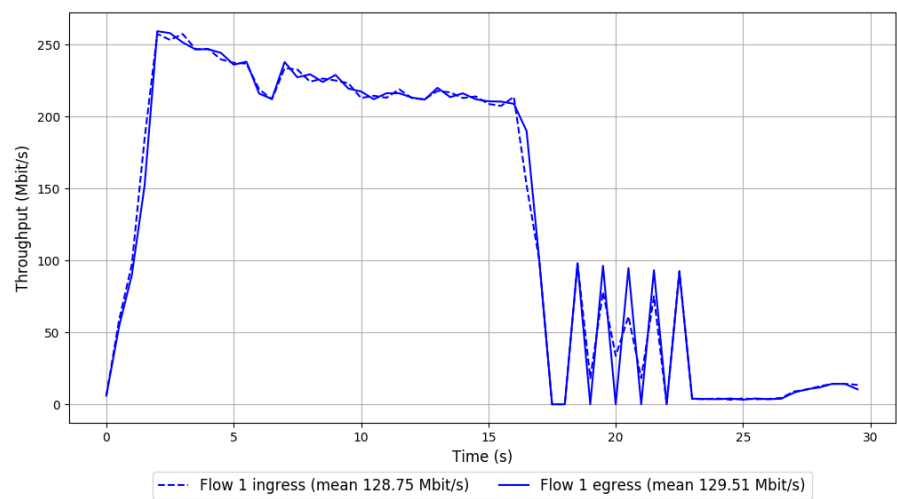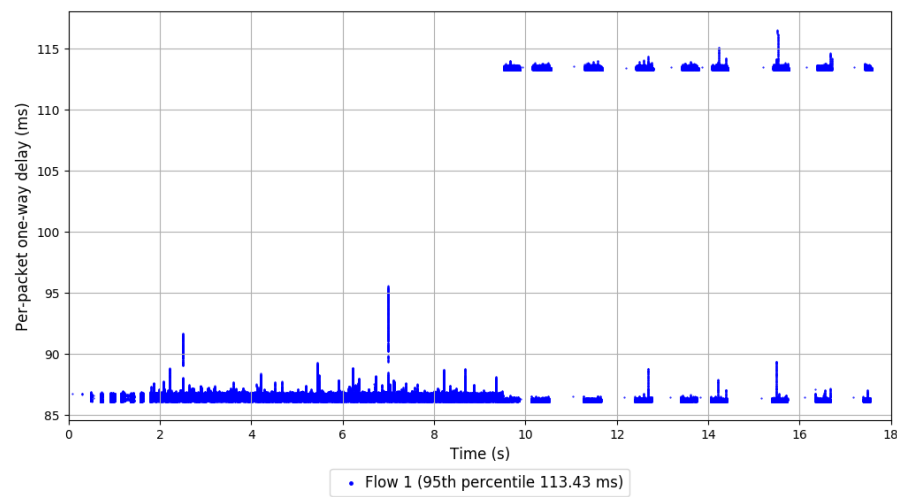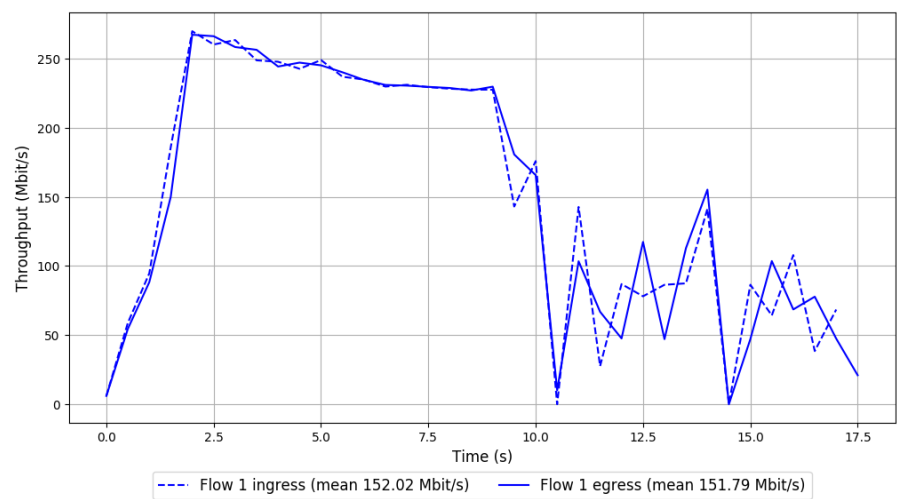
Run 3: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 14.48 Mbit/s)    Flow 1 egress (mean 14.54 Mbit/s)



• Flow 1 (95th percentile 90.76 ms)

Run 4: Statistics of TaoVA-100x

Start at: 2018-02-15 22:50:03
End at: 2018-02-15 22:50:33

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



Flow 1 ingress (mean 103.87 Mbit/s) —— Flow 1 egress (mean 103.84 Mbit/s)



• Flow 1 (95th percentile 90.74 ms)

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

Start at: 2018-02-15 23:05:36
End at: 2018-02-15 23:06:06

Below is generated by plot.py at 2018-02-16 03:43:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 200.87 Mbit/s
95th percentile per-packet one-way delay: 87.210 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 200.87 Mbit/s
95th percentile per-packet one-way delay: 87.210 ms
Loss rate: 0.71%
```
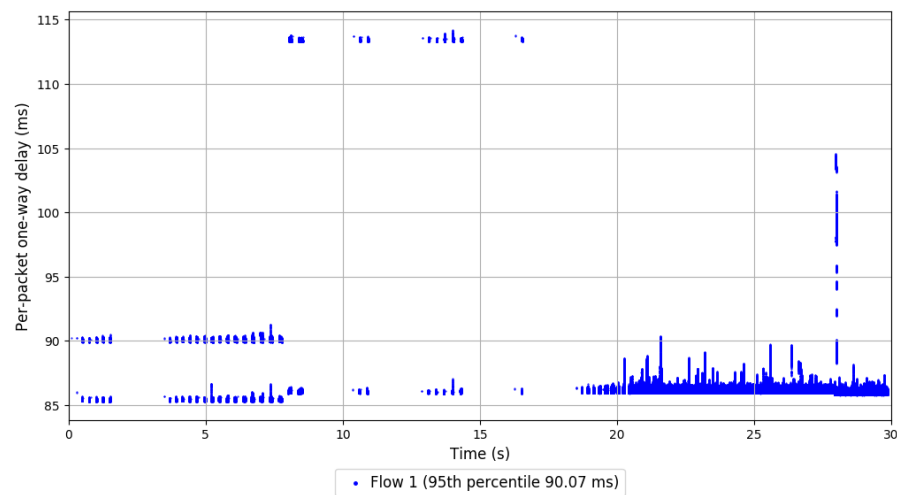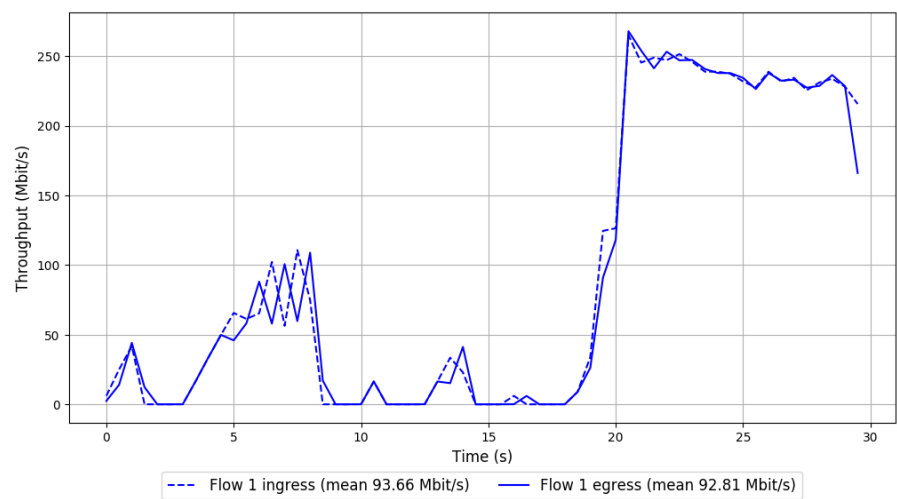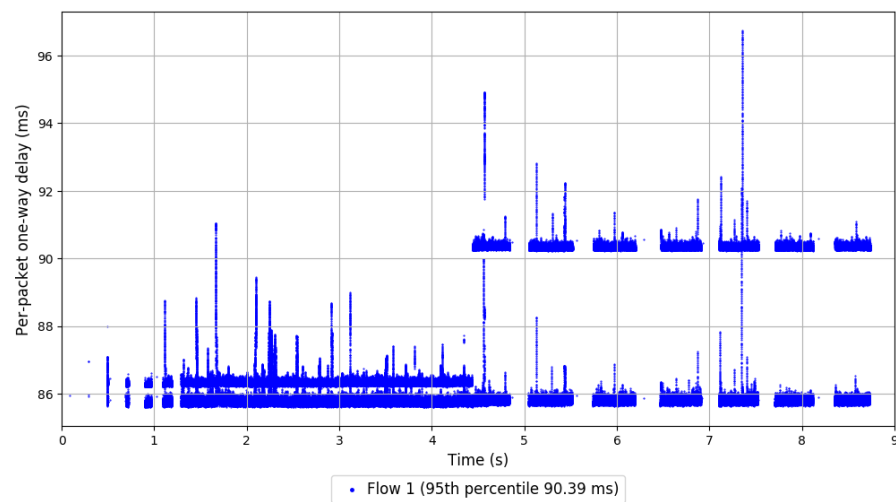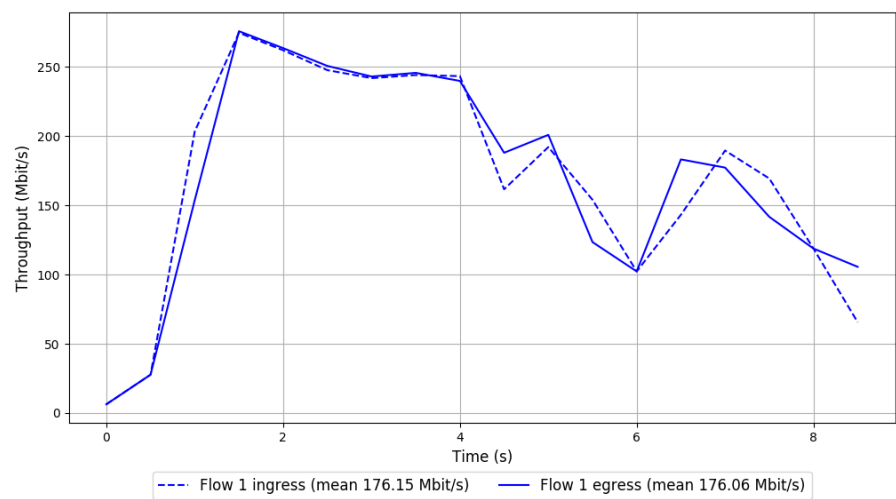
# Run 5: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 200.97 Mbit/s) — — —    Flow 1 egress (mean 200.87 Mbit/s) ——————
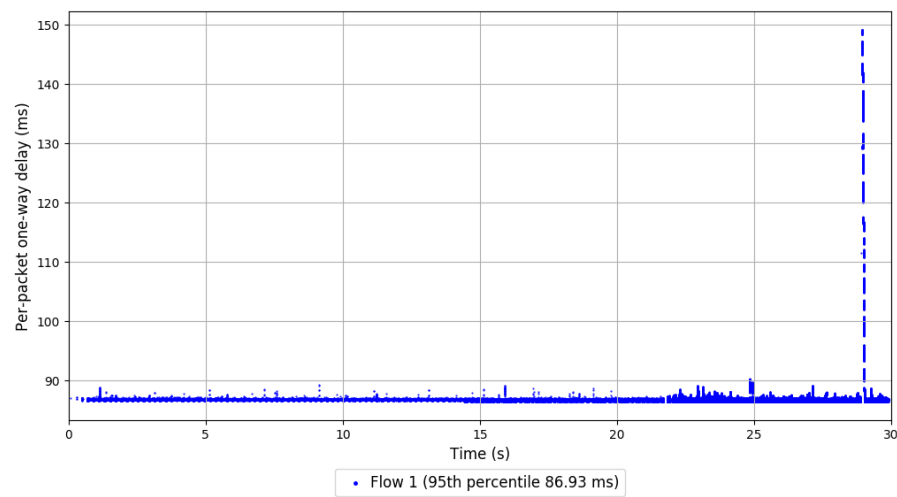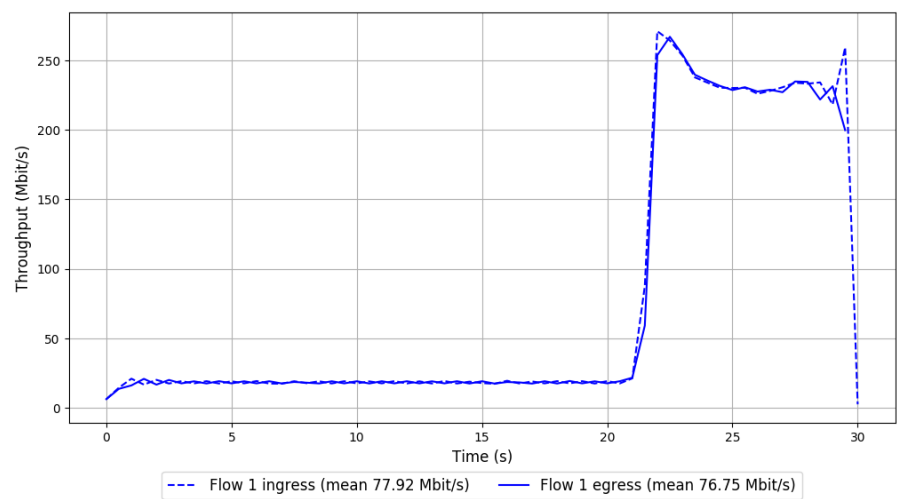


Flow 1 (95th percentile 87.21 ms)

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

Start at: 2018-02-15 23:21:22
End at: 2018-02-15 23:21:52

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 129.51 Mbit/s
95th percentile per-packet one-way delay: 89.007 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 129.51 Mbit/s
95th percentile per-packet one-way delay: 89.007 ms
Loss rate: 0.07%
```

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

Flow 1 ingress (mean 128.75 Mbit/s) — — —   Flow 1 egress (mean 129.51 Mbit/s) ———

Flow 1 (95th percentile 89.01 ms)

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Run 7: Statistics of TaoVA-100x

Start at: 2018-02-15 23:37:09
End at: 2018-02-15 23:37:39

Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 152.02 Mbit/s)　　Flow 1 egress (mean 151.79 Mbit/s)

Flow 1 (95th percentile 113.43 ms)

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

Start at: 2018-02-15 23:52:40
End at: 2018-02-15 23:53:10

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.81 Mbit/s
95th percentile per-packet one-way delay: 90.068 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 92.81 Mbit/s
95th percentile per-packet one-way delay: 90.068 ms
Loss rate: 1.58%
```
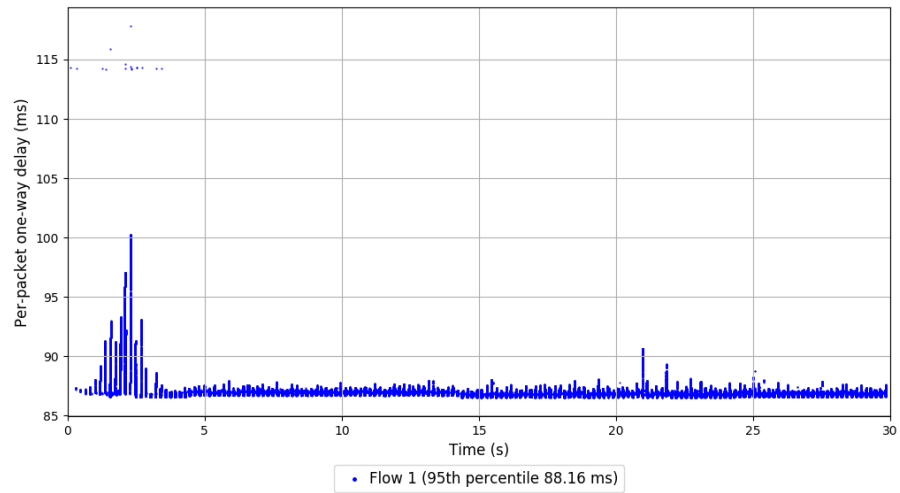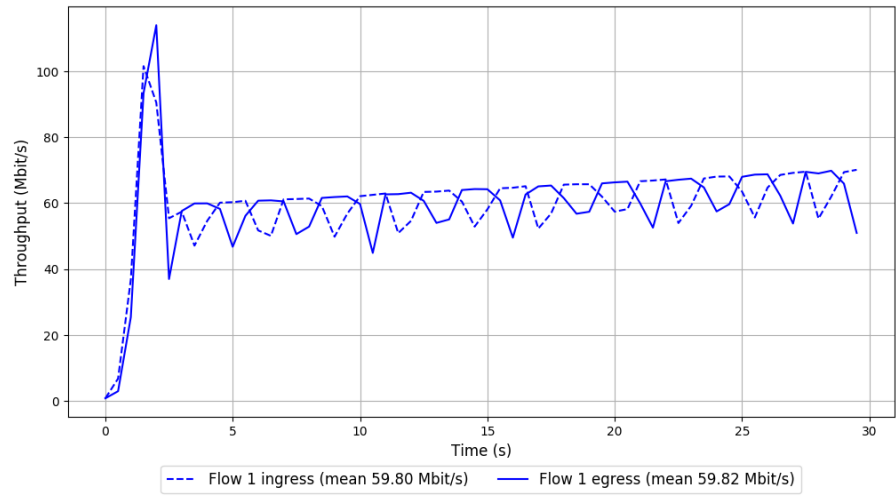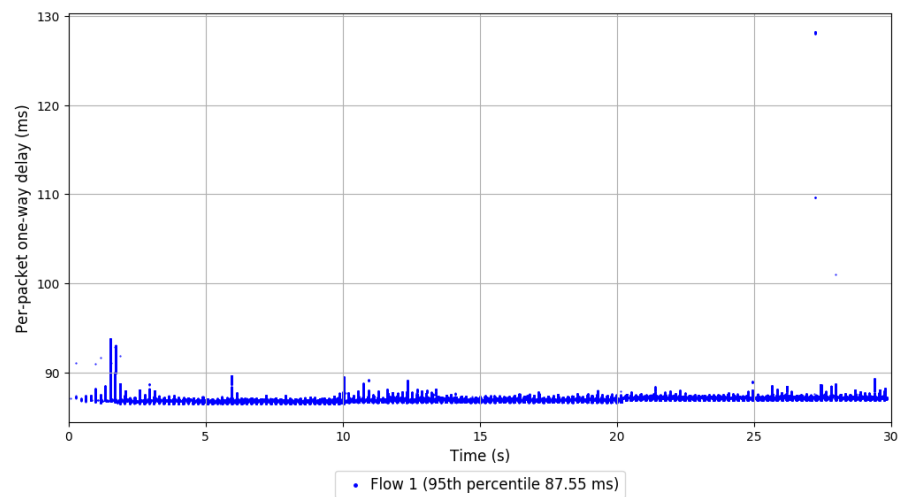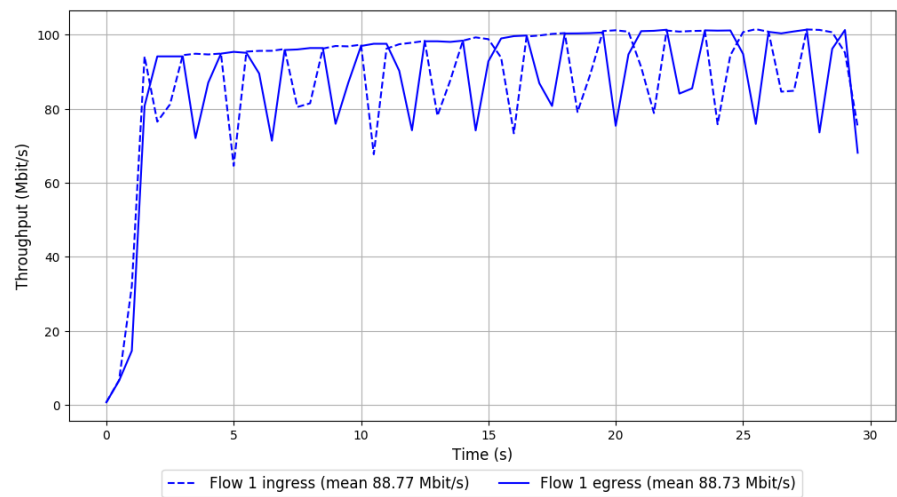
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 93.66 Mbit/s) --- Flow 1 egress (mean 92.81 Mbit/s)

Flow 1 (95th percentile 90.07 ms)

Run 9: Statistics of TaoVA-100x

Start at: 2018-02-16 00:07:54
End at: 2018-02-16 00:08:24

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

Flow 1 ingress (mean 176.15 Mbit/s)   Flow 1 egress (mean 176.06 Mbit/s)

Flow 1 (95th percentile 90.39 ms)

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

Start at: 2018-02-16 00:23:24
End at: 2018-02-16 00:23:54

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.75 Mbit/s
95th percentile per-packet one-way delay: 86.932 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 76.75 Mbit/s
95th percentile per-packet one-way delay: 86.932 ms
Loss rate: 2.15%
```
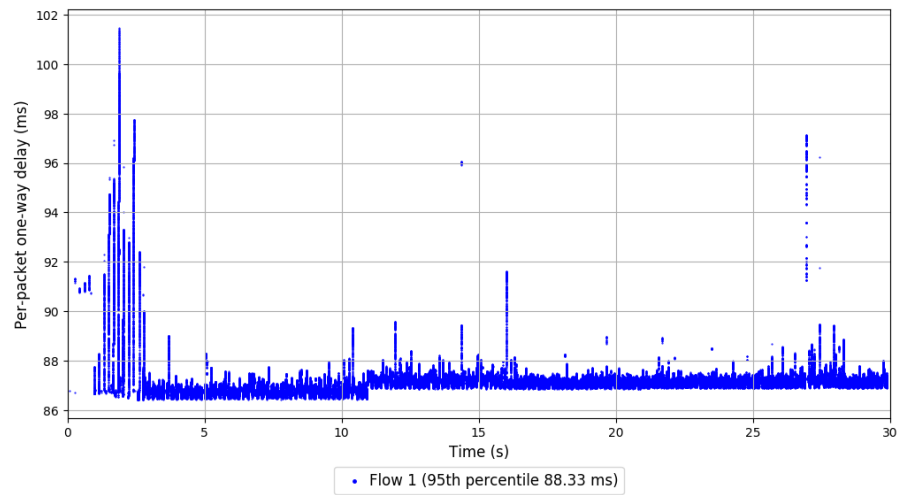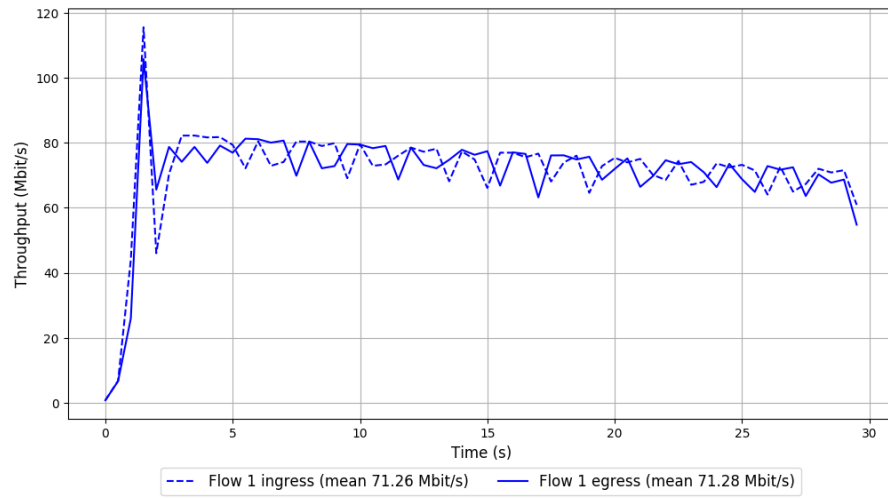
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 77.92 Mbit/s)   Flow 1 egress (mean 76.75 Mbit/s)

Flow 1 (95th percentile 86.93 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-02-15 22:13:44
End at: 2018-02-15 22:14:14

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 88.155 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 88.155 ms
Loss rate: 0.66%
```
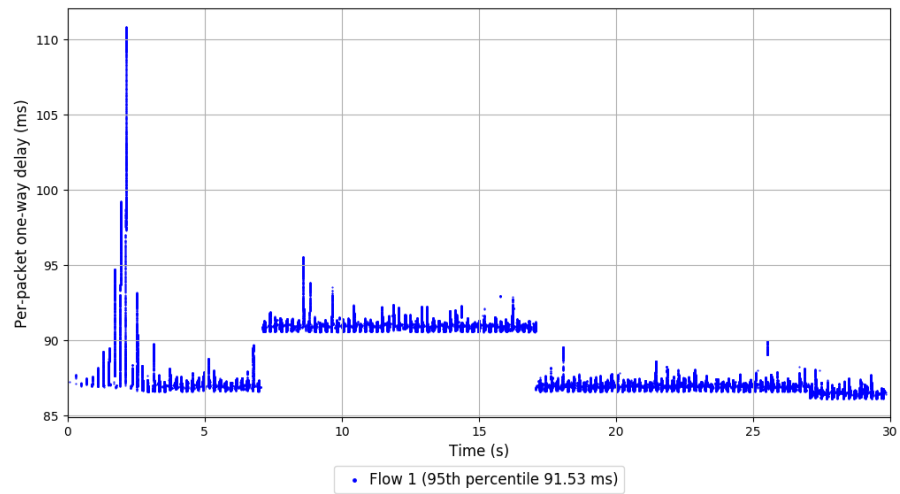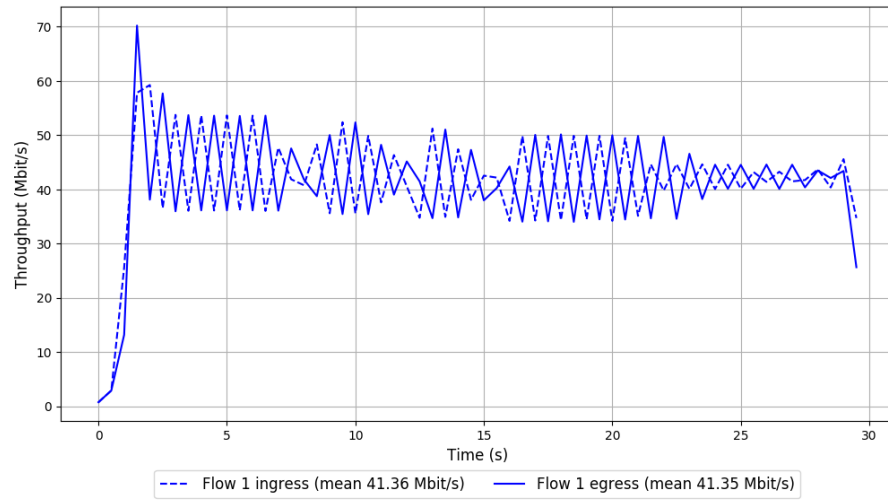
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-02-15 22:29:28
End at: 2018-02-15 22:29:58

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.73 Mbit/s
95th percentile per-packet one-way delay: 87.550 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 88.73 Mbit/s
95th percentile per-packet one-way delay: 87.550 ms
Loss rate: 0.63%
```
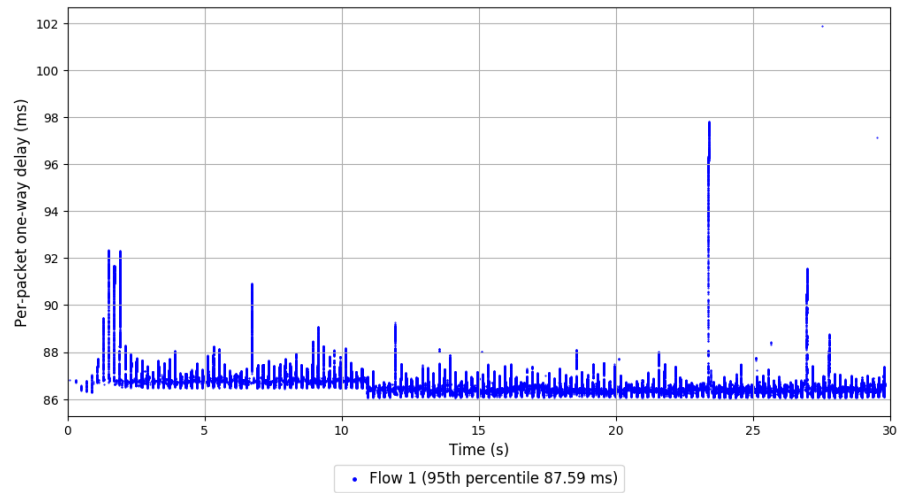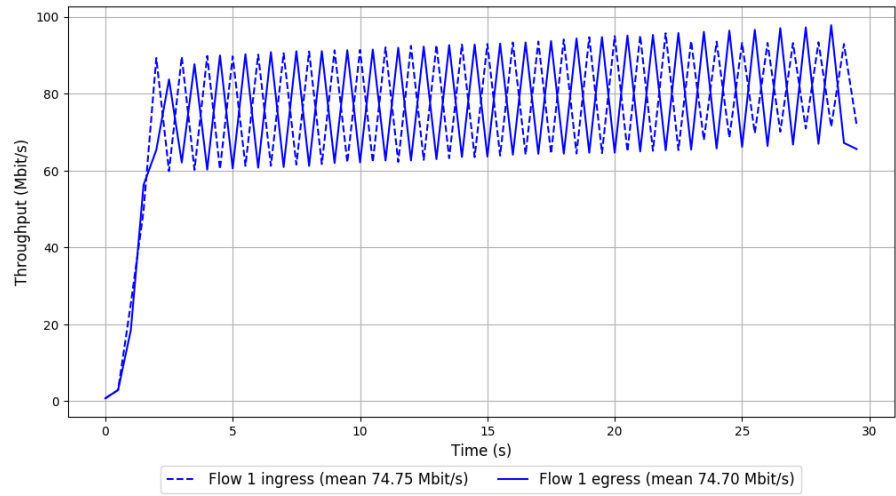
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 88.77 Mbit/s)   Flow 1 egress (mean 88.73 Mbit/s)

Flow 1 (95th percentile 87.55 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2018-02-15 22:45:17
End at: 2018-02-15 22:45:47

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.28 Mbit/s
95th percentile per-packet one-way delay: 88.330 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 71.28 Mbit/s
95th percentile per-packet one-way delay: 88.330 ms
Loss rate: 0.56%
```
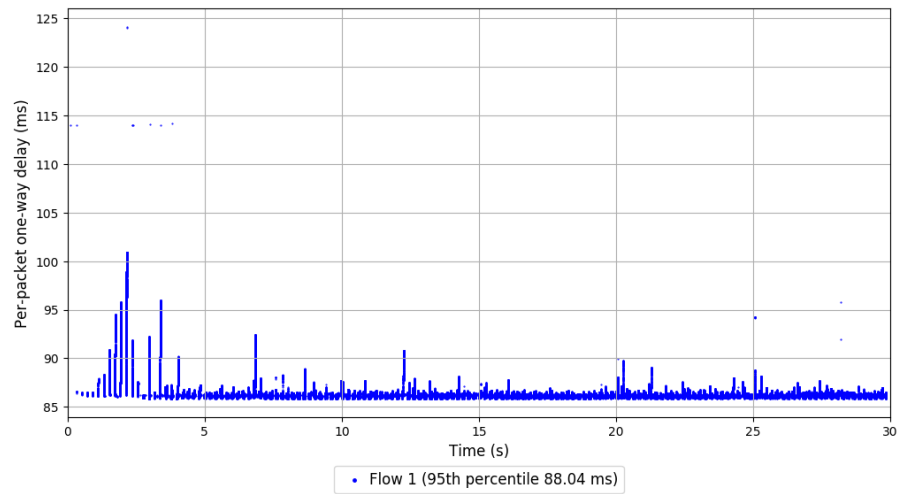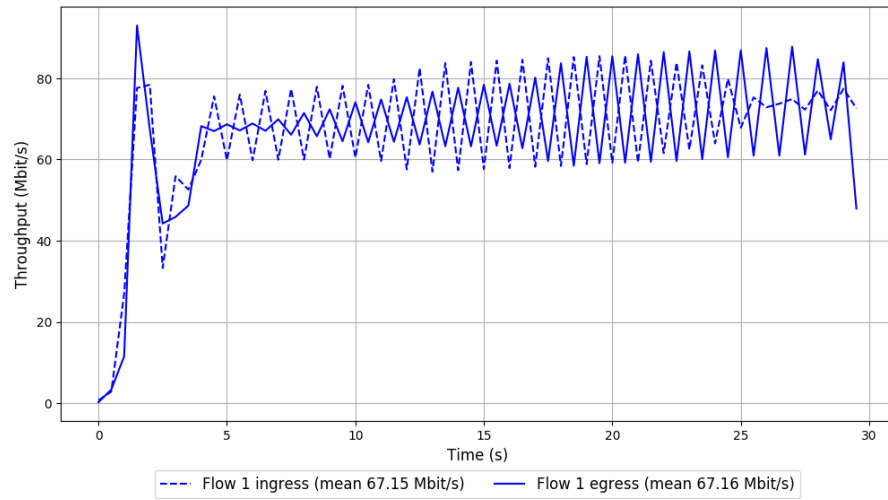
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-02-15 23:00:41
End at: 2018-02-15 23:01:11

# Below is generated by plot.py at 2018-02-16 03:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.35 Mbit/s
95th percentile per-packet one-way delay: 91.531 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 41.35 Mbit/s
95th percentile per-packet one-way delay: 91.531 ms
Loss rate: 0.70%
```
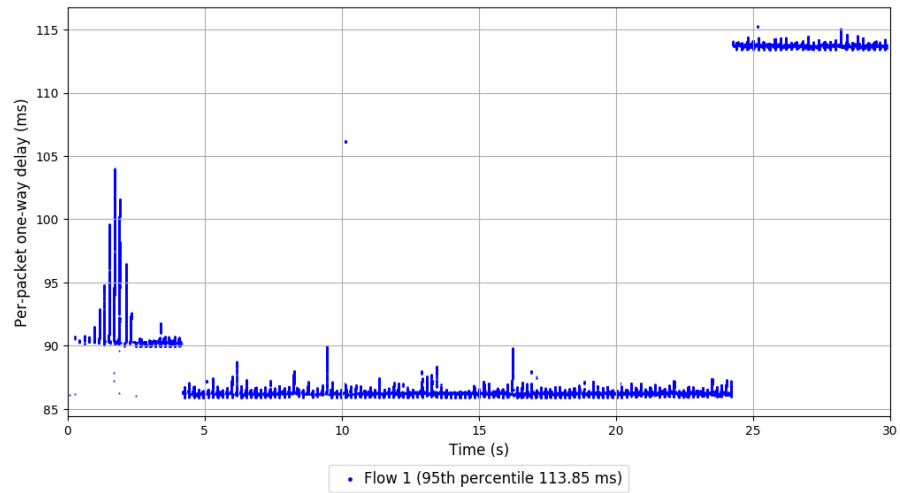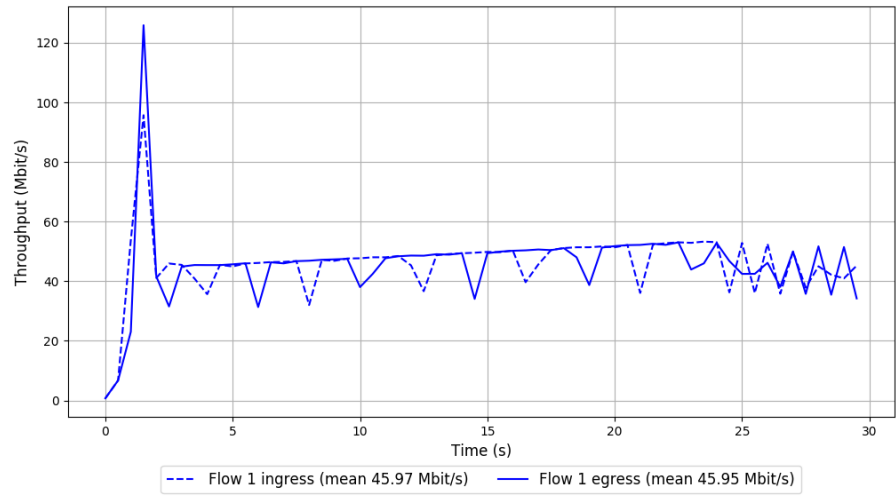
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 41.36 Mbit/s)   Flow 1 egress (mean 41.35 Mbit/s)

