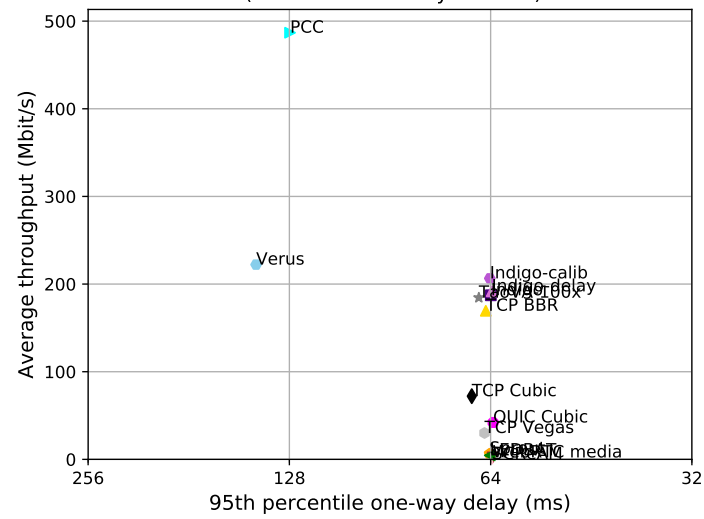# Pantheon Report

Generated at 2017-09-22 00:04:26 (UTC).

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

Repeated the test of 14 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).

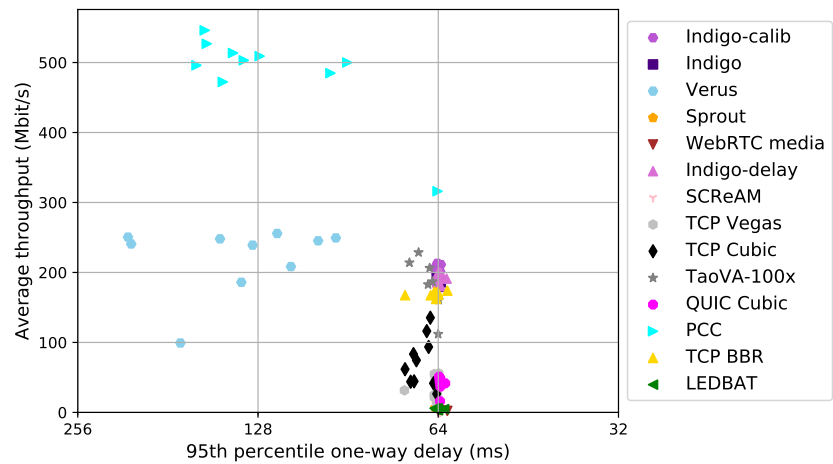Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

```
Git summary:
branch: indigos @ 46c7c812d4acb71eea4f5fb0b03b3657cea3062f
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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

test from GCE Tokyo 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	169.52	65.08	0.47
TCP Cubic	10	72.10	68.30	0.41
LEDBAT	10	4.52	64.20	1.03
PCC	10	486.78	127.69	1.94
QUIC Cubic	10	42.10	63.46	0.69
SCReAM	9	0.22	63.72	0.38
WebRTC media	10	2.22	63.57	0.47
Sprout	10	6.46	64.27	0.87
TaoVA-100x	7	184.46	66.65	0.42
TCP Vegas	10	30.09	65.36	0.34
Verus	10	222.21	143.54	2.53
Indigo	9	187.22	63.96	0.42
Indigo-calib	10	206.51	64.18	0.44
Indigo-delay	10	191.69	63.77	0.45

```
Run 1: Statistics of TCP BBR

Start at: 2017-09-21 19:44:01
End at: 2017-09-21 19:44:31

# Below is generated by plot.py at 2017-09-21 23:19:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.68 Mbit/s
95th percentile per-packet one-way delay: 64.290 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 171.68 Mbit/s
95th percentile per-packet one-way delay: 64.290 ms
Loss rate: 0.45%
```
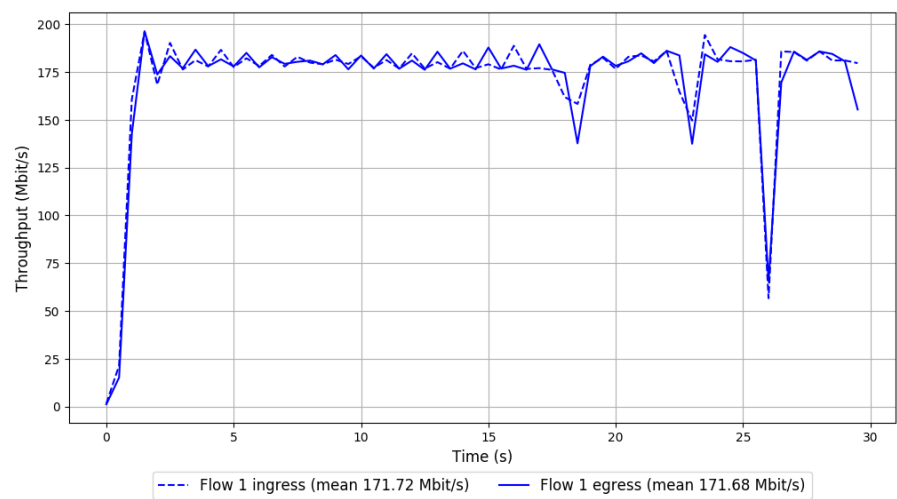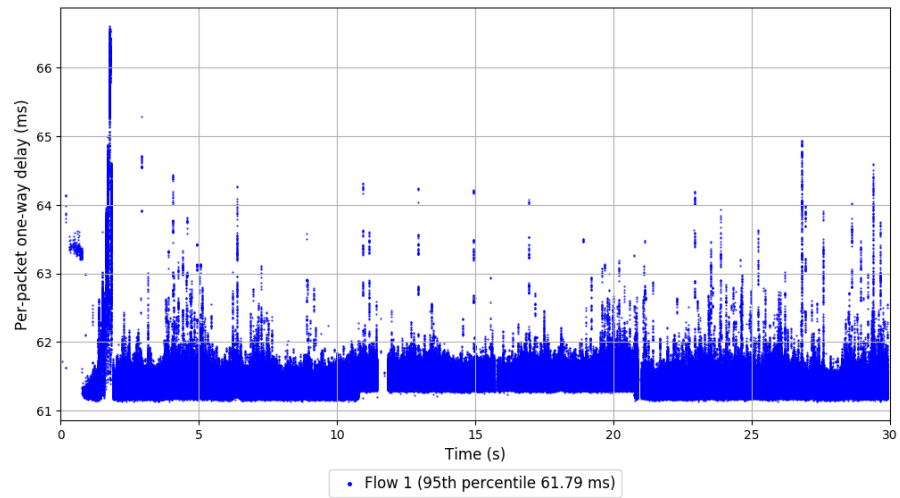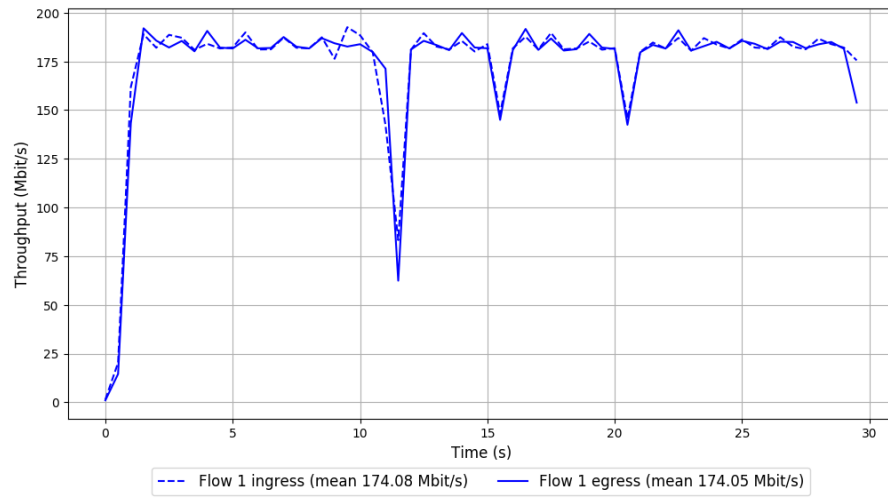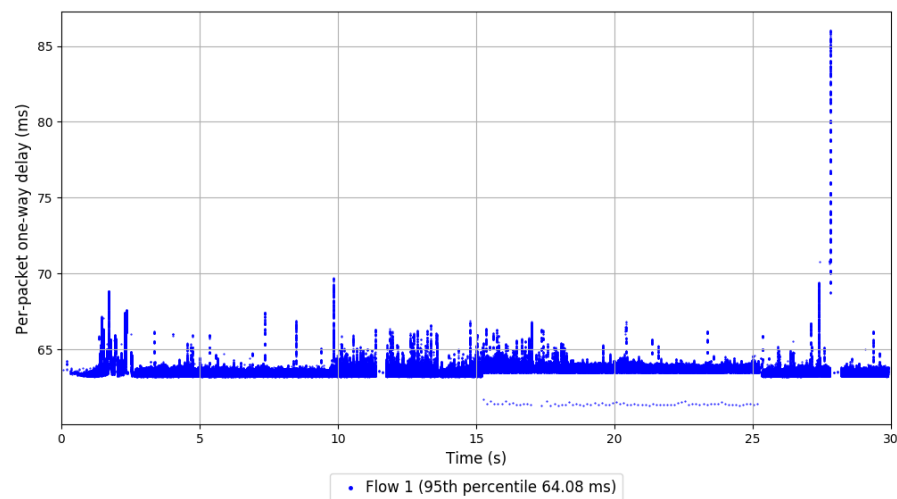
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2017-09-21 19:54:30
End at: 2017-09-21 19:55:00

# Below is generated by plot.py at 2017-09-21 23:19:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.05 Mbit/s
95th percentile per-packet one-way delay: 61.793 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 174.05 Mbit/s
95th percentile per-packet one-way delay: 61.793 ms
Loss rate: 0.44%
```
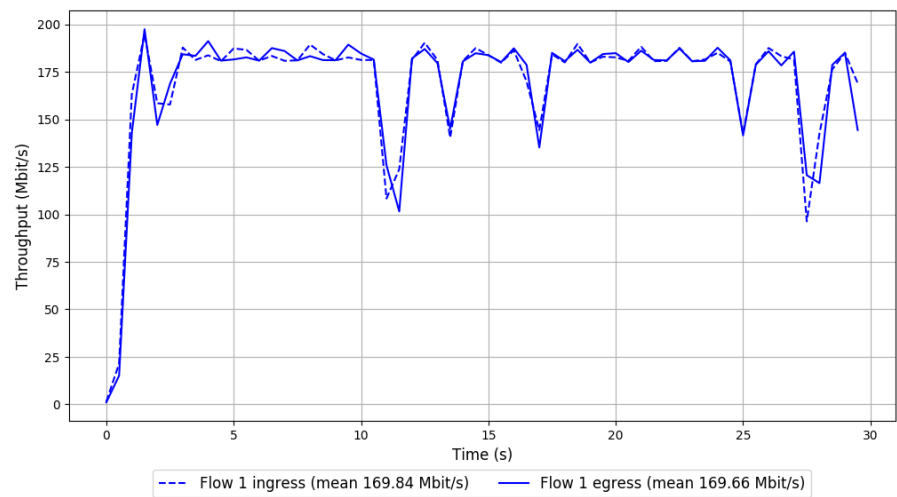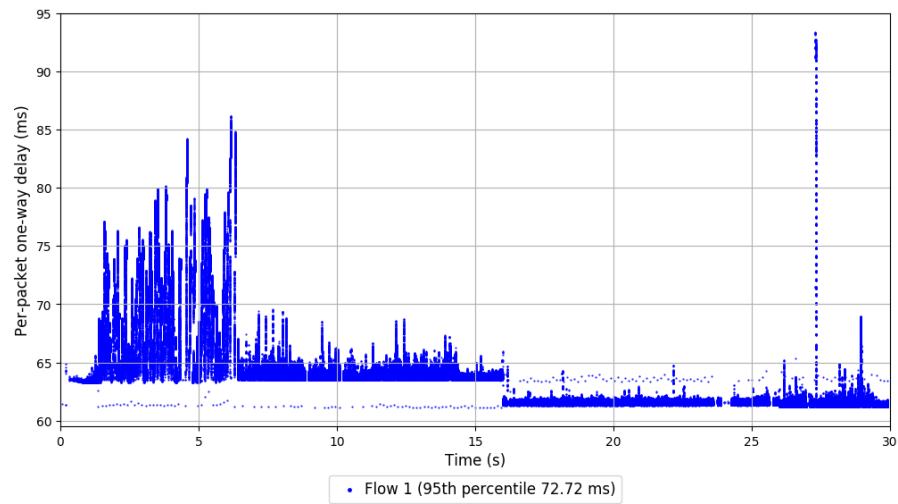
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 174.08 Mbit/s)   Flow 1 egress (mean 174.05 Mbit/s)

Flow 1 (95th percentile 61.79 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2017-09-21 20:05:06
End at: 2017-09-21 20:05:36

# Below is generated by plot.py at 2017-09-21 23:19:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.66 Mbit/s
95th percentile per-packet one-way delay: 64.076 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 169.66 Mbit/s
95th percentile per-packet one-way delay: 64.076 ms
Loss rate: 0.48%
```
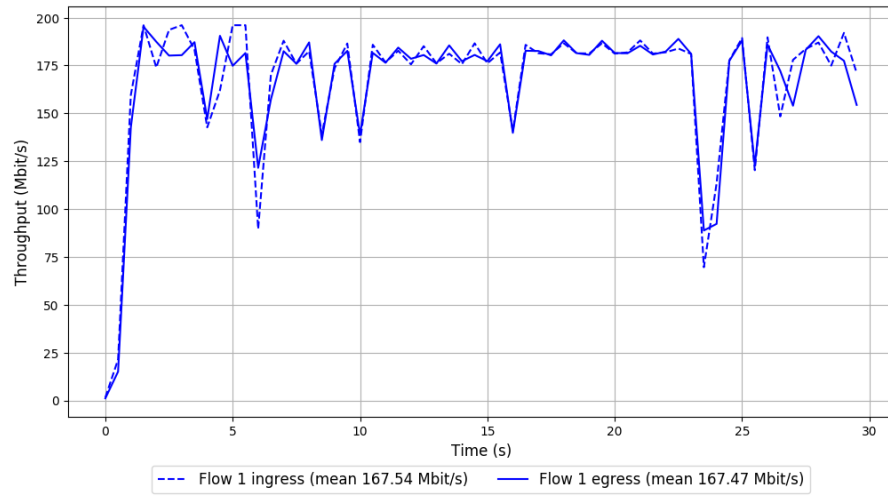
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2017-09-21 20:15:55
End at: 2017-09-21 20:16:25

# Below is generated by plot.py at 2017-09-21 23:19:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.47 Mbit/s
95th percentile per-packet one-way delay: 72.715 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 167.47 Mbit/s
95th percentile per-packet one-way delay: 72.715 ms
Loss rate: 0.46%
```
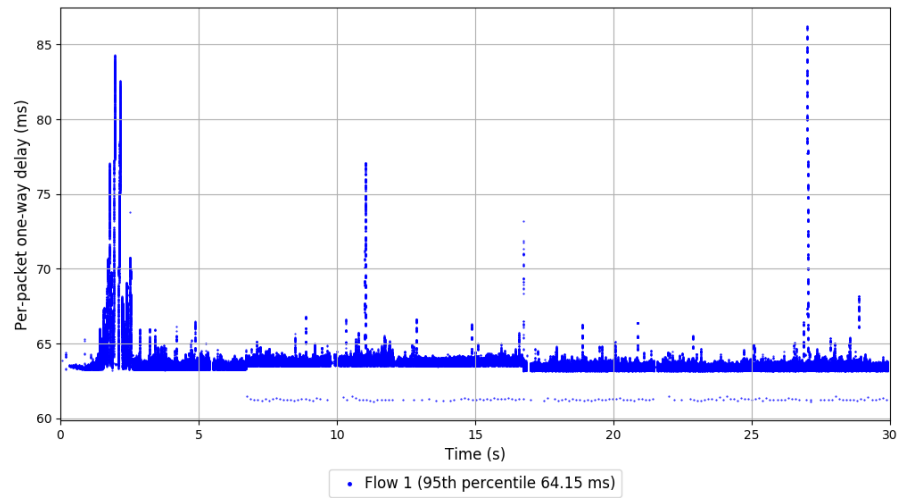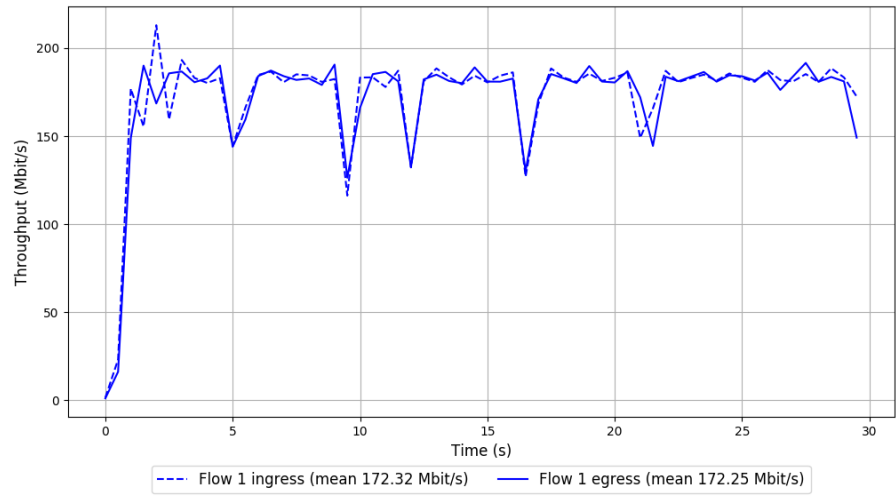
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 167.54 Mbit/s) --- Flow 1 egress (mean 167.47 Mbit/s)

Flow 1 (95th percentile 72.72 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2017-09-21 20:26:35
End at: 2017-09-21 20:27:05

# Below is generated by plot.py at 2017-09-21 23:19:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 172.25 Mbit/s
95th percentile per-packet one-way delay: 64.152 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 172.25 Mbit/s
95th percentile per-packet one-way delay: 64.152 ms
Loss rate: 0.50%
```
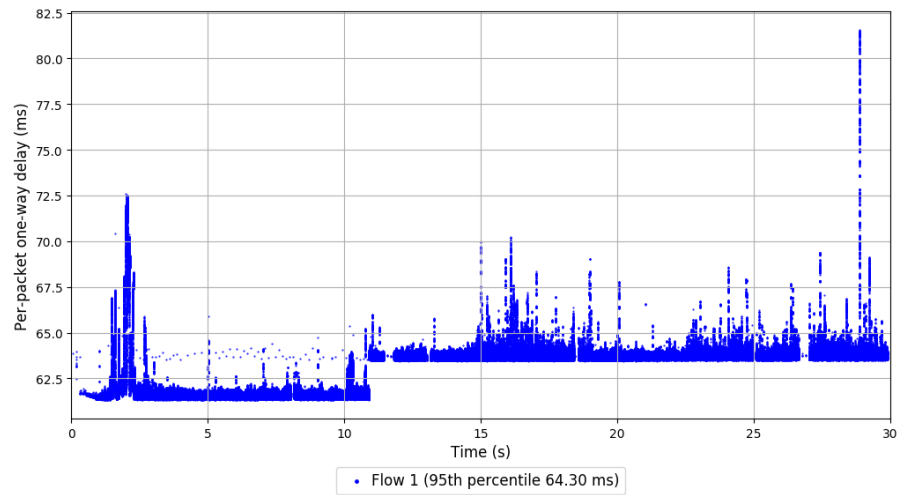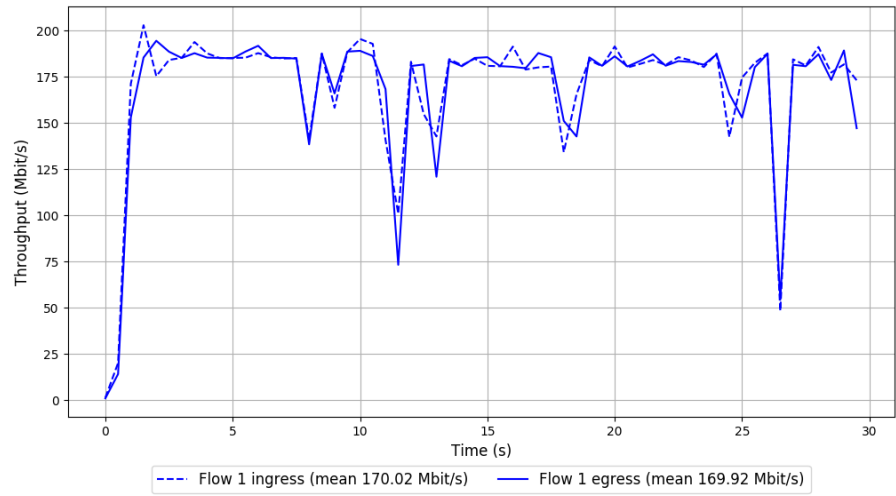
Run 5: Report of TCP BBR — Data Link

```
Run 6: Statistics of TCP BBR

Start at: 2017-09-21 20:37:10
End at: 2017-09-21 20:37:40

# Below is generated by plot.py at 2017-09-21 23:19:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.92 Mbit/s
95th percentile per-packet one-way delay: 64.300 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 169.92 Mbit/s
95th percentile per-packet one-way delay: 64.300 ms
Loss rate: 0.49%
```
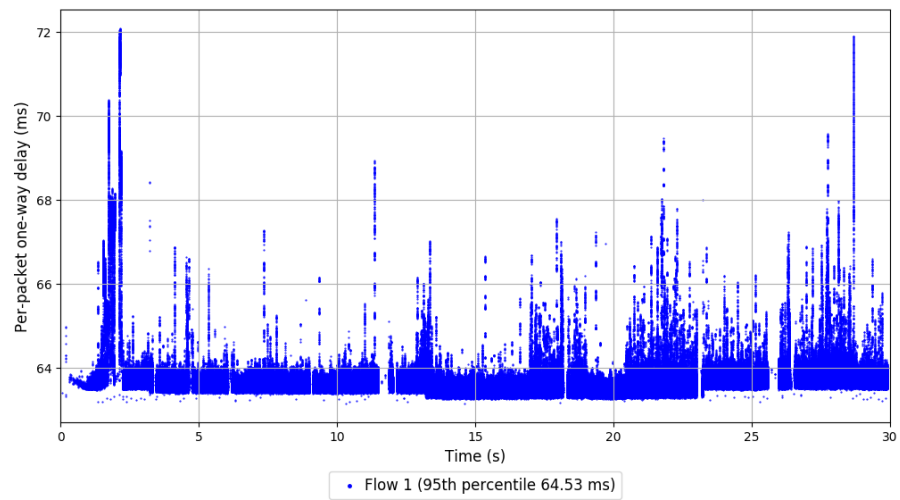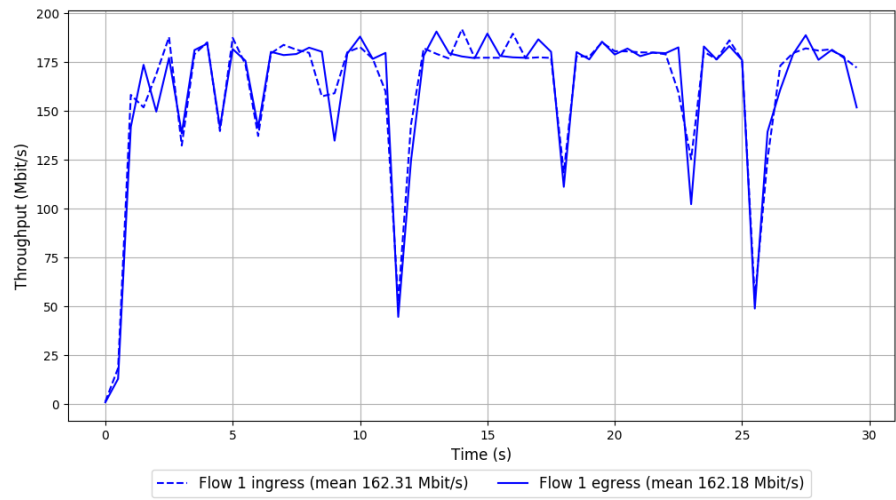
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 170.02 Mbit/s)   Flow 1 egress (mean 169.92 Mbit/s)

• Flow 1 (95th percentile 64.30 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2017-09-21 20:48:08
End at: 2017-09-21 20:48:38

# Below is generated by plot.py at 2017-09-21 23:19:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 162.18 Mbit/s
95th percentile per-packet one-way delay: 64.533 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 162.18 Mbit/s
95th percentile per-packet one-way delay: 64.533 ms
Loss rate: 0.50%
```
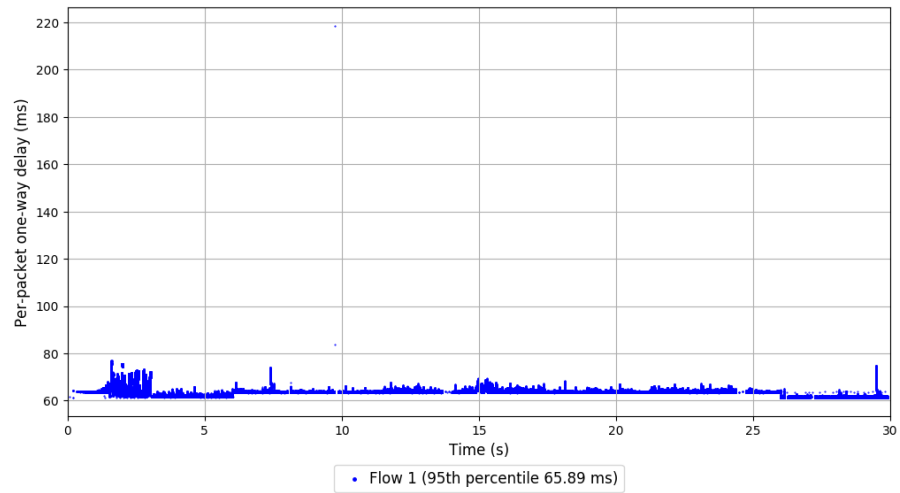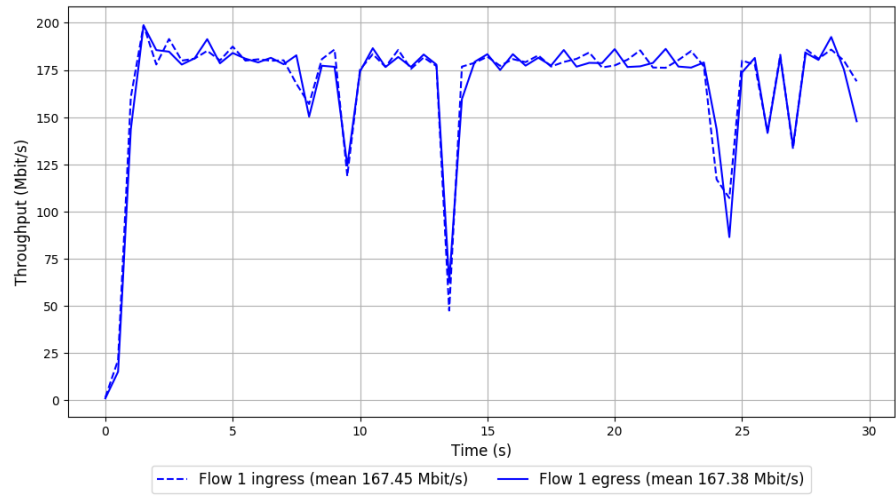
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 162.31 Mbit/s)   Flow 1 egress (mean 162.18 Mbit/s)

Flow 1 (95th percentile 64.53 ms)

```
Run 8: Statistics of TCP BBR

Start at: 2017-09-21 20:58:45
End at: 2017-09-21 20:59:15

# Below is generated by plot.py at 2017-09-21 23:19:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.38 Mbit/s
95th percentile per-packet one-way delay: 65.888 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 167.38 Mbit/s
95th percentile per-packet one-way delay: 65.888 ms
Loss rate: 0.45%
```
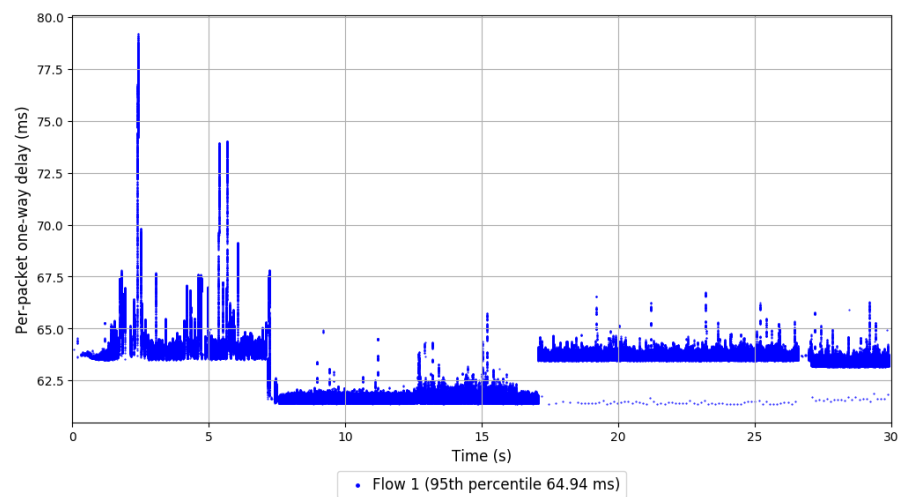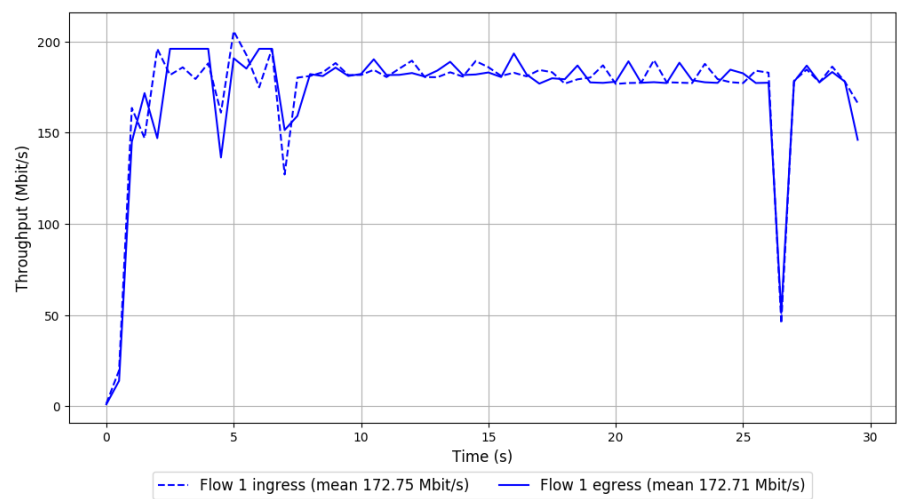
Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2017-09-21 21:09:24
End at: 2017-09-21 21:09:54

# Below is generated by plot.py at 2017-09-21 23:23:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 172.71 Mbit/s
95th percentile per-packet one-way delay: 64.941 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 172.71 Mbit/s
95th percentile per-packet one-way delay: 64.941 ms
Loss rate: 0.44%
```
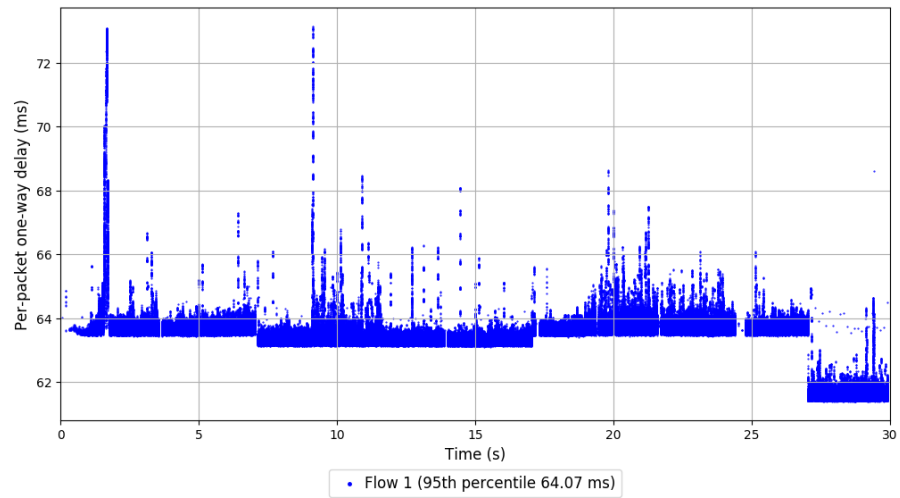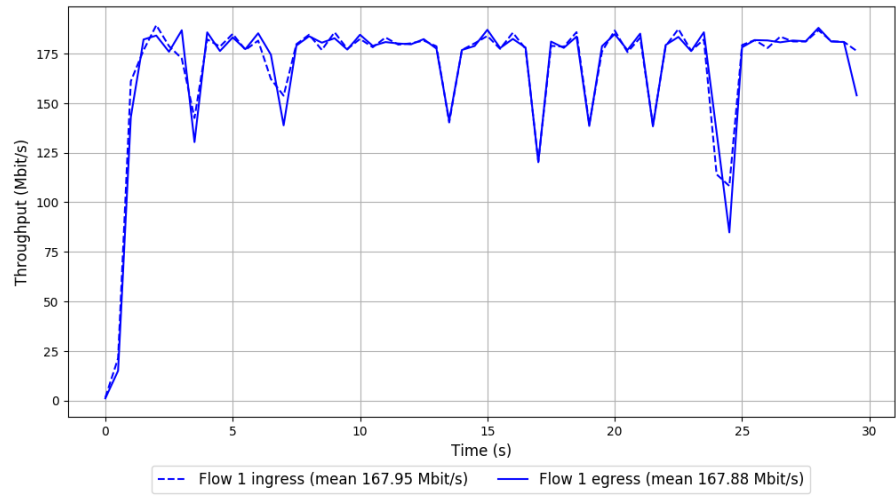
Run 9: Report of TCP BBR — Data Link

```
Run 10: Statistics of TCP BBR

Start at: 2017-09-21 21:20:14
End at: 2017-09-21 21:20:44

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.88 Mbit/s
95th percentile per-packet one-way delay: 64.071 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 167.88 Mbit/s
95th percentile per-packet one-way delay: 64.071 ms
Loss rate: 0.46%
```
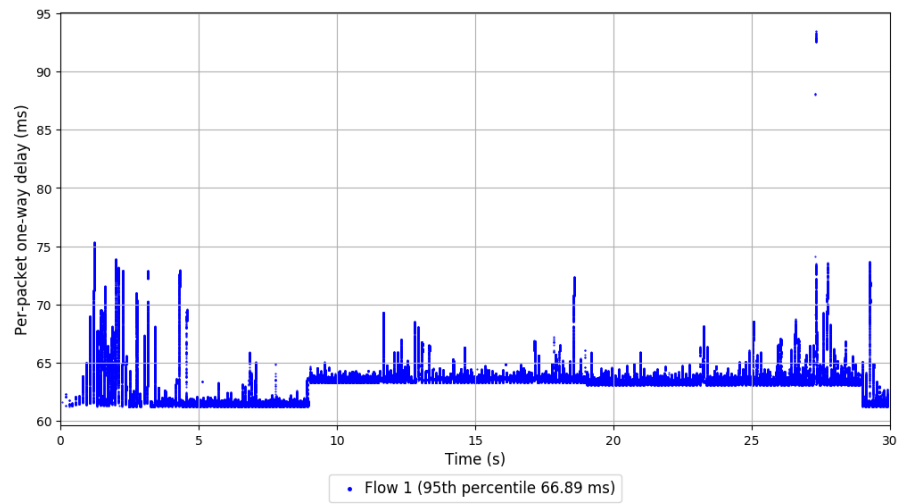
Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-21 19:48:12
End at: 2017-09-21 19:48:42

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 116.19 Mbit/s
95th percentile per-packet one-way delay: 66.889 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 116.19 Mbit/s
95th percentile per-packet one-way delay: 66.889 ms
Loss rate: 0.37%
```
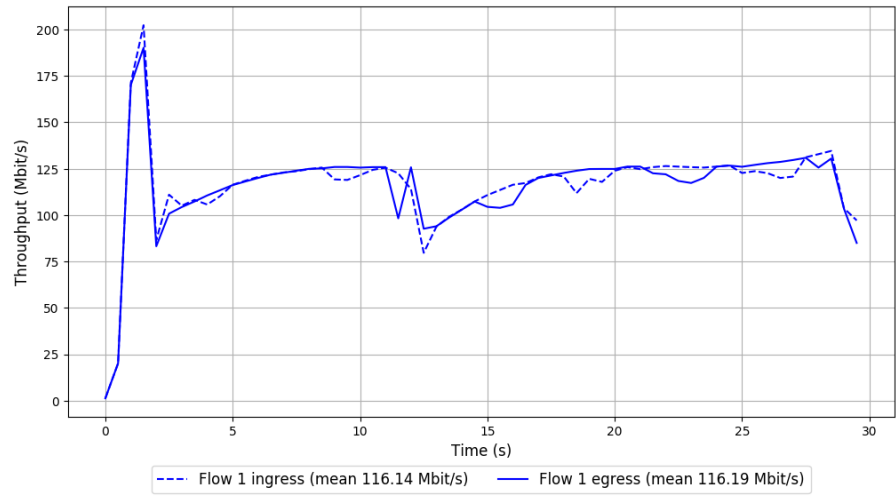
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2017-09-21 19:58:42
End at: 2017-09-21 19:59:12