Flow 1 (95th percentile 91.53 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2018-02-15 23:16:27
End at: 2018-02-15 23:16:57

# Below is generated by plot.py at 2018-02-16 03:43:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.70 Mbit/s
95th percentile per-packet one-way delay: 87.589 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 74.70 Mbit/s
95th percentile per-packet one-way delay: 87.589 ms
Loss rate: 0.74%
```
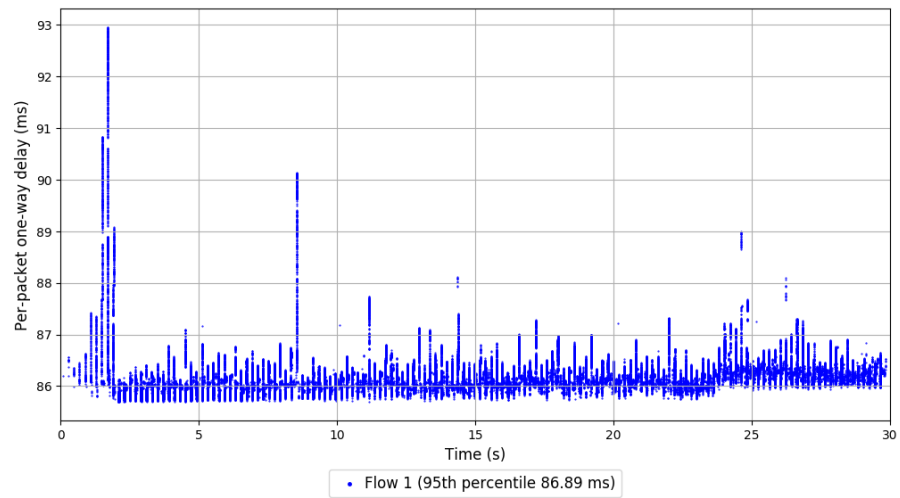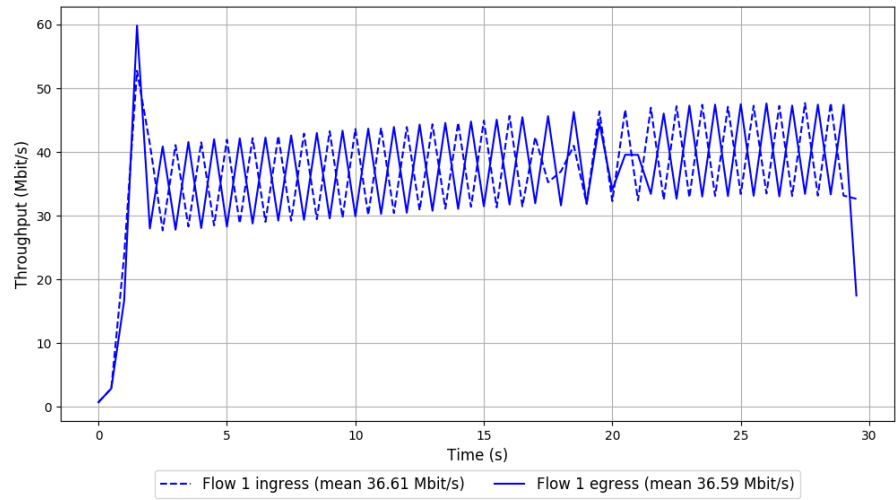
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2018-02-15 23:32:17
End at: 2018-02-15 23:32:48

# Below is generated by plot.py at 2018-02-16 03:43:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.16 Mbit/s
95th percentile per-packet one-way delay: 88.038 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 67.16 Mbit/s
95th percentile per-packet one-way delay: 88.038 ms
Loss rate: 0.75%
```
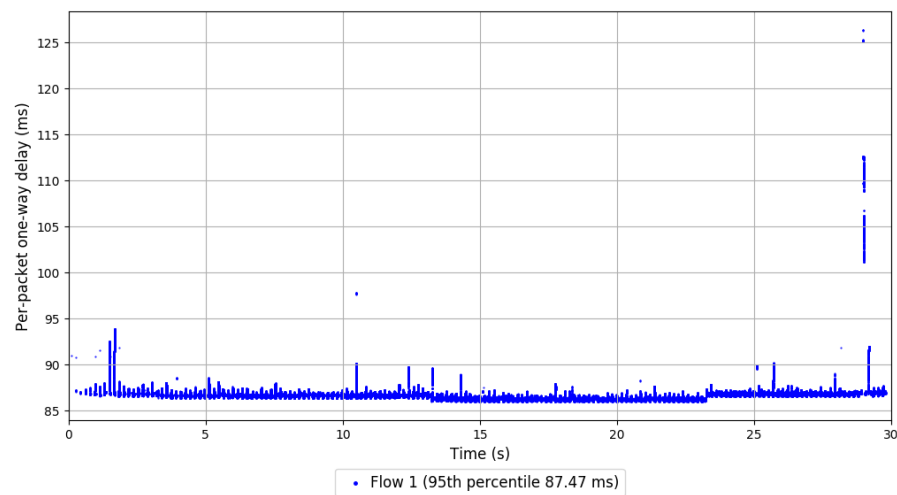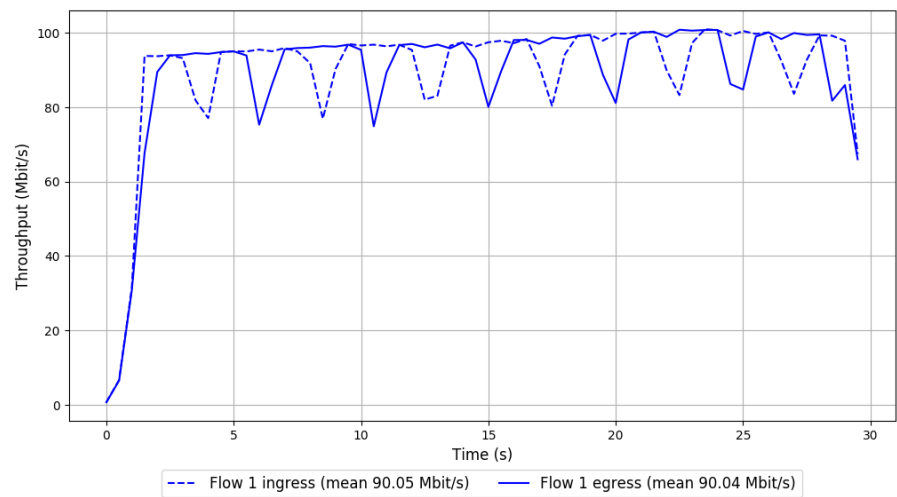
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-02-15 23:47:54
End at: 2018-02-15 23:48:24

# Below is generated by plot.py at 2018-02-16 03:43:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.95 Mbit/s
95th percentile per-packet one-way delay: 113.853 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 45.95 Mbit/s
95th percentile per-packet one-way delay: 113.853 ms
Loss rate: 0.63%
```
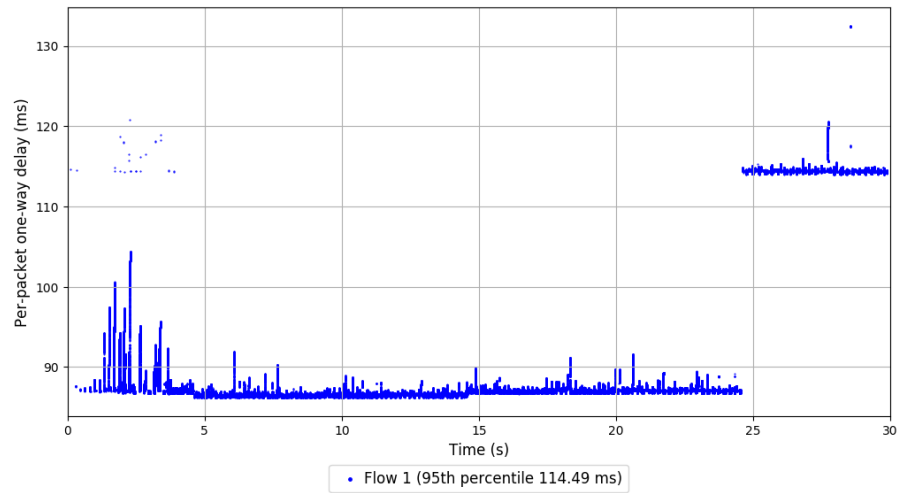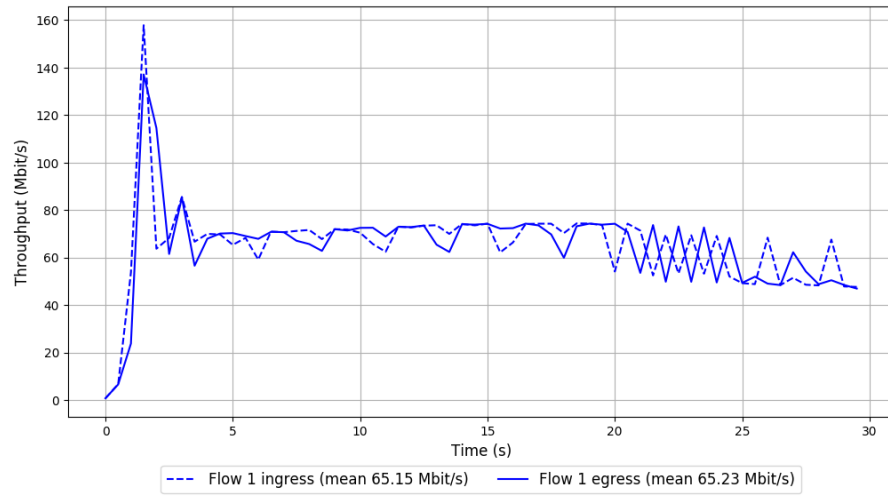
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-02-16 00:03:15
End at: 2018-02-16 00:03:45

# Below is generated by plot.py at 2018-02-16 03:43:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 36.59 Mbit/s
95th percentile per-packet one-way delay: 86.888 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 36.59 Mbit/s
95th percentile per-packet one-way delay: 86.888 ms
Loss rate: 0.73%
```
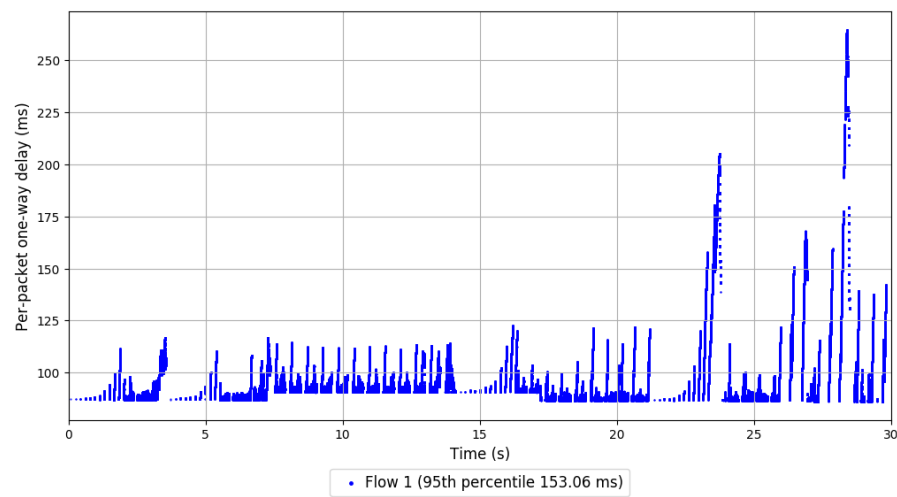
Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-02-16 00:18:35
End at: 2018-02-16 00:19:05

# Below is generated by plot.py at 2018-02-16 03:44:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.04 Mbit/s
95th percentile per-packet one-way delay: 87.470 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 90.04 Mbit/s
95th percentile per-packet one-way delay: 87.470 ms
Loss rate: 0.61%
```
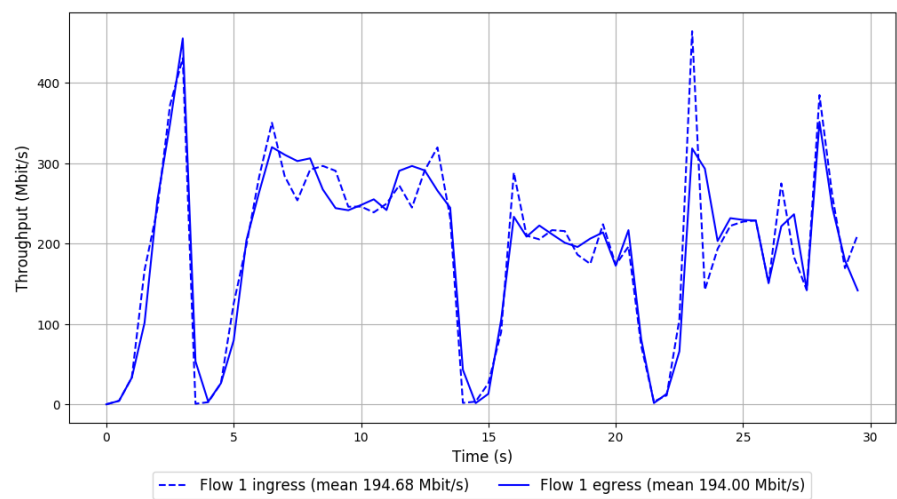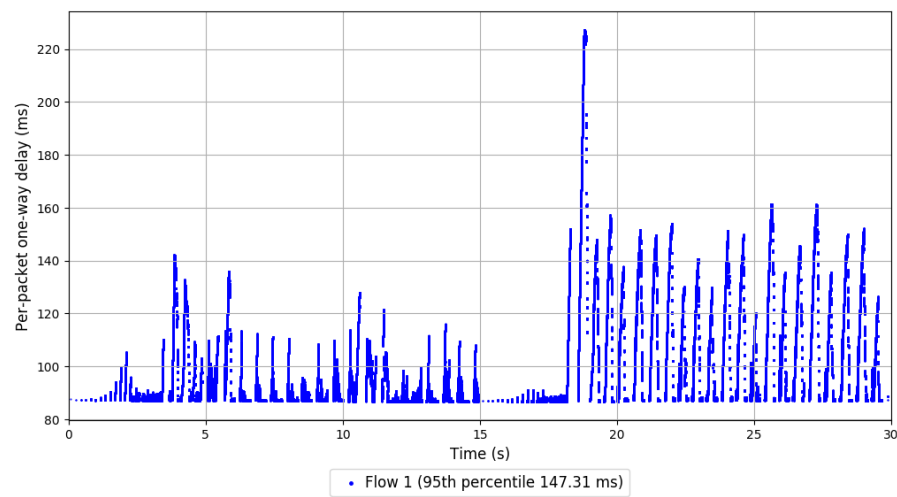
Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-02-16 00:34:04
End at: 2018-02-16 00:34:34

# Below is generated by plot.py at 2018-02-16 03:44:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.23 Mbit/s
95th percentile per-packet one-way delay: 114.492 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 65.23 Mbit/s
95th percentile per-packet one-way delay: 114.492 ms
Loss rate: 0.53%
```
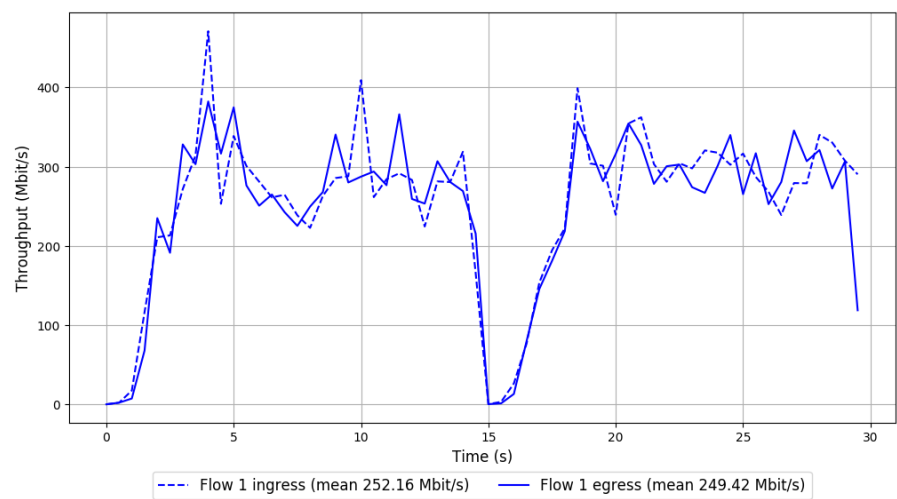
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-02-15 22:09:01
End at: 2018-02-15 22:09:31

# Below is generated by plot.py at 2018-02-16 03:46:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 194.00 Mbit/s
95th percentile per-packet one-way delay: 153.062 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 194.00 Mbit/s
95th percentile per-packet one-way delay: 153.062 ms
Loss rate: 1.04%
```
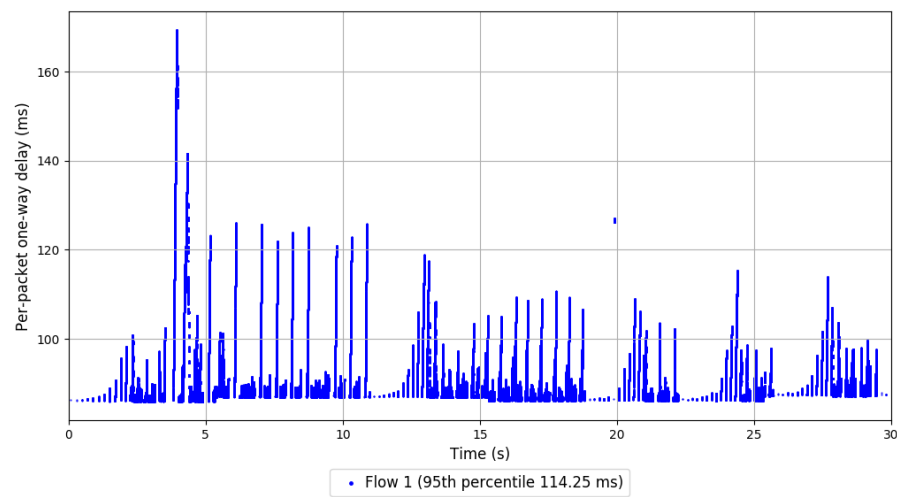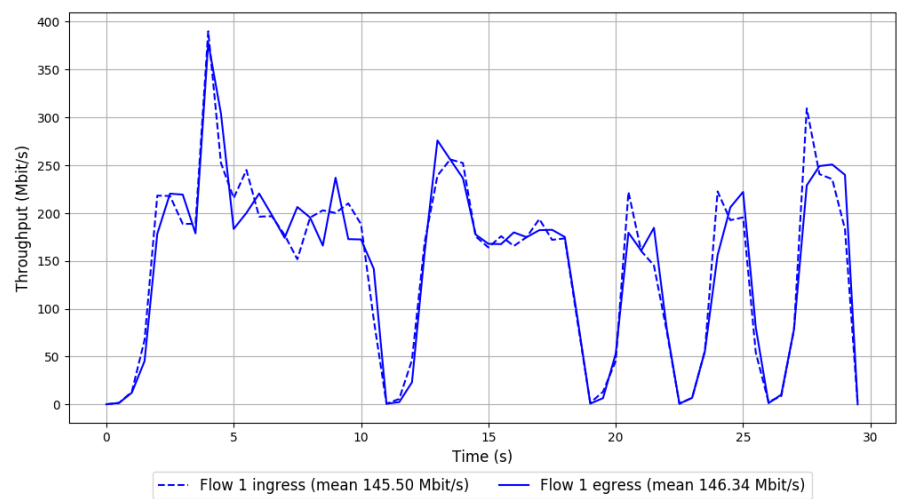
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-02-15 22:24:38
End at: 2018-02-15 22:25:08

# Below is generated by plot.py at 2018-02-16 03:47:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.42 Mbit/s
95th percentile per-packet one-way delay: 147.315 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 249.42 Mbit/s
95th percentile per-packet one-way delay: 147.315 ms
Loss rate: 1.68%
```
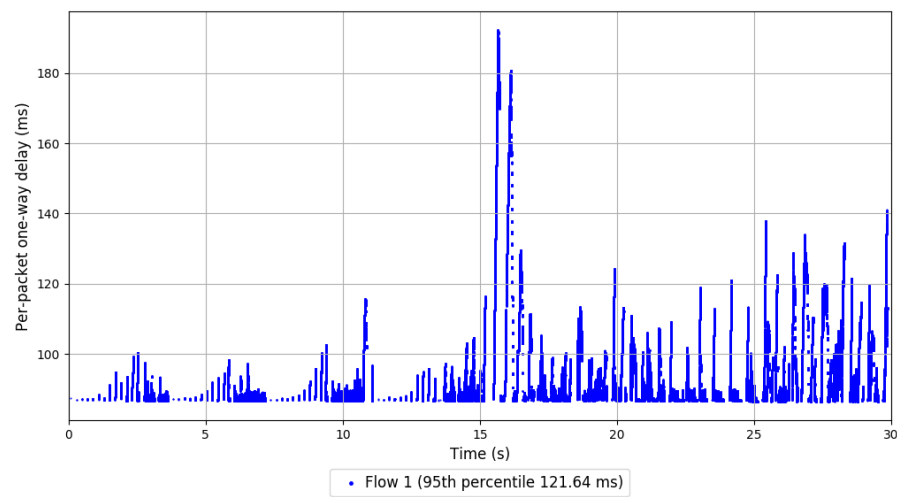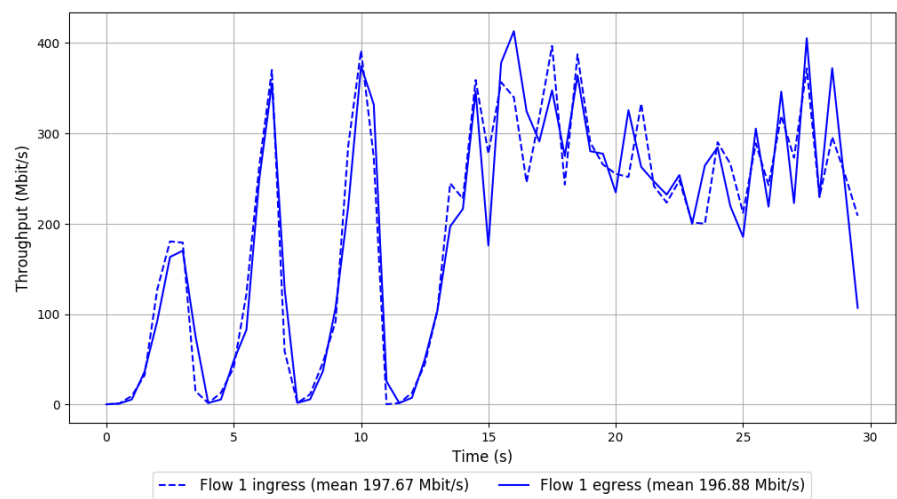
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-02-15 22:40:33
End at: 2018-02-15 22:41:03

# Below is generated by plot.py at 2018-02-16 03:47:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.34 Mbit/s
95th percentile per-packet one-way delay: 114.255 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 146.34 Mbit/s
95th percentile per-packet one-way delay: 114.255 ms
Loss rate: 0.00%
```
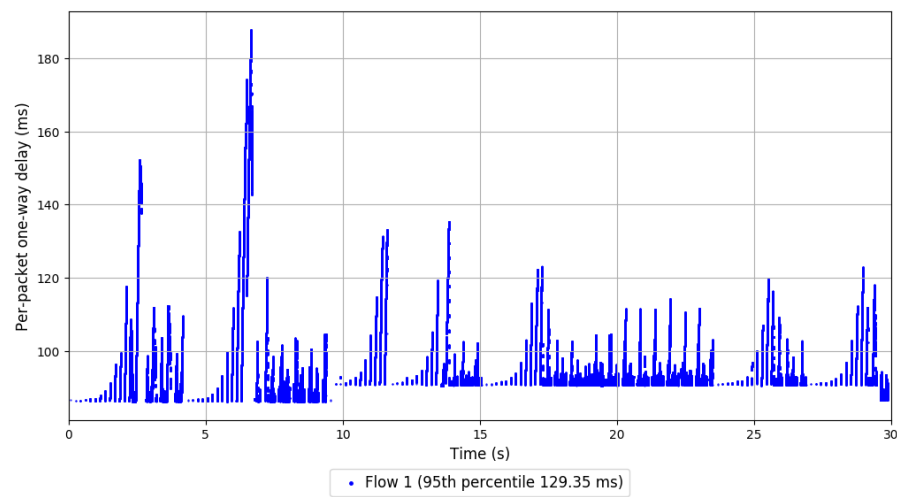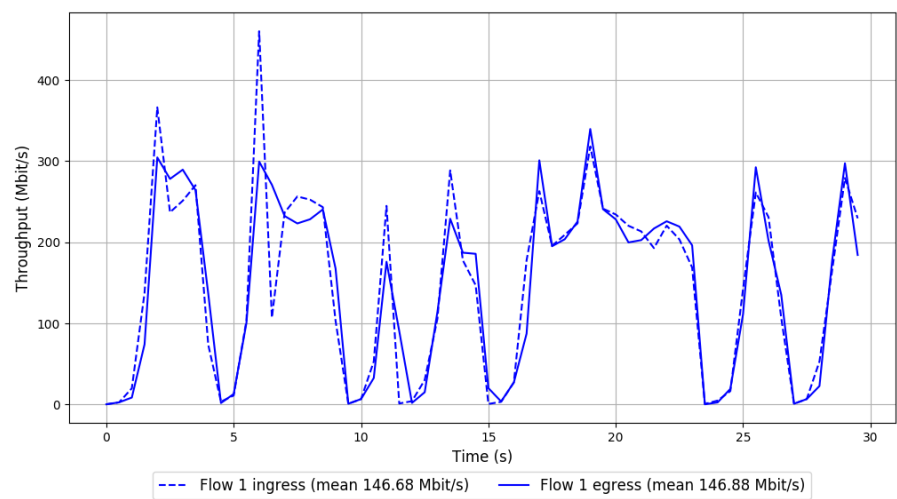
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-02-15 22:55:54
End at: 2018-02-15 22:56:24

# Below is generated by plot.py at 2018-02-16 03:47:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.88 Mbit/s
95th percentile per-packet one-way delay: 121.638 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 196.88 Mbit/s
95th percentile per-packet one-way delay: 121.638 ms
Loss rate: 0.97%
```
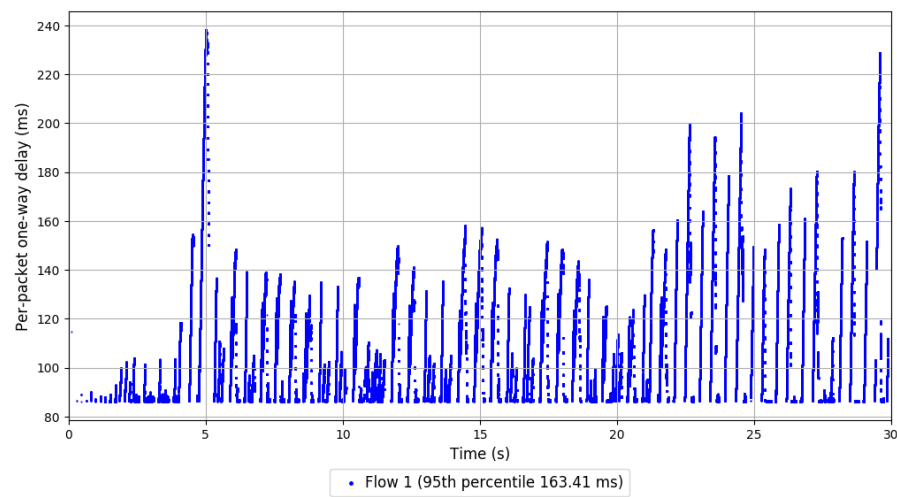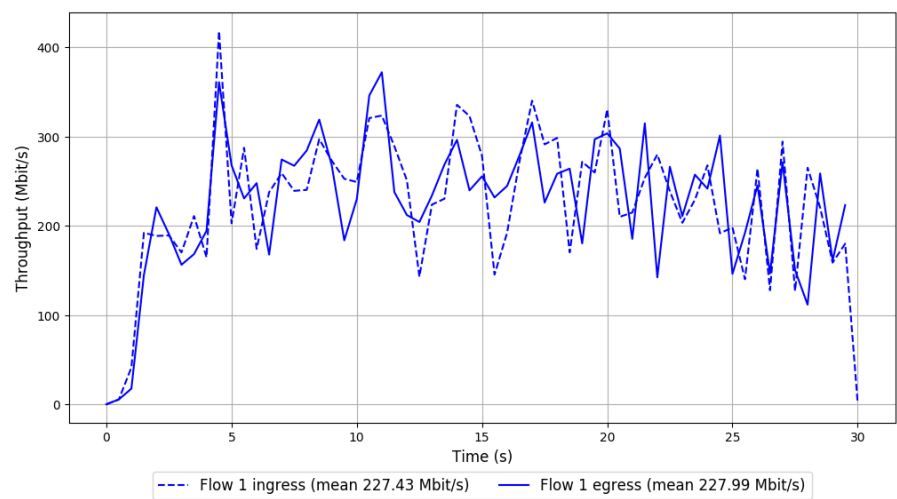
Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 197.67 Mbit/s)   Flow 1 egress (mean 196.88 Mbit/s)

Flow 1 (95th percentile 121.64 ms)

```
Run 5: Statistics of Verus

Start at: 2018-02-15 23:11:39
End at: 2018-02-15 23:12:09

# Below is generated by plot.py at 2018-02-16 03:47:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.88 Mbit/s
95th percentile per-packet one-way delay: 129.355 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 146.88 Mbit/s
95th percentile per-packet one-way delay: 129.355 ms
Loss rate: 0.51%
```
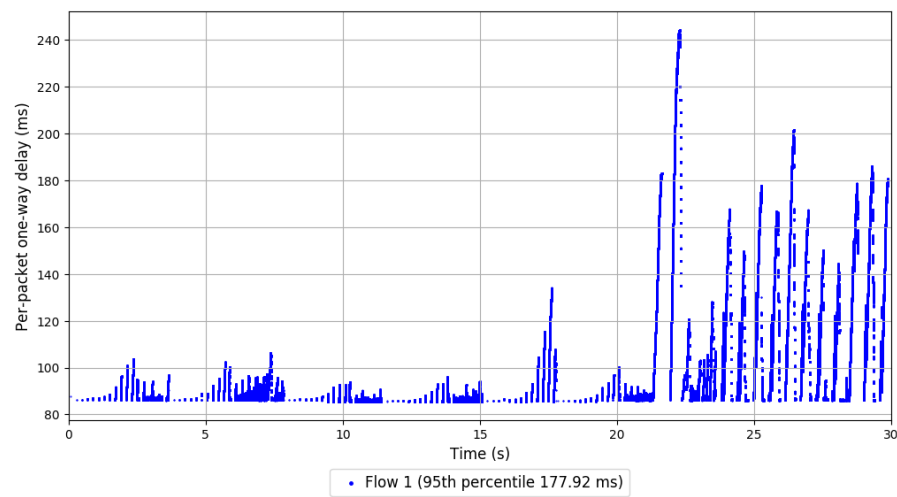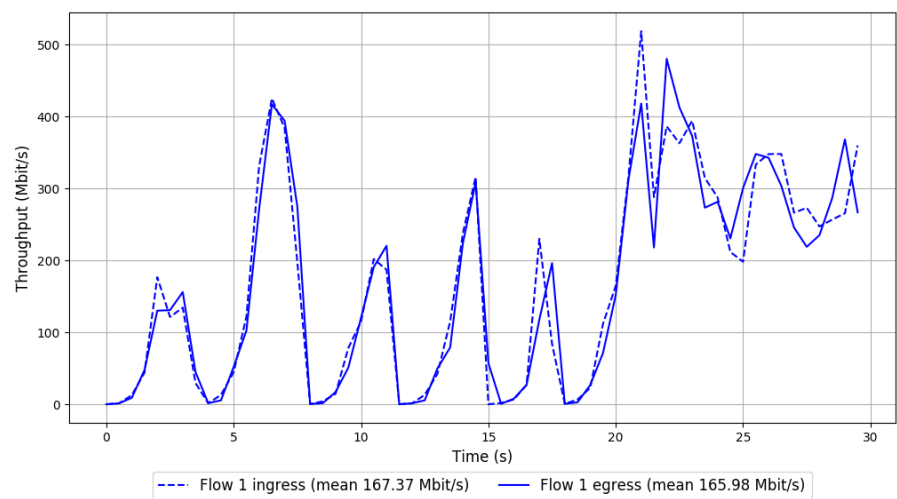
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-02-15 23:27:27
End at: 2018-02-15 23:27:57