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.86 Mbit/s
95th percentile per-packet one-way delay: 71.172 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 43.86 Mbit/s
95th percentile per-packet one-way delay: 71.172 ms
Loss rate: 0.28%
```
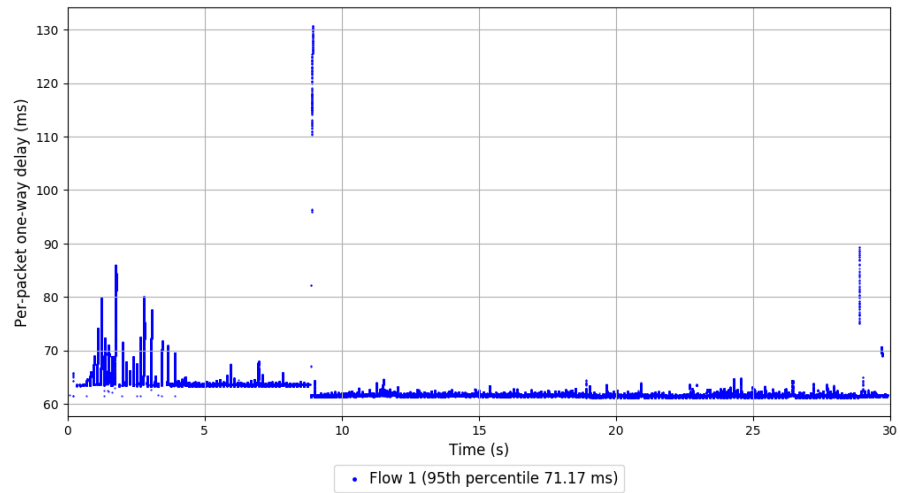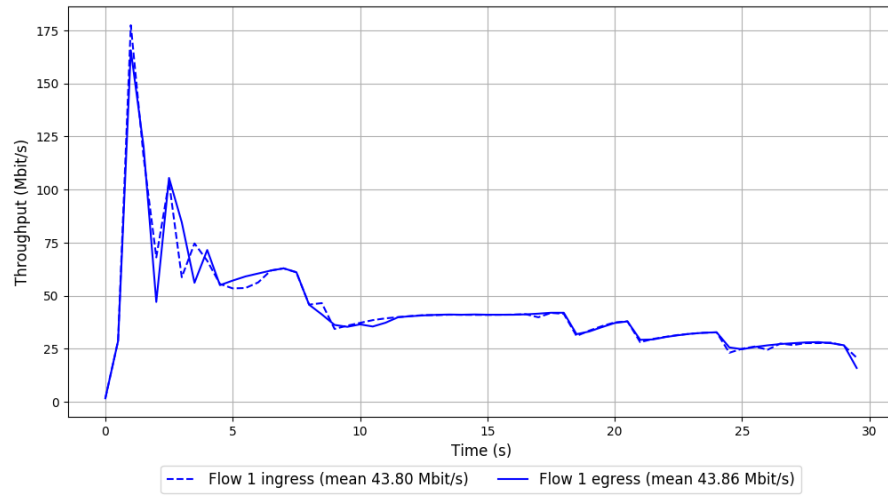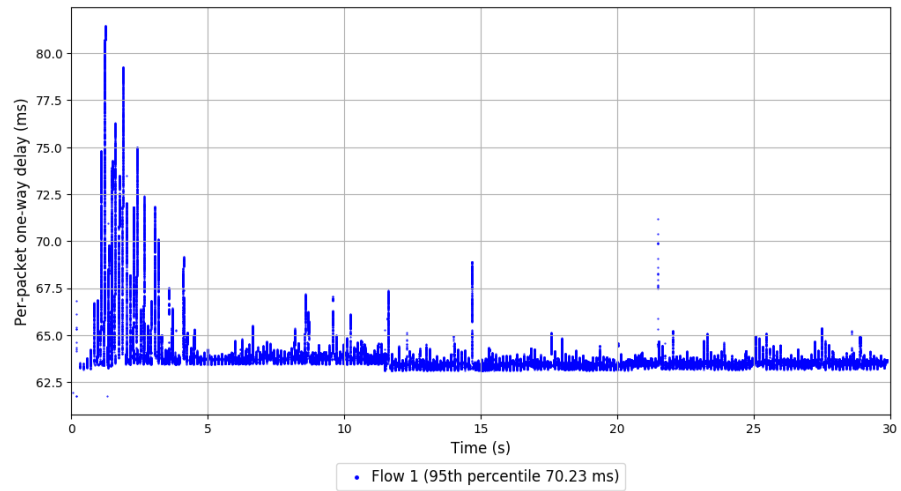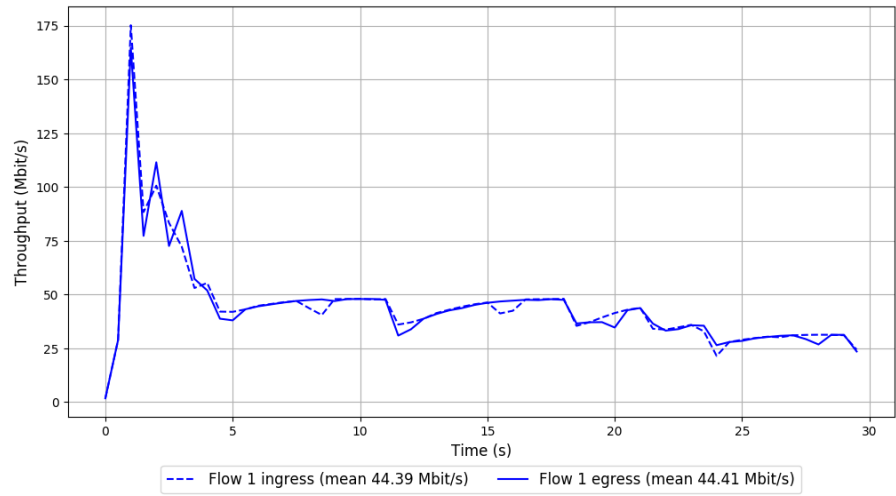
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 43.80 Mbit/s)   Flow 1 egress (mean 43.86 Mbit/s)

Flow 1 (95th percentile 71.17 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2017-09-21 20:09:20
End at: 2017-09-21 20:09:50

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.41 Mbit/s
95th percentile per-packet one-way delay: 70.231 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 44.41 Mbit/s
95th percentile per-packet one-way delay: 70.231 ms
Loss rate: 0.37%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 44.39 Mbit/s)   Flow 1 egress (mean 44.41 Mbit/s)

Flow 1 (95th percentile 70.23 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2017-09-21 20:20:06
End at: 2017-09-21 20:20:36

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.30 Mbit/s
95th percentile per-packet one-way delay: 70.393 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 83.30 Mbit/s
95th percentile per-packet one-way delay: 70.393 ms
Loss rate: 0.31%
```
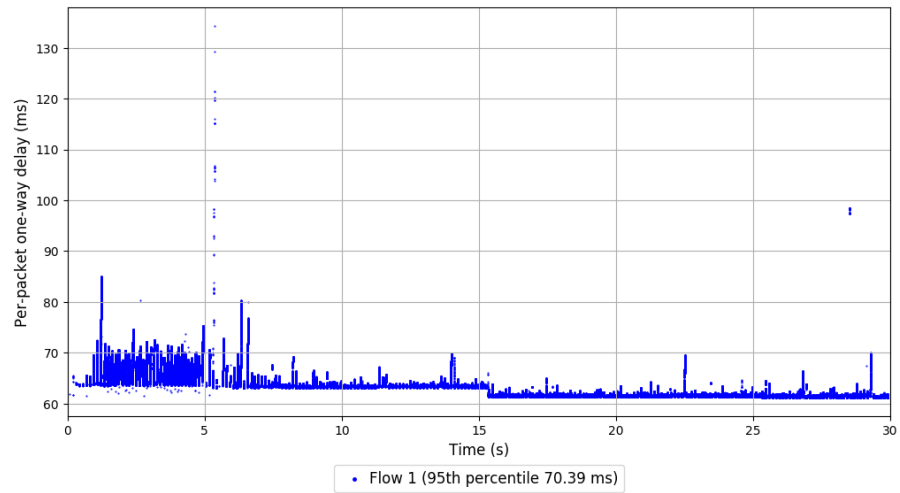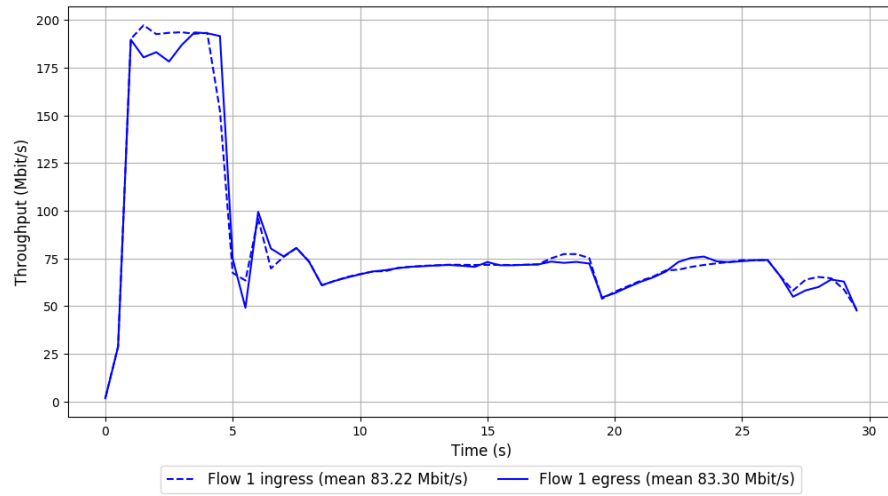
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 83.22 Mbit/s)   —— Flow 1 egress (mean 83.30 Mbit/s)

· Flow 1 (95th percentile 70.39 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2017-09-21 20:30:47
End at: 2017-09-21 20:31:17

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.74 Mbit/s
95th percentile per-packet one-way delay: 72.719 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 61.74 Mbit/s
95th percentile per-packet one-way delay: 72.719 ms
Loss rate: 0.44%
```
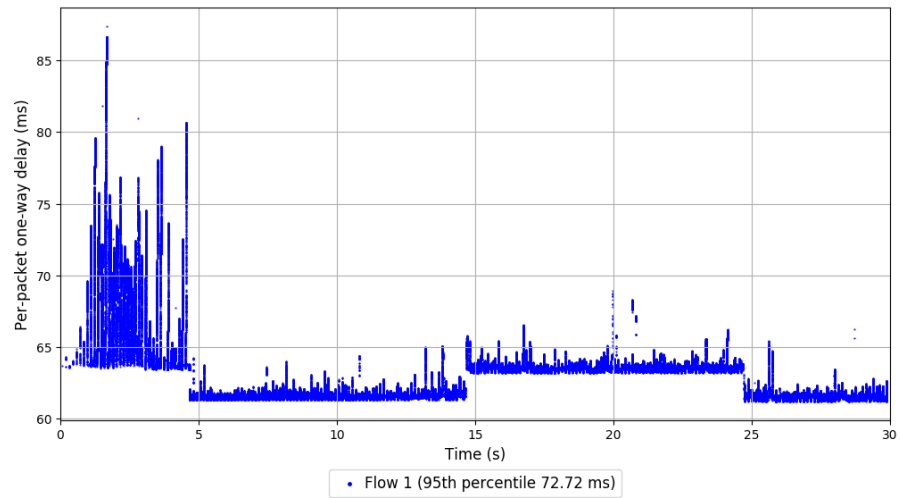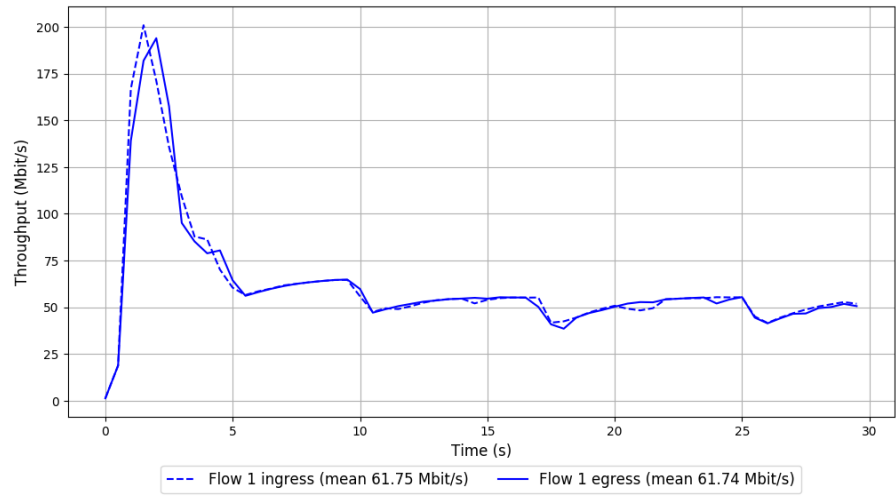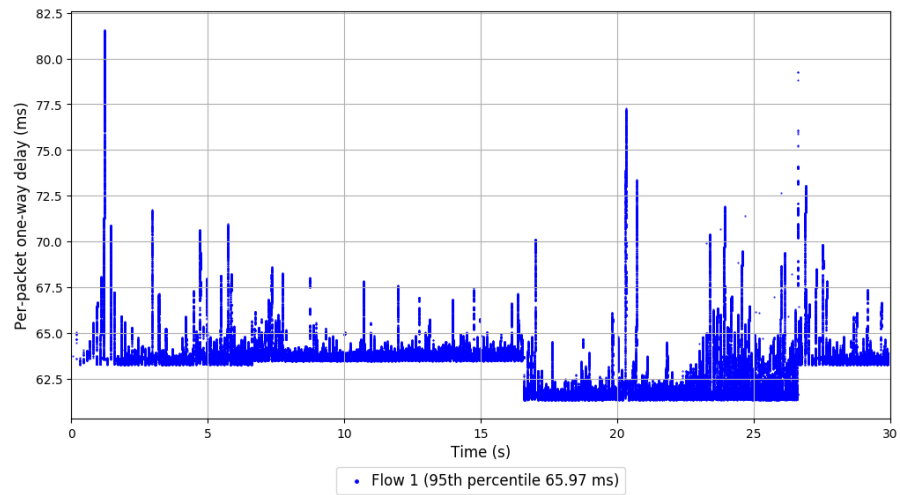
Run 5: Report of TCP Cubic — Data Link

```
Run 6: Statistics of TCP Cubic

Start at: 2017-09-21 20:41:25
End at: 2017-09-21 20:41:55


# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 135.33 Mbit/s
95th percentile per-packet one-way delay: 65.973 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 135.33 Mbit/s
95th percentile per-packet one-way delay: 65.973 ms
Loss rate: 0.34%
```
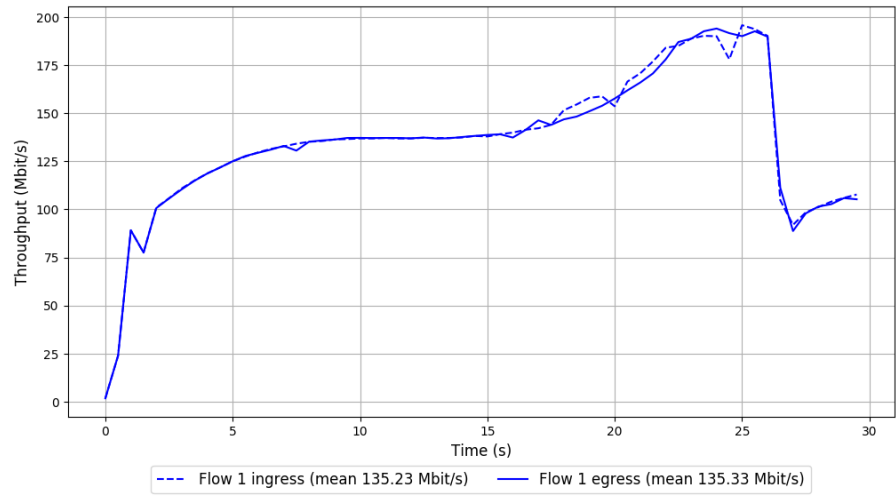
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2017-09-21 20:52:20
End at: 2017-09-21 20:52:50

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.52 Mbit/s
95th percentile per-packet one-way delay: 64.391 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 26.52 Mbit/s
95th percentile per-packet one-way delay: 64.391 ms
Loss rate: 0.96%
```
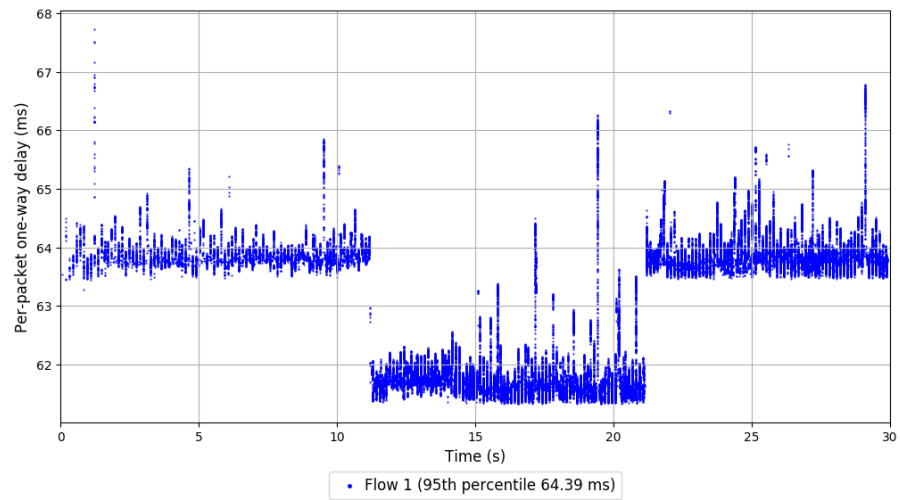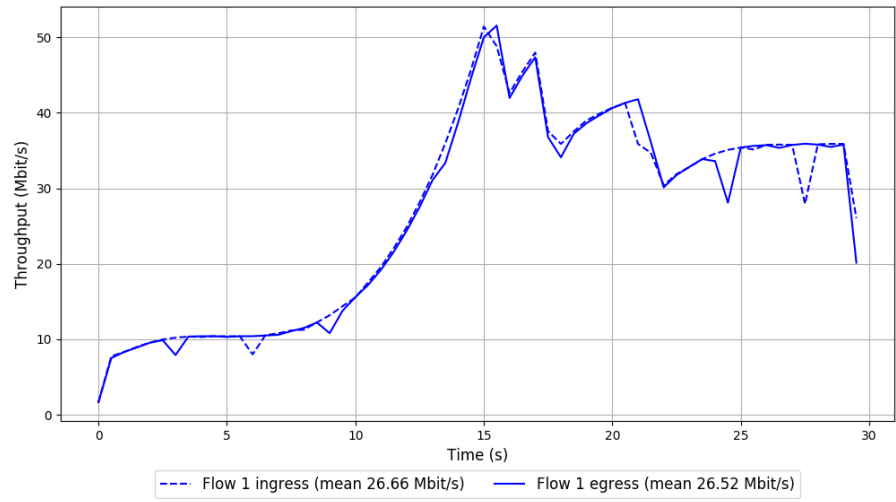
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 26.66 Mbit/s)   Flow 1 egress (mean 26.52 Mbit/s)

• Flow 1 (95th percentile 64.39 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2017-09-21 21:02:57
End at: 2017-09-21 21:03:27


# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.53 Mbit/s
95th percentile per-packet one-way delay: 66.413 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 93.53 Mbit/s
95th percentile per-packet one-way delay: 66.413 ms
Loss rate: 0.38%
```
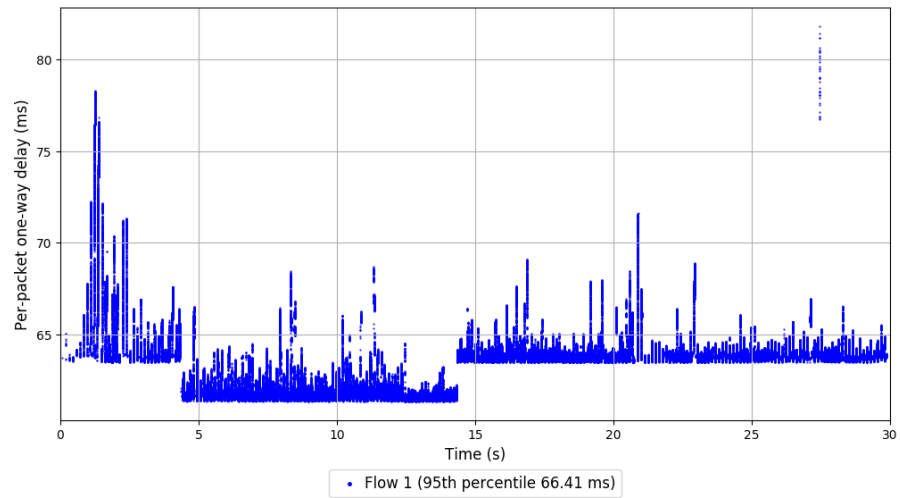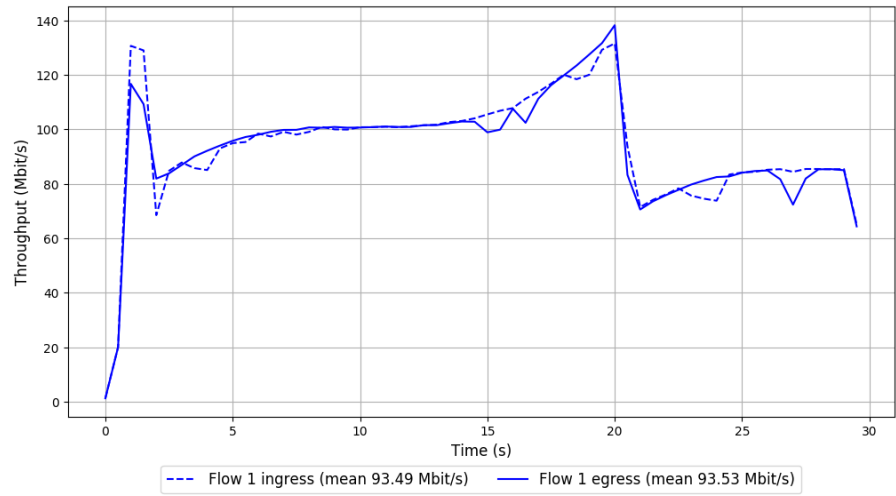
Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2017-09-21 21:13:35
End at: 2017-09-21 21:14:05

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.51 Mbit/s
95th percentile per-packet one-way delay: 69.609 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 74.51 Mbit/s
95th percentile per-packet one-way delay: 69.609 ms
Loss rate: 0.26%
```
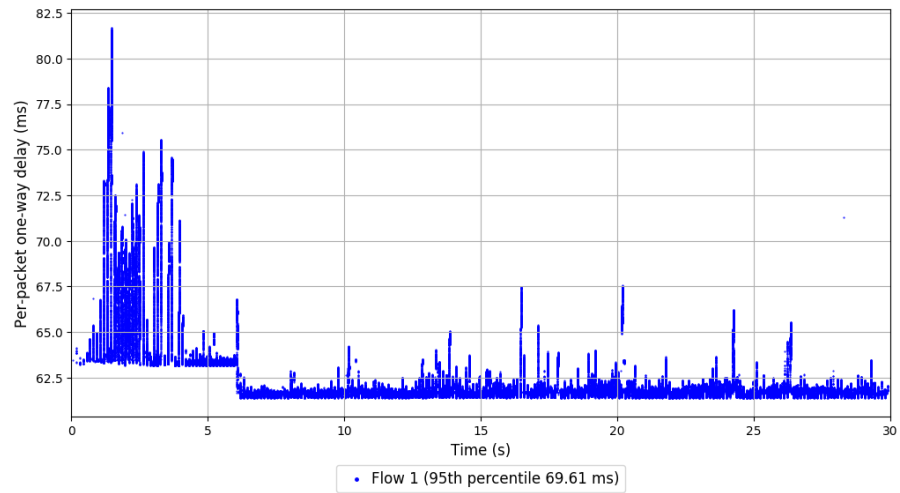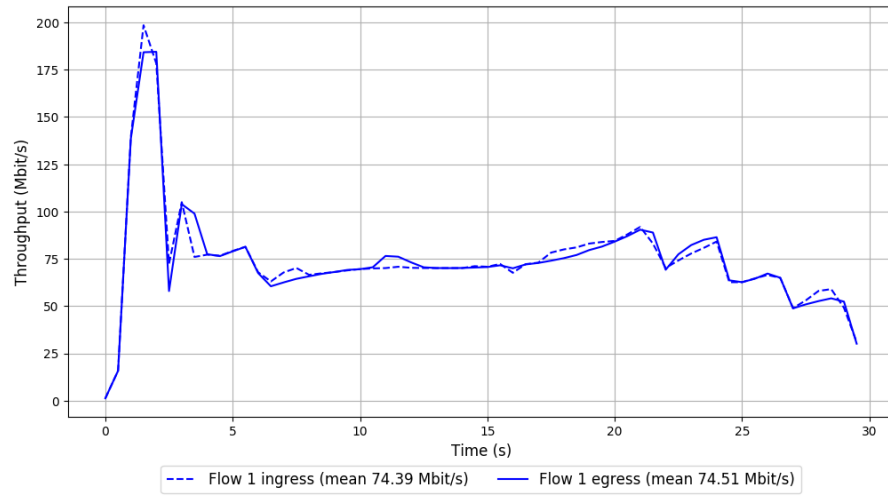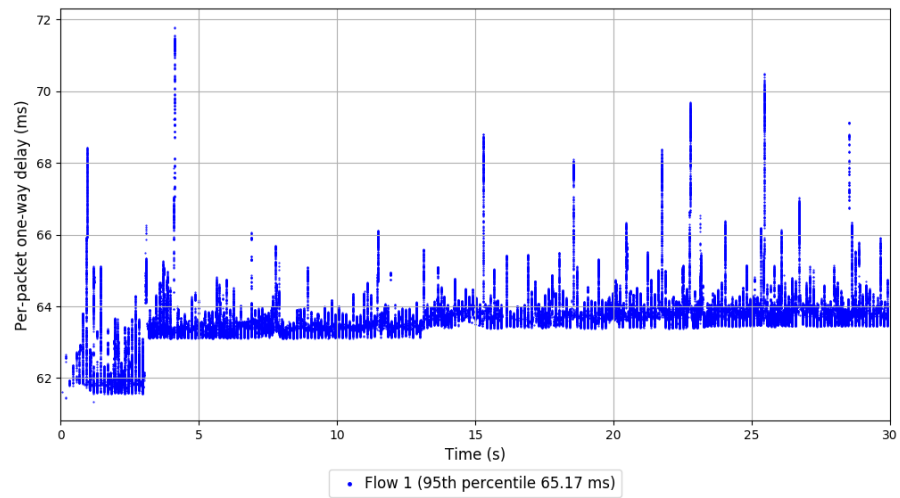
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 74.39 Mbit/s) — — — Flow 1 egress (mean 74.51 Mbit/s)

• Flow 1 (95th percentile 69.61 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2017-09-21 21:24:28
End at: 2017-09-21 21:24:58

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 65.174 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 65.174 ms
Loss rate: 0.43%
```
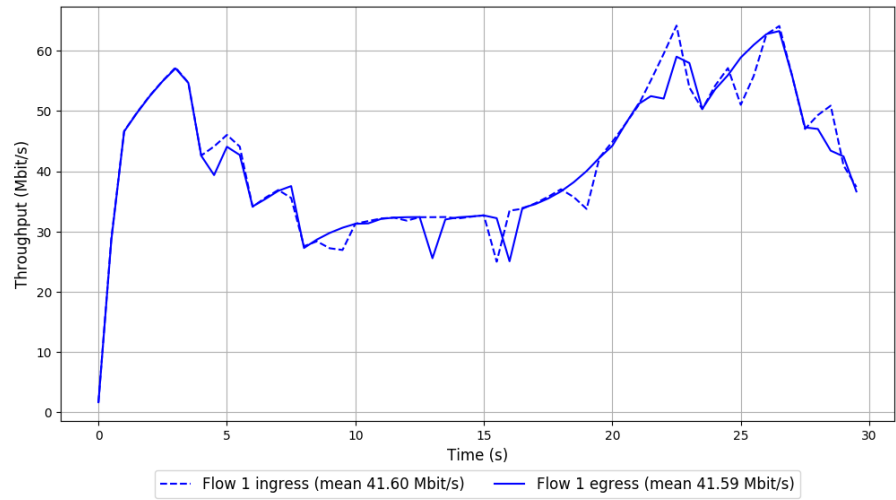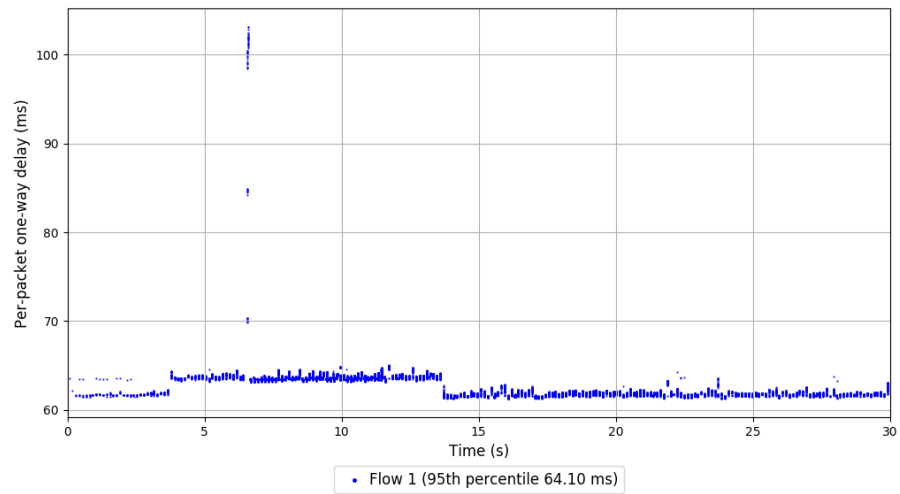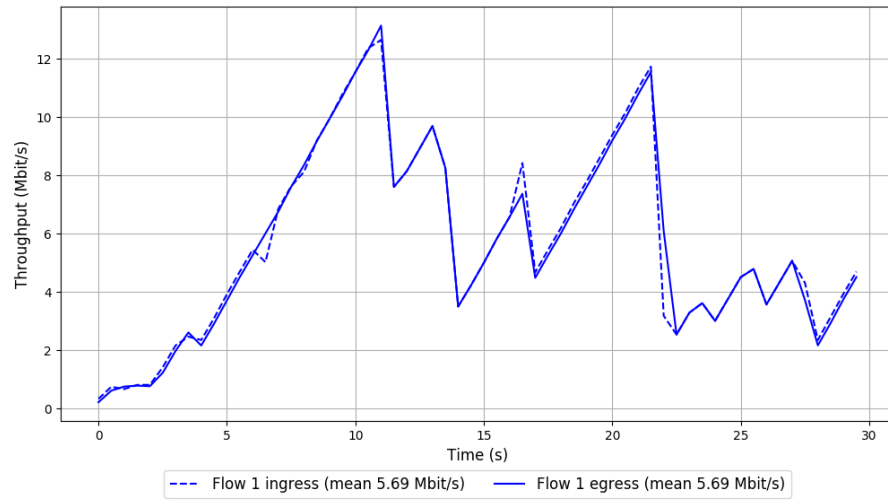
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 41.60 Mbit/s)   Flow 1 egress (mean 41.59 Mbit/s)
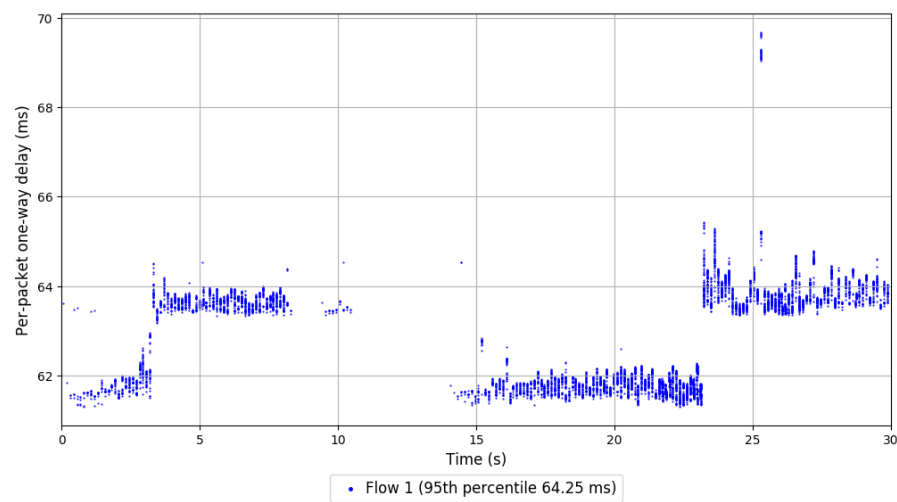

• Flow 1 (95th percentile 65.17 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2017-09-21 19:44:48
End at: 2017-09-21 19:45:18

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 64.098 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 64.098 ms
Loss rate: 0.43%
```
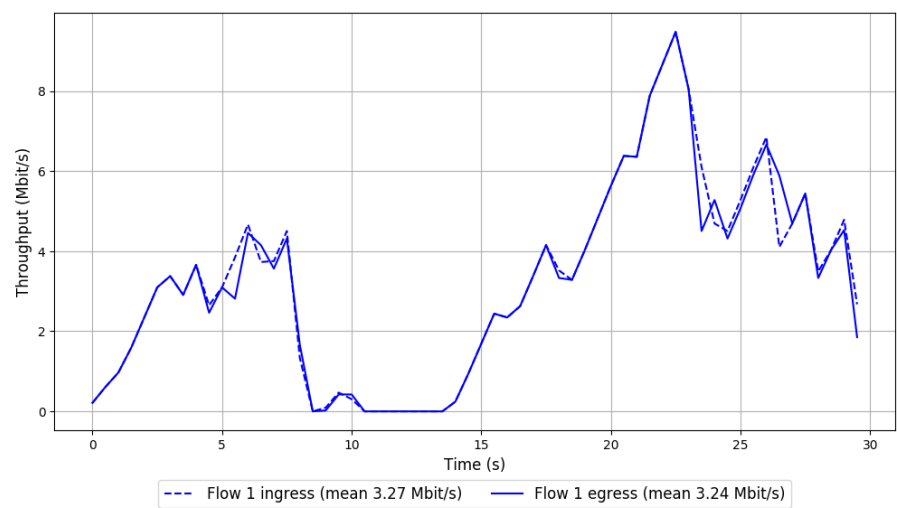
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.69 Mbit/s) --- Flow 1 egress (mean 5.69 Mbit/s)

Flow 1 (95th percentile 64.10 ms)

45

```
Run 2: Statistics of LEDBAT

Start at: 2017-09-21 19:55:18
End at: 2017-09-21 19:55:48

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 64.247 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 64.247 ms
Loss rate: 1.27%
```
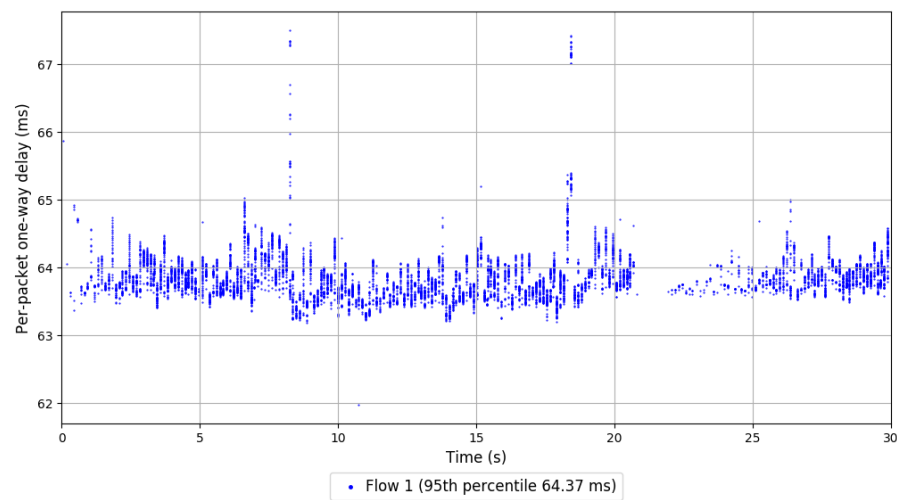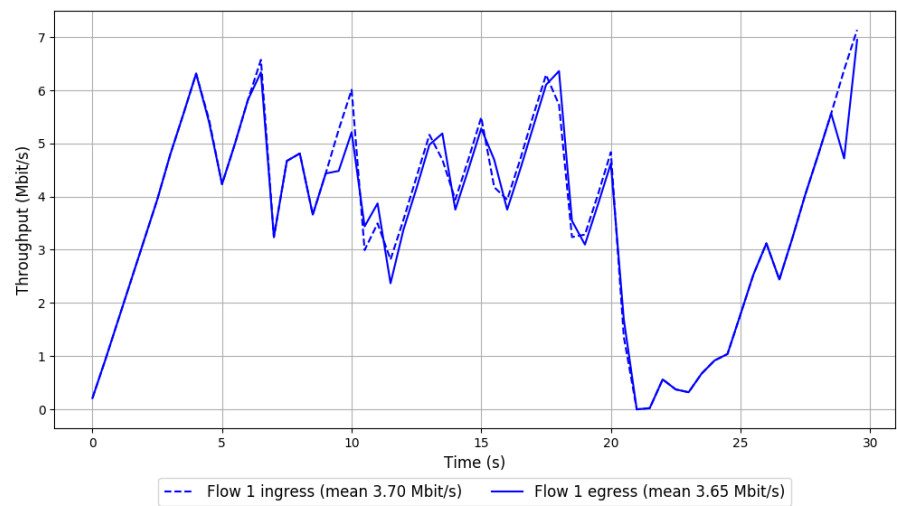
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 3.27 Mbit/s) ——— Flow 1 egress (mean 3.24 Mbit/s)