# Below is generated by plot.py at 2018-02-16 03:47:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.99 Mbit/s
95th percentile per-packet one-way delay: 163.405 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 227.99 Mbit/s
95th percentile per-packet one-way delay: 163.405 ms
Loss rate: 0.52%
```
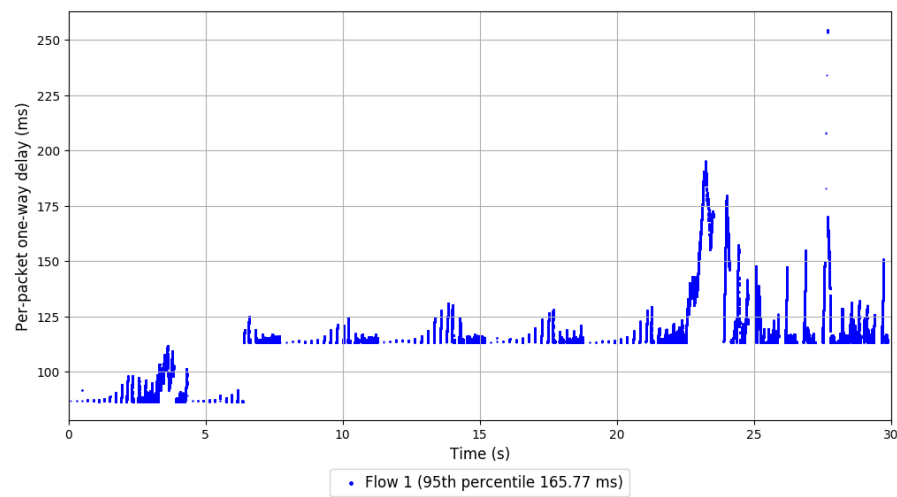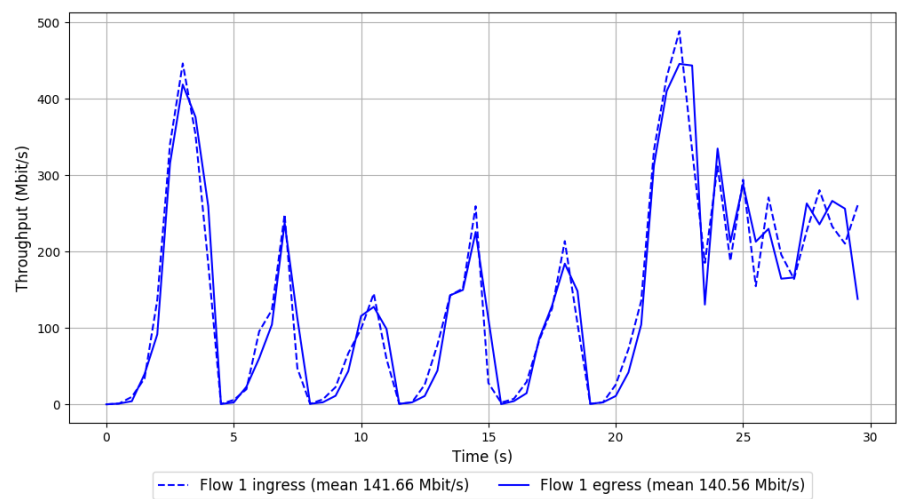
Run 6: Report of Verus — Data Link

Flow 1 ingress (mean 227.43 Mbit/s)   Flow 1 egress (mean 227.99 Mbit/s)

• Flow 1 (95th percentile 163.41 ms)

```
Run 7: Statistics of Verus

Start at: 2018-02-15 23:43:09
End at: 2018-02-15 23:43:39

# Below is generated by plot.py at 2018-02-16 03:47:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 165.98 Mbit/s
95th percentile per-packet one-way delay: 177.917 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 165.98 Mbit/s
95th percentile per-packet one-way delay: 177.917 ms
Loss rate: 1.14%
```
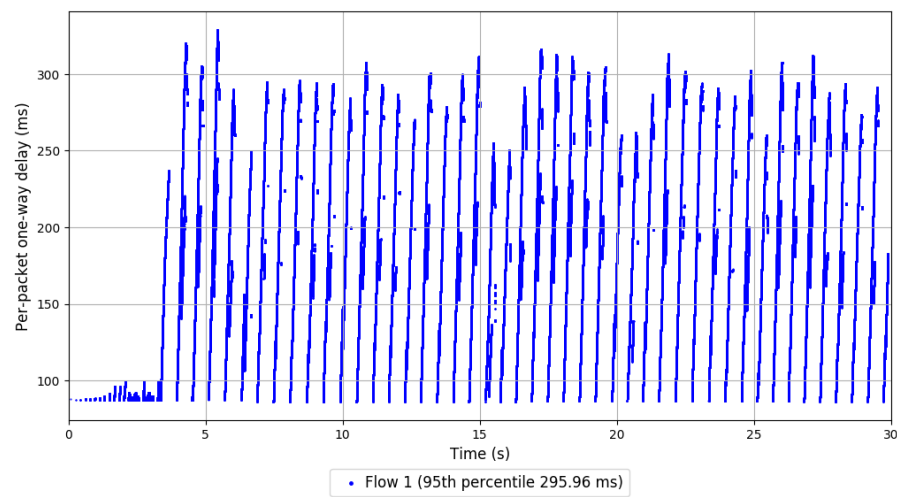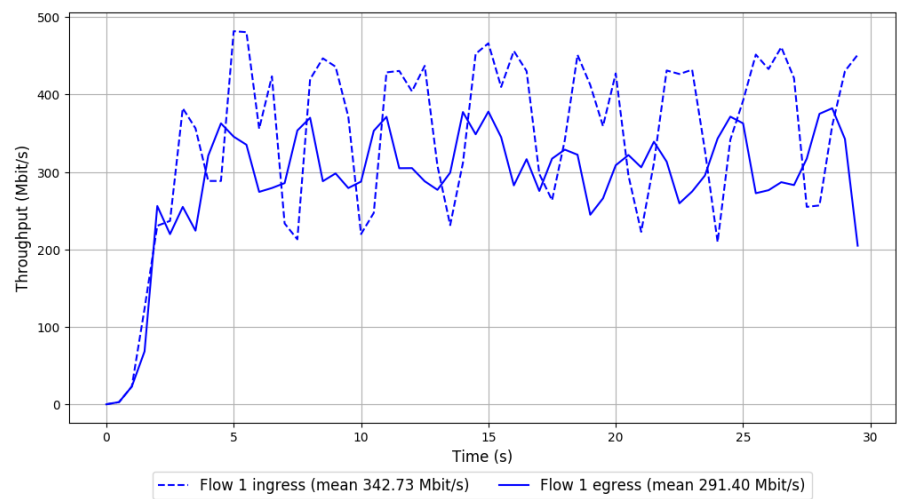
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-02-15 23:58:32
End at: 2018-02-15 23:59:02

# Below is generated by plot.py at 2018-02-16 03:47:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 140.56 Mbit/s
95th percentile per-packet one-way delay: 165.771 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 140.56 Mbit/s
95th percentile per-packet one-way delay: 165.771 ms
Loss rate: 1.44%
```
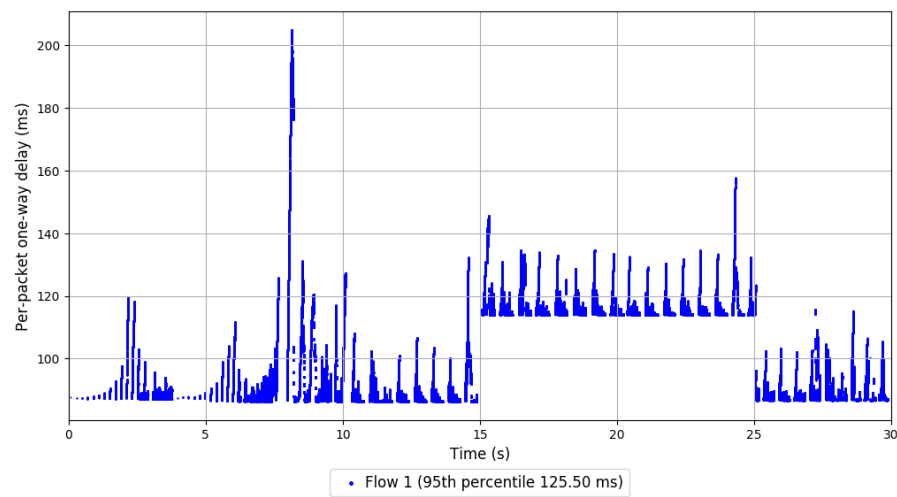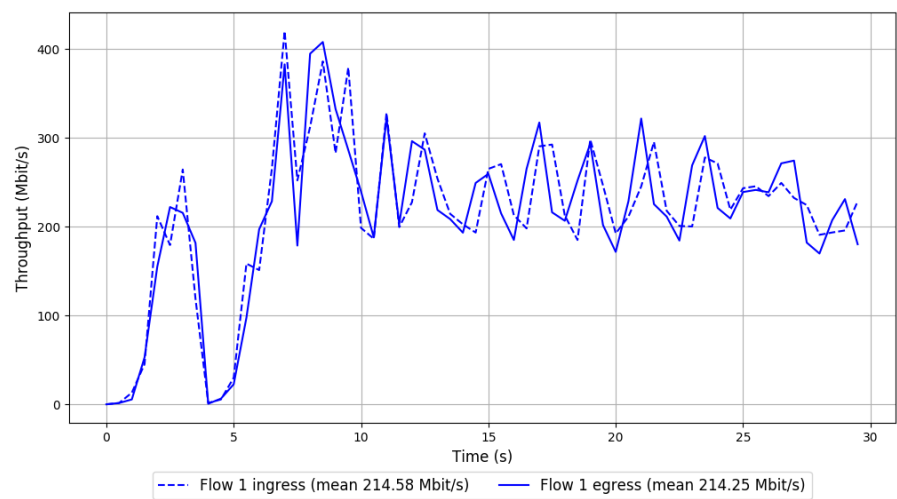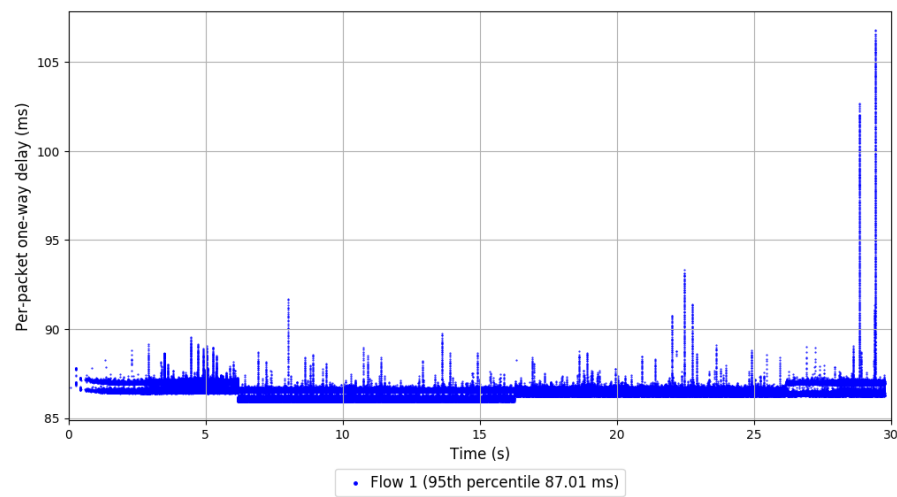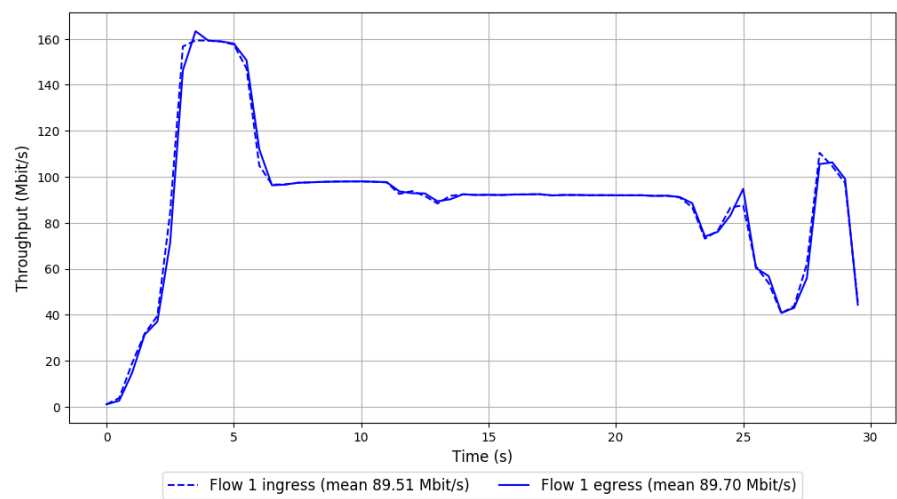
Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-02-16 00:13:42
End at: 2018-02-16 00:14:12


# Below is generated by plot.py at 2018-02-16 03:51:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 291.40 Mbit/s
95th percentile per-packet one-way delay: 295.957 ms
Loss rate: 15.23%
-- Flow 1:
Average throughput: 291.40 Mbit/s
95th percentile per-packet one-way delay: 295.957 ms
Loss rate: 15.23%
```

Run 9: Report of Verus — Data Link

Flow 1 ingress (mean 342.73 Mbit/s)   Flow 1 egress (mean 291.40 Mbit/s)

• Flow 1 (95th percentile 295.96 ms)

```
Run 10: Statistics of Verus

Start at: 2018-02-16 00:29:13
End at: 2018-02-16 00:29:43

# Below is generated by plot.py at 2018-02-16 03:51:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.25 Mbit/s
95th percentile per-packet one-way delay: 125.499 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 214.25 Mbit/s
95th percentile per-packet one-way delay: 125.499 ms
Loss rate: 0.49%
```
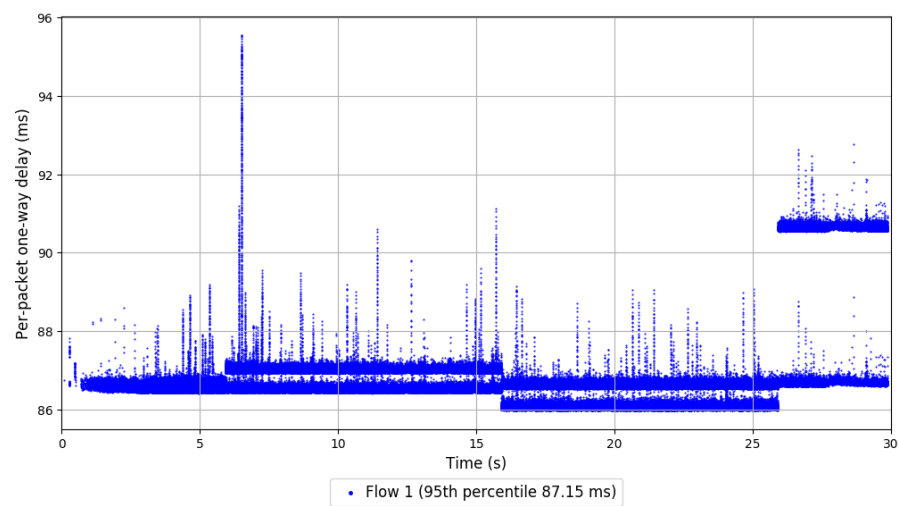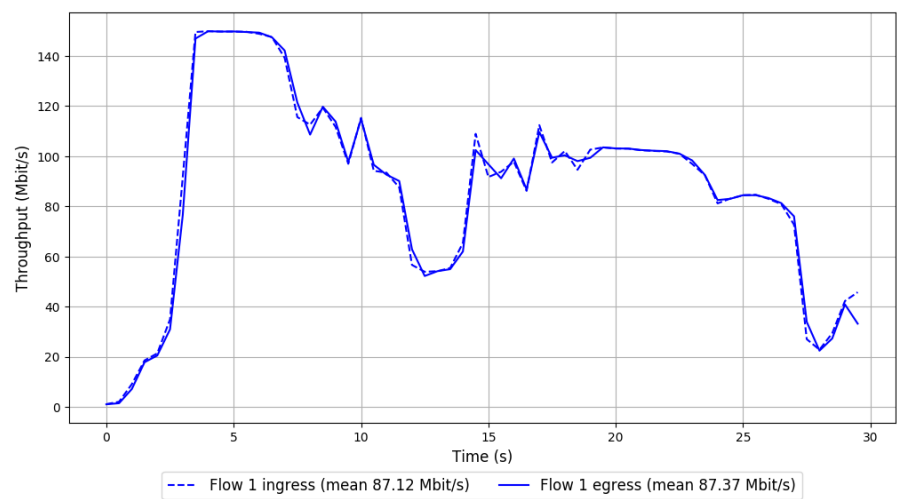
Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-02-15 21:59:52
End at: 2018-02-15 22:00:22

# Below is generated by plot.py at 2018-02-16 03:51:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.70 Mbit/s
95th percentile per-packet one-way delay: 87.007 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 89.70 Mbit/s
95th percentile per-packet one-way delay: 87.007 ms
Loss rate: 0.32%
```
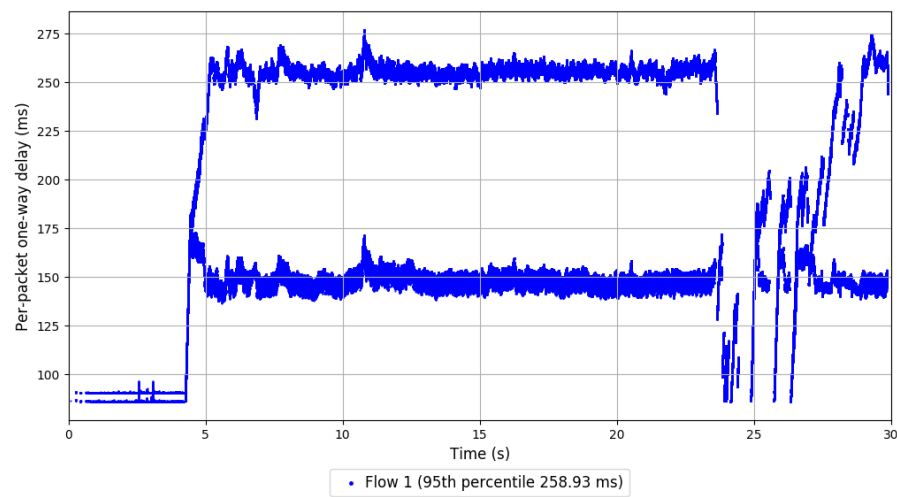
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-02-15 22:15:32
End at: 2018-02-15 22:16:02

# Below is generated by plot.py at 2018-02-16 03:51:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.37 Mbit/s
95th percentile per-packet one-way delay: 87.152 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 87.37 Mbit/s
95th percentile per-packet one-way delay: 87.152 ms
Loss rate: 0.39%
```
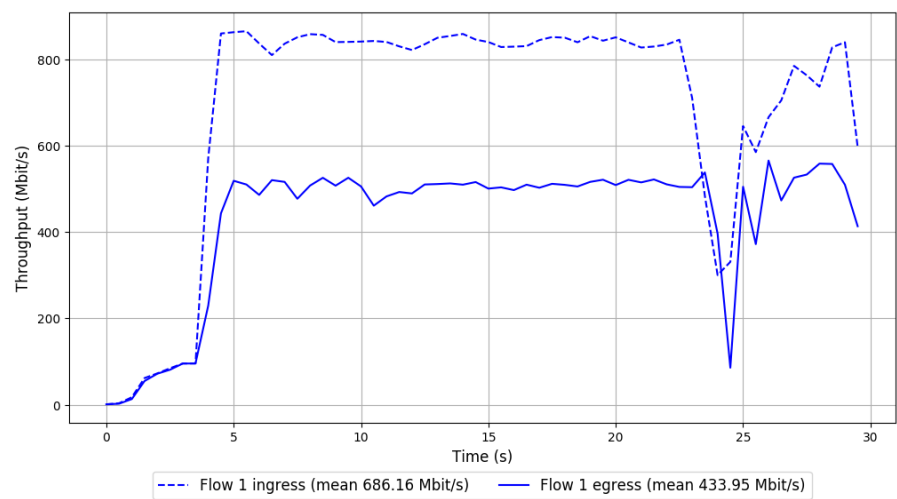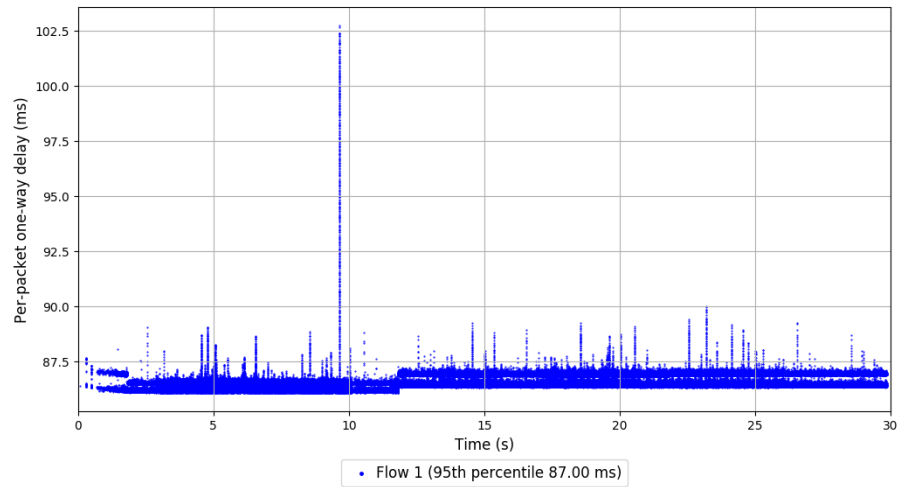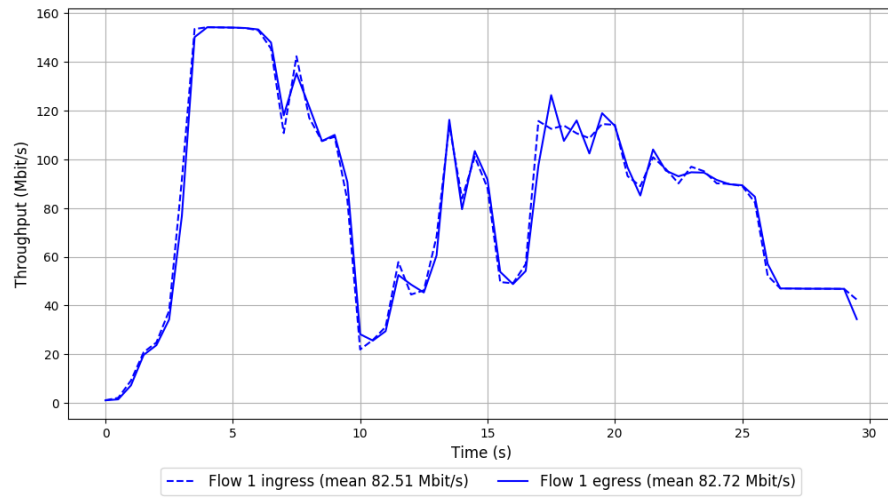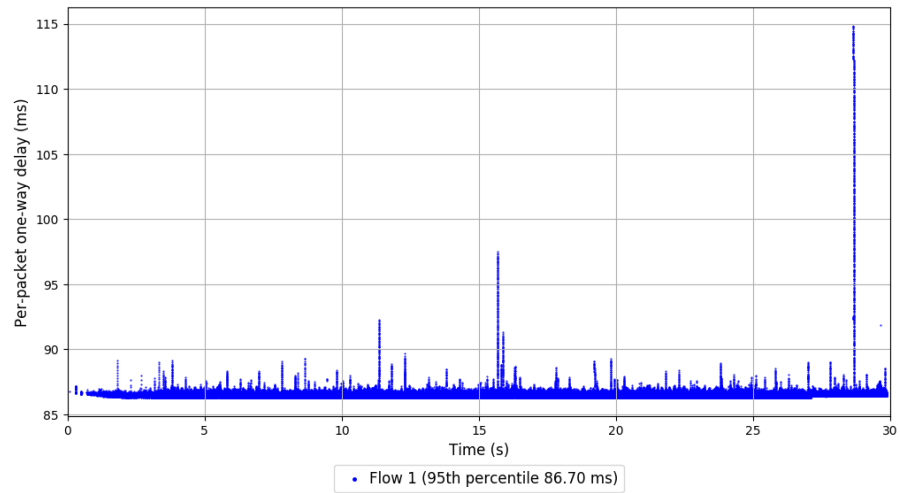
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-02-15 22:31:18
End at: 2018-02-15 22:31:48

# Below is generated by plot.py at 2018-02-16 04:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 433.95 Mbit/s
95th percentile per-packet one-way delay: 258.925 ms
Loss rate: 37.13%
-- Flow 1:
Average throughput: 433.95 Mbit/s
95th percentile per-packet one-way delay: 258.925 ms
Loss rate: 37.13%
```

Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 686.16 Mbit/s)   Flow 1 egress (mean 433.95 Mbit/s)

• Flow 1 (95th percentile 258.93 ms)

```
Run 4: Statistics of Copa

Start at: 2018-02-15 22:47:07
End at: 2018-02-15 22:47:37

# Below is generated by plot.py at 2018-02-16 04:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.72 Mbit/s
95th percentile per-packet one-way delay: 87.004 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 82.72 Mbit/s
95th percentile per-packet one-way delay: 87.004 ms
Loss rate: 0.33%
```
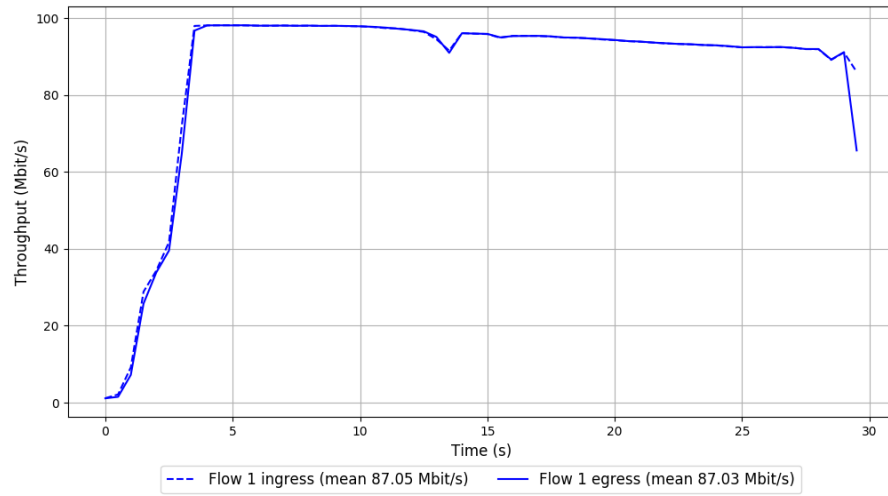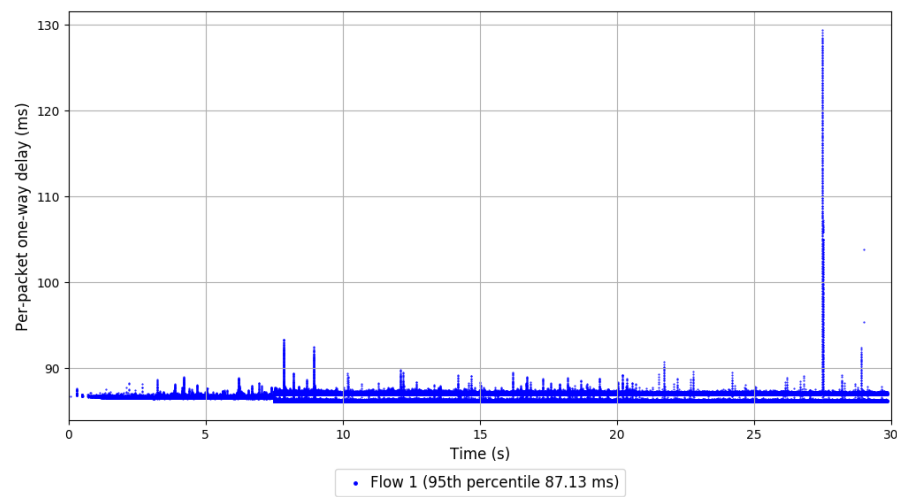
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-02-15 23:02:31
End at: 2018-02-15 23:03:01

# Below is generated by plot.py at 2018-02-16 04:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.03 Mbit/s
95th percentile per-packet one-way delay: 86.700 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 87.03 Mbit/s
95th percentile per-packet one-way delay: 86.700 ms
Loss rate: 0.69%
```
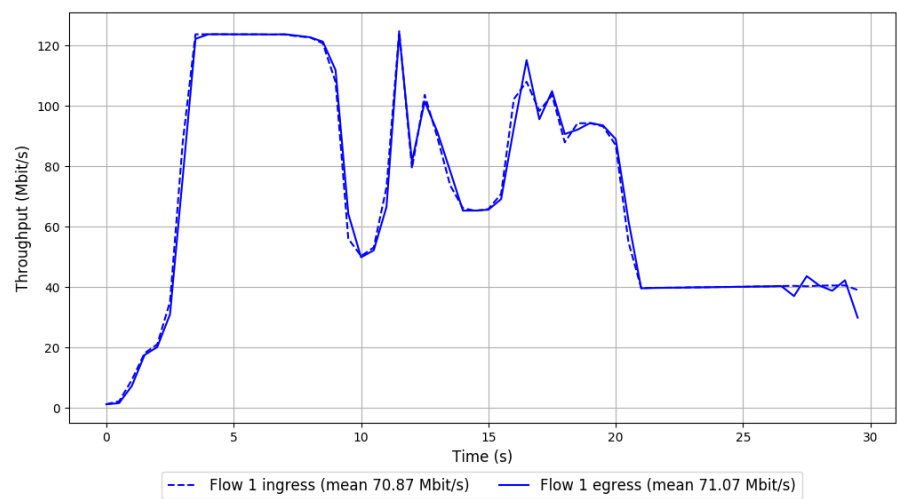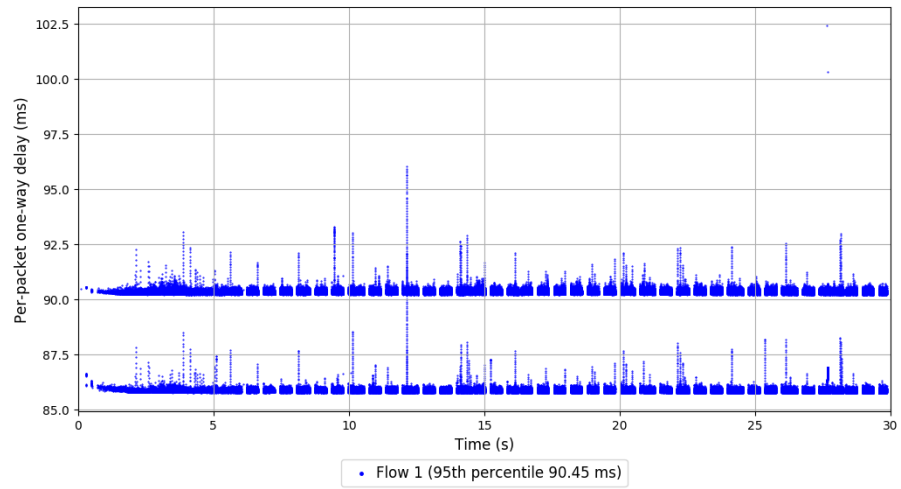
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 87.05 Mbit/s)   Flow 1 egress (mean 87.03 Mbit/s)

Flow 1 (95th percentile 86.70 ms)

233

```
Run 6: Statistics of Copa

Start at: 2018-02-15 23:18:21
End at: 2018-02-15 23:18:51


# Below is generated by plot.py at 2018-02-16 04:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.07 Mbit/s
95th percentile per-packet one-way delay: 87.128 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 71.07 Mbit/s
95th percentile per-packet one-way delay: 87.128 ms
Loss rate: 0.38%
```
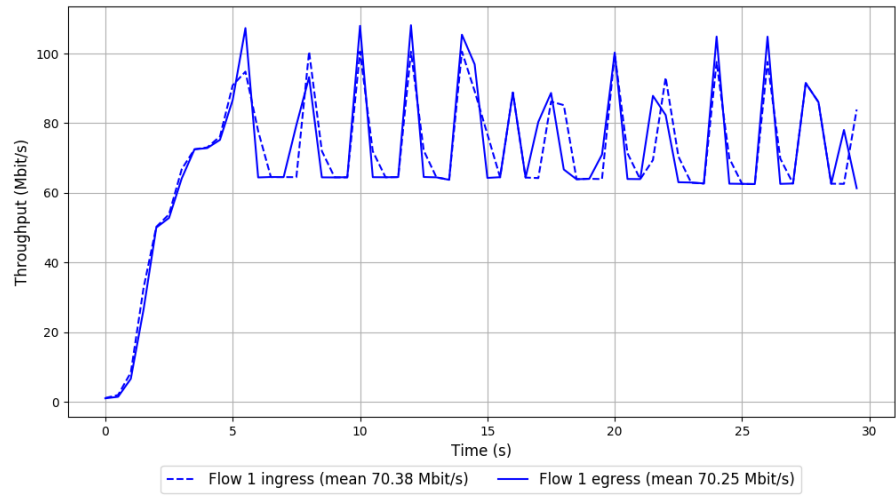
Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-02-15 23:34:11
End at: 2018-02-15 23:34:41


# Below is generated by plot.py at 2018-02-16 04:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.25 Mbit/s
95th percentile per-packet one-way delay: 90.449 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 70.25 Mbit/s
95th percentile per-packet one-way delay: 90.449 ms
Loss rate: 0.60%
```
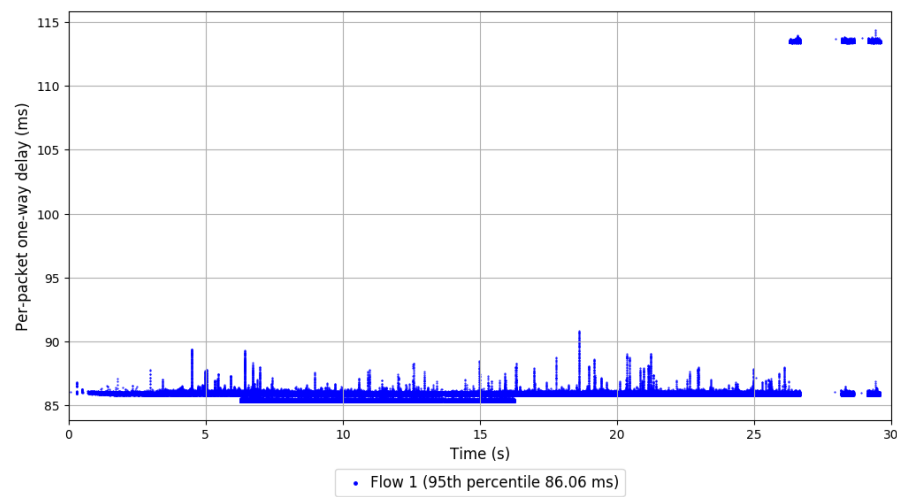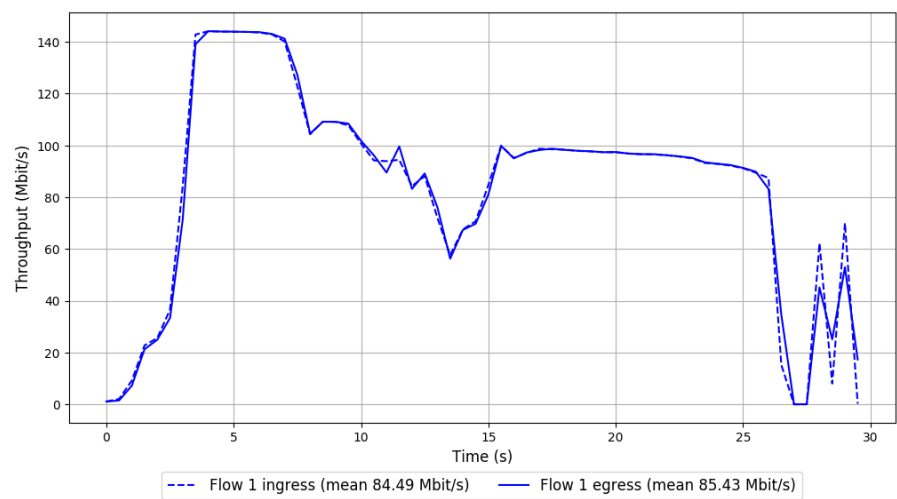
Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-02-15 23:49:42
End at: 2018-02-15 23:50:12