• Flow 1 (95th percentile 64.25 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2017-09-21 20:05:53
End at: 2017-09-21 20:06:23

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 64.367 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 64.367 ms
Loss rate: 1.62%
```
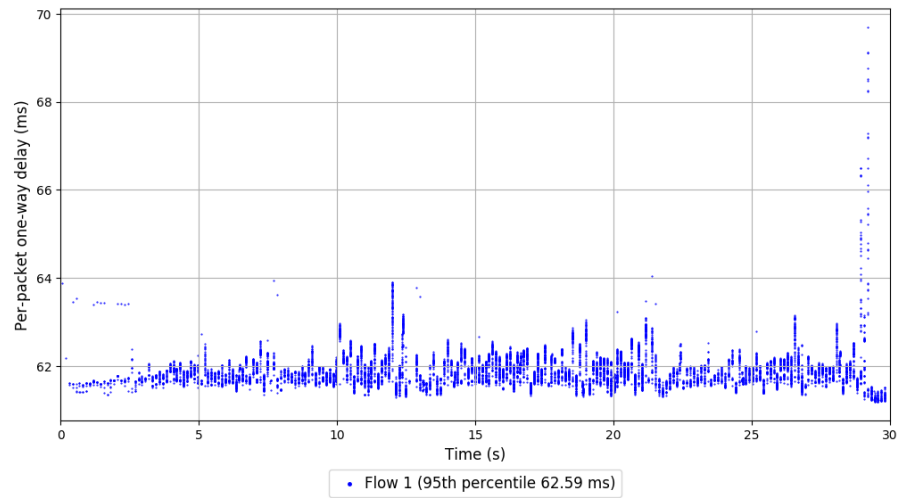
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2017-09-21 20:16:42
End at: 2017-09-21 20:17:12

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 62.586 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 62.586 ms
Loss rate: 0.70%
```
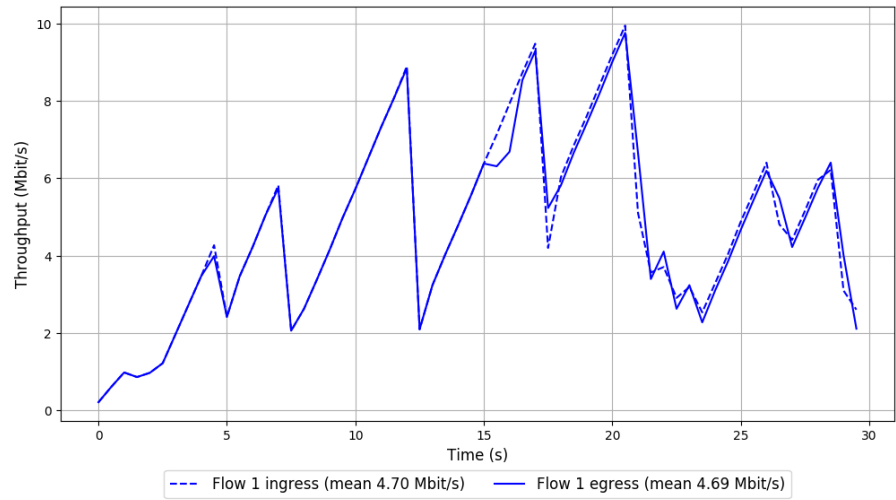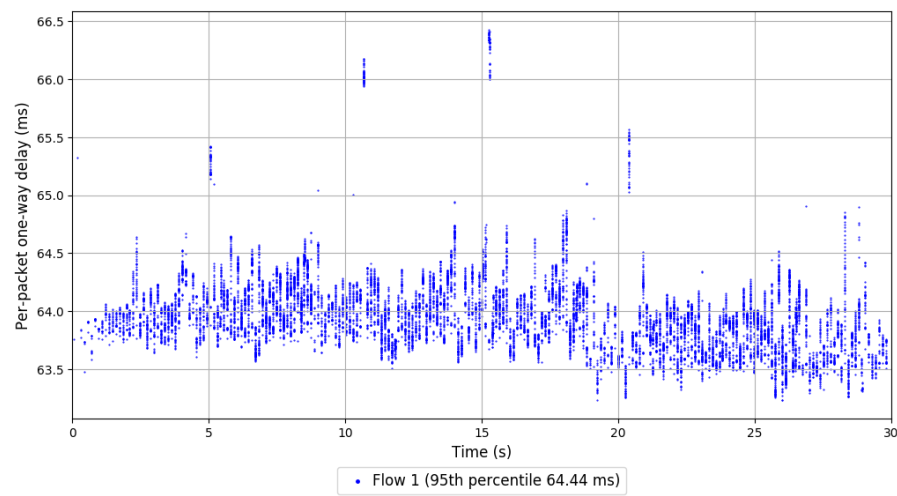
Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 4.70 Mbit/s)　　Flow 1 egress (mean 4.69 Mbit/s)

Flow 1 (95th percentile 62.59 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2017-09-21 20:27:23
End at: 2017-09-21 20:27:53

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 64.438 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 64.438 ms
Loss rate: 0.81%
```
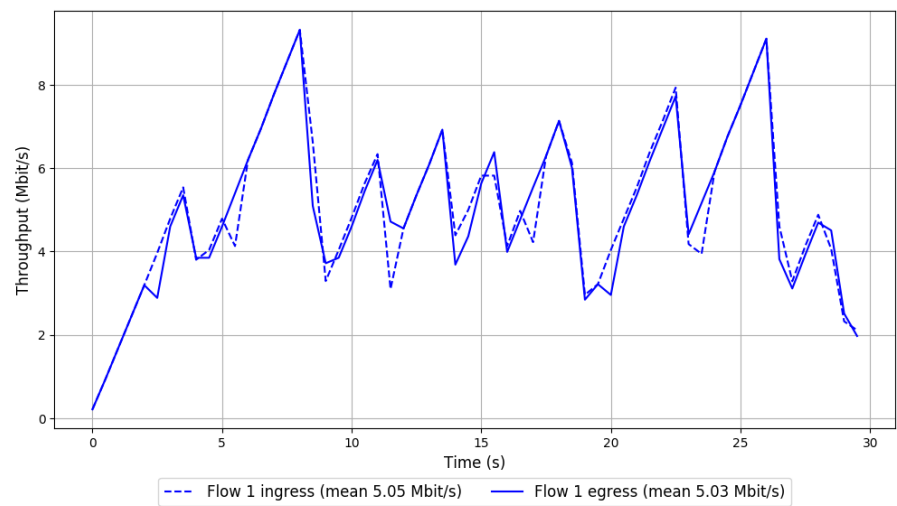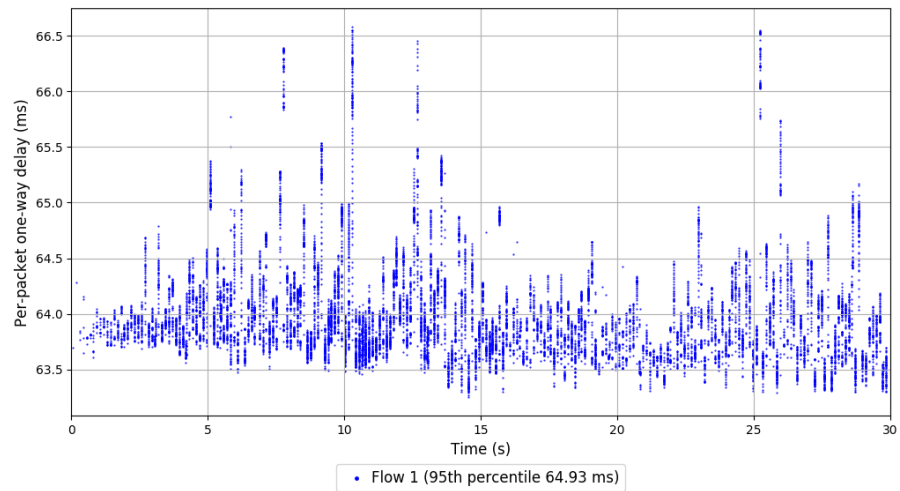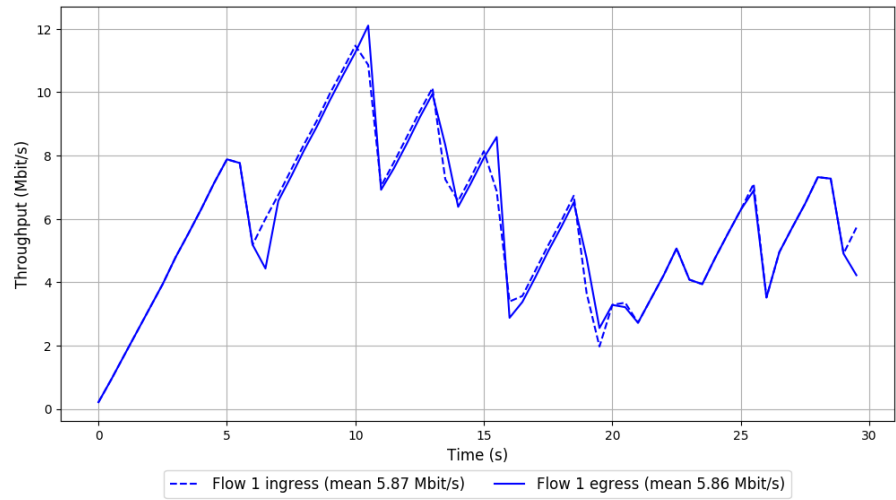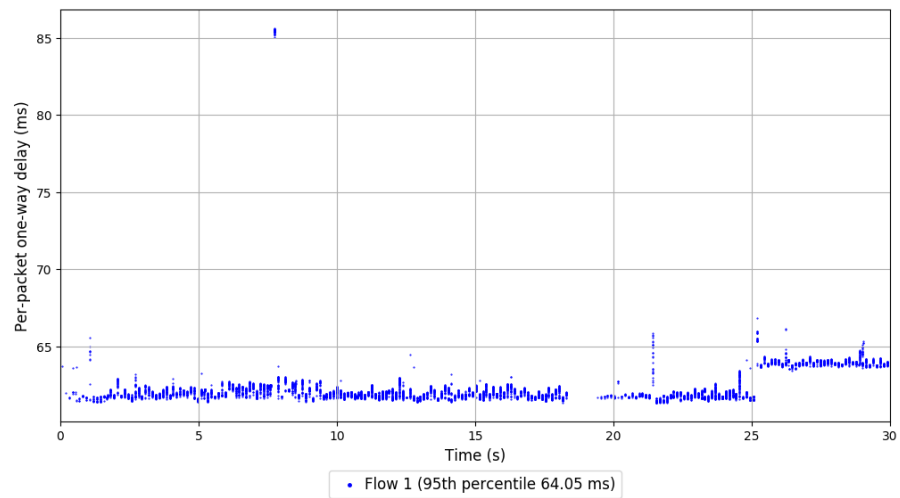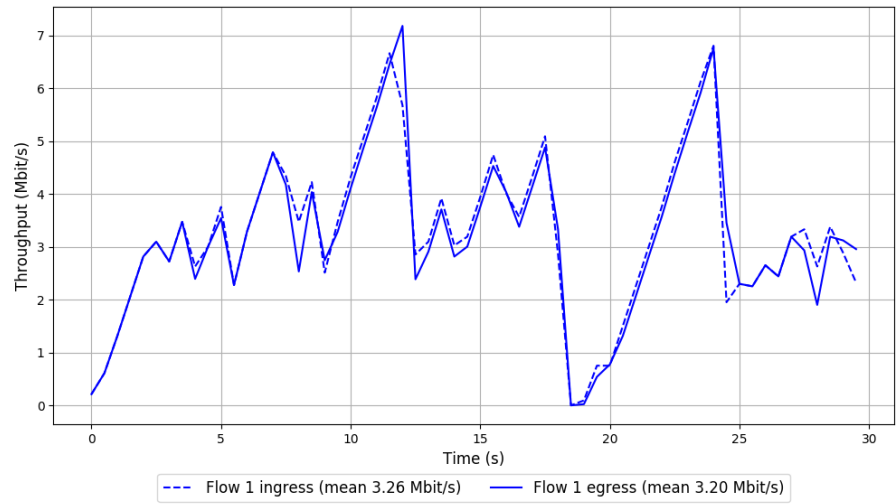
Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2017-09-21 20:37:58
End at: 2017-09-21 20:38:28

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 64.934 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 64.934 ms
Loss rate: 0.59%
```

Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.87 Mbit/s)   Flow 1 egress (mean 5.86 Mbit/s)

Flow 1 (95th percentile 64.93 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2017-09-21 20:48:56
End at: 2017-09-21 20:49:26

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 64.048 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 64.048 ms
Loss rate: 1.72%
```
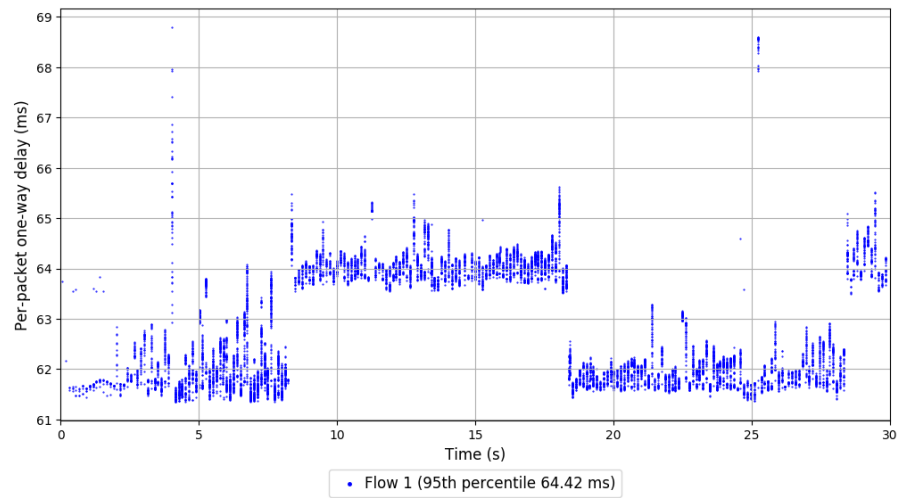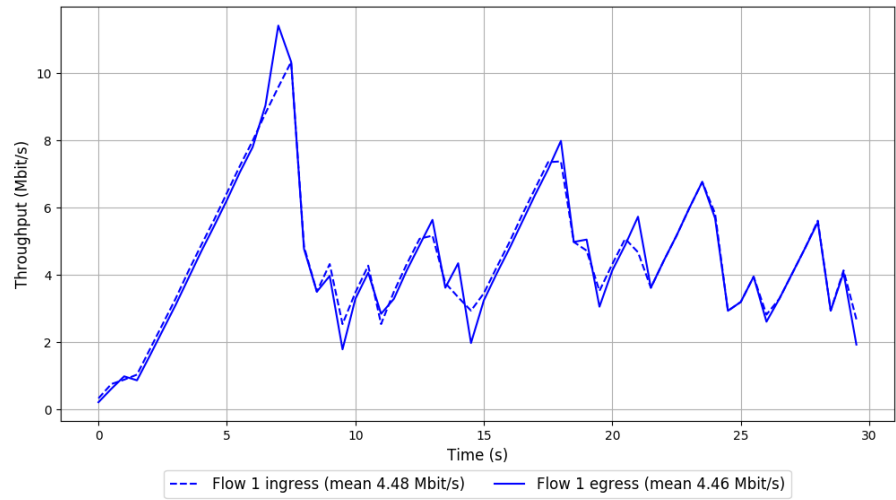
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 3.26 Mbit/s)   Flow 1 egress (mean 3.20 Mbit/s)

Flow 1 (95th percentile 64.05 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2017-09-21 20:59:33
End at: 2017-09-21 21:00:03

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 64.415 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 64.415 ms
Loss rate: 1.02%
```
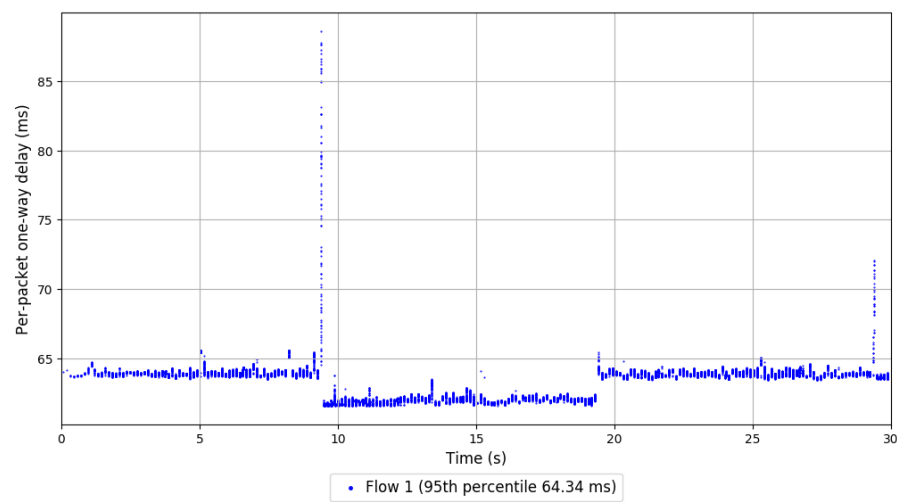
Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2017-09-21 21:10:12
End at: 2017-09-21 21:10:42

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 64.336 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 64.336 ms
Loss rate: 1.04%
```
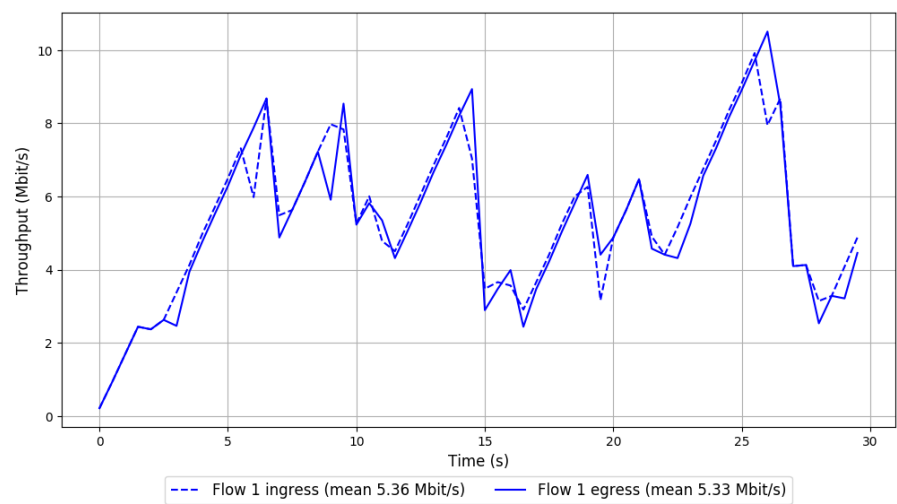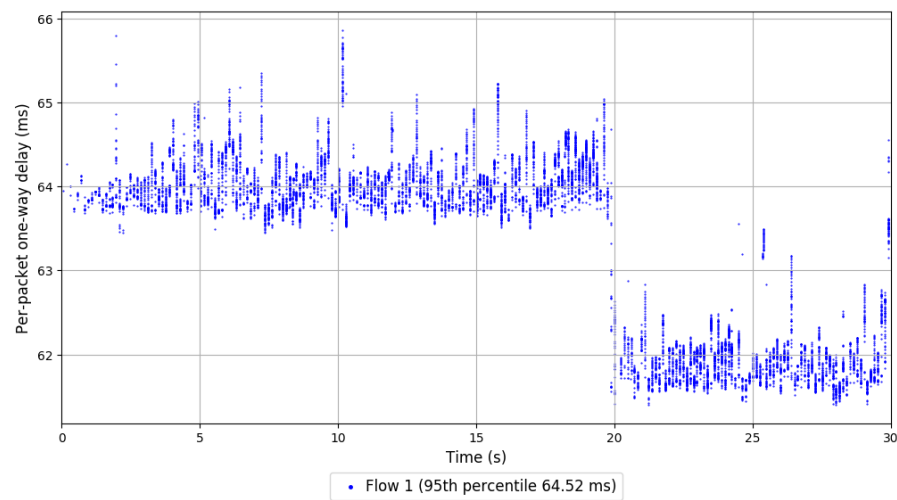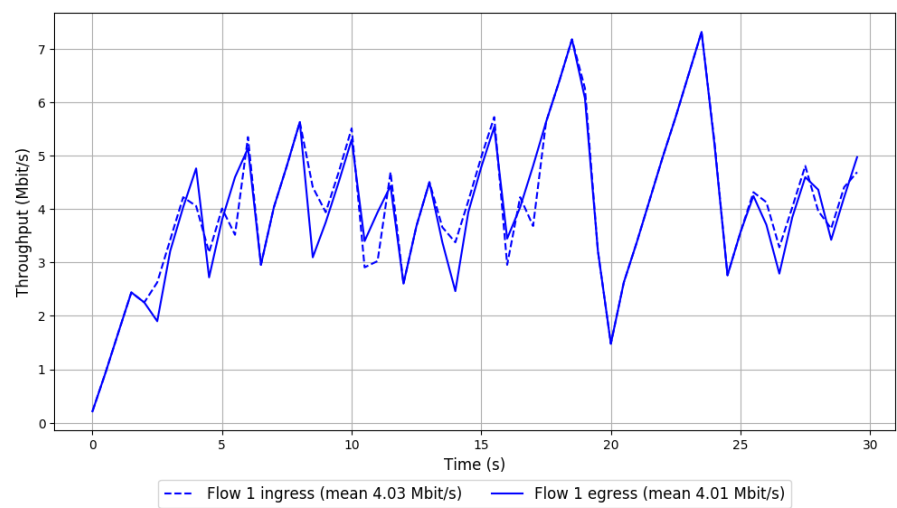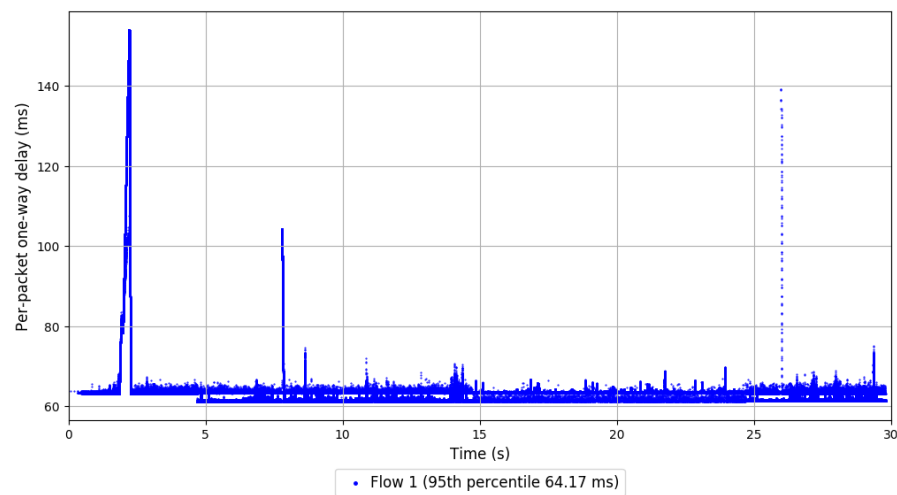
Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.36 Mbit/s)   Flow 1 egress (mean 5.33 Mbit/s)

Flow 1 (95th percentile 64.34 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2017-09-21 21:21:01
End at: 2017-09-21 21:21:31

# Below is generated by plot.py at 2017-09-21 23:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 64.522 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 64.522 ms
Loss rate: 1.11%
```
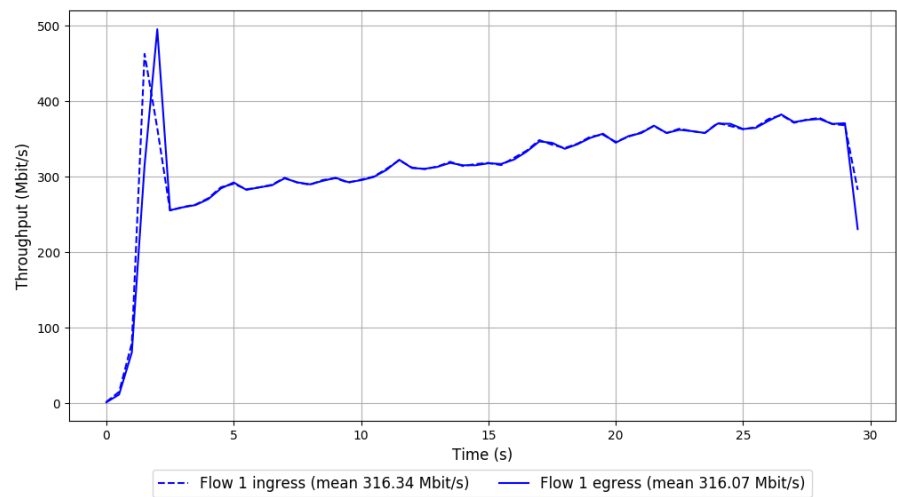
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2017-09-21 19:48:56
End at: 2017-09-21 19:49:26

# Below is generated by plot.py at 2017-09-21 23:27:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.07 Mbit/s
95th percentile per-packet one-way delay: 64.171 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 316.07 Mbit/s
95th percentile per-packet one-way delay: 64.171 ms
Loss rate: 0.51%
```

Run 1: Report of PCC — Data Link

```
Run 2: Statistics of PCC

Start at: 2017-09-21 19:59:23
End at: 2017-09-21 19:59:53

# Below is generated by plot.py at 2017-09-21 23:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 484.79 Mbit/s
95th percentile per-packet one-way delay: 96.882 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 484.79 Mbit/s
95th percentile per-packet one-way delay: 96.882 ms
Loss rate: 0.85%
```
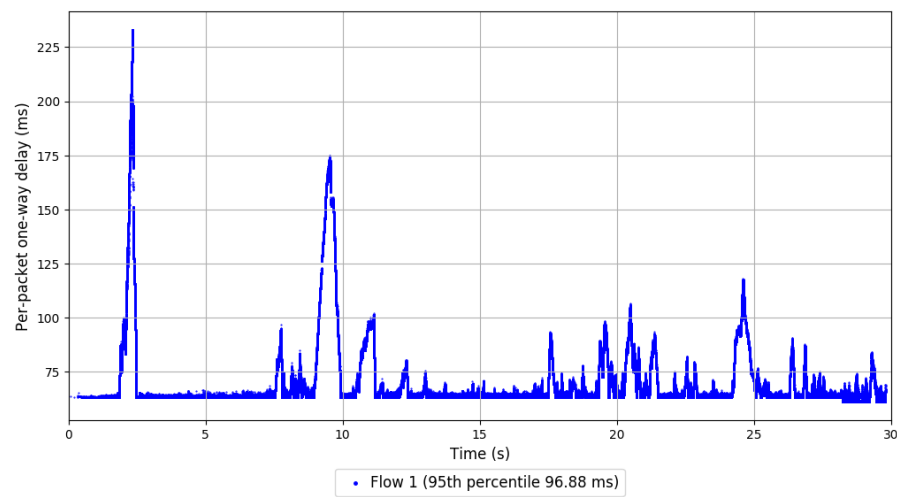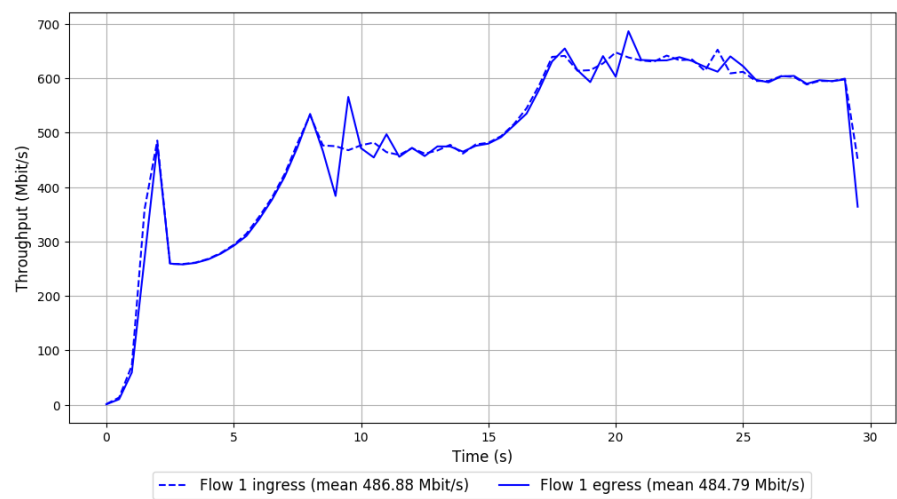
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 486.88 Mbit/s) --- Flow 1 egress (mean 484.79 Mbit/s)

Flow 1 (95th percentile 96.88 ms)

```
Run 3: Statistics of PCC

Start at: 2017-09-21 20:10:00
End at: 2017-09-21 20:10:30

# Below is generated by plot.py at 2017-09-21 23:32:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 526.82 Mbit/s
95th percentile per-packet one-way delay: 155.892 ms
Loss rate: 2.95%
-- Flow 1:
Average throughput: 526.82 Mbit/s
95th percentile per-packet one-way delay: 155.892 ms
Loss rate: 2.95%
```
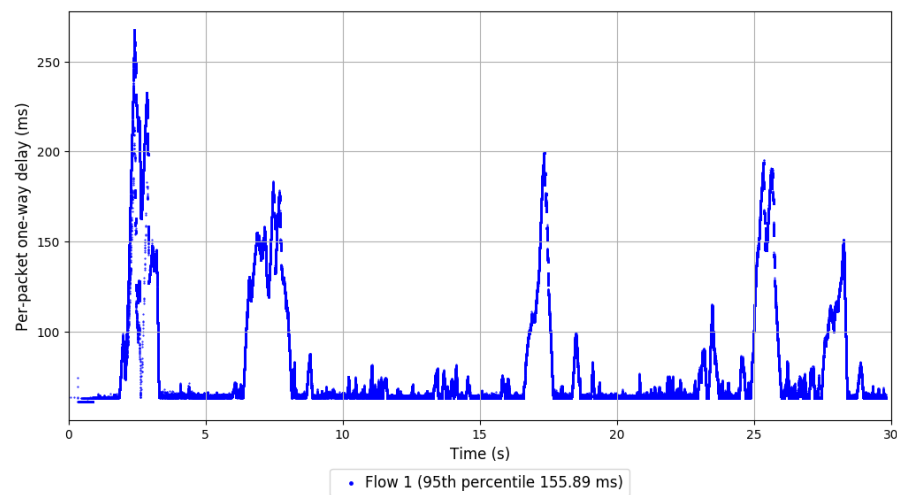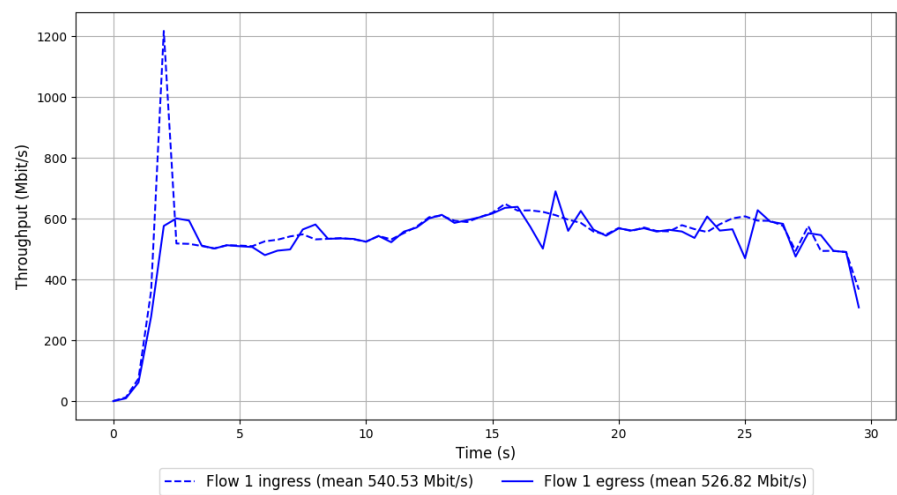
Run 3: Report of PCC — Data Link

69

```
Run 4: Statistics of PCC

Start at: 2017-09-21 20:20:49
End at: 2017-09-21 20:21:19


# Below is generated by plot.py at 2017-09-21 23:32:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 472.27 Mbit/s
95th percentile per-packet one-way delay: 146.547 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 472.27 Mbit/s
95th percentile per-packet one-way delay: 146.547 ms
Loss rate: 2.36%
```
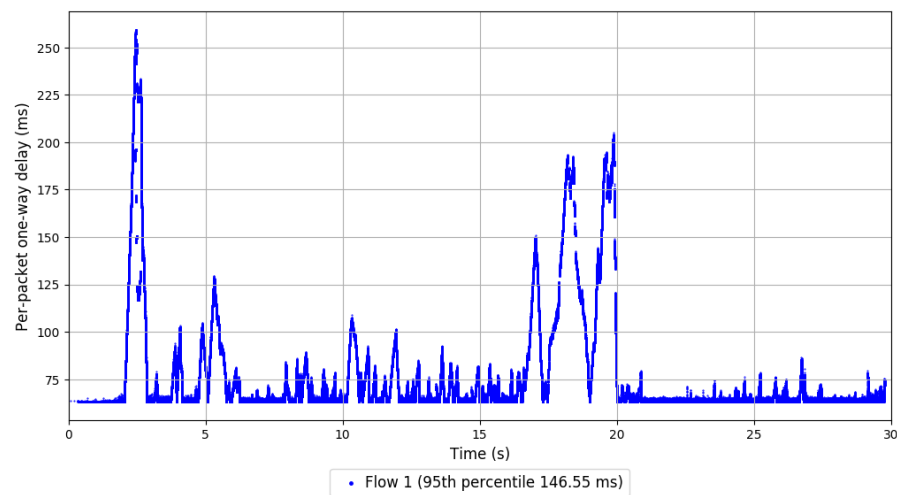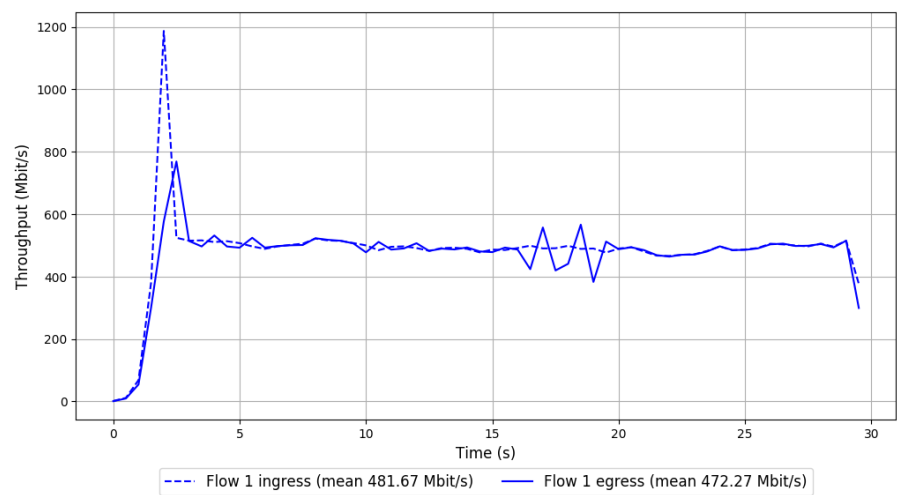
Run 4: Report of PCC — Data Link

Flow 1 ingress (mean 481.67 Mbit/s)   Flow 1 egress (mean 472.27 Mbit/s)

• Flow 1 (95th percentile 146.55 ms)