# Below is generated by plot.py at 2018-02-16 04:05:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.43 Mbit/s
95th percentile per-packet one-way delay: 86.064 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.43 Mbit/s
95th percentile per-packet one-way delay: 86.064 ms
Loss rate: 0.00%
```
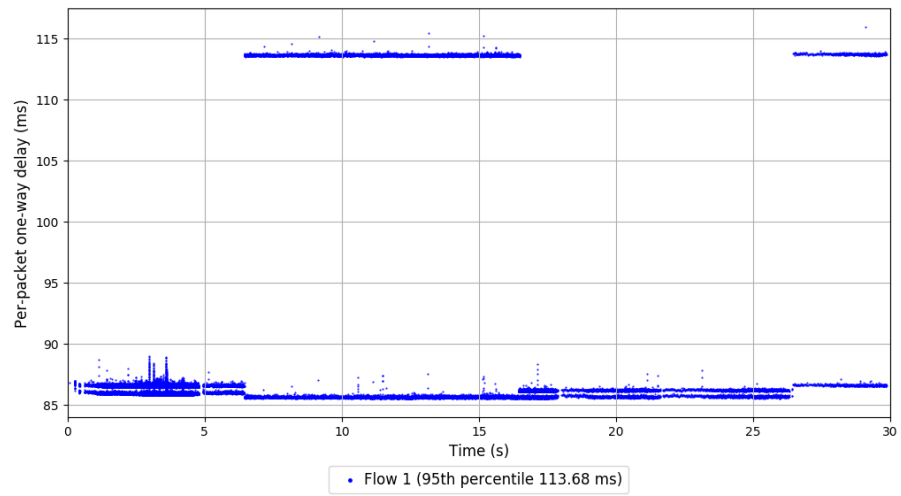
Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 84.49 Mbit/s)   Flow 1 egress (mean 85.43 Mbit/s)

Flow 1 (95th percentile 86.06 ms)

```
Run 9: Statistics of Copa

Start at: 2018-02-16 00:05:02
End at: 2018-02-16 00:05:32

# Below is generated by plot.py at 2018-02-16 04:05:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.37 Mbit/s
95th percentile per-packet one-way delay: 113.682 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 12.37 Mbit/s
95th percentile per-packet one-way delay: 113.682 ms
Loss rate: 0.21%
```
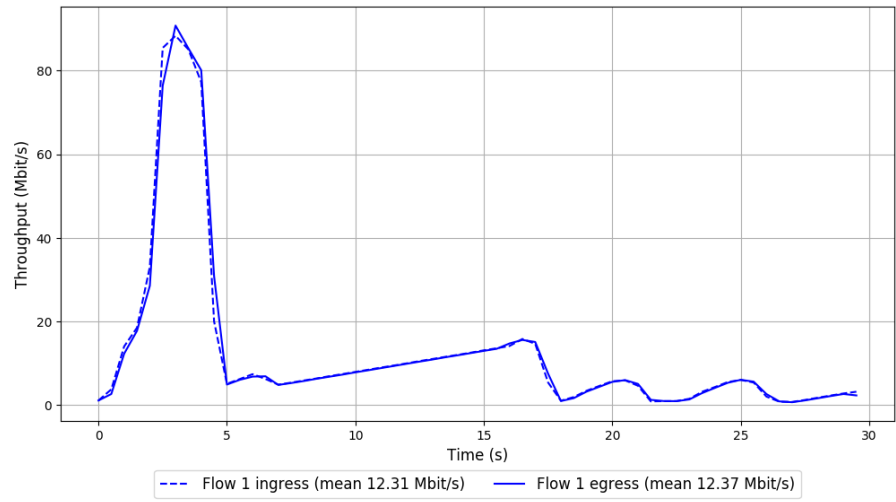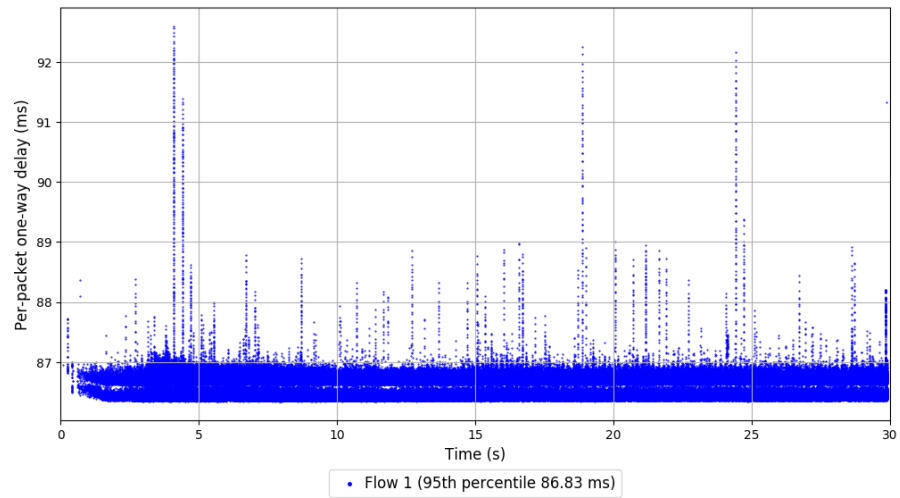
Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2018-02-16 00:20:26
End at: 2018-02-16 00:20:56

# Below is generated by plot.py at 2018-02-16 04:05:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.00 Mbit/s
95th percentile per-packet one-way delay: 86.834 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 93.00 Mbit/s
95th percentile per-packet one-way delay: 86.834 ms
Loss rate: 0.55%
```
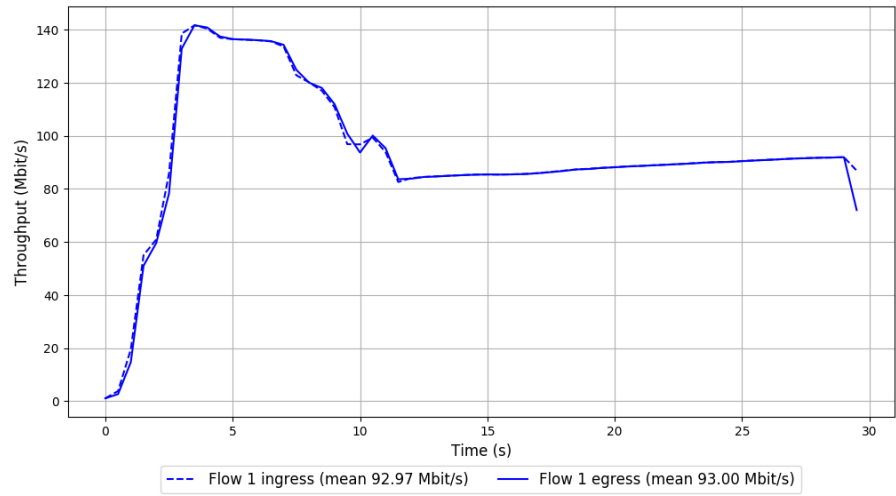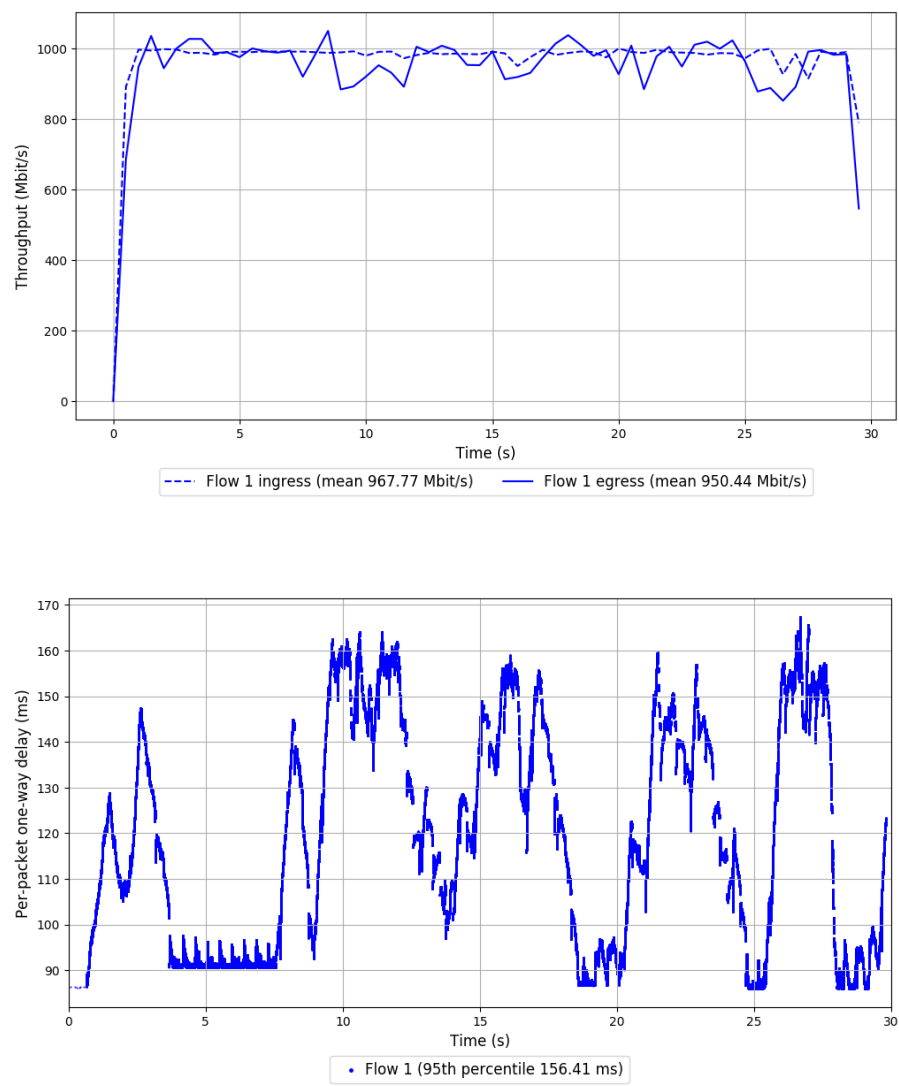
Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 92.97 Mbit/s) ——— Flow 1 egress (mean 93.00 Mbit/s)

· Flow 1 (95th percentile 86.83 ms)

```
Run 1: Statistics of FillP

Start at: 2018-02-15 22:11:35
End at: 2018-02-15 22:12:06

# Below is generated by plot.py at 2018-02-16 04:08:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 950.44 Mbit/s
95th percentile per-packet one-way delay: 156.414 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 950.44 Mbit/s
95th percentile per-packet one-way delay: 156.414 ms
Loss rate: 2.37%
```
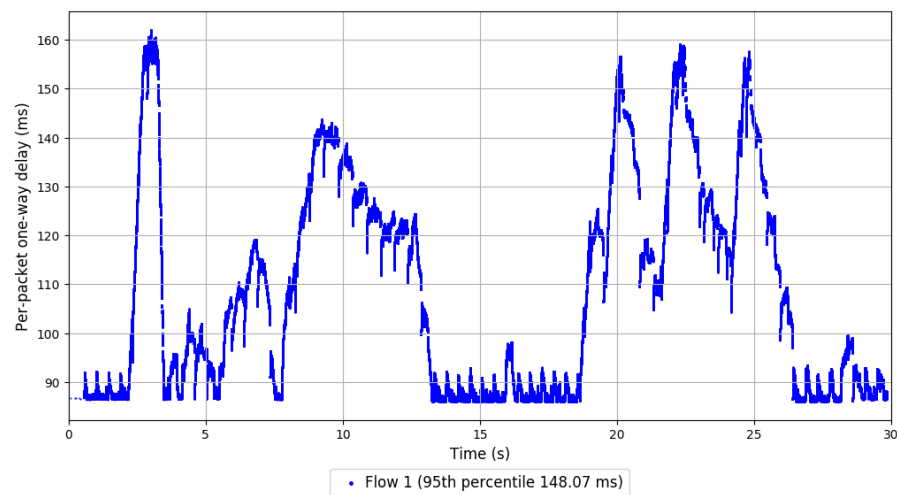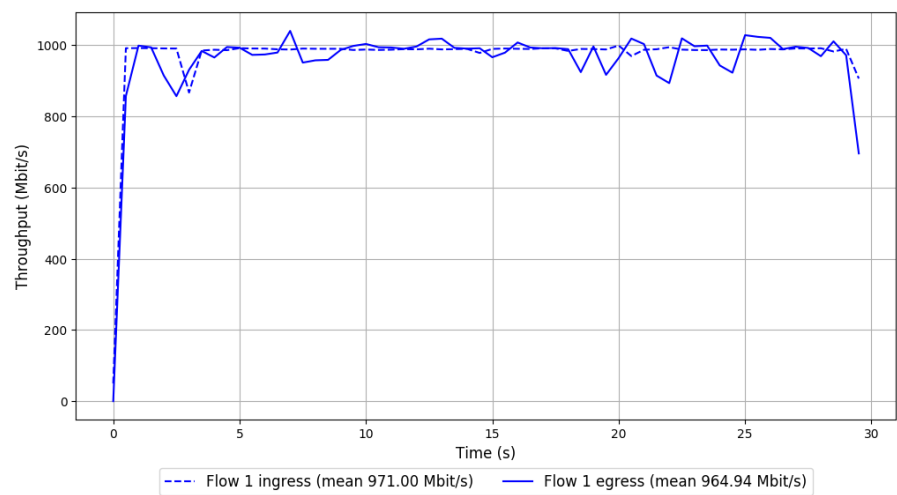
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-02-15 22:27:20
End at: 2018-02-15 22:27:50

# Below is generated by plot.py at 2018-02-16 04:08:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 964.94 Mbit/s
95th percentile per-packet one-way delay: 148.074 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 964.94 Mbit/s
95th percentile per-packet one-way delay: 148.074 ms
Loss rate: 1.29%
```
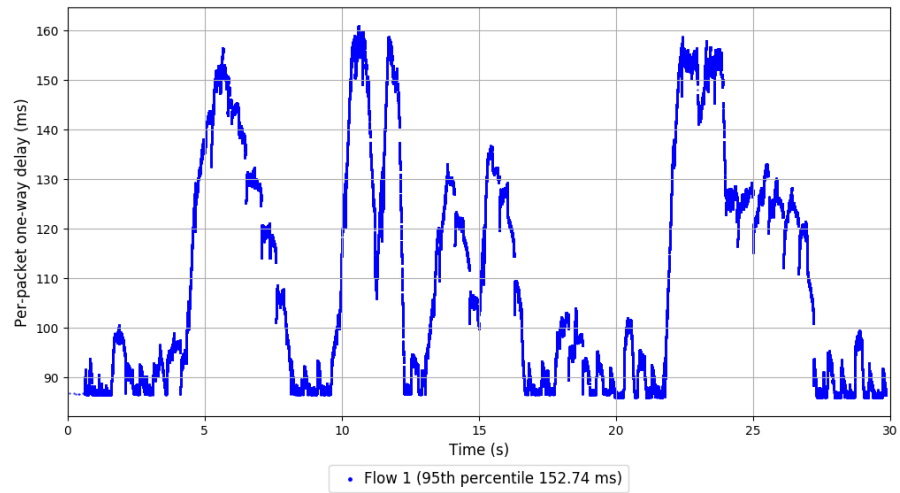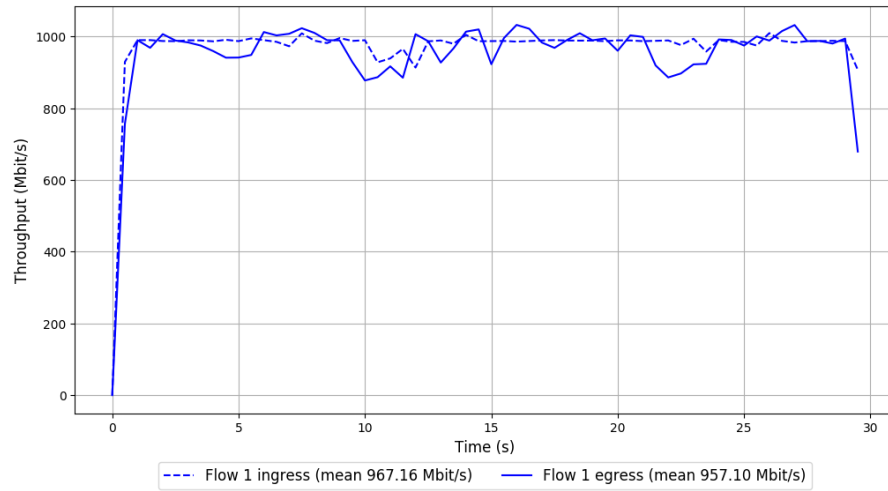
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-02-15 22:43:09
End at: 2018-02-15 22:43:39

# Below is generated by plot.py at 2018-02-16 04:08:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 957.10 Mbit/s
95th percentile per-packet one-way delay: 152.737 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 957.10 Mbit/s
95th percentile per-packet one-way delay: 152.737 ms
Loss rate: 1.70%
```
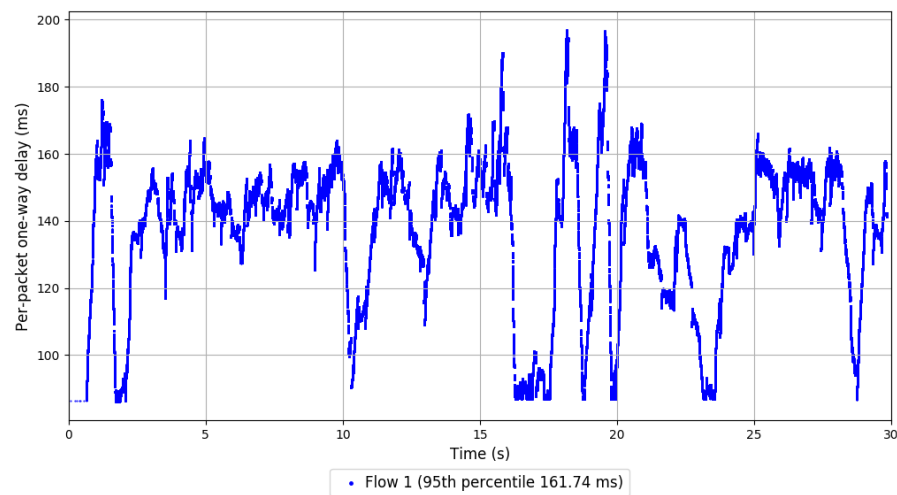
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-02-15 22:58:32
End at: 2018-02-15 22:59:02

# Below is generated by plot.py at 2018-02-16 04:09:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 905.57 Mbit/s
95th percentile per-packet one-way delay: 161.737 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 905.57 Mbit/s
95th percentile per-packet one-way delay: 161.737 ms
Loss rate: 5.68%
```
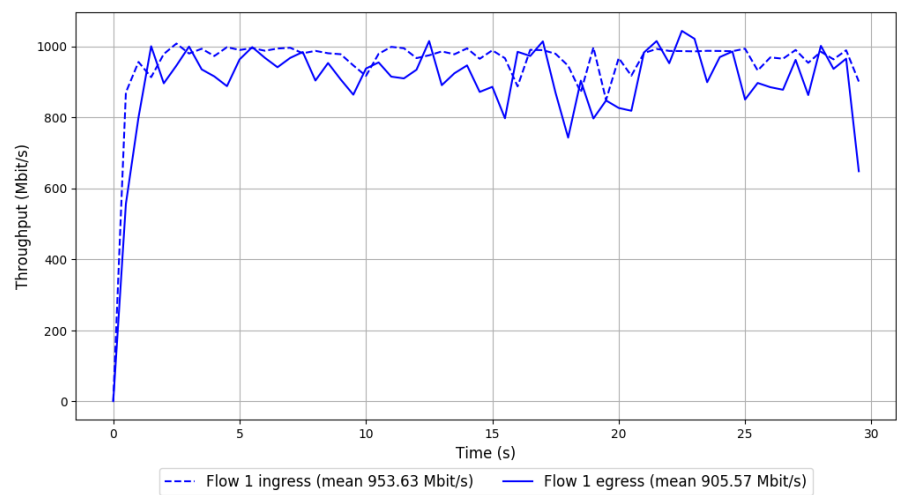
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 953.63 Mbit/s) ---- Flow 1 egress (mean 905.57 Mbit/s) ——

• Flow 1 (95th percentile 161.74 ms)

```
Run 5: Statistics of FillP

Start at: 2018-02-15 23:14:17
End at: 2018-02-15 23:14:47

# Below is generated by plot.py at 2018-02-16 04:09:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 860.23 Mbit/s
95th percentile per-packet one-way delay: 169.302 ms
Loss rate: 8.04%
-- Flow 1:
Average throughput: 860.23 Mbit/s
95th percentile per-packet one-way delay: 169.302 ms
Loss rate: 8.04%
```
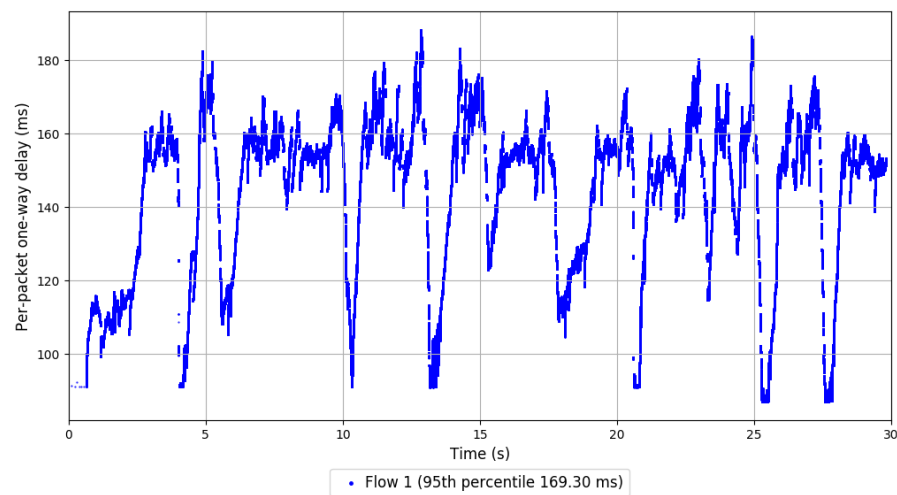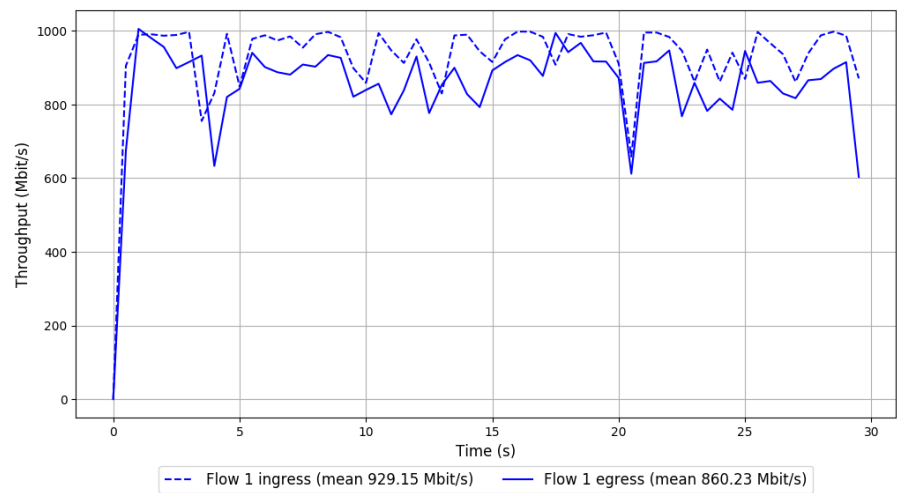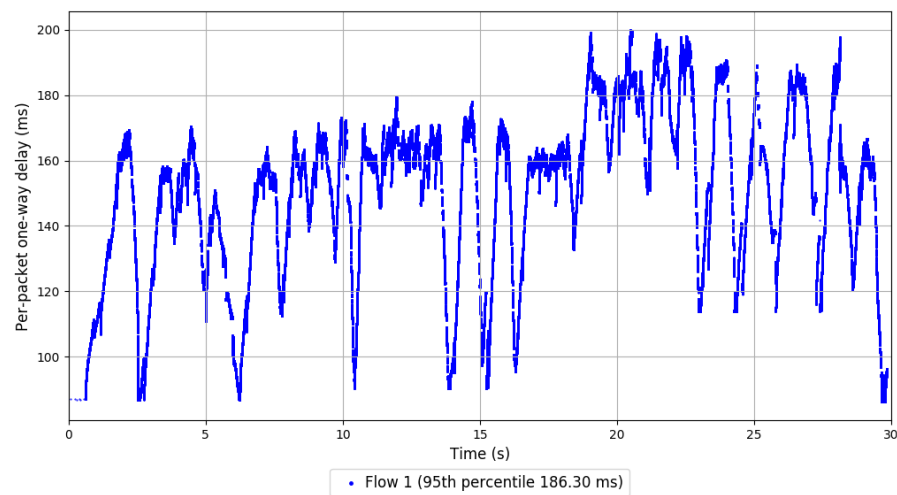
Run 5: Report of FillP — Data Link

```
Run 6: Statistics of FillP

Start at: 2018-02-15 23:30:10
End at: 2018-02-15 23:30:40

# Below is generated by plot.py at 2018-02-16 04:09:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 848.87 Mbit/s
95th percentile per-packet one-way delay: 186.299 ms
Loss rate: 7.58%
-- Flow 1:
Average throughput: 848.87 Mbit/s
95th percentile per-packet one-way delay: 186.299 ms
Loss rate: 7.58%
```
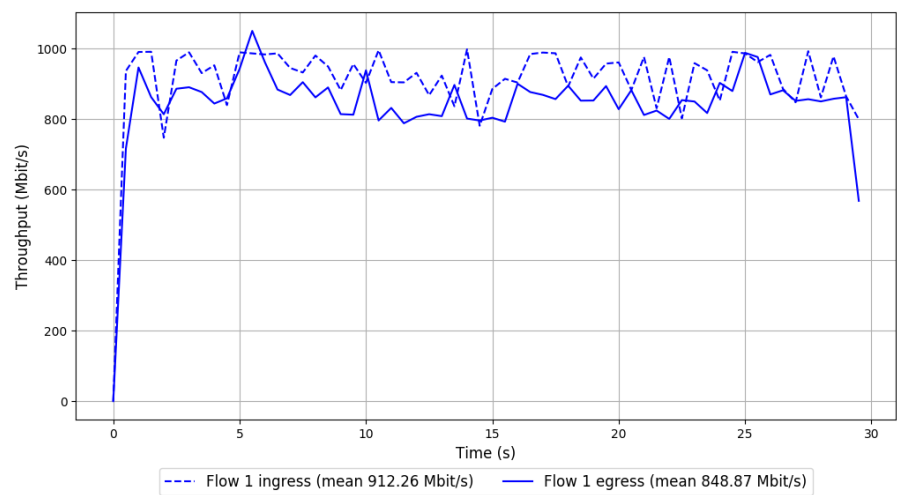
Run 6: Report of FillP — Data Link

```
Run 7: Statistics of FillP

Start at: 2018-02-15 23:45:45
End at: 2018-02-15 23:46:15

# Below is generated by plot.py at 2018-02-16 04:11:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 966.63 Mbit/s
95th percentile per-packet one-way delay: 122.394 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 966.63 Mbit/s
95th percentile per-packet one-way delay: 122.394 ms
Loss rate: 0.90%
```
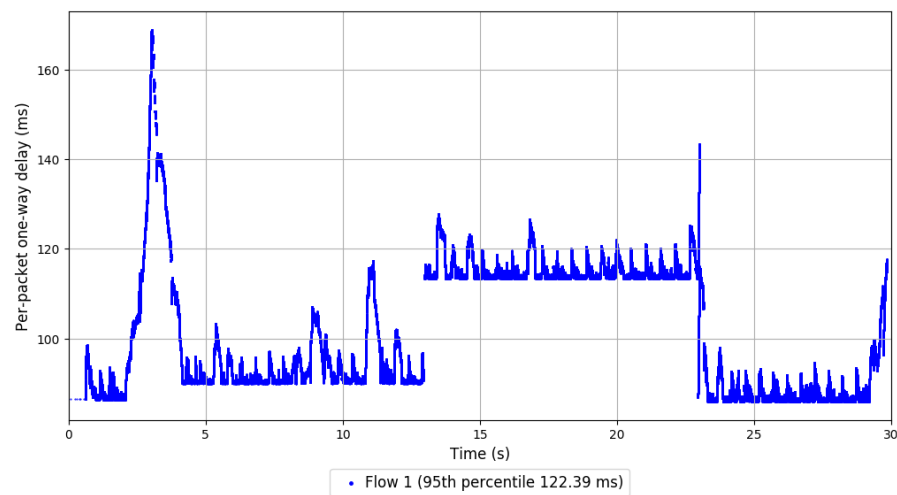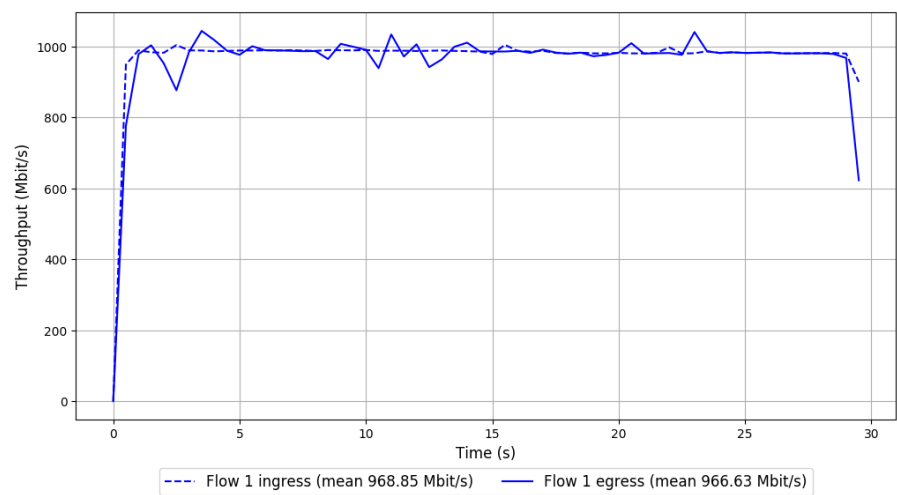
Run 7: Report of FillP — Data Link

```
Run 8: Statistics of FillP

Start at: 2018-02-16 00:01:05
End at: 2018-02-16 00:01:35

# Below is generated by plot.py at 2018-02-16 04:23:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 953.30 Mbit/s
95th percentile per-packet one-way delay: 151.454 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 953.30 Mbit/s
95th percentile per-packet one-way delay: 151.454 ms
Loss rate: 1.65%
```
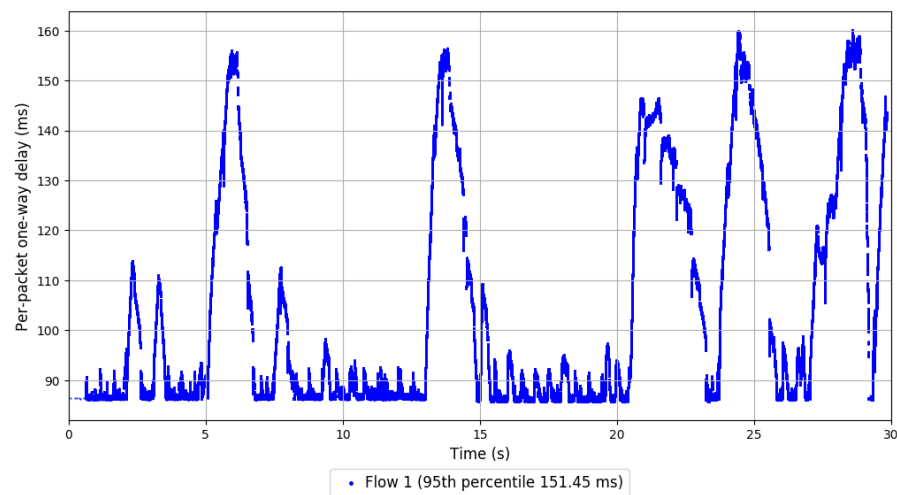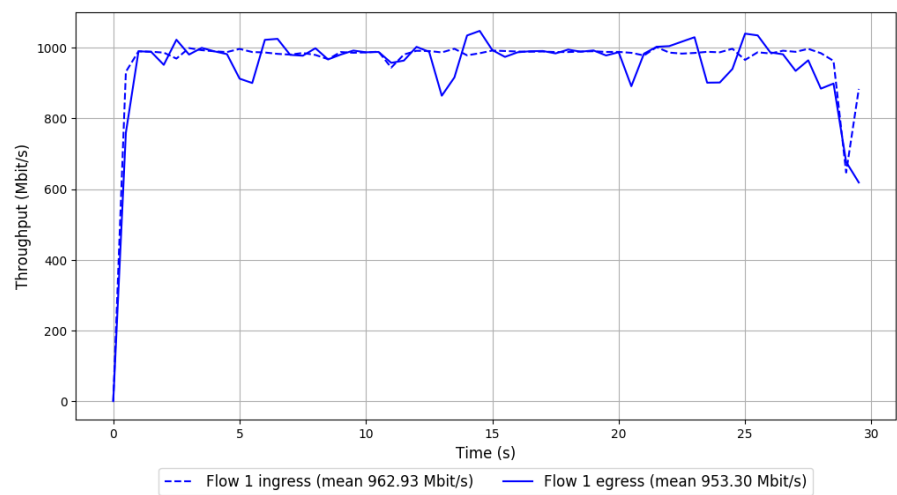
Run 8: Report of FillP — Data Link

Flow 1 ingress (mean 962.93 Mbit/s) ——— Flow 1 egress (mean 953.30 Mbit/s)

• Flow 1 (95th percentile 151.45 ms)

259