```
Run 5: Statistics of PCC

Start at: 2017-09-21 20:31:28
End at: 2017-09-21 20:31:58

# Below is generated by plot.py at 2017-09-21 23:32:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 495.97 Mbit/s
95th percentile per-packet one-way delay: 162.162 ms
Loss rate: 3.04%
-- Flow 1:
Average throughput: 495.97 Mbit/s
95th percentile per-packet one-way delay: 162.162 ms
Loss rate: 3.04%
```
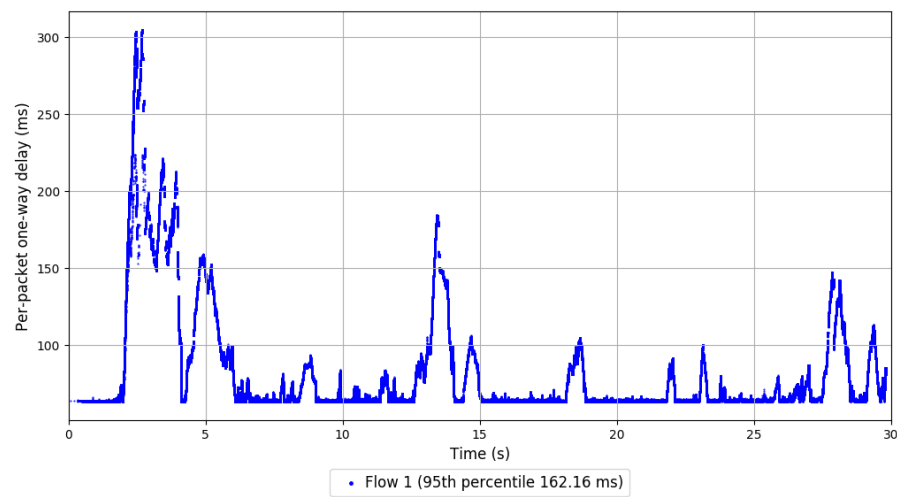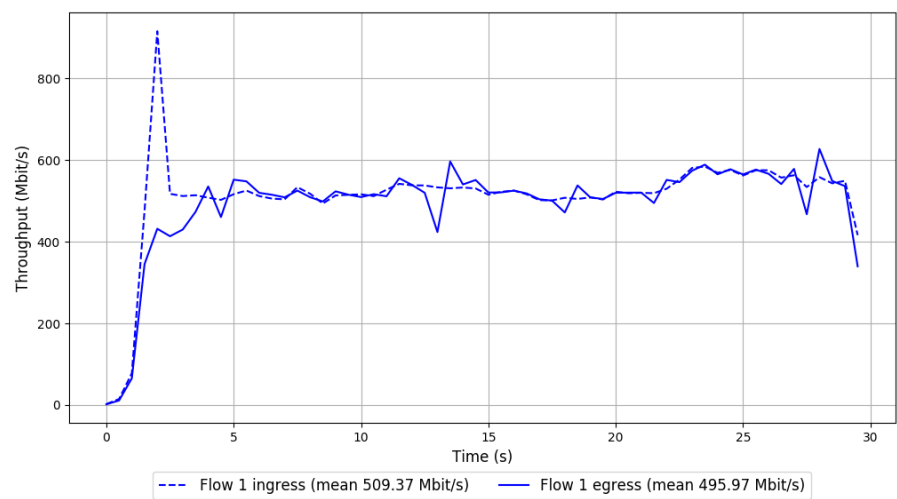
Run 5: Report of PCC — Data Link

```
Run 6: Statistics of PCC

Start at: 2017-09-21 20:42:10
End at: 2017-09-21 20:42:40


# Below is generated by plot.py at 2017-09-21 23:32:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 503.15 Mbit/s
95th percentile per-packet one-way delay: 135.191 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 503.15 Mbit/s
95th percentile per-packet one-way delay: 135.191 ms
Loss rate: 1.29%
```
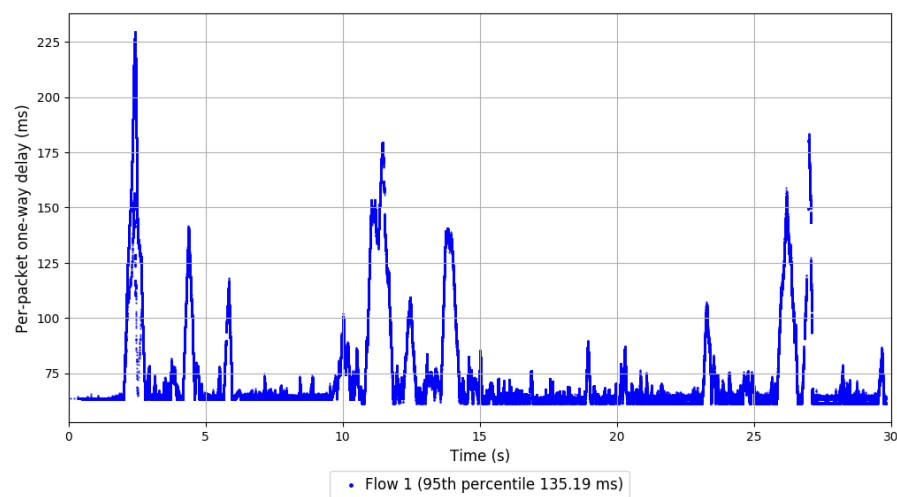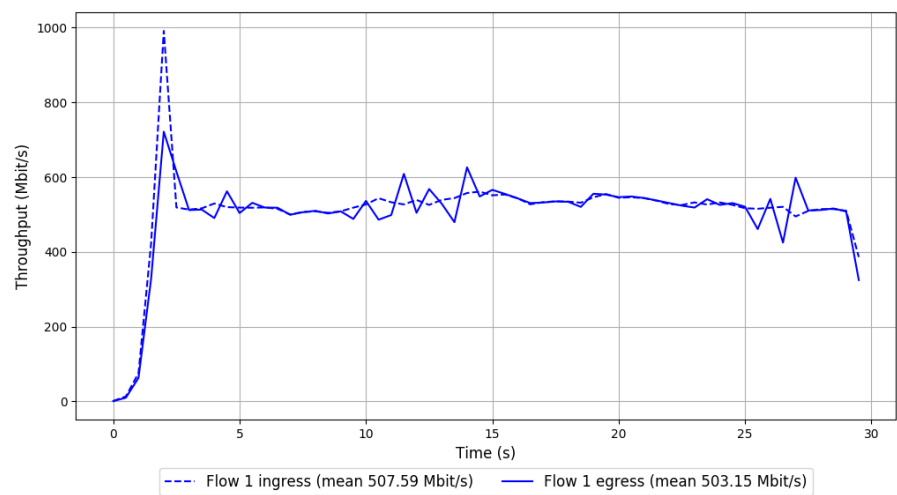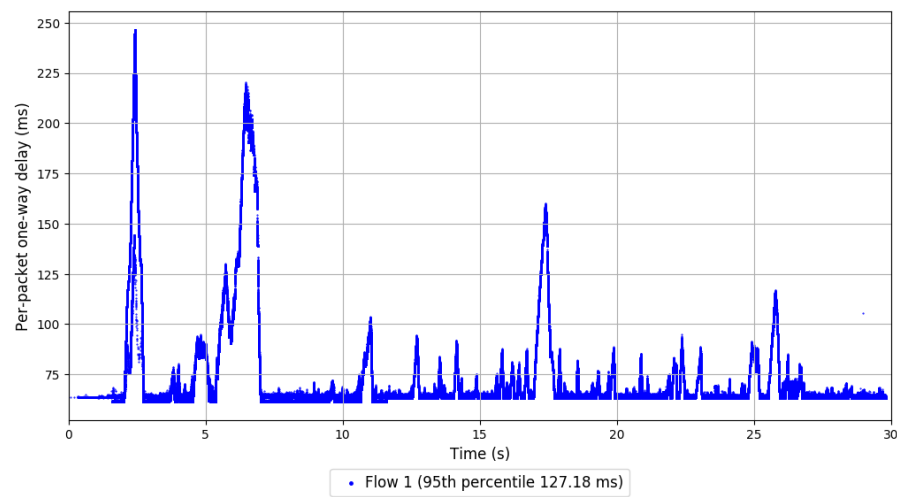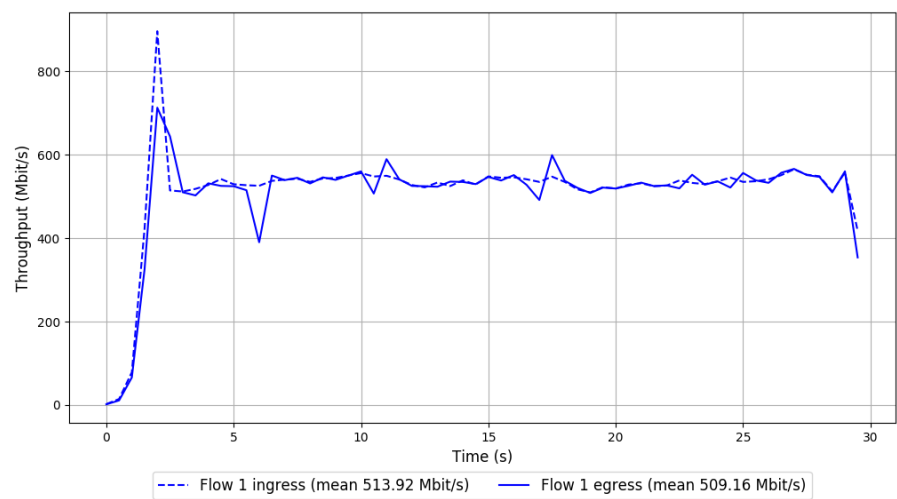
Run 6: Report of PCC — Data Link

Flow 1 ingress (mean 507.59 Mbit/s)   Flow 1 egress (mean 503.15 Mbit/s)

• Flow 1 (95th percentile 135.19 ms)

```
Run 7: Statistics of PCC

Start at: 2017-09-21 20:53:00
End at: 2017-09-21 20:53:30

# Below is generated by plot.py at 2017-09-21 23:33:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 509.16 Mbit/s
95th percentile per-packet one-way delay: 127.180 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 509.16 Mbit/s
95th percentile per-packet one-way delay: 127.180 ms
Loss rate: 1.34%
```

Run 7: Report of PCC — Data Link

Flow 1 ingress (mean 513.92 Mbit/s)   Flow 1 egress (mean 509.16 Mbit/s)

Flow 1 (95th percentile 127.18 ms)

```
Run 8: Statistics of PCC

Start at: 2017-09-21 21:03:40
End at: 2017-09-21 21:04:10

# Below is generated by plot.py at 2017-09-21 23:34:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 545.96 Mbit/s
95th percentile per-packet one-way delay: 157.125 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 545.96 Mbit/s
95th percentile per-packet one-way delay: 157.125 ms
Loss rate: 2.43%
```
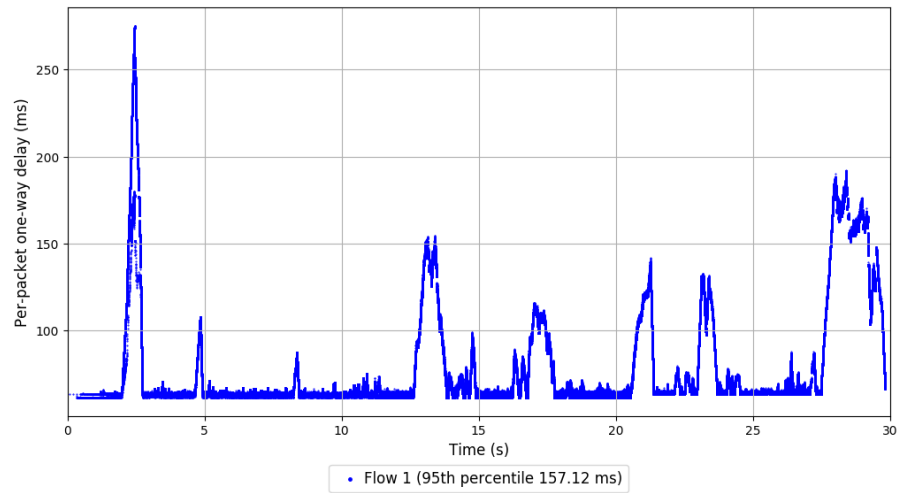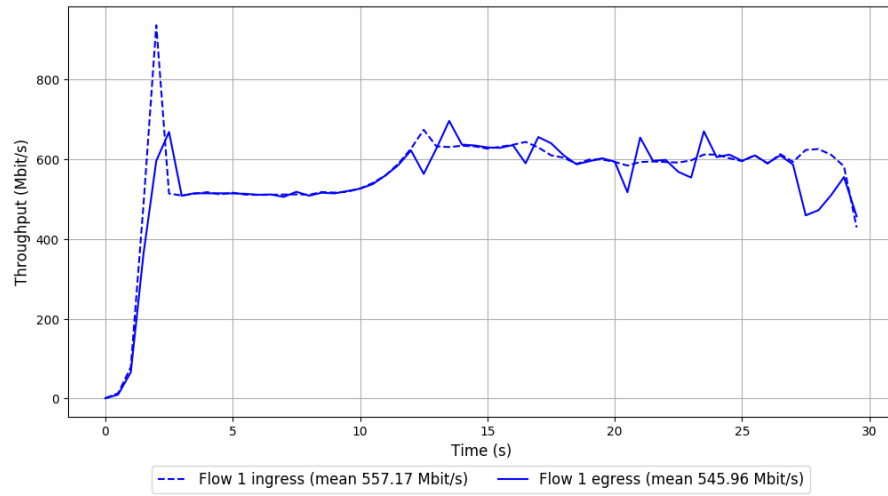
Run 8: Report of PCC — Data Link

```
Run 9: Statistics of PCC

Start at: 2017-09-21 21:14:17
End at: 2017-09-21 21:14:47

# Below is generated by plot.py at 2017-09-21 23:40:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.03 Mbit/s
95th percentile per-packet one-way delay: 90.811 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 500.03 Mbit/s
95th percentile per-packet one-way delay: 90.811 ms
Loss rate: 2.81%
```
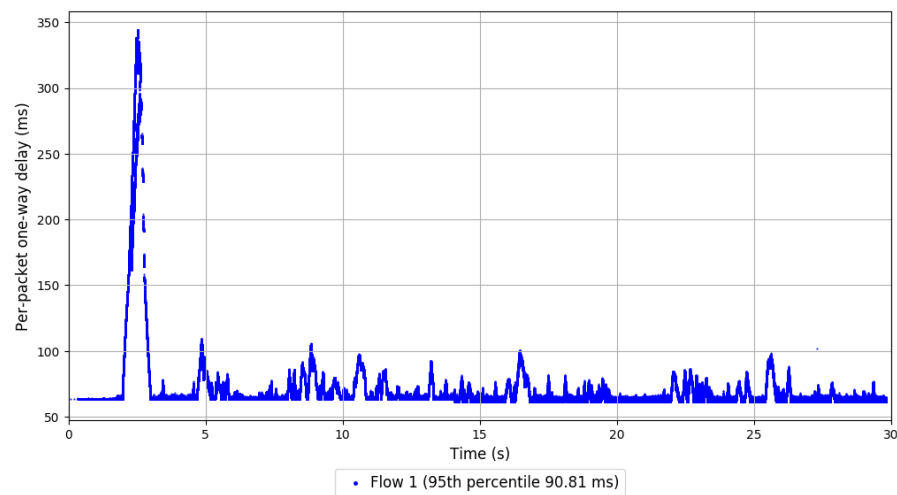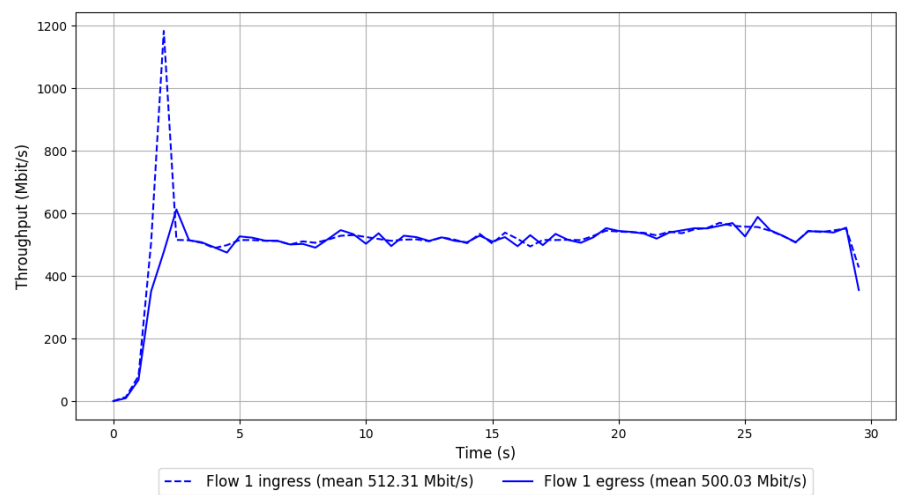
Run 9: Report of PCC — Data Link

Flow 1 ingress (mean 512.31 Mbit/s) --- Flow 1 egress (mean 500.03 Mbit/s)

Flow 1 (95th percentile 90.81 ms)