```
Run 9: Statistics of FillP

Start at: 2018-02-16 00:16:28
End at: 2018-02-16 00:16:58

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 934.49 Mbit/s
95th percentile per-packet one-way delay: 153.483 ms
Loss rate: 4.17%
-- Flow 1:
Average throughput: 934.49 Mbit/s
95th percentile per-packet one-way delay: 153.483 ms
Loss rate: 4.17%
```
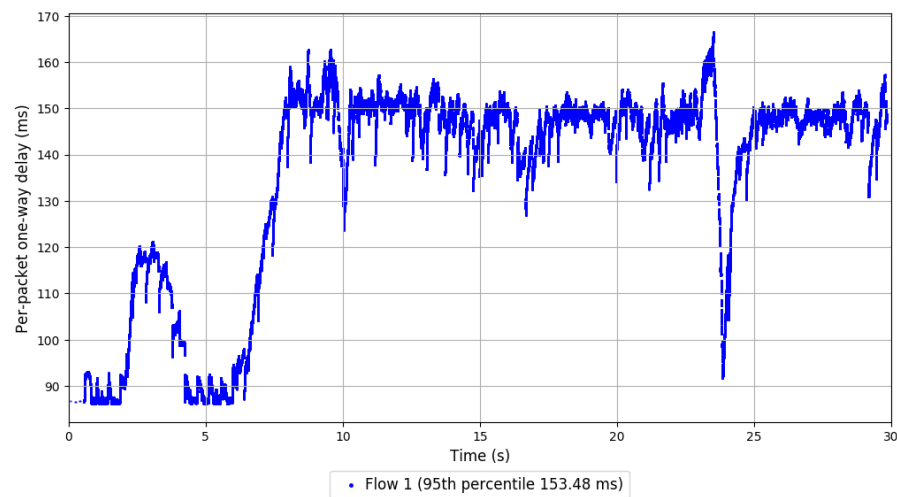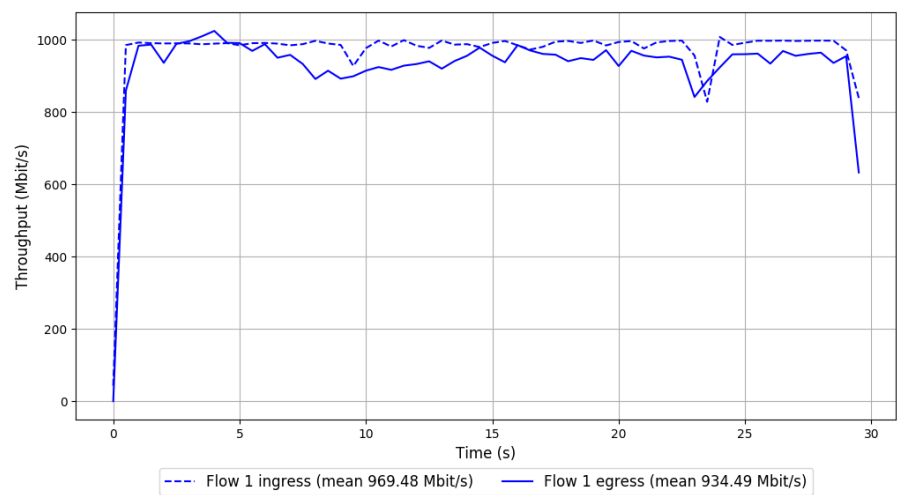
Run 9: Report of FillP — Data Link

Flow 1 ingress (mean 969.48 Mbit/s)   Flow 1 egress (mean 934.49 Mbit/s)

• Flow 1 (95th percentile 153.48 ms)

```
Run 10: Statistics of FillP

Start at: 2018-02-16 00:31:55
End at: 2018-02-16 00:32:25

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 896.59 Mbit/s
95th percentile per-packet one-way delay: 160.968 ms
Loss rate: 5.31%
-- Flow 1:
Average throughput: 896.59 Mbit/s
95th percentile per-packet one-way delay: 160.968 ms
Loss rate: 5.31%
```
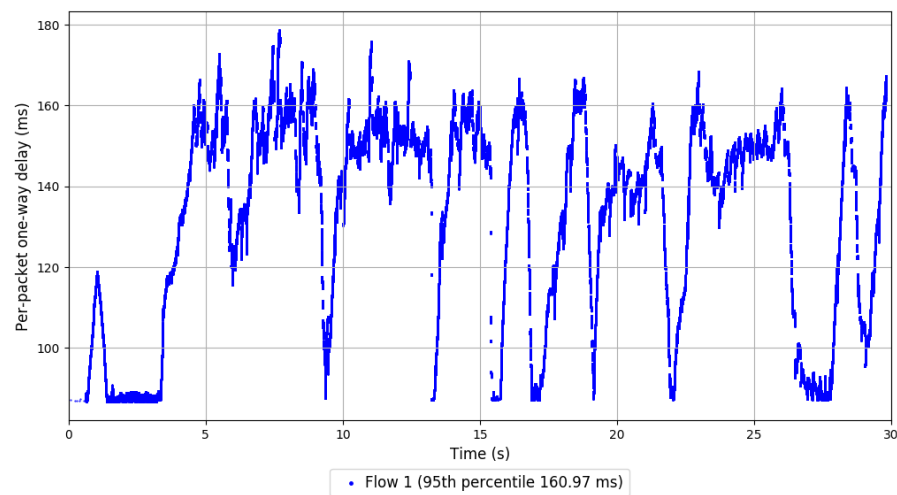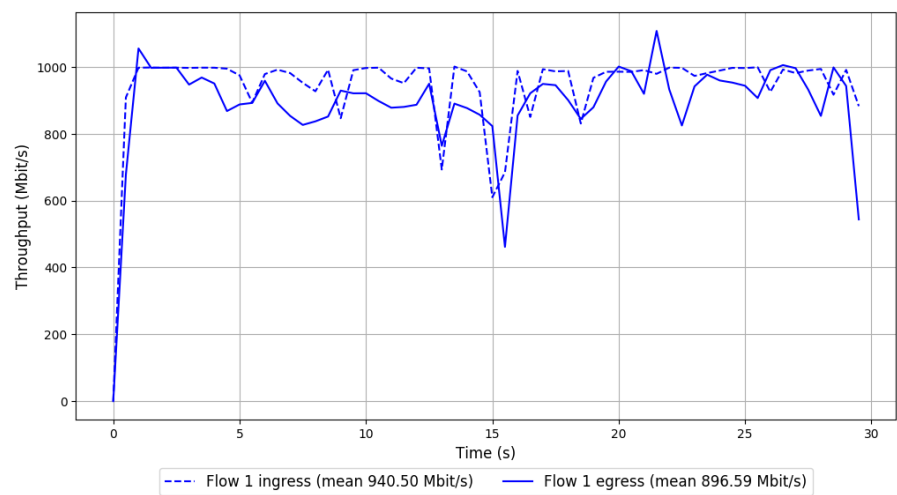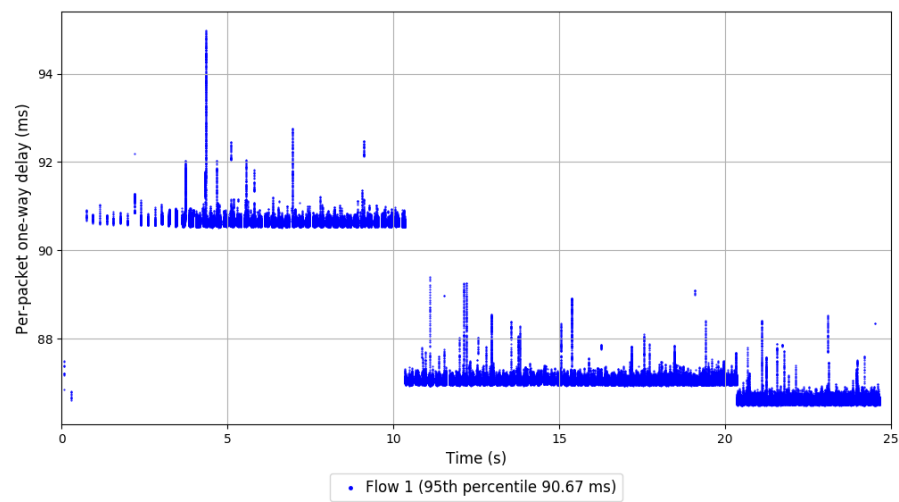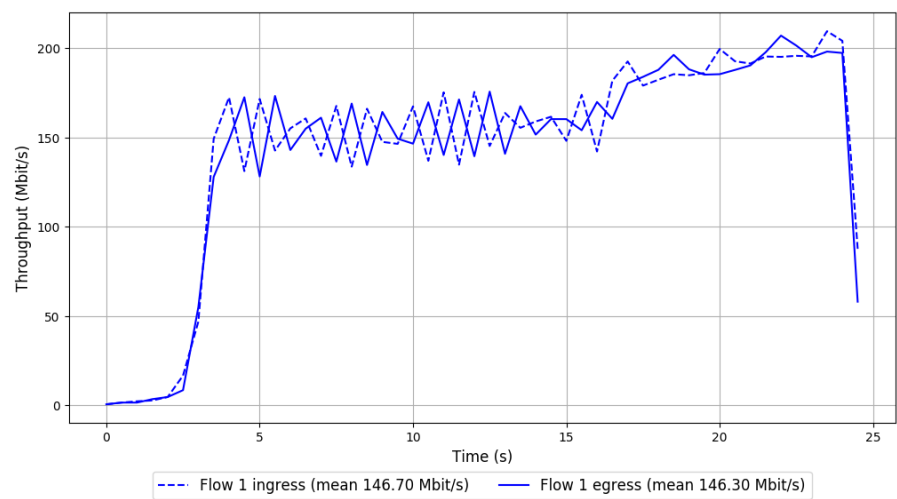
Run 10: Report of FillP — Data Link

Flow 1 ingress (mean 940.50 Mbit/s)   Flow 1 egress (mean 896.59 Mbit/s)

• Flow 1 (95th percentile 160.97 ms)

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

Start at: 2018-02-15 22:08:13
End at: 2018-02-15 22:08:43

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.30 Mbit/s
95th percentile per-packet one-way delay: 90.675 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 146.30 Mbit/s
95th percentile per-packet one-way delay: 90.675 ms
Loss rate: 0.97%
```

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

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

Start at: 2018-02-15 22:23:49
End at: 2018-02-15 22:24:19

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.58 Mbit/s
95th percentile per-packet one-way delay: 87.160 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 137.58 Mbit/s
95th percentile per-packet one-way delay: 87.160 ms
Loss rate: 0.54%
```
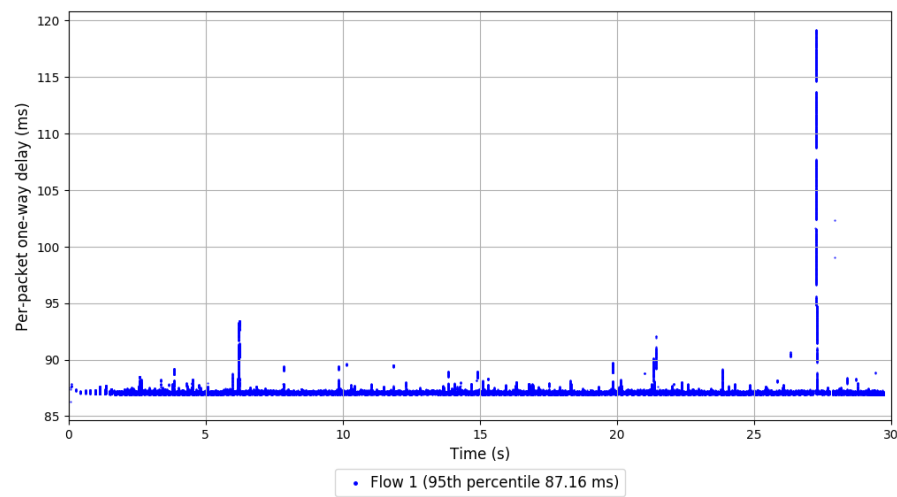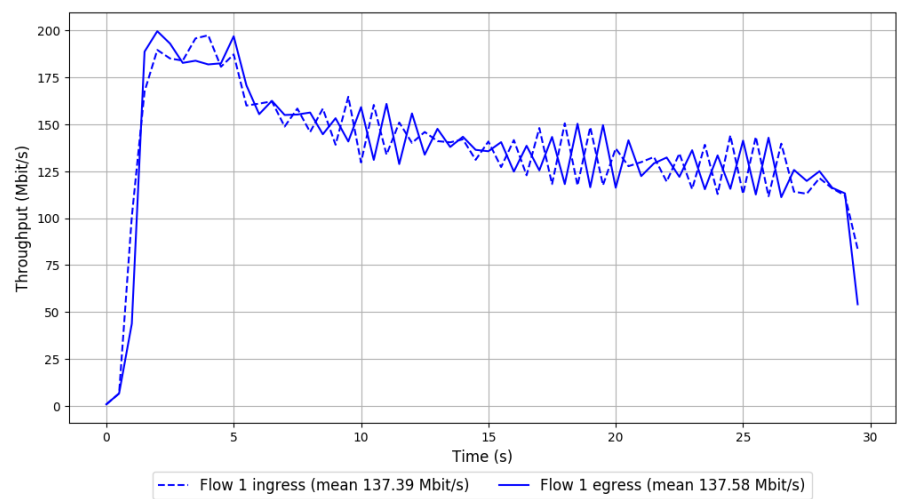
Run 2: Report of Indigo-1-32 — Data Link

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

Start at: 2018-02-15 22:39:40
End at: 2018-02-15 22:40:10

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.87 Mbit/s
95th percentile per-packet one-way delay: 86.994 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 193.87 Mbit/s
95th percentile per-packet one-way delay: 86.994 ms
Loss rate: 0.76%
```
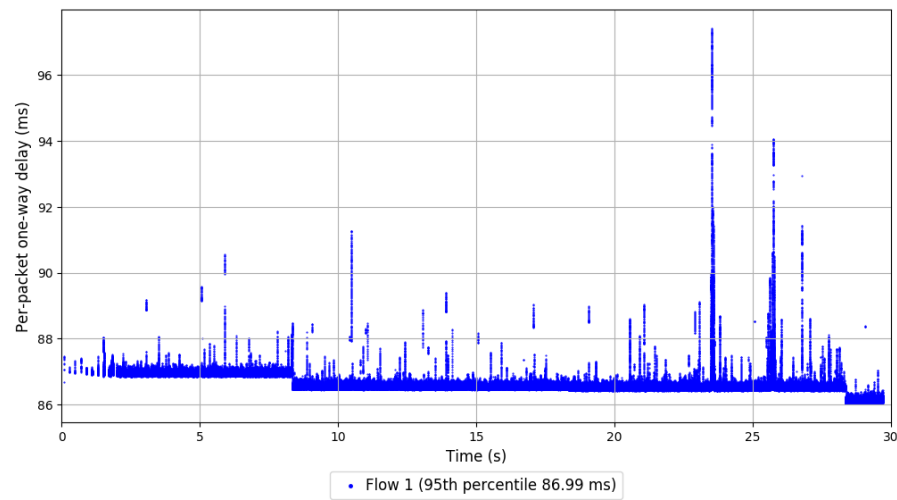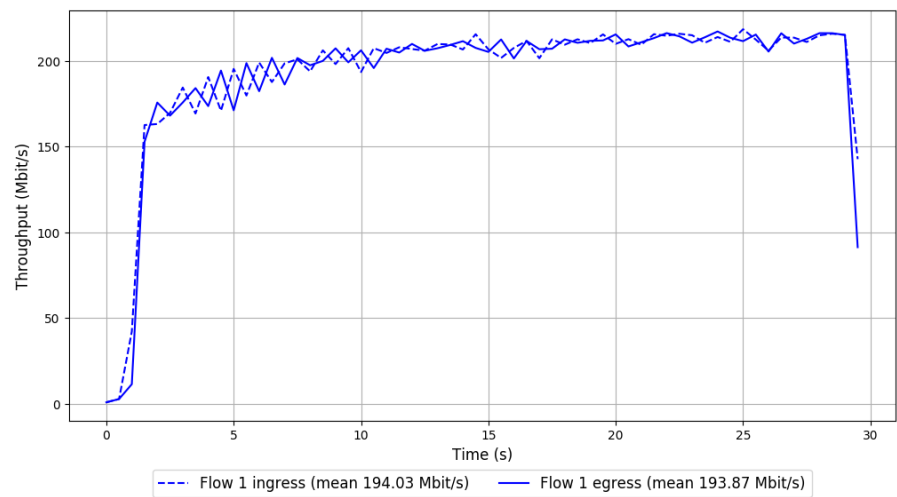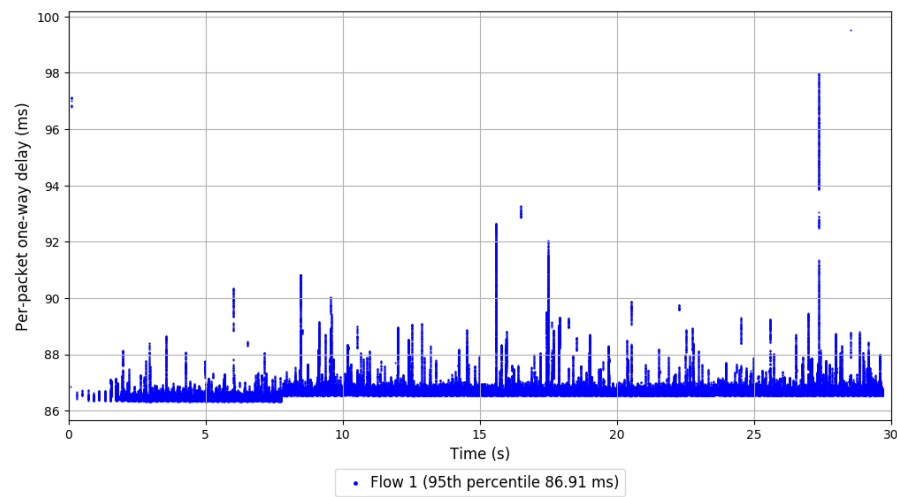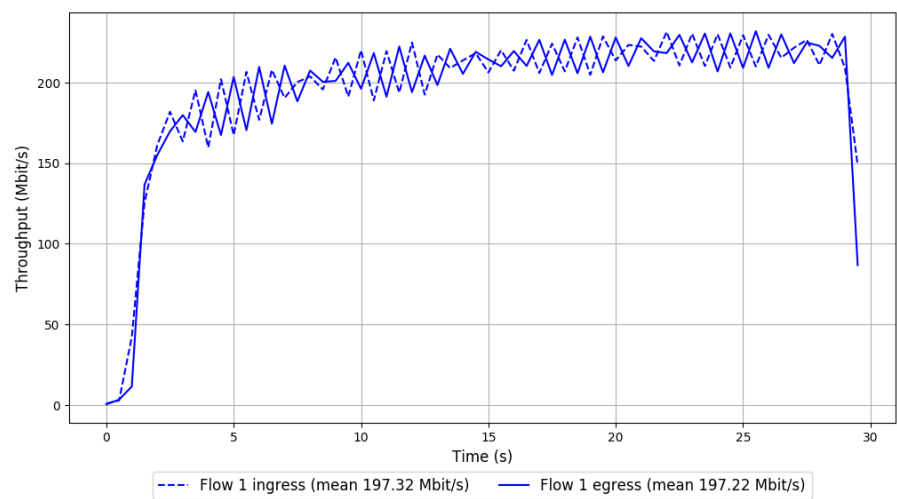
Run 3: Report of Indigo-1-32 — Data Link

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

Start at: 2018-02-15 22:55:00
End at: 2018-02-15 22:55:30

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.22 Mbit/s
95th percentile per-packet one-way delay: 86.910 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 197.22 Mbit/s
95th percentile per-packet one-way delay: 86.910 ms
Loss rate: 0.76%
```

Run 4: Report of Indigo-1-32 — Data Link

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

Start at: 2018-02-15 23:10:45
End at: 2018-02-15 23:11:15

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.01 Mbit/s
95th percentile per-packet one-way delay: 87.071 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 209.01 Mbit/s
95th percentile per-packet one-way delay: 87.071 ms
Loss rate: 0.68%
```
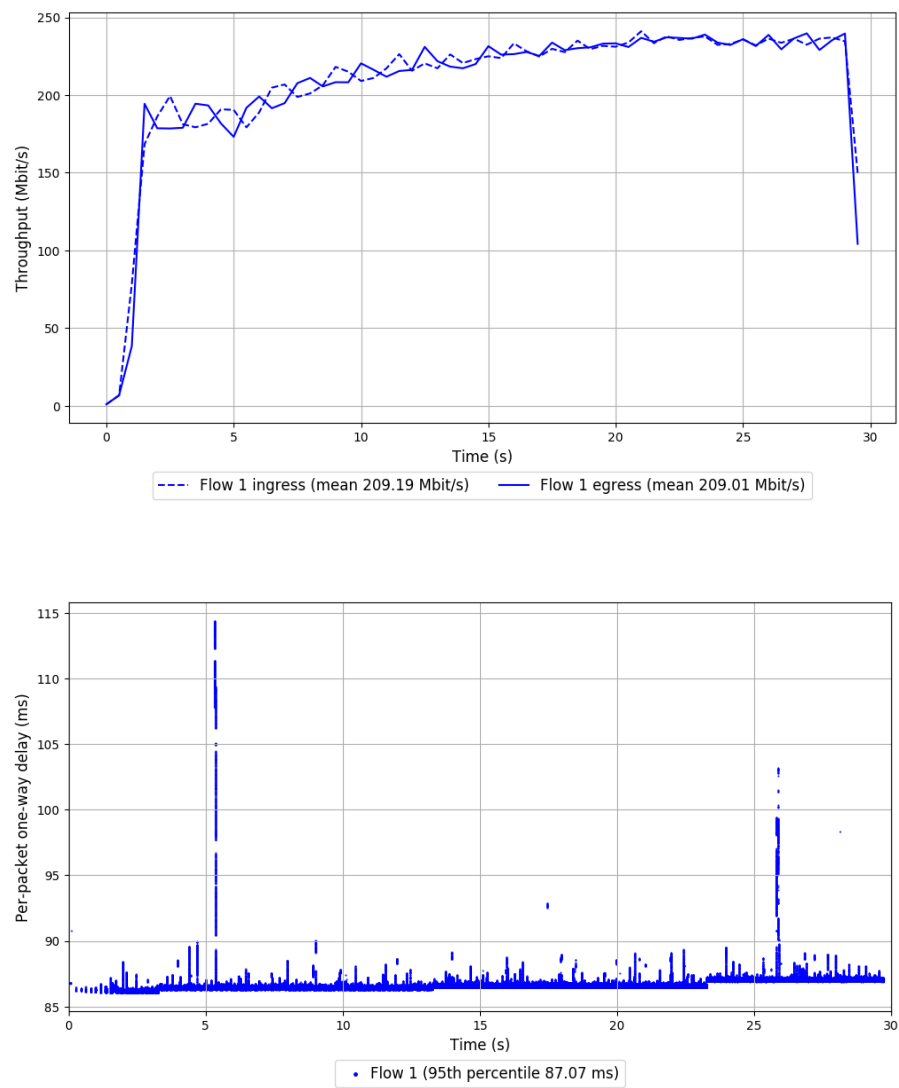
Run 5: Report of Indigo-1-32 — Data Link

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

Start at: 2018-02-15 23:26:33
End at: 2018-02-15 23:27:03

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.54 Mbit/s
95th percentile per-packet one-way delay: 87.024 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 196.54 Mbit/s
95th percentile per-packet one-way delay: 87.024 ms
Loss rate: 0.75%
```
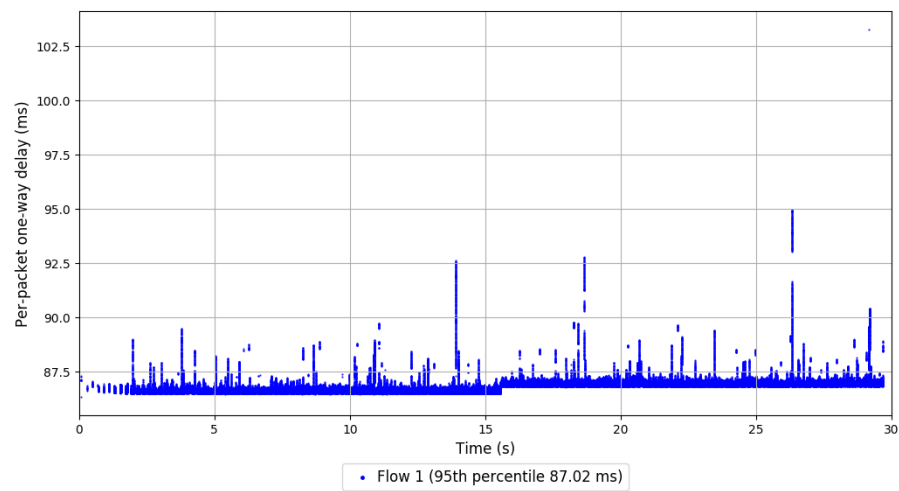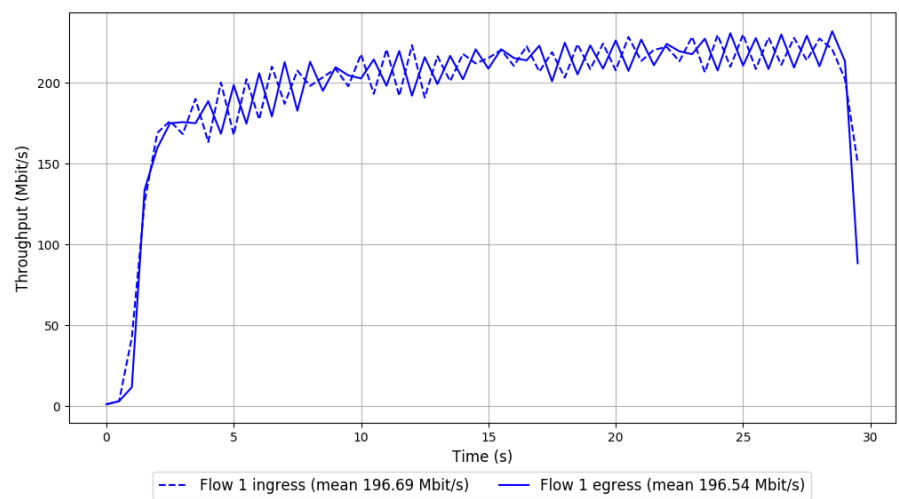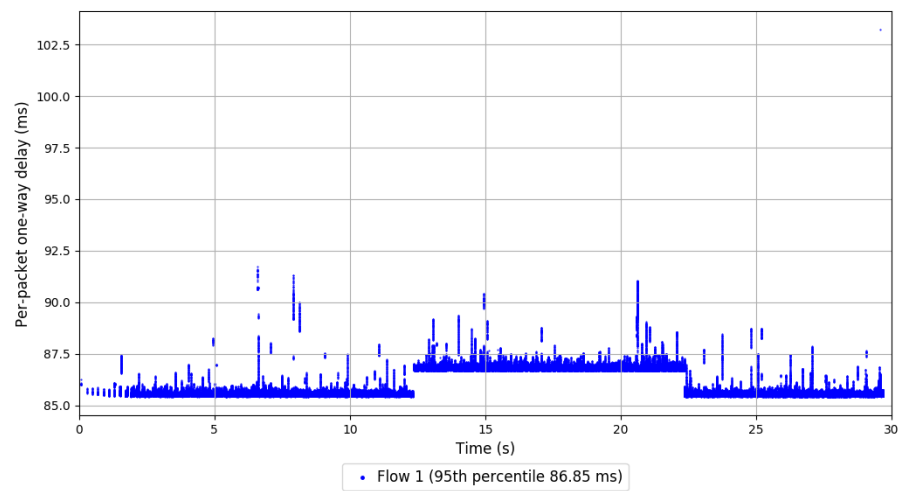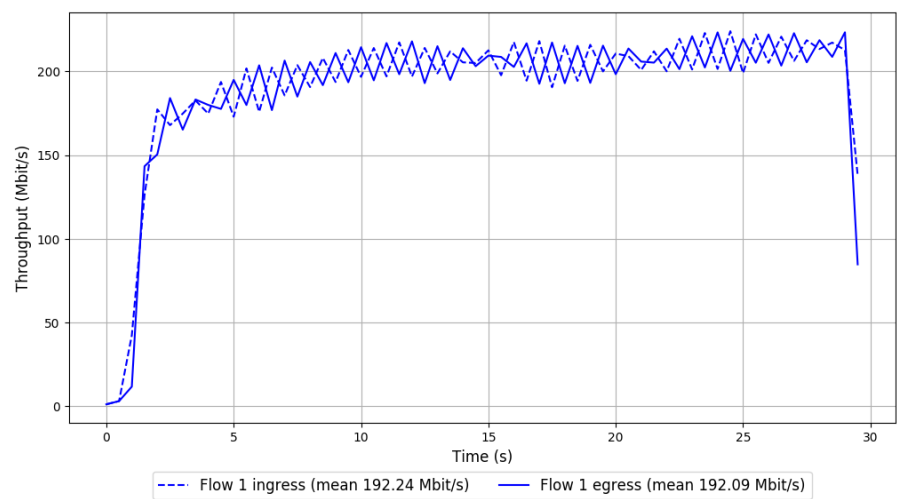
Run 6: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 196.69 Mbit/s)　　Flow 1 egress (mean 196.54 Mbit/s)

Flow 1 (95th percentile 87.02 ms)

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

Start at: 2018-02-15 23:42:16
End at: 2018-02-15 23:42:46

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.09 Mbit/s
95th percentile per-packet one-way delay: 86.848 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 192.09 Mbit/s
95th percentile per-packet one-way delay: 86.848 ms
Loss rate: 0.75%
```

Run 7: Report of Indigo-1-32 — Data Link

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

Start at: 2018-02-15 23:57:41
End at: 2018-02-15 23:58:11

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 153.82 Mbit/s
95th percentile per-packet one-way delay: 113.429 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 153.82 Mbit/s
95th percentile per-packet one-way delay: 113.429 ms
Loss rate: 0.81%
```
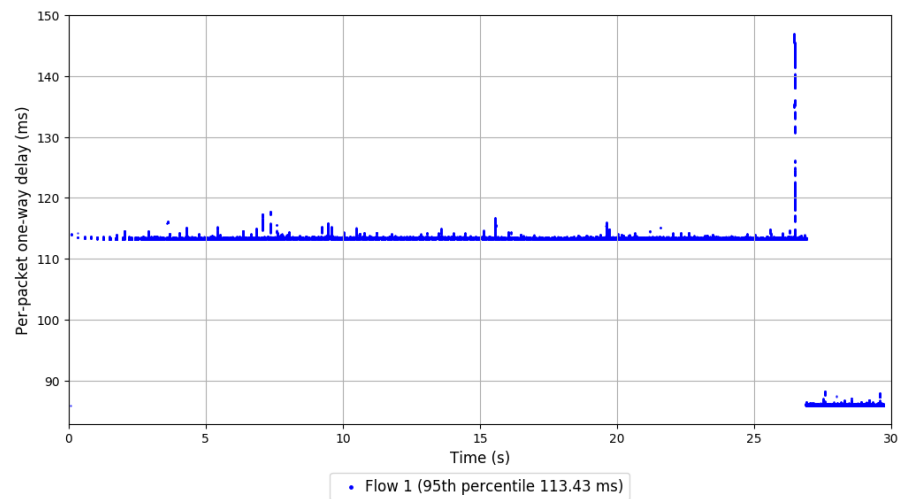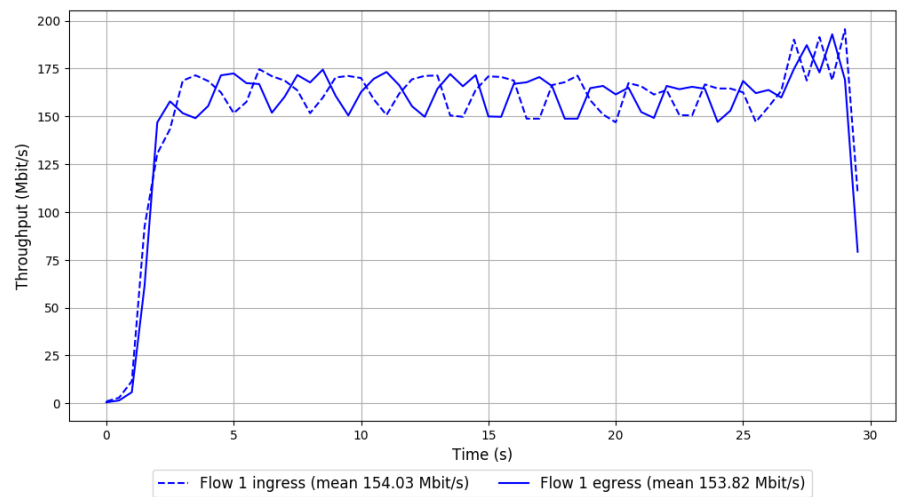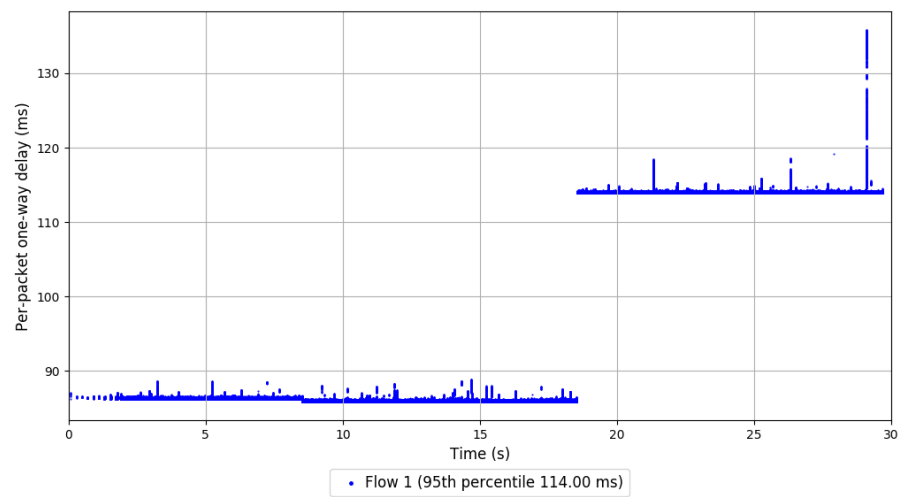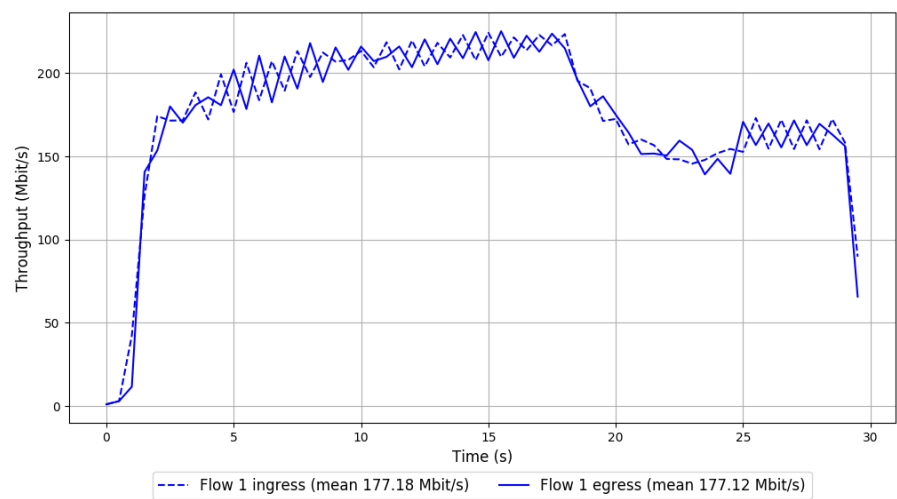
Run 8: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 154.03 Mbit/s) --- Flow 1 egress (mean 153.82 Mbit/s)

Flow 1 (95th percentile 113.43 ms)

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

Start at: 2018-02-16 00:12:50
End at: 2018-02-16 00:13:20

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.12 Mbit/s
95th percentile per-packet one-way delay: 114.000 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 177.12 Mbit/s
95th percentile per-packet one-way delay: 114.000 ms
Loss rate: 0.62%
```