```
Run 10: Statistics of PCC

Start at: 2017-09-21 21:25:09
End at: 2017-09-21 21:25:39

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 513.62 Mbit/s
95th percentile per-packet one-way delay: 140.927 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 513.62 Mbit/s
95th percentile per-packet one-way delay: 140.927 ms
Loss rate: 1.82%
```
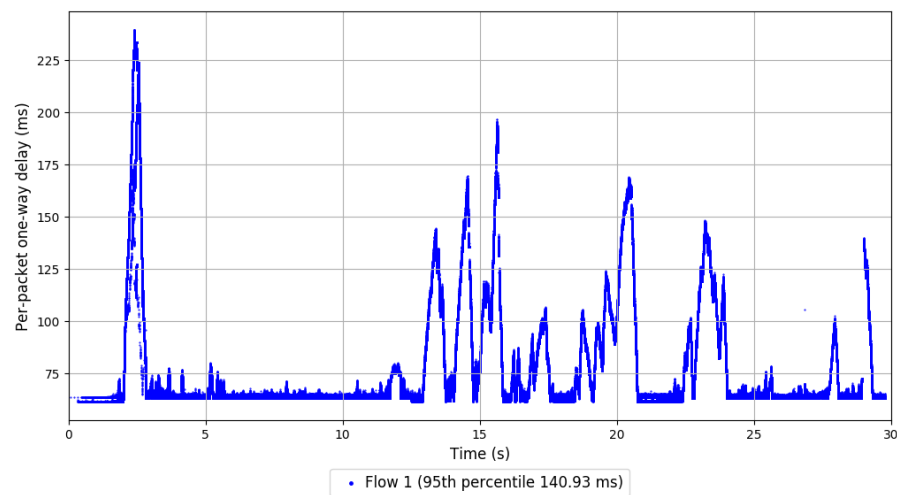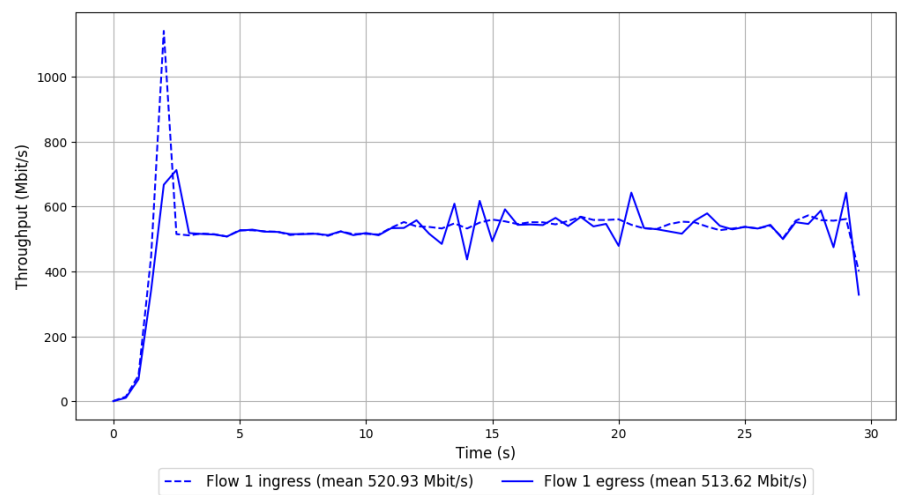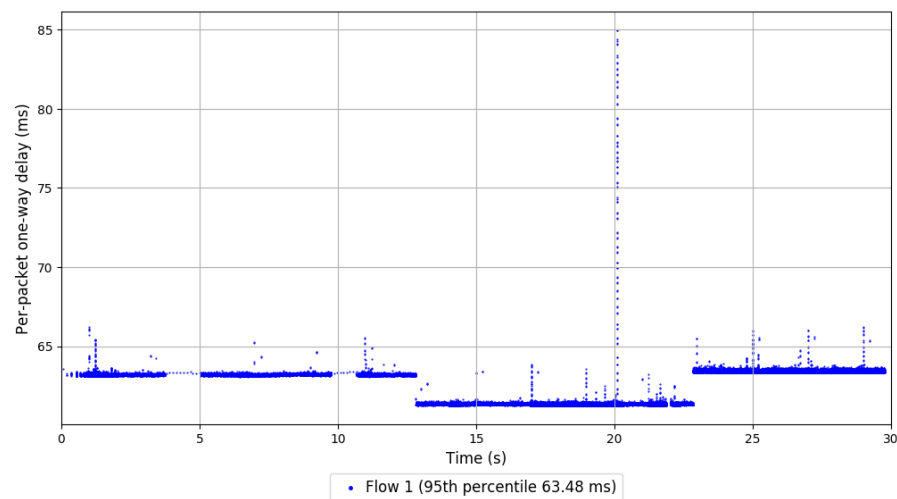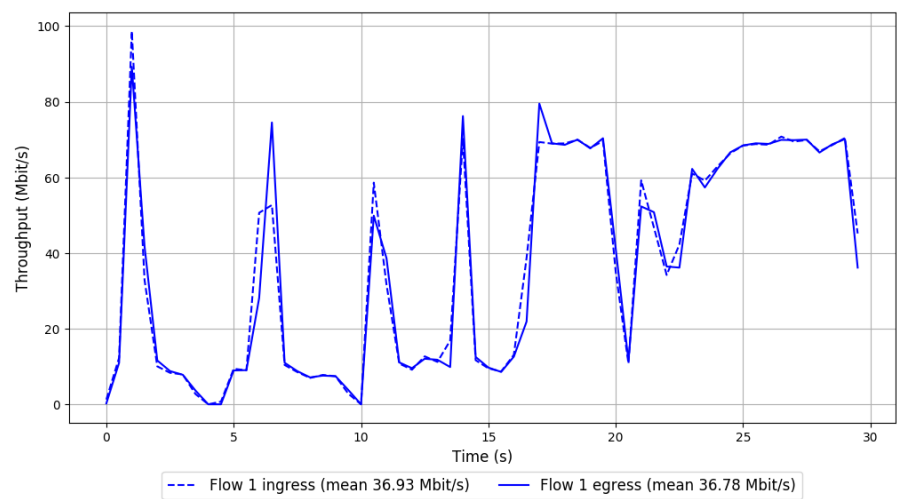
Run 10: Report of PCC — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-21 19:41:48
End at: 2017-09-21 19:42:18

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 36.78 Mbit/s
95th percentile per-packet one-way delay: 63.478 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 36.78 Mbit/s
95th percentile per-packet one-way delay: 63.478 ms
Loss rate: 0.82%
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-09-21 19:52:19
End at: 2017-09-21 19:52:49

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.47 Mbit/s
95th percentile per-packet one-way delay: 63.507 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 45.47 Mbit/s
95th percentile per-packet one-way delay: 63.507 ms
Loss rate: 0.73%
```
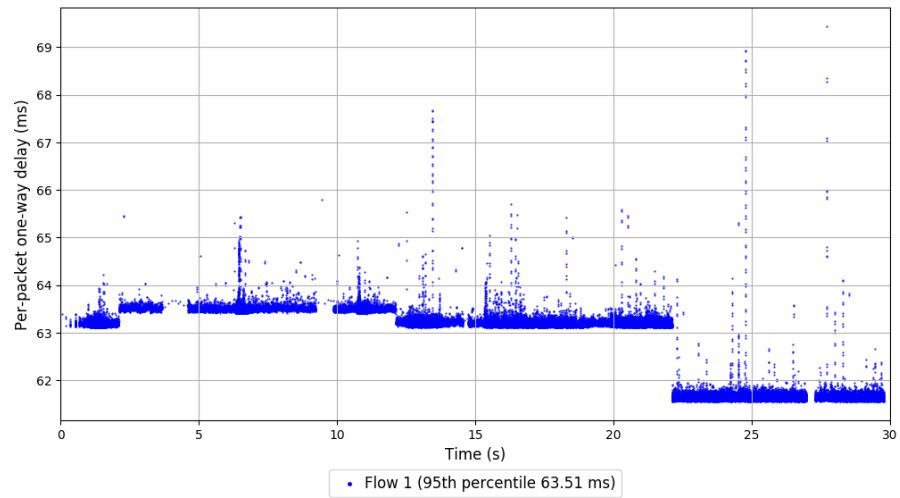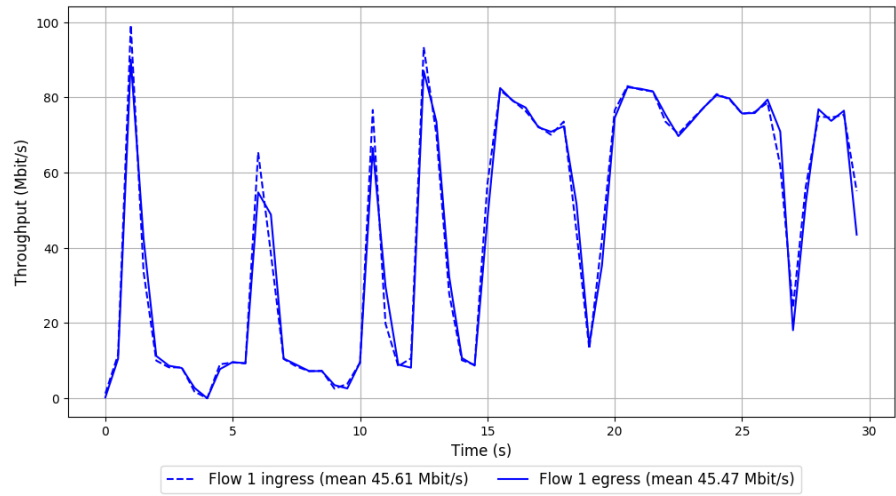
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2017-09-21 20:02:54
End at: 2017-09-21 20:03:24

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.51 Mbit/s
95th percentile per-packet one-way delay: 63.519 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 40.51 Mbit/s
95th percentile per-packet one-way delay: 63.519 ms
Loss rate: 0.16%
```
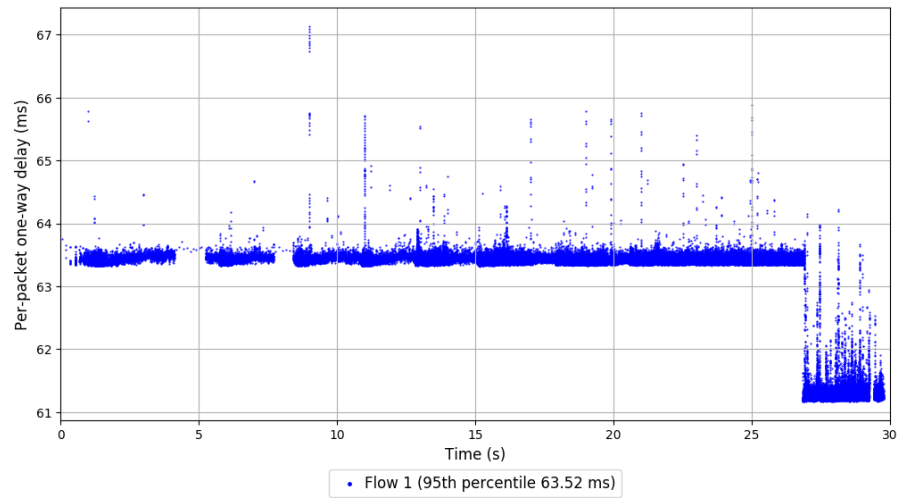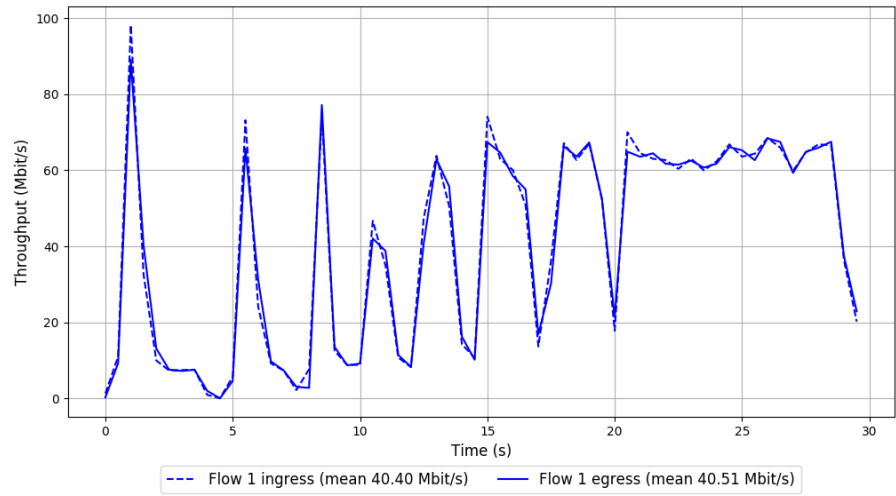
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 40.40 Mbit/s)   Flow 1 egress (mean 40.51 Mbit/s)

Flow 1 (95th percentile 63.52 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2017-09-21 20:13:43
End at: 2017-09-21 20:14:13

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.61 Mbit/s
95th percentile per-packet one-way delay: 62.300 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 41.61 Mbit/s
95th percentile per-packet one-way delay: 62.300 ms
Loss rate: 0.77%
```
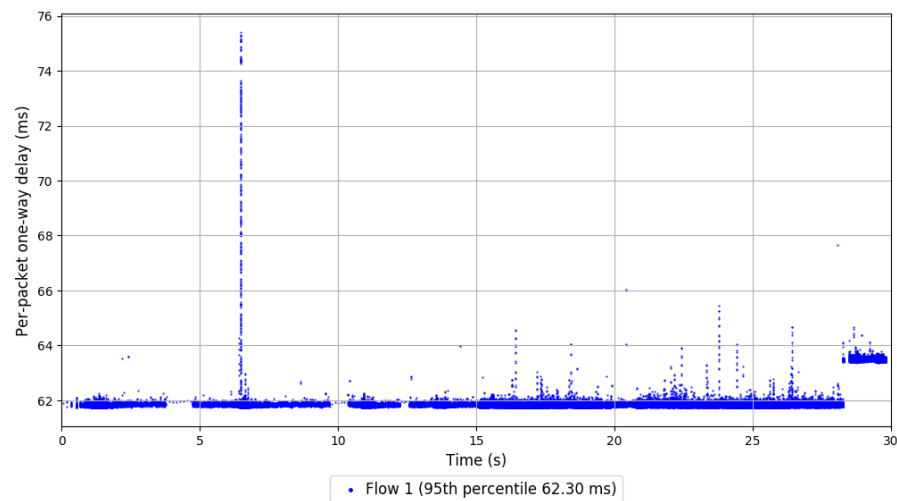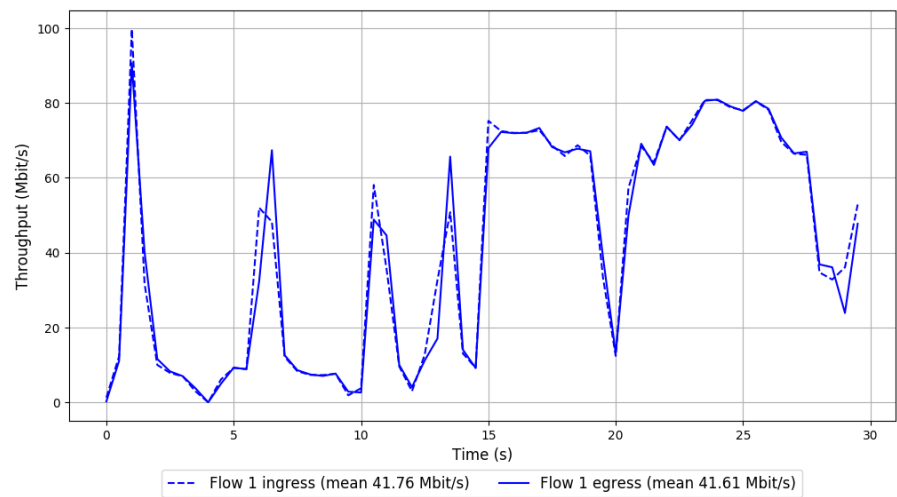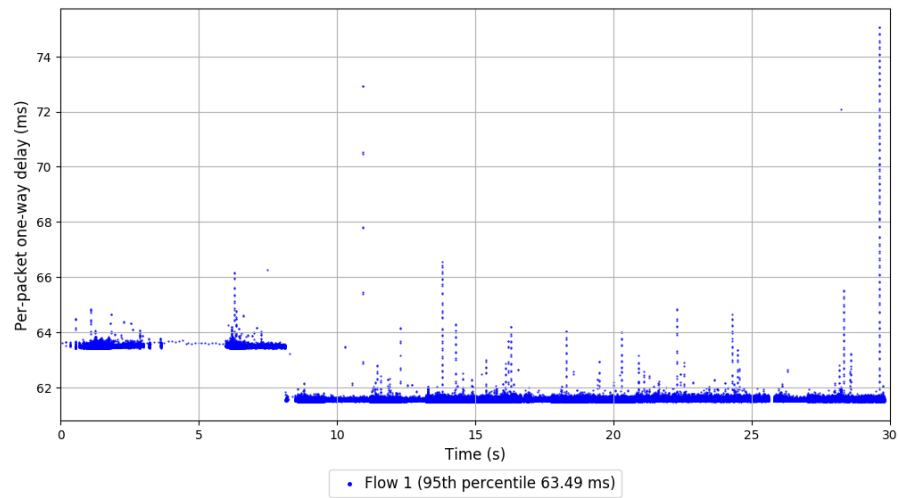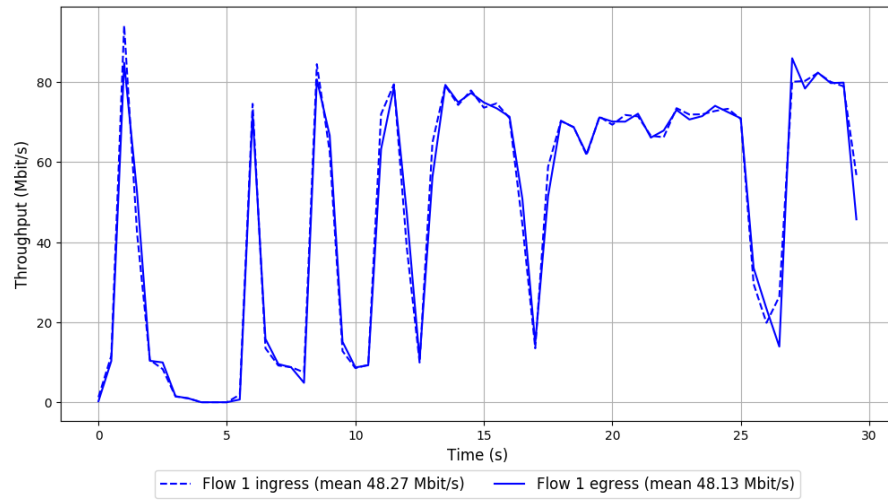
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 41.76 Mbit/s)   Flow 1 egress (mean 41.61 Mbit/s)

Flow 1 (95th percentile 62.30 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2017-09-21 20:24:23
End at: 2017-09-21 20:24:53

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.13 Mbit/s
95th percentile per-packet one-way delay: 63.491 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 48.13 Mbit/s
95th percentile per-packet one-way delay: 63.491 ms
Loss rate: 0.71%
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 48.27 Mbit/s) —— Flow 1 egress (mean 48.13 Mbit/s)

• Flow 1 (95th percentile 63.49 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2017-09-21 20:35:01
End at: 2017-09-21 20:35:31

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.10 Mbit/s
95th percentile per-packet one-way delay: 63.565 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 16.10 Mbit/s
95th percentile per-packet one-way delay: 63.565 ms
Loss rate: 1.00%
```
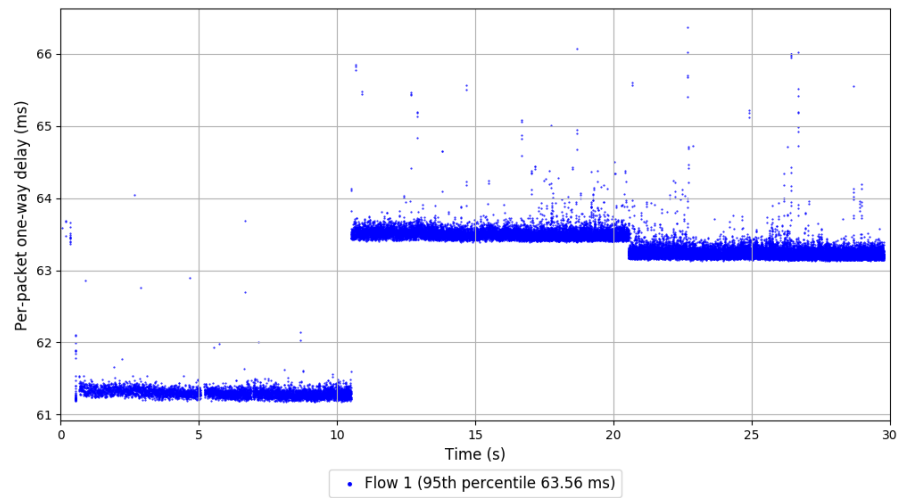