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

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

Start at: 2018-02-16 00:28:20
End at: 2018-02-16 00:28:50

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 194.84 Mbit/s
95th percentile per-packet one-way delay: 87.160 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 194.84 Mbit/s
95th percentile per-packet one-way delay: 87.160 ms
Loss rate: 0.74%
```
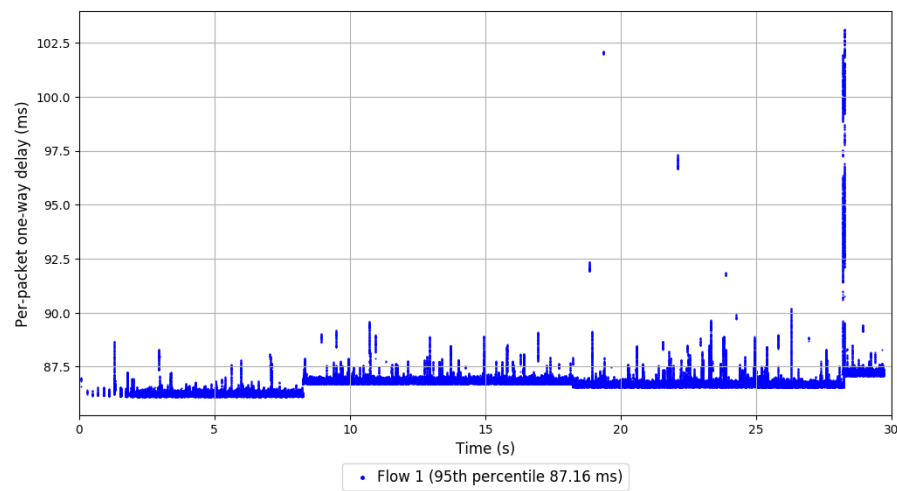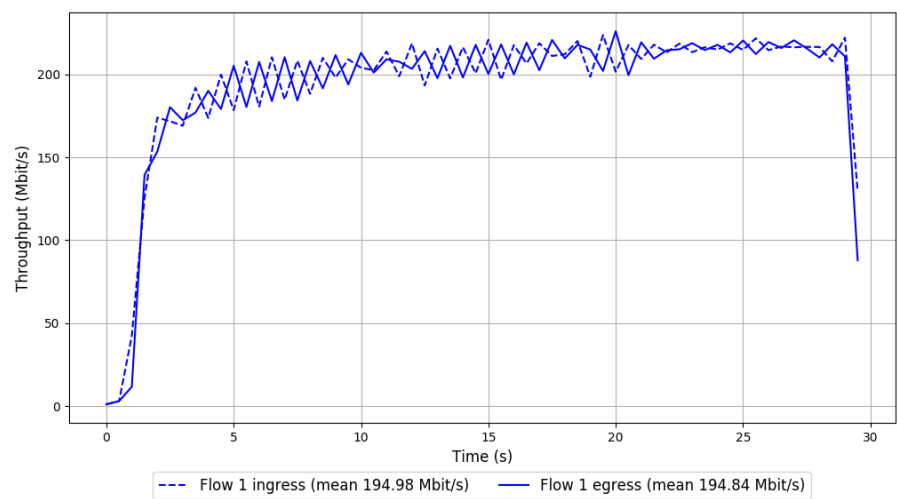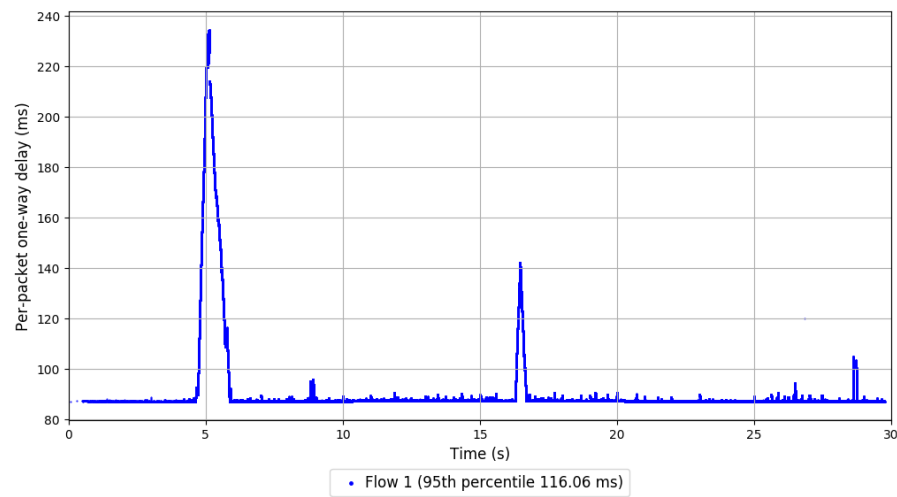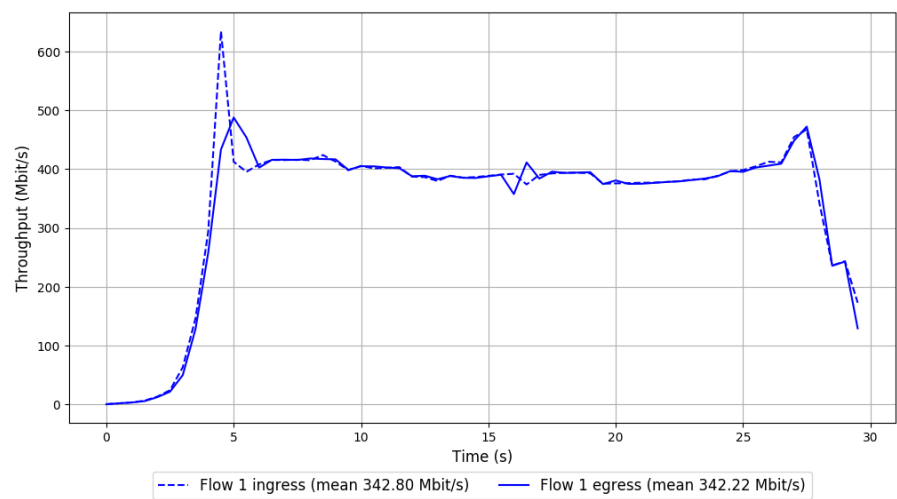
Run 10: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 194.98 Mbit/s)   Flow 1 egress (mean 194.84 Mbit/s)

Flow 1 (95th percentile 87.16 ms)

```
Run 1: Statistics of Vivace-latency

Start at: 2018-02-15 22:14:28
End at: 2018-02-15 22:14:58

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 342.22 Mbit/s
95th percentile per-packet one-way delay: 116.055 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 342.22 Mbit/s
95th percentile per-packet one-way delay: 116.055 ms
Loss rate: 0.77%
```
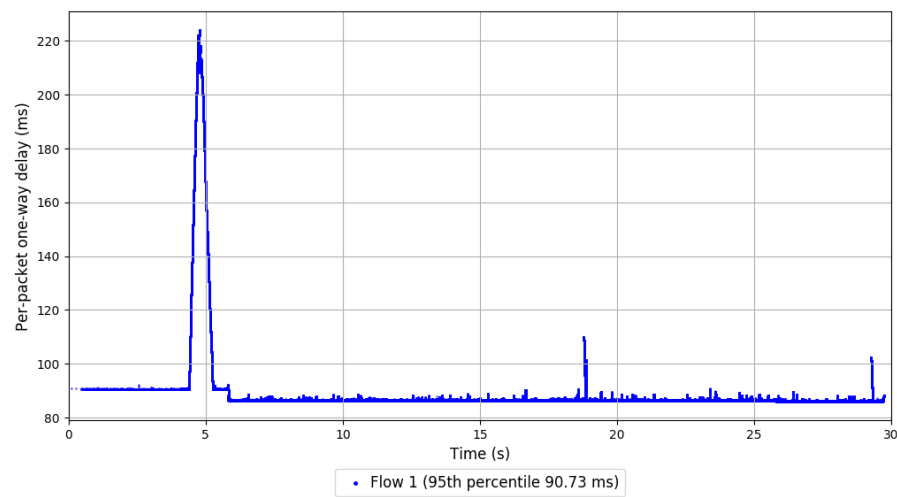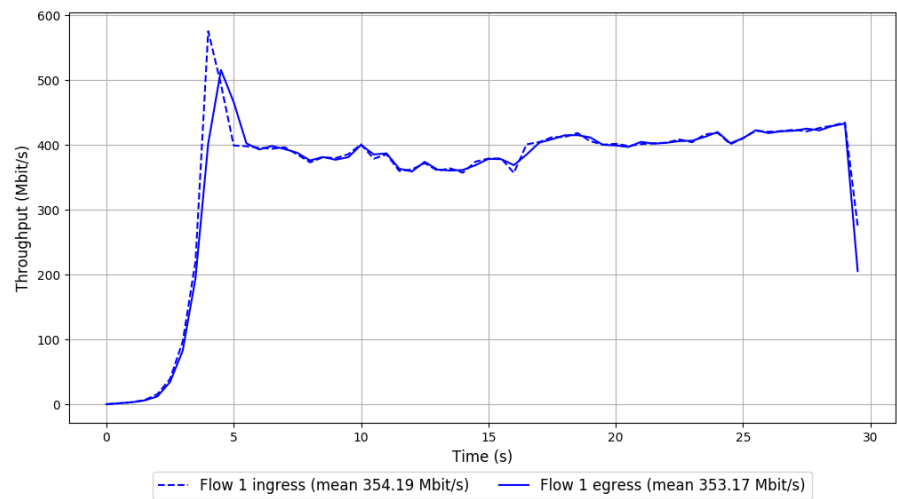
Run 1: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 342.80 Mbit/s) — Flow 1 egress (mean 342.22 Mbit/s)

• Flow 1 (95th percentile 116.06 ms)

```
Run 2: Statistics of Vivace-latency

Start at: 2018-02-15 22:30:12
End at: 2018-02-15 22:30:42

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 353.17 Mbit/s
95th percentile per-packet one-way delay: 90.731 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 353.17 Mbit/s
95th percentile per-packet one-way delay: 90.731 ms
Loss rate: 0.97%
```

Run 2: Report of Vivace-latency — Data Link

```
Run 3: Statistics of Vivace-latency

Start at: 2018-02-15 22:46:00
End at: 2018-02-15 22:46:30

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 368.09 Mbit/s
95th percentile per-packet one-way delay: 97.060 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 368.09 Mbit/s
95th percentile per-packet one-way delay: 97.060 ms
Loss rate: 0.69%
```
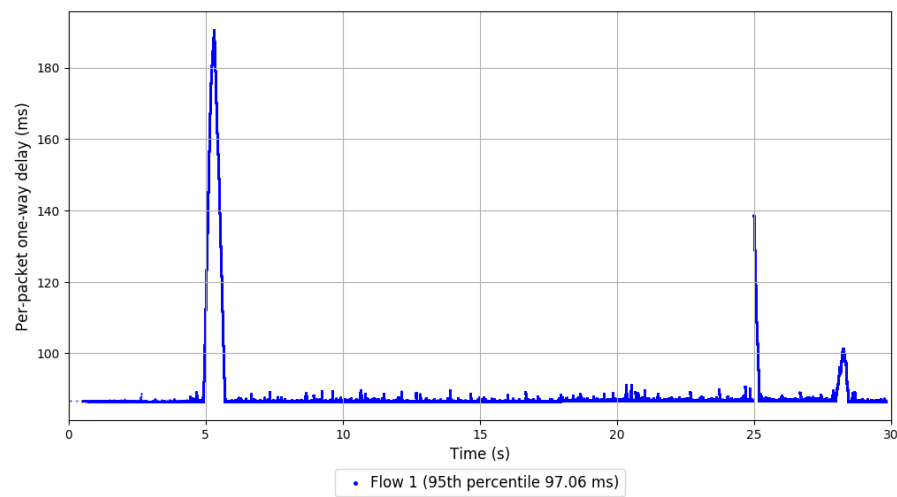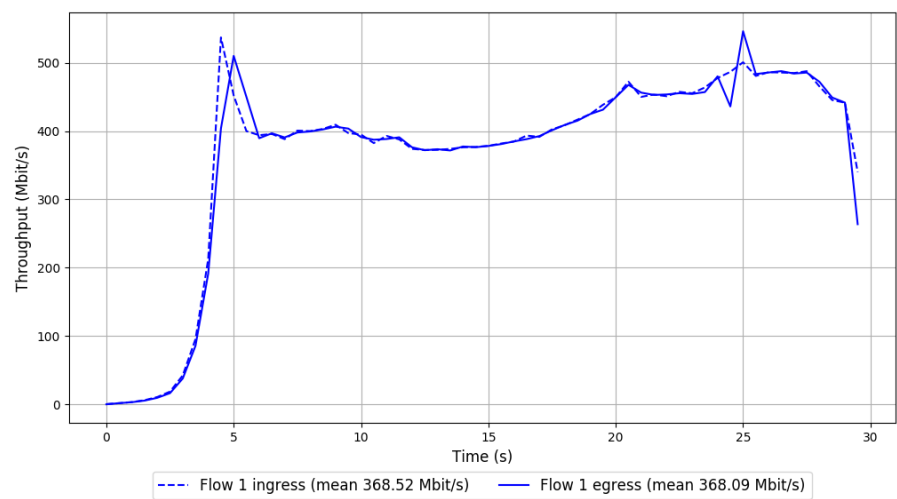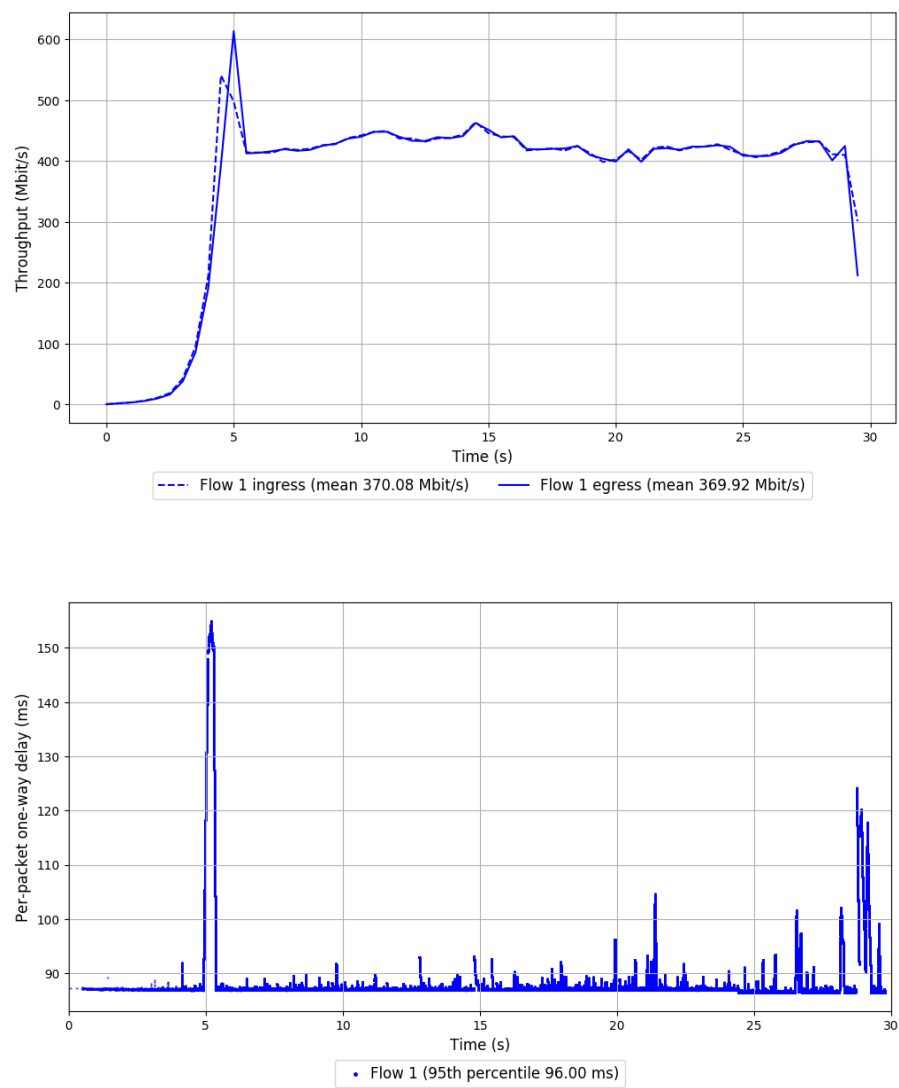
Run 3: Report of Vivace-latency — Data Link

```
Run 4: Statistics of Vivace-latency

Start at: 2018-02-15 23:01:24
End at: 2018-02-15 23:01:54

# Below is generated by plot.py at 2018-02-16 04:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 369.92 Mbit/s
95th percentile per-packet one-way delay: 96.004 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 369.92 Mbit/s
95th percentile per-packet one-way delay: 96.004 ms
Loss rate: 0.72%
```

Run 4: Report of Vivace-latency — Data Link

Run 5: Statistics of Vivace-latency

Start at: 2018-02-15 23:17:12
End at: 2018-02-15 23:17:42

Below is generated by plot.py at 2018-02-16 04:26:37
Datalink statistics
-- Total of 1 flow:
Average throughput: 363.59 Mbit/s
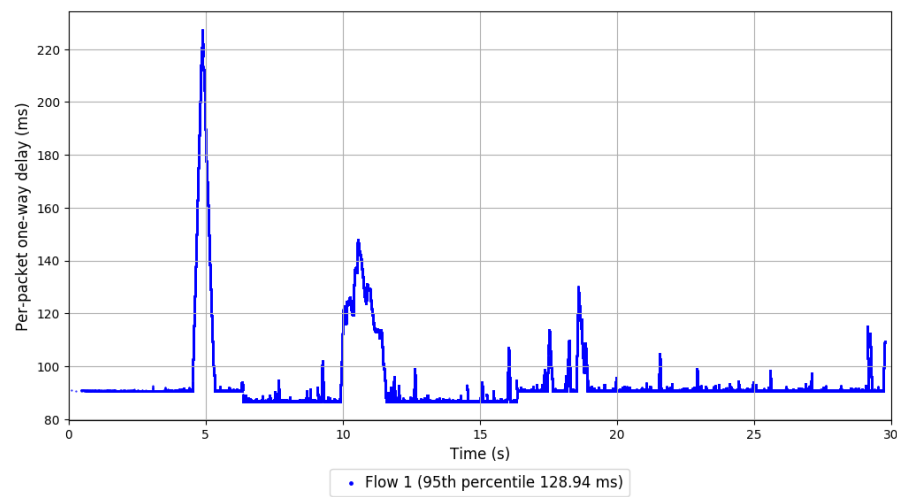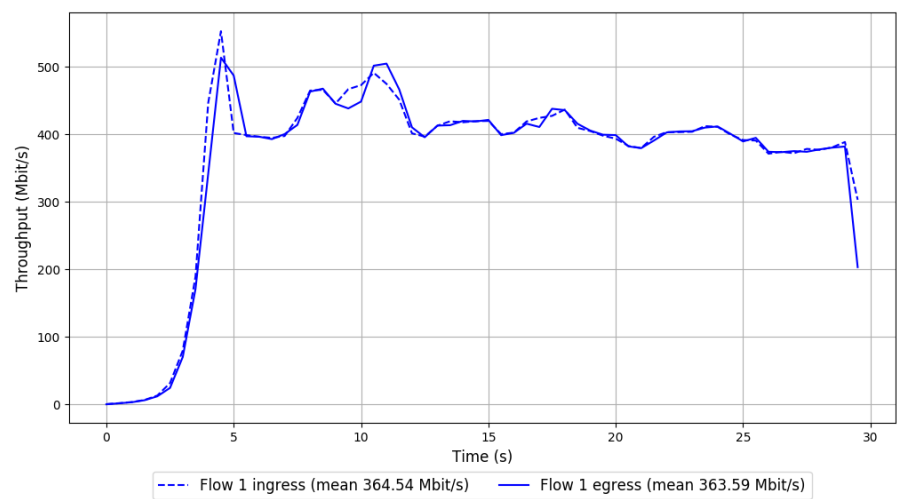95th percentile per-packet one-way delay: 128.940 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 363.59 Mbit/s
95th percentile per-packet one-way delay: 128.940 ms
Loss rate: 0.93%

Run 5: Report of Vivace-latency — Data Link

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```
Run 6: Statistics of Vivace-latency

Start at: 2018-02-15 23:33:01
End at: 2018-02-15 23:33:31


# Below is generated by plot.py at 2018-02-16 04:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 396.09 Mbit/s
95th percentile per-packet one-way delay: 118.380 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 396.09 Mbit/s
95th percentile per-packet one-way delay: 118.380 ms
Loss rate: 0.92%
```
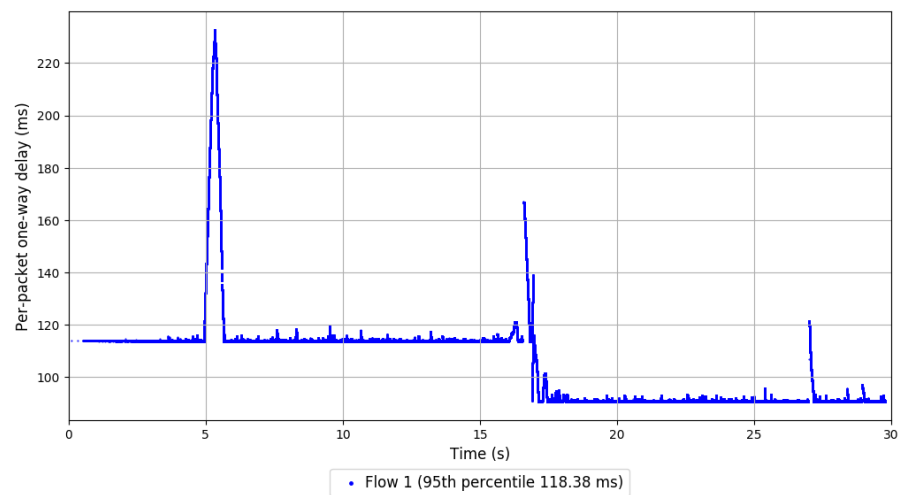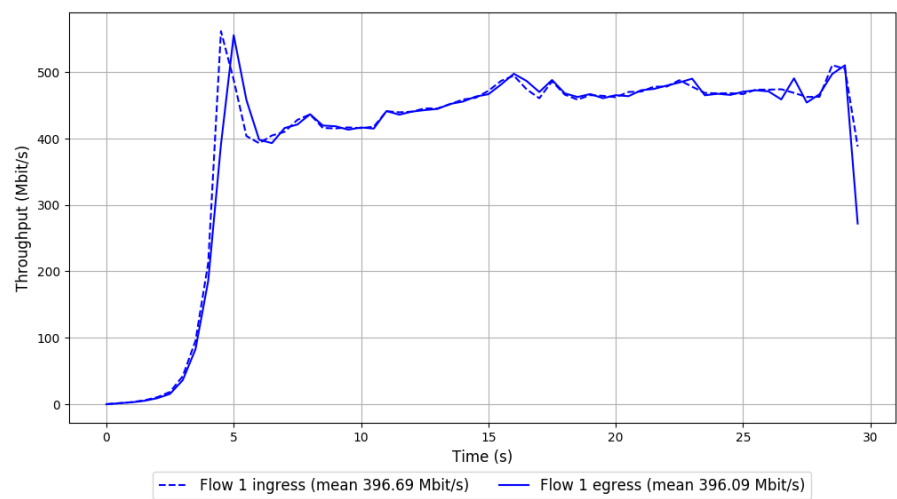
Run 6: Report of Vivace-latency — Data Link

```
Run 7: Statistics of Vivace-latency

Start at: 2018-02-15 23:48:37
End at: 2018-02-15 23:49:07

# Below is generated by plot.py at 2018-02-16 04:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 331.07 Mbit/s
95th percentile per-packet one-way delay: 117.298 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 331.07 Mbit/s
95th percentile per-packet one-way delay: 117.298 ms
Loss rate: 1.09%
```
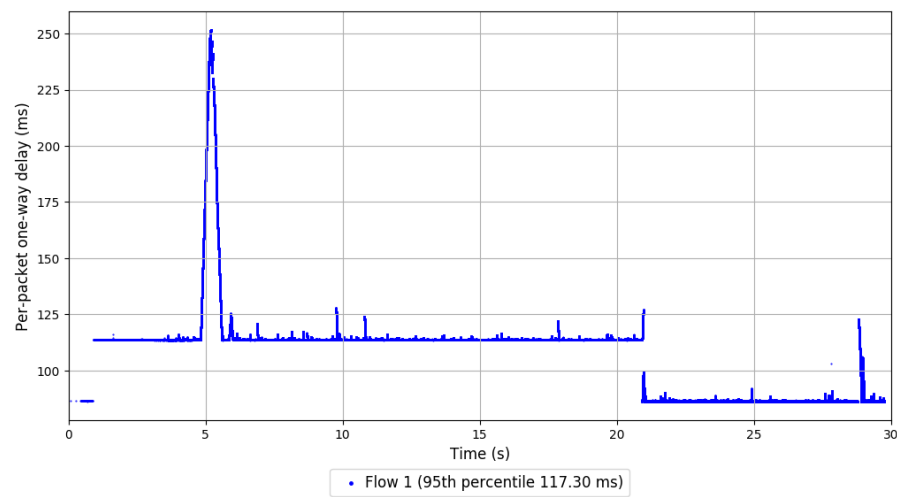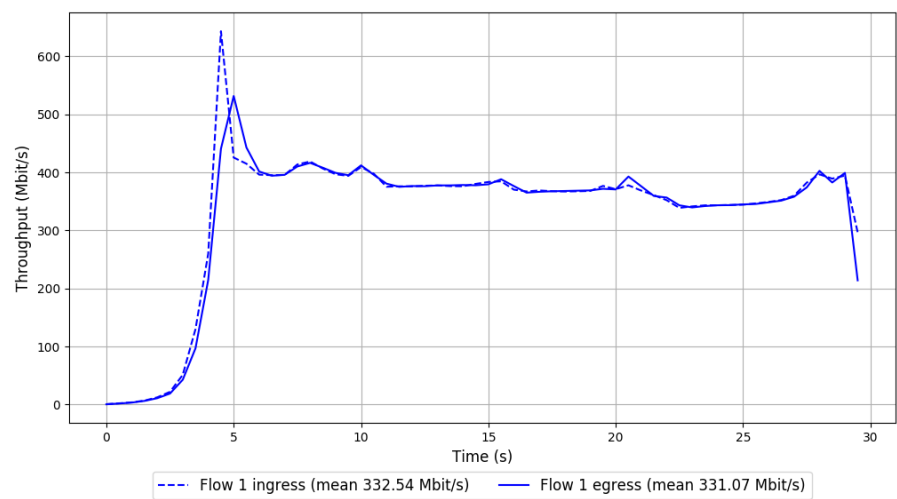
Run 7: Report of Vivace-latency — Data Link

```
Run 8: Statistics of Vivace-latency

Start at: 2018-02-16 00:03:57
End at: 2018-02-16 00:04:27

# Below is generated by plot.py at 2018-02-16 04:28:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 336.24 Mbit/s
95th percentile per-packet one-way delay: 89.828 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 336.24 Mbit/s
95th percentile per-packet one-way delay: 89.828 ms
Loss rate: 0.98%
```
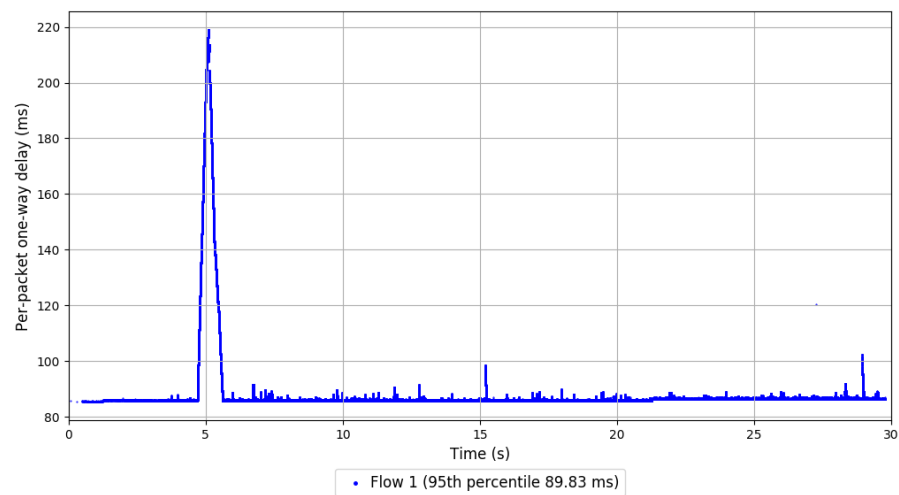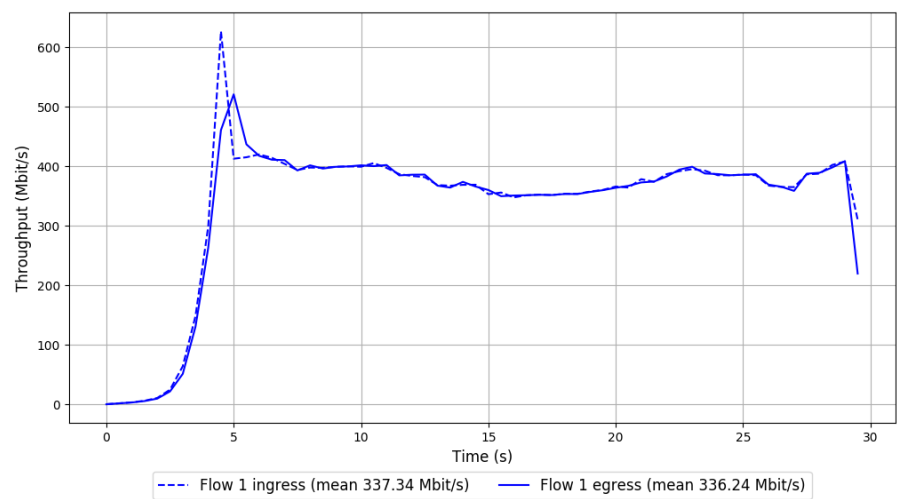
Run 8: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 337.34 Mbit/s)   Flow 1 egress (mean 336.24 Mbit/s)

Flow 1 (95th percentile 89.83 ms)

```
Run 9: Statistics of Vivace-latency

Start at: 2018-02-16 00:19:20
End at: 2018-02-16 00:19:50

# Below is generated by plot.py at 2018-02-16 04:29:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 380.20 Mbit/s
95th percentile per-packet one-way delay: 113.898 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 380.20 Mbit/s
95th percentile per-packet one-way delay: 113.898 ms
Loss rate: 0.94%
```
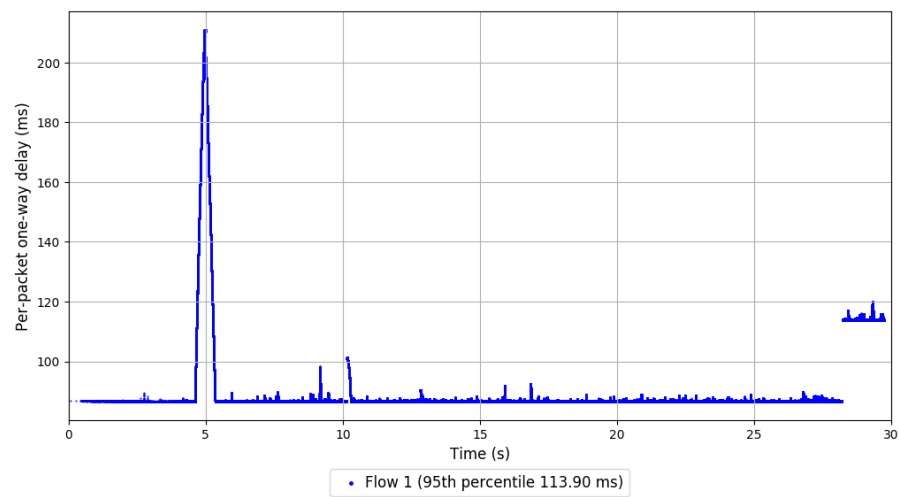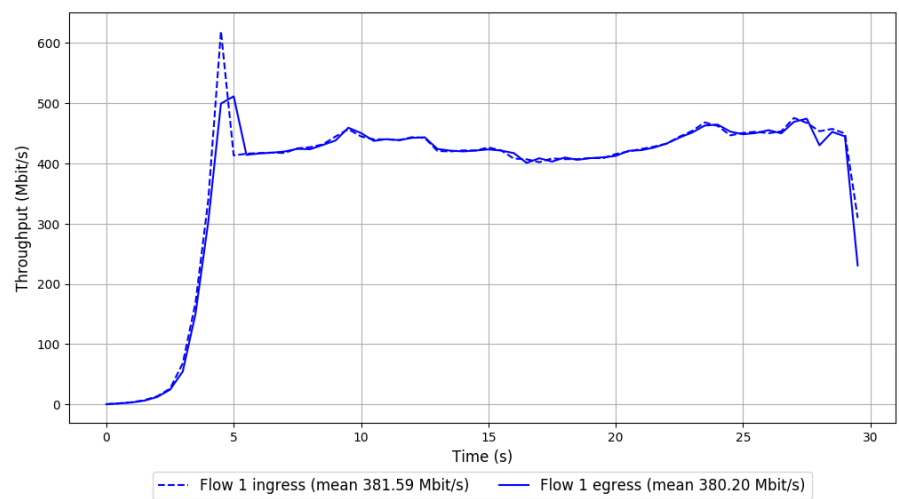
Run 9: Report of Vivace-latency — Data Link

```
Run 10: Statistics of Vivace-latency

Start at: 2018-02-16 00:34:47
End at: 2018-02-16 00:35:17


# Below is generated by plot.py at 2018-02-16 04:29:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 354.32 Mbit/s
95th percentile per-packet one-way delay: 95.140 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 354.32 Mbit/s
95th percentile per-packet one-way delay: 95.140 ms
Loss rate: 0.84%
```
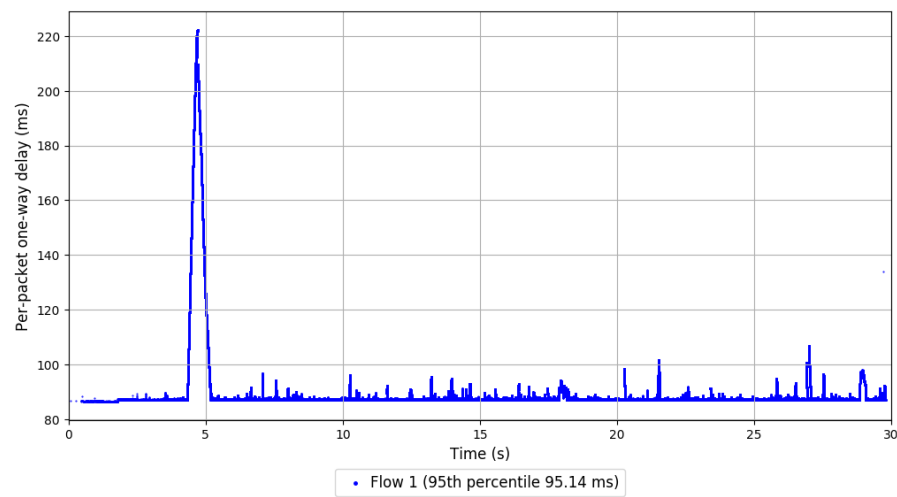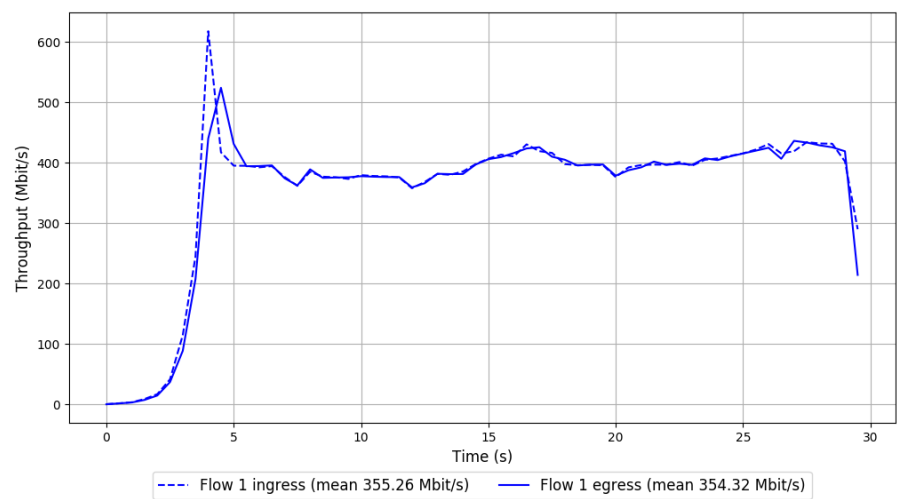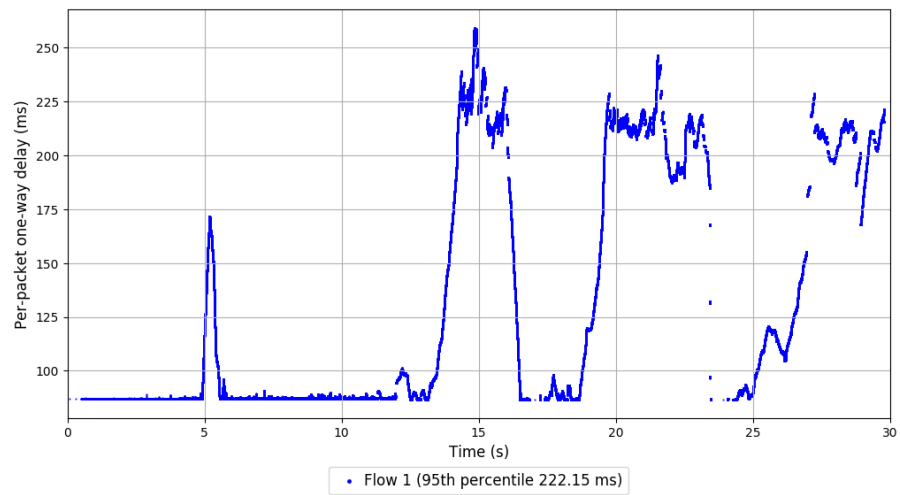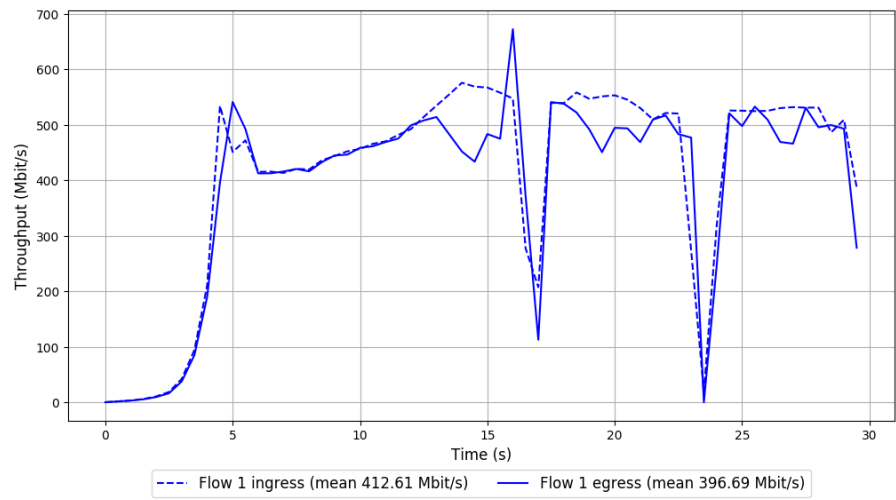
Run 10: Report of Vivace-latency — Data Link

```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-15 22:05:46
End at: 2018-02-15 22:06:16


# Below is generated by plot.py at 2018-02-16 04:32:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 396.69 Mbit/s
95th percentile per-packet one-way delay: 222.150 ms
Loss rate: 4.43%
-- Flow 1:
Average throughput: 396.69 Mbit/s
95th percentile per-packet one-way delay: 222.150 ms
Loss rate: 4.43%
```
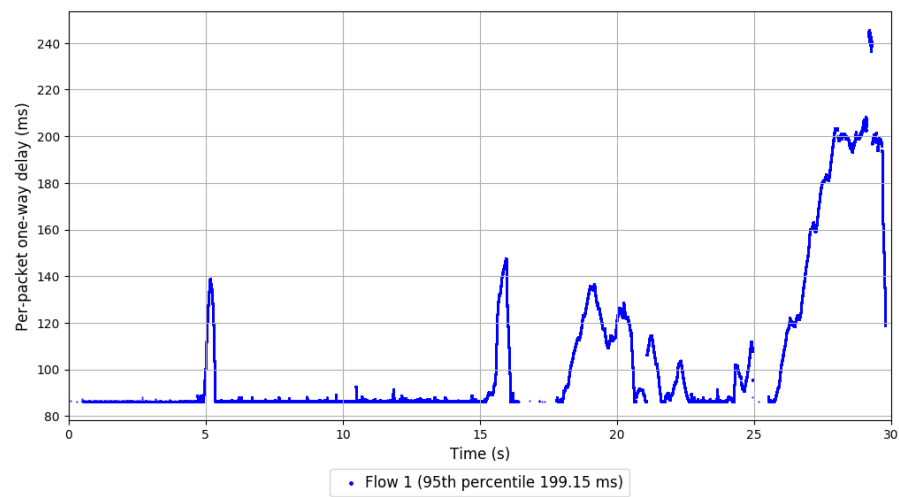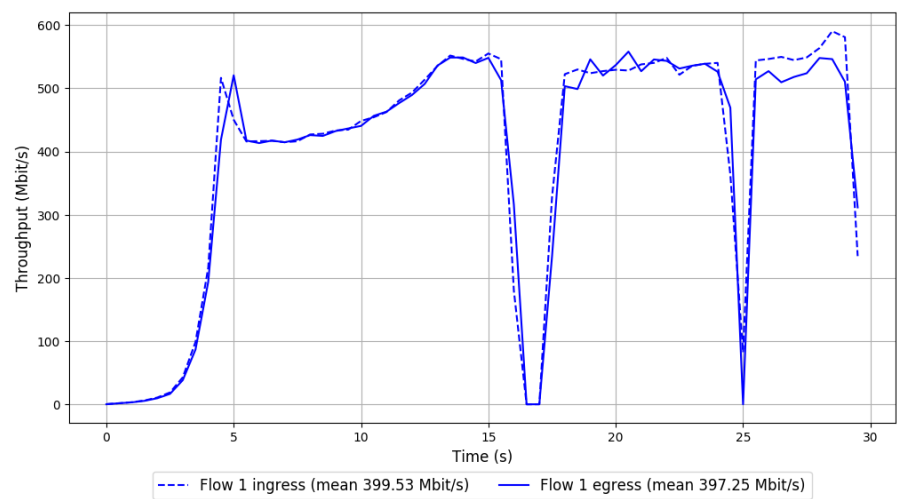
Run 1: Report of Vivace-loss — Data Link

```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-15 22:21:22
End at: 2018-02-15 22:21:52

# Below is generated by plot.py at 2018-02-16 04:33:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 397.25 Mbit/s
95th percentile per-packet one-way delay: 199.151 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 397.25 Mbit/s
95th percentile per-packet one-way delay: 199.151 ms
Loss rate: 1.16%
```

Run 2: Report of Vivace-loss — Data Link

```
Run 3: Statistics of Vivace-loss

Start at: 2018-02-15 22:37:18
End at: 2018-02-15 22:37:48

# Below is generated by plot.py at 2018-02-16 04:33:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.32 Mbit/s
95th percentile per-packet one-way delay: 207.679 ms
Loss rate: 3.36%
-- Flow 1:
Average throughput: 316.32 Mbit/s
95th percentile per-packet one-way delay: 207.679 ms
Loss rate: 3.36%
```
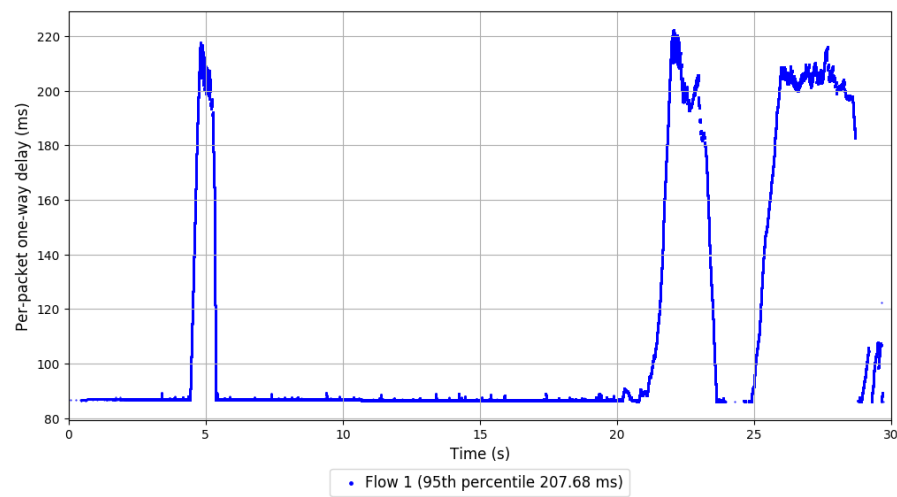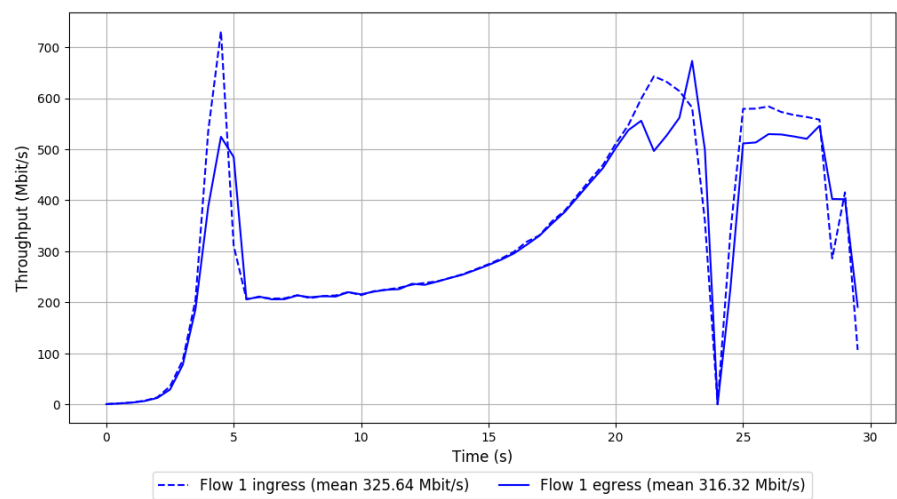
Run 3: Report of Vivace-loss — Data Link

```
Run 4: Statistics of Vivace-loss

Start at: 2018-02-15 22:52:36
End at: 2018-02-15 22:53:06

# Below is generated by plot.py at 2018-02-16 04:35:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 367.13 Mbit/s
95th percentile per-packet one-way delay: 213.724 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 367.13 Mbit/s
95th percentile per-packet one-way delay: 213.724 ms
Loss rate: 2.02%
```
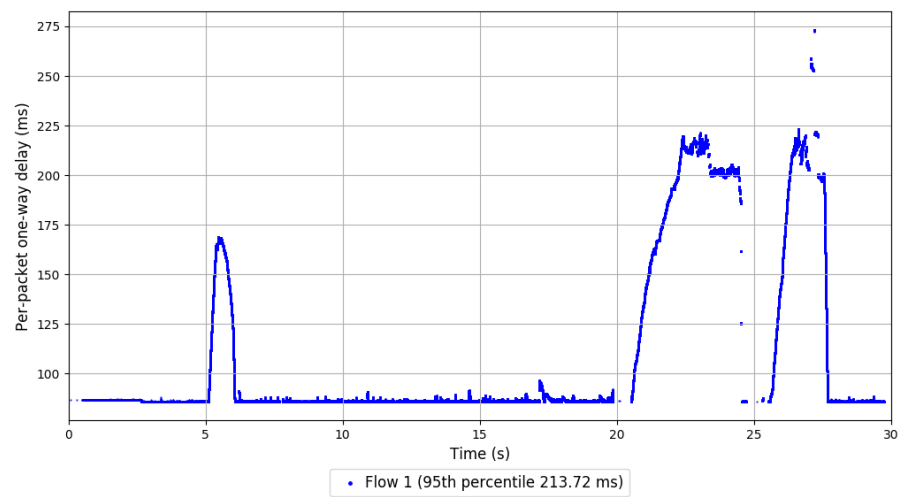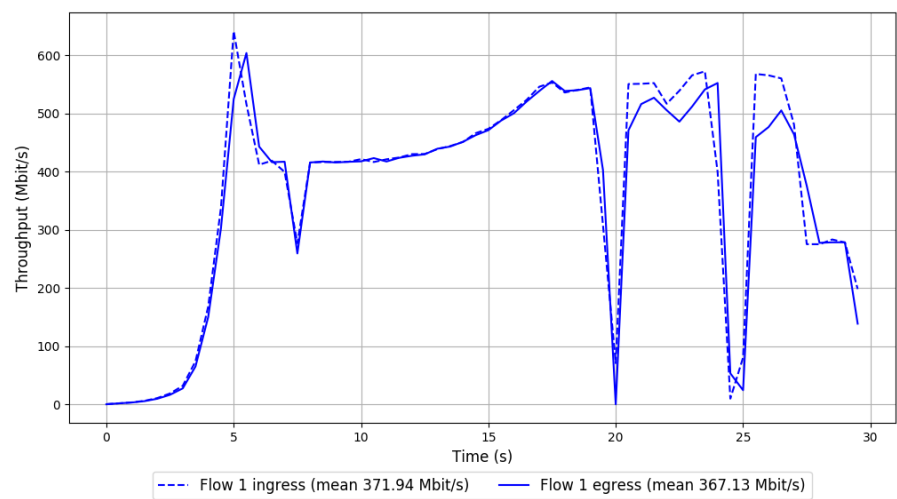
Run 4: Report of Vivace-loss — Data Link

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```
Run 5: Statistics of Vivace-loss

Start at: 2018-02-15 23:08:22
End at: 2018-02-15 23:08:52

# Below is generated by plot.py at 2018-02-16 04:35:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.65 Mbit/s
95th percentile per-packet one-way delay: 201.970 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 322.65 Mbit/s
95th percentile per-packet one-way delay: 201.970 ms
Loss rate: 2.01%
```
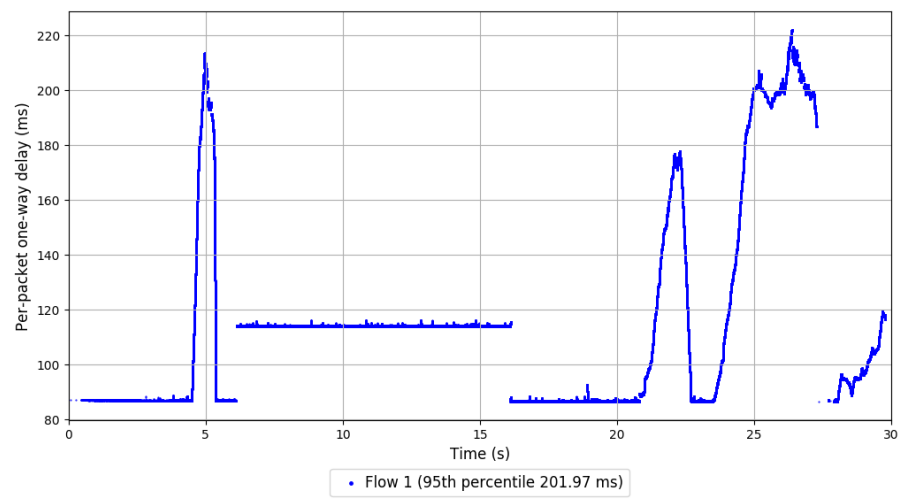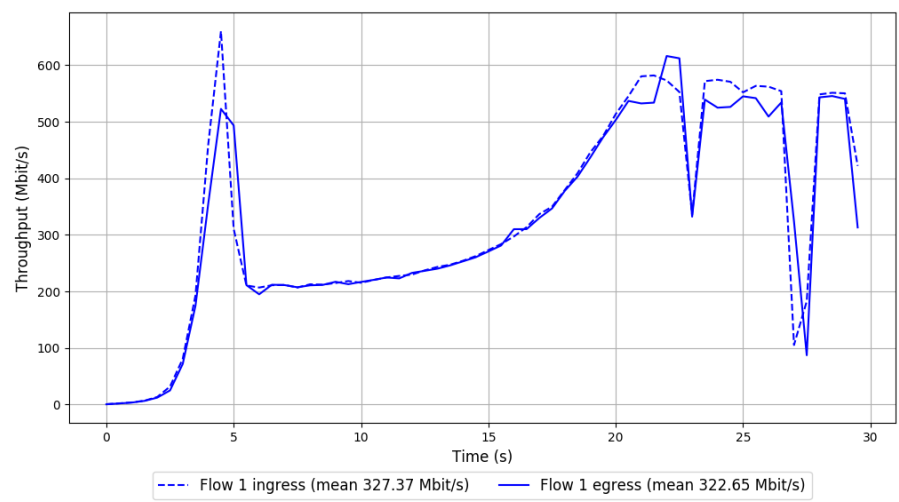
Run 5: Report of Vivace-loss — Data Link

```
Run 6: Statistics of Vivace-loss

Start at: 2018-02-15 23:24:03
End at: 2018-02-15 23:24:34


# Below is generated by plot.py at 2018-02-16 04:36:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 393.42 Mbit/s
95th percentile per-packet one-way delay: 215.038 ms
Loss rate: 4.91%
-- Flow 1:
Average throughput: 393.42 Mbit/s
95th percentile per-packet one-way delay: 215.038 ms
Loss rate: 4.91%
```
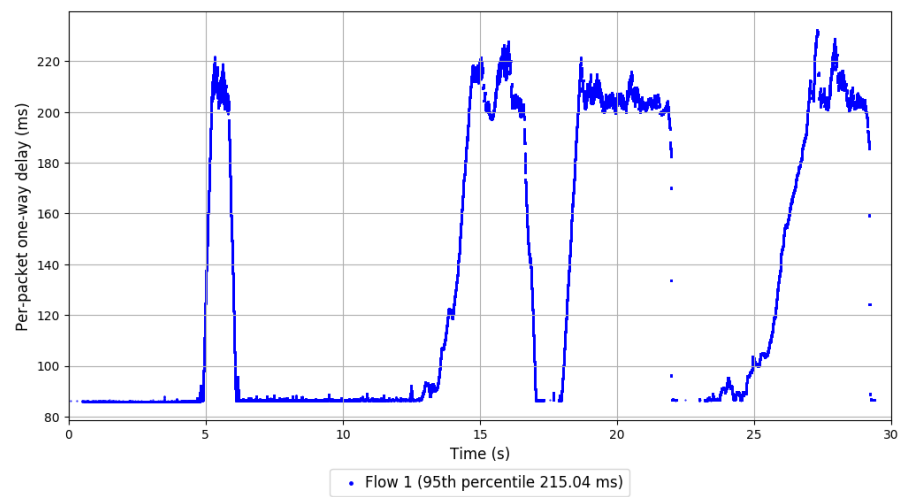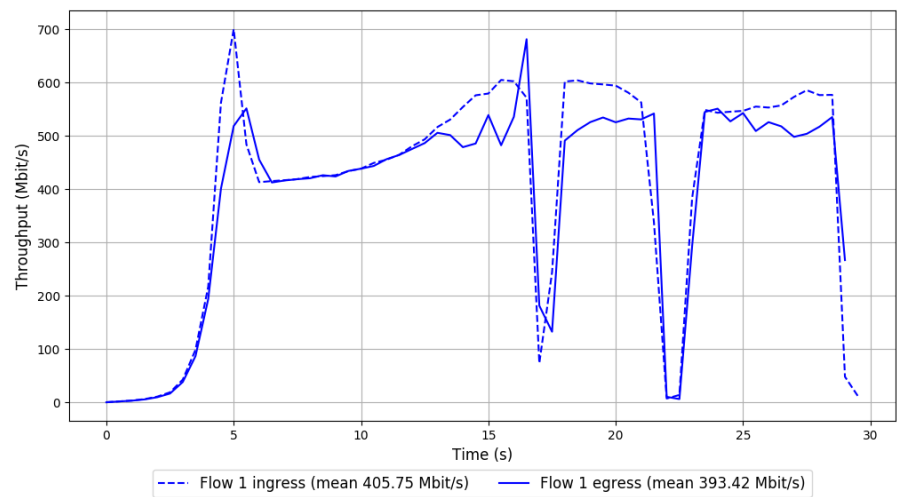
Run 6: Report of Vivace-loss — Data Link

315

```
Run 7: Statistics of Vivace-loss

Start at: 2018-02-15 23:39:46
End at: 2018-02-15 23:40:16

# Below is generated by plot.py at 2018-02-16 04:37:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 404.67 Mbit/s
95th percentile per-packet one-way delay: 222.022 ms
Loss rate: 13.77%
-- Flow 1:
Average throughput: 404.67 Mbit/s
95th percentile per-packet one-way delay: 222.022 ms
Loss rate: 13.77%
```
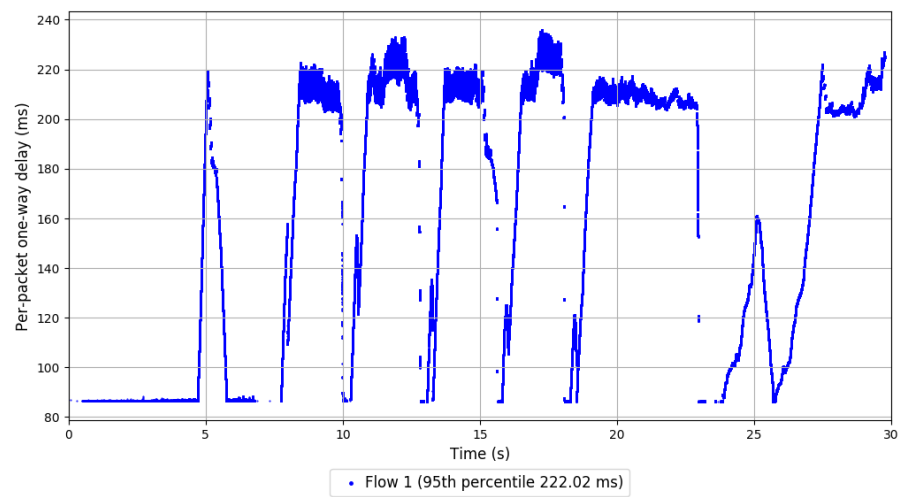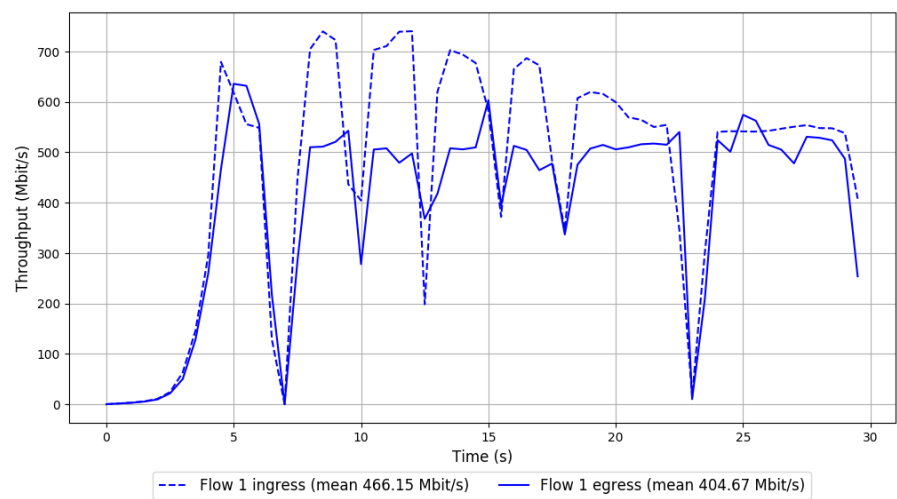
Run 7: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 466.15 Mbit/s) --- Flow 1 egress (mean 404.67 Mbit/s)

Flow 1 (95th percentile 222.02 ms)

```
Run 8: Statistics of Vivace-loss

Start at: 2018-02-15 23:55:18
End at: 2018-02-15 23:55:48


# Below is generated by plot.py at 2018-02-16 04:37:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 297.67 Mbit/s
95th percentile per-packet one-way delay: 221.628 ms
Loss rate: 5.46%
-- Flow 1:
Average throughput: 297.67 Mbit/s
95th percentile per-packet one-way delay: 221.628 ms
Loss rate: 5.46%
```
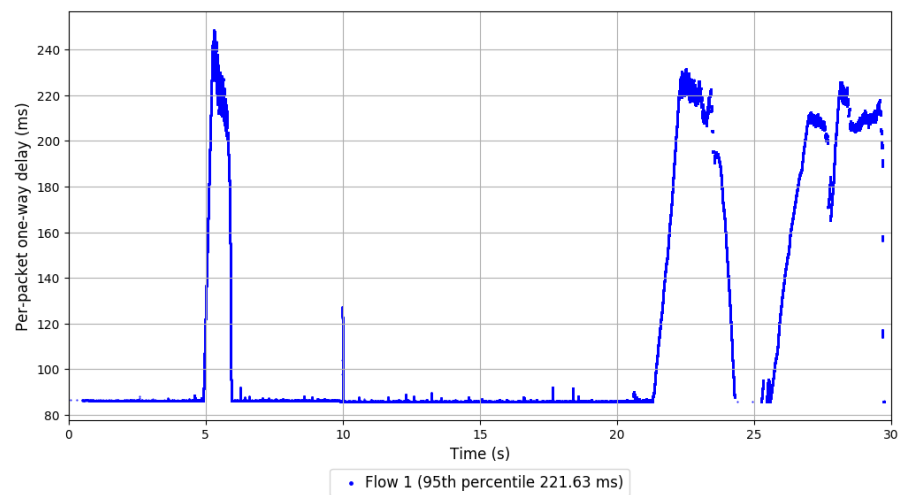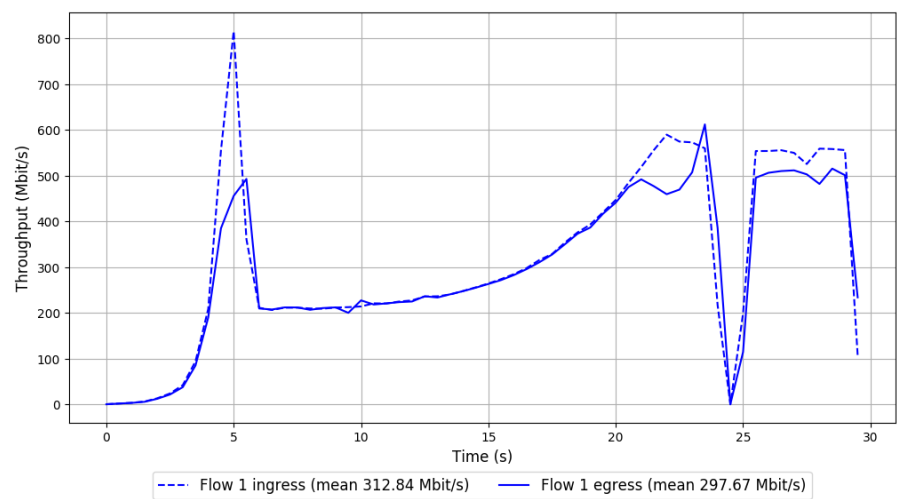
Run 8: Report of Vivace-loss — Data Link

```
Run 9: Statistics of Vivace-loss

Start at: 2018-02-16 00:10:28
End at: 2018-02-16 00:10:58

# Below is generated by plot.py at 2018-02-16 04:37:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 303.89 Mbit/s
95th percentile per-packet one-way delay: 208.865 ms
Loss rate: 4.50%
-- Flow 1:
Average throughput: 303.89 Mbit/s
95th percentile per-packet one-way delay: 208.865 ms
Loss rate: 4.50%
```
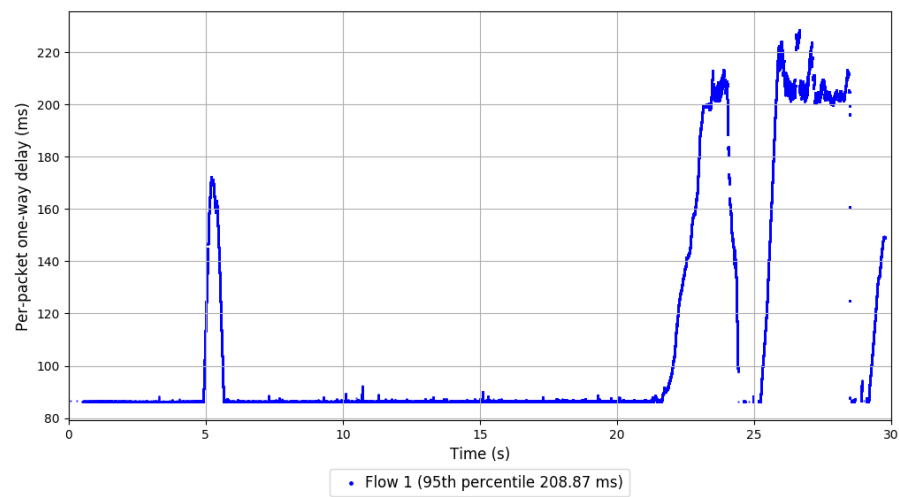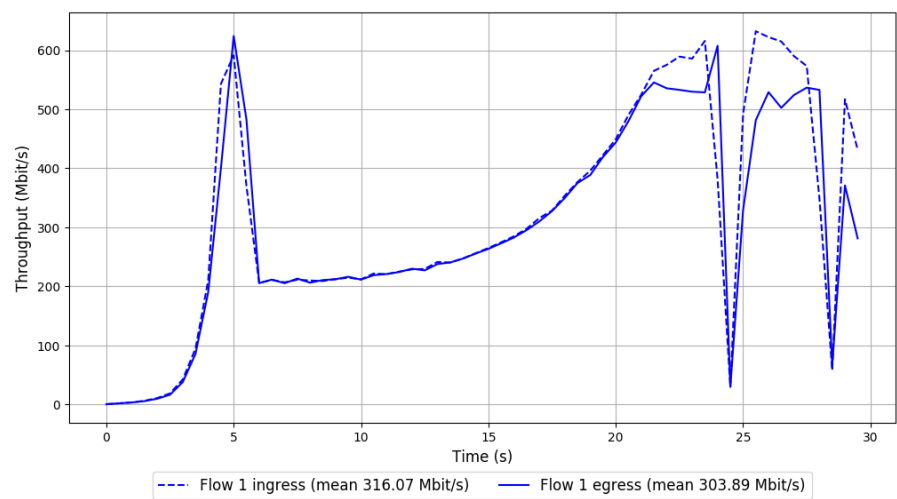
Run 9: Report of Vivace-loss — Data Link

```
Run 10: Statistics of Vivace-loss

Start at: 2018-02-16 00:25:58
End at: 2018-02-16 00:26:28

# Below is generated by plot.py at 2018-02-16 04:38:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 311.59 Mbit/s
95th percentile per-packet one-way delay: 217.922 ms
Loss rate: 4.84%
-- Flow 1:
Average throughput: 311.59 Mbit/s
95th percentile per-packet one-way delay: 217.922 ms
Loss rate: 4.84%
```
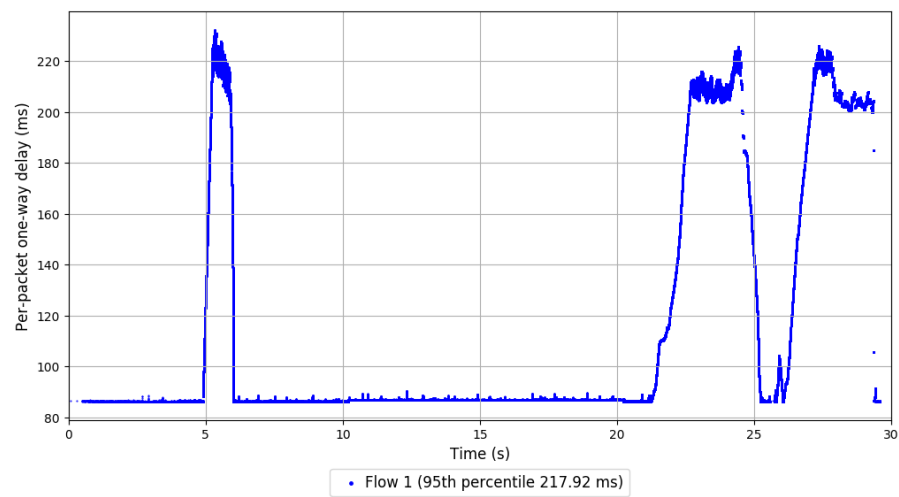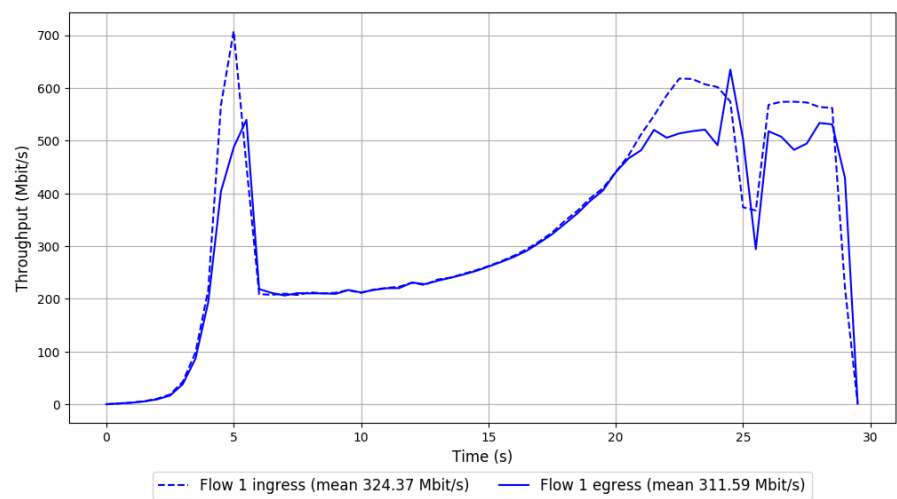
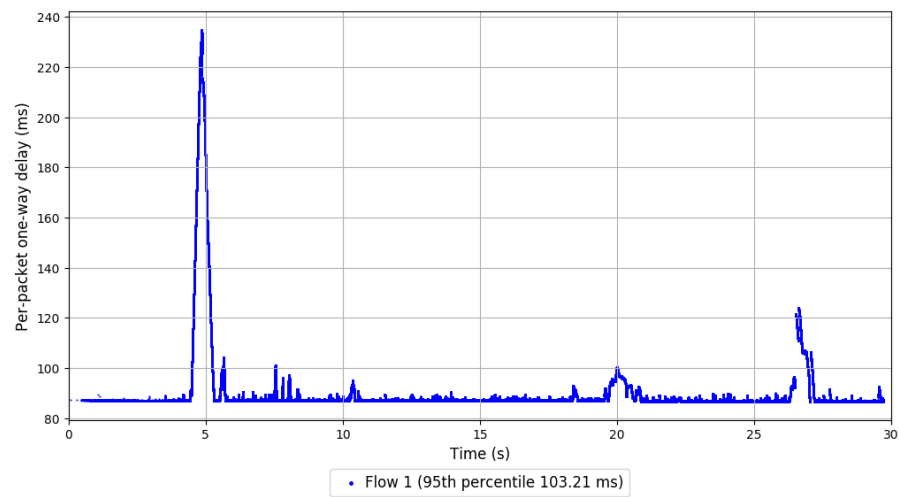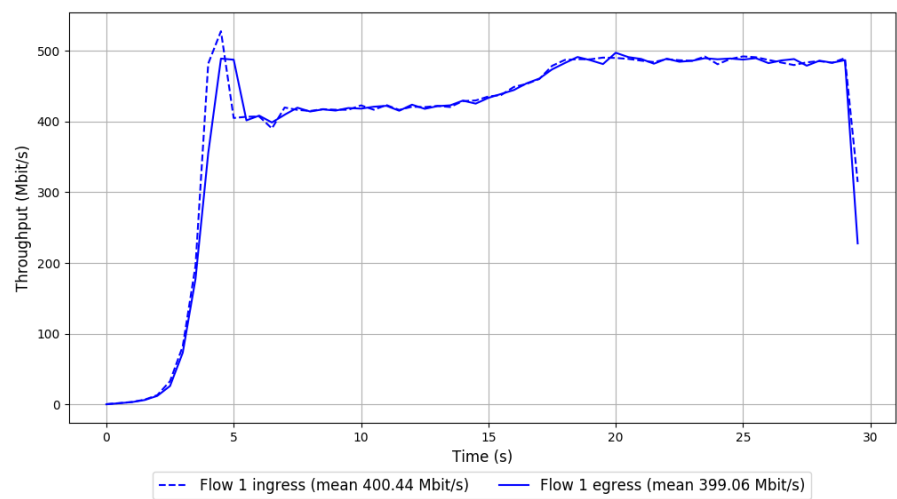## Run 10: Report of Vivace-loss — Data Link

```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-15 22:03:57
End at: 2018-02-15 22:04:27

# Below is generated by plot.py at 2018-02-16 04:41:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 399.06 Mbit/s
95th percentile per-packet one-way delay: 103.206 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 399.06 Mbit/s
95th percentile per-packet one-way delay: 103.206 ms
Loss rate: 0.94%
```

Run 1: Report of Vivace-LTE — Data Link

```
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-15 22:19:34
End at: 2018-02-15 22:20:04

# Below is generated by plot.py at 2018-02-16 04:42:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 390.36 Mbit/s
95th percentile per-packet one-way delay: 108.487 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 390.36 Mbit/s
95th percentile per-packet one-way delay: 108.487 ms
Loss rate: 0.98%
```
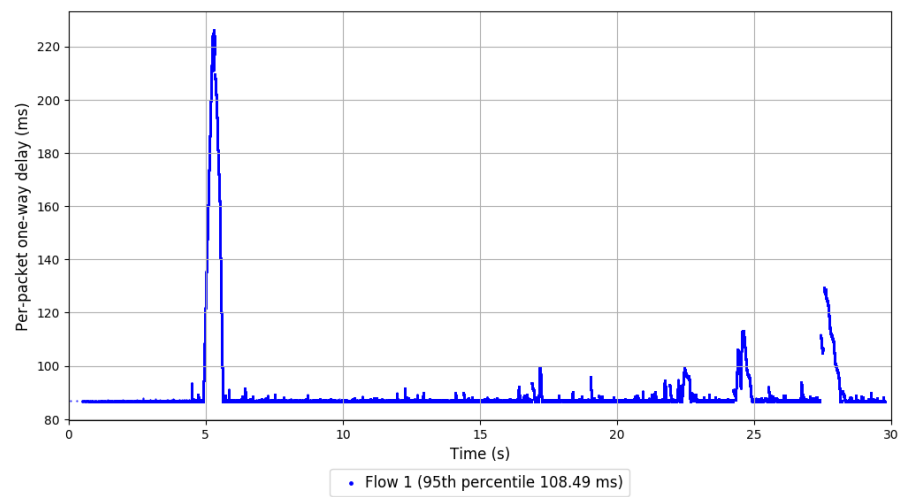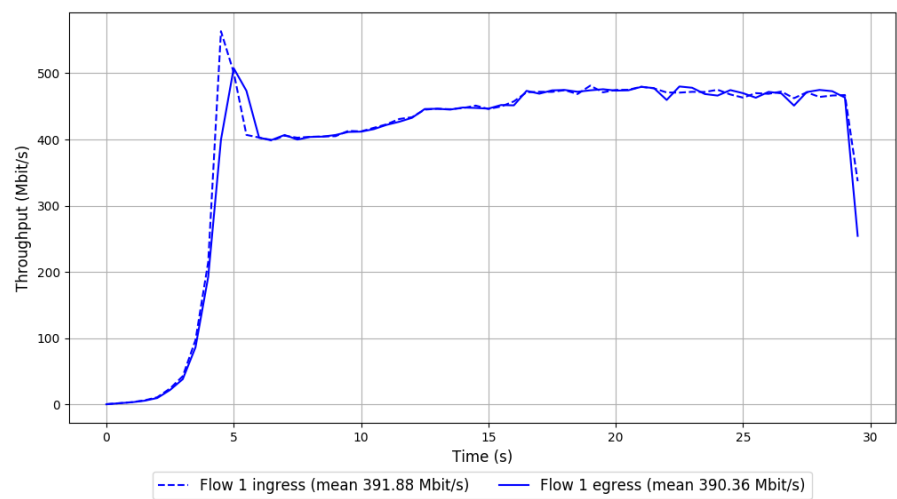
Run 2: Report of Vivace-LTE — Data Link

```
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-15 22:35:27
End at: 2018-02-15 22:35:57

# Below is generated by plot.py at 2018-02-16 04:43:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 417.14 Mbit/s
95th percentile per-packet one-way delay: 109.557 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 417.14 Mbit/s
95th percentile per-packet one-way delay: 109.557 ms
Loss rate: 1.25%
```
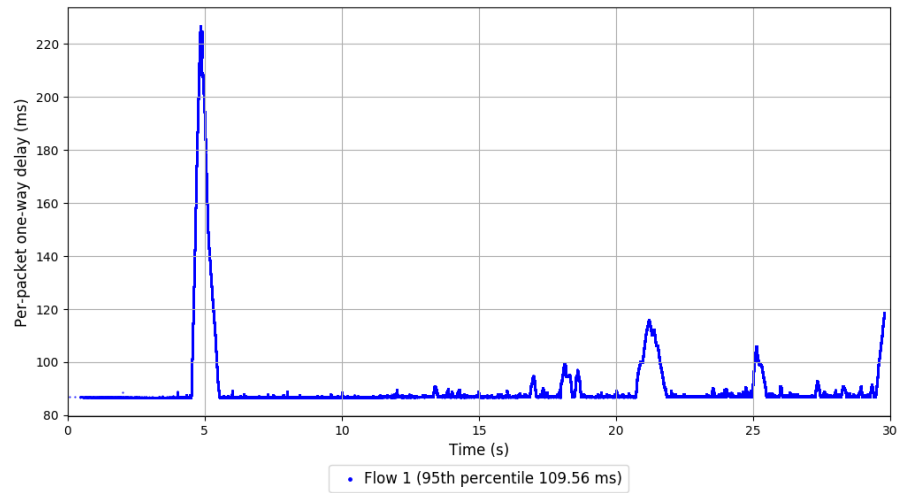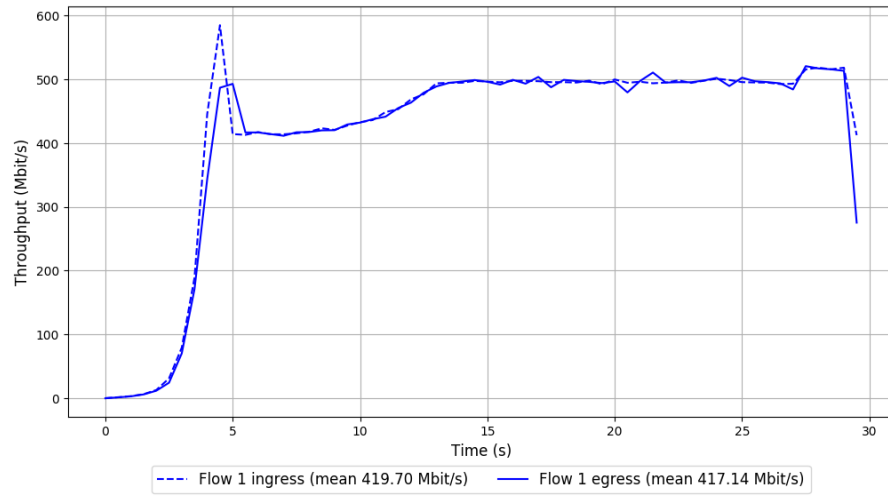
Run 3: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 419.70 Mbit/s)   Flow 1 egress (mean 417.14 Mbit/s)

Flow 1 (95th percentile 109.56 ms)

```
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-15 22:50:47
End at: 2018-02-15 22:51:18

# Below is generated by plot.py at 2018-02-16 04:43:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 404.87 Mbit/s
95th percentile per-packet one-way delay: 166.924 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 404.87 Mbit/s
95th percentile per-packet one-way delay: 166.924 ms
Loss rate: 0.96%
```
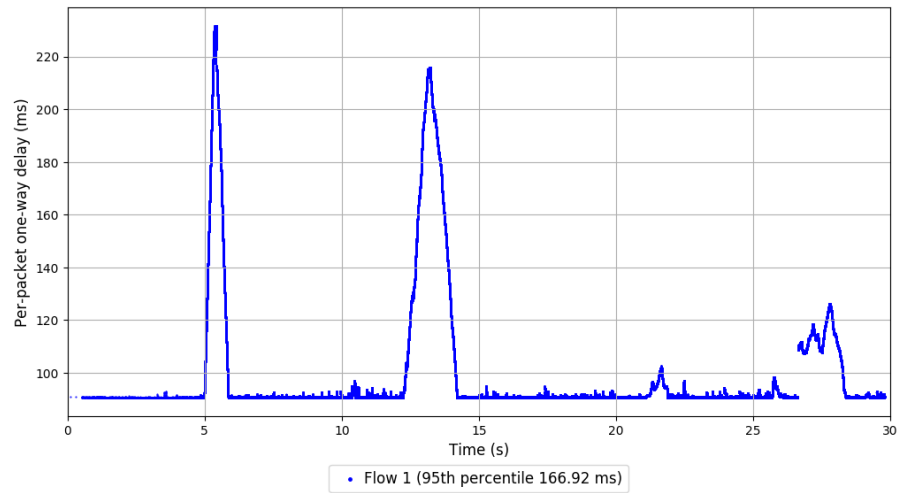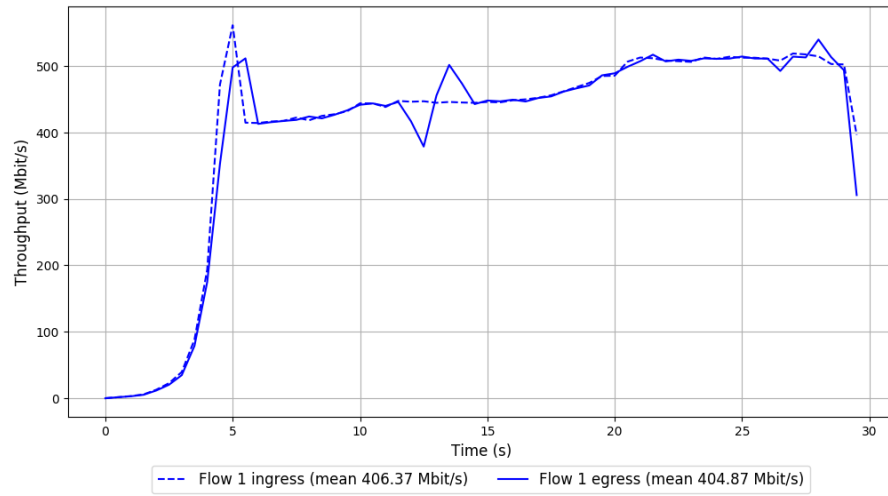
Run 4: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 406.37 Mbit/s)　　Flow 1 egress (mean 404.87 Mbit/s)

Flow 1 (95th percentile 166.92 ms)

```
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-15 23:06:35
End at: 2018-02-15 23:07:05

# Below is generated by plot.py at 2018-02-16 04:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.29 Mbit/s
95th percentile per-packet one-way delay: 210.708 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 381.29 Mbit/s
95th percentile per-packet one-way delay: 210.708 ms
Loss rate: 1.16%
```
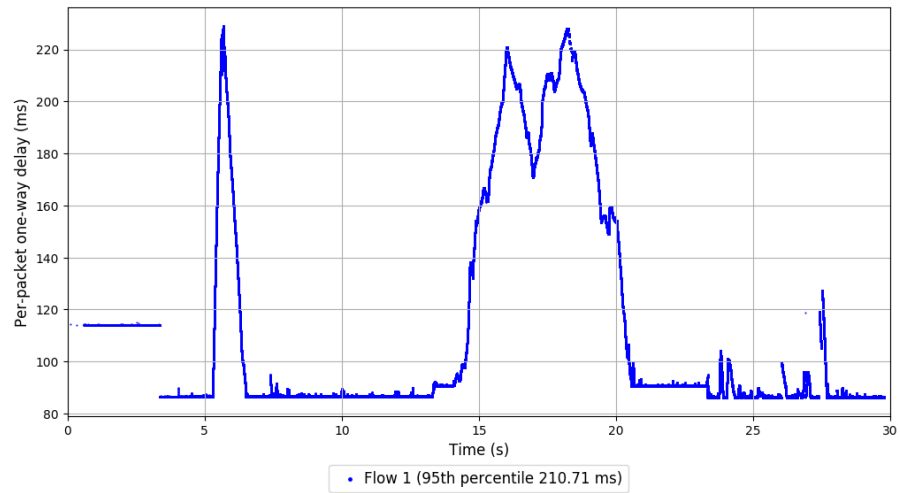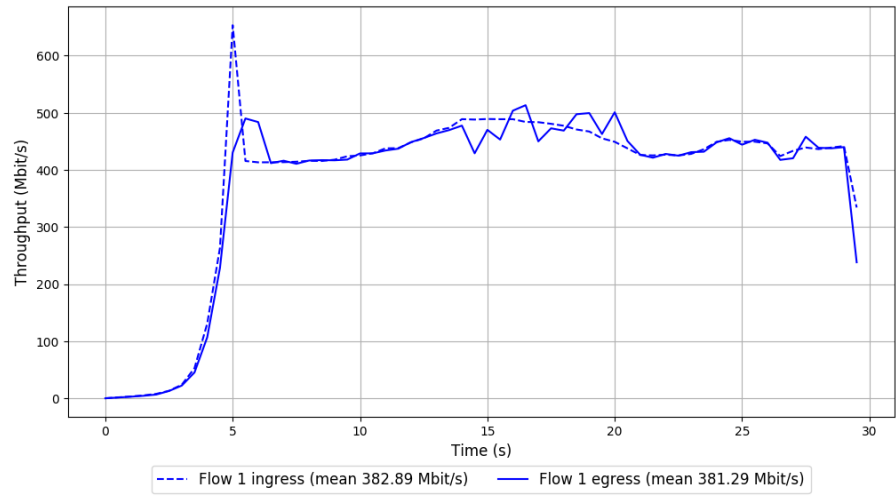
Run 5: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 382.89 Mbit/s)   Flow 1 egress (mean 381.29 Mbit/s)

• Flow 1 (95th percentile 210.71 ms)

```
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-15 23:22:14
End at: 2018-02-15 23:22:44

# Below is generated by plot.py at 2018-02-16 04:44:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 394.30 Mbit/s
95th percentile per-packet one-way delay: 140.413 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 394.30 Mbit/s
95th percentile per-packet one-way delay: 140.413 ms
Loss rate: 0.86%
```
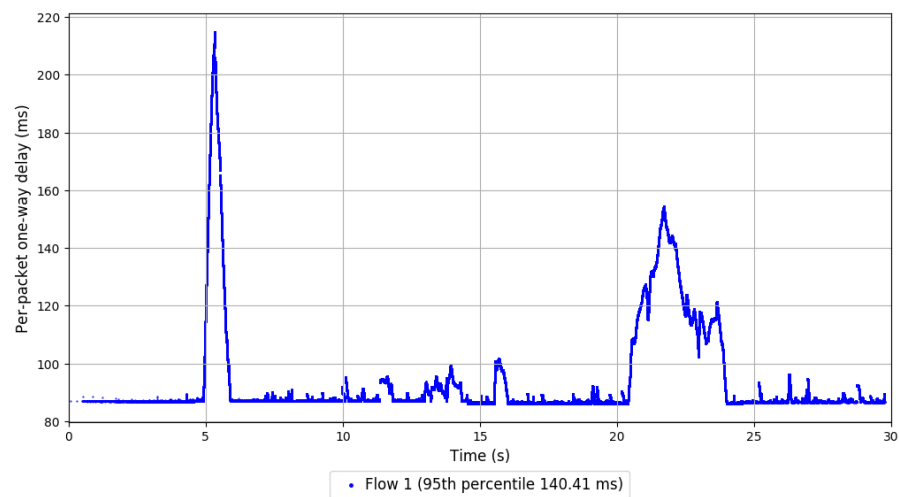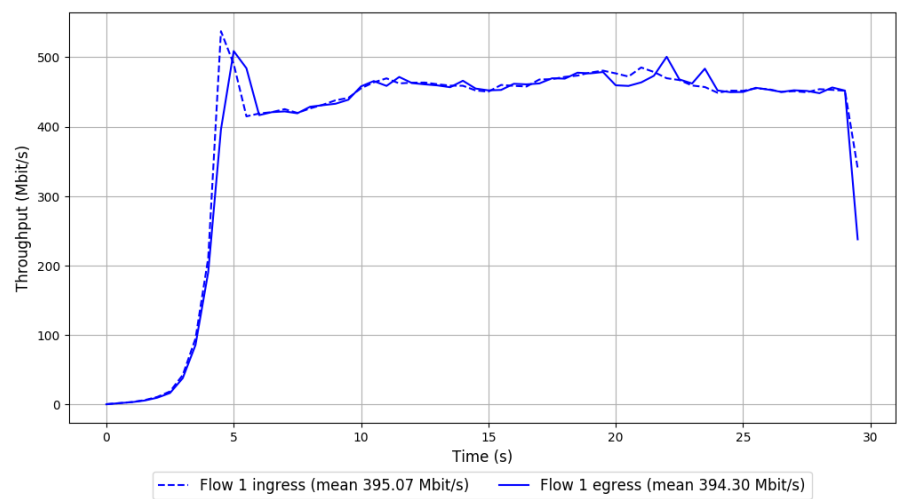
Run 6: Report of Vivace-LTE — Data Link

```
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-15 23:37:57
End at: 2018-02-15 23:38:27


# Below is generated by plot.py at 2018-02-16 04:44:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 395.36 Mbit/s
95th percentile per-packet one-way delay: 90.265 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 395.36 Mbit/s
95th percentile per-packet one-way delay: 90.265 ms
Loss rate: 0.57%
```
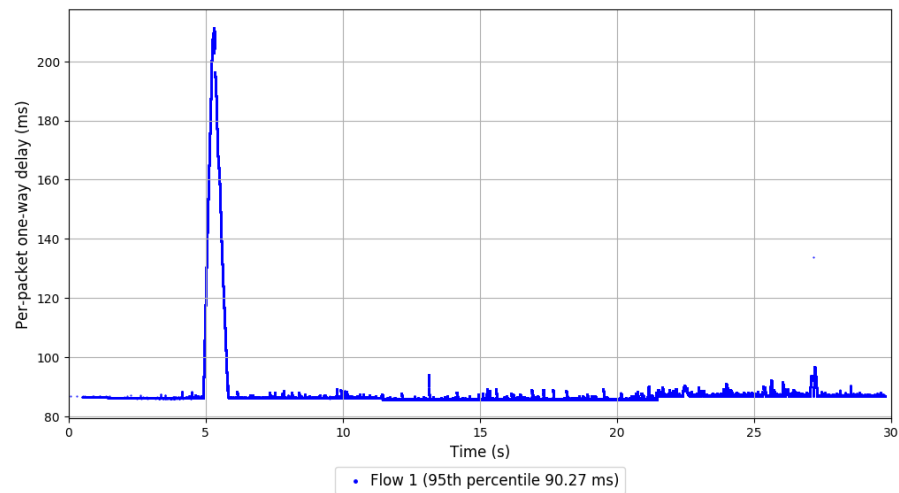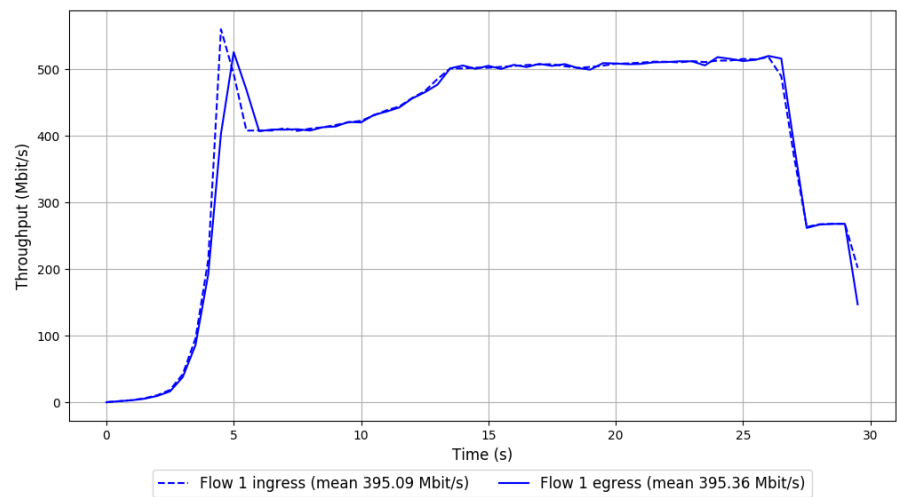
Run 7: Report of Vivace-LTE — Data Link

```
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-15 23:53:29
End at: 2018-02-15 23:53:59

# Below is generated by plot.py at 2018-02-16 04:44:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 388.45 Mbit/s
95th percentile per-packet one-way delay: 96.849 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 388.45 Mbit/s
95th percentile per-packet one-way delay: 96.849 ms
Loss rate: 0.44%
```
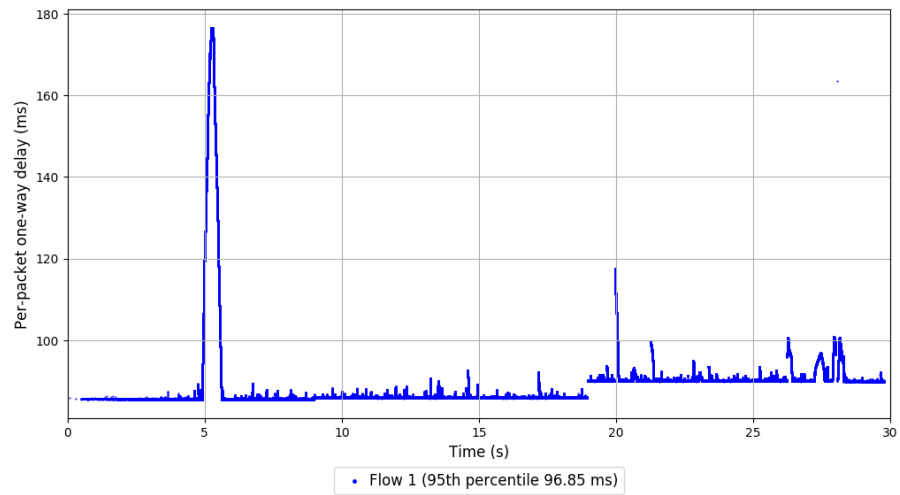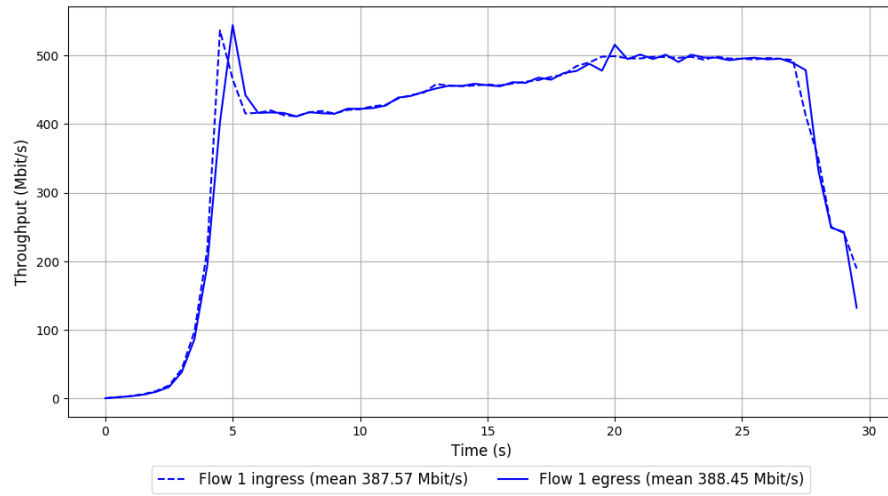
Run 8: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 387.57 Mbit/s)   Flow 1 egress (mean 388.45 Mbit/s)

Flow 1 (95th percentile 96.85 ms)

```
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-16 00:08:38
End at: 2018-02-16 00:09:08

# Below is generated by plot.py at 2018-02-16 04:45:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 392.64 Mbit/s
95th percentile per-packet one-way delay: 189.161 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 392.64 Mbit/s
95th percentile per-packet one-way delay: 189.161 ms
Loss rate: 1.54%
```
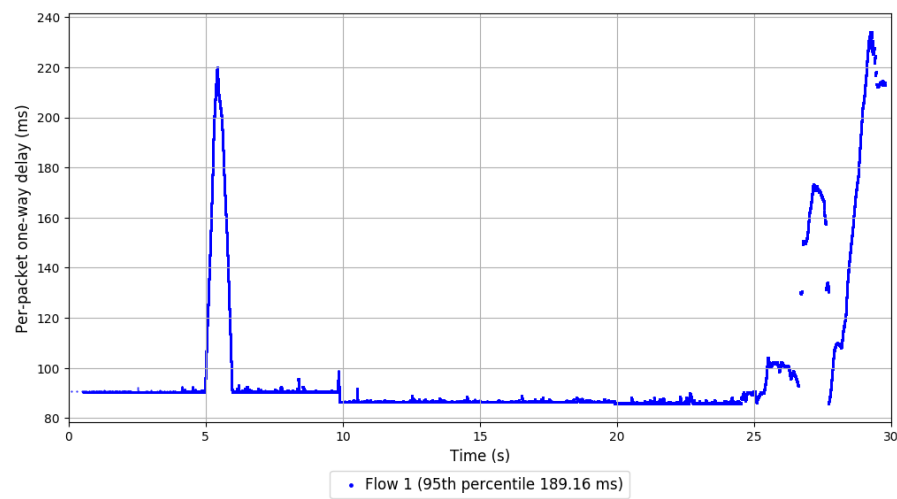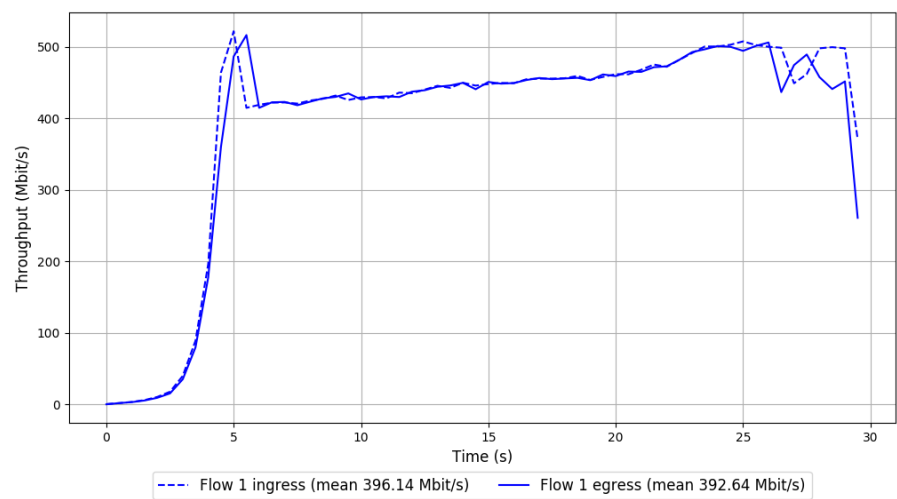
Run 9: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 396.14 Mbit/s)   Flow 1 egress (mean 392.64 Mbit/s)

Flow 1 (95th percentile 189.16 ms)

```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-16 00:24:12
End at: 2018-02-16 00:24:42

# Below is generated by plot.py at 2018-02-16 04:45:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.24 Mbit/s
95th percentile per-packet one-way delay: 120.491 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 381.24 Mbit/s
95th percentile per-packet one-way delay: 120.491 ms
Loss rate: 0.75%
```

Run 10: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 381.63 Mbit/s)   Flow 1 egress (mean 381.24 Mbit/s)

• Flow 1 (95th percentile 120.49 ms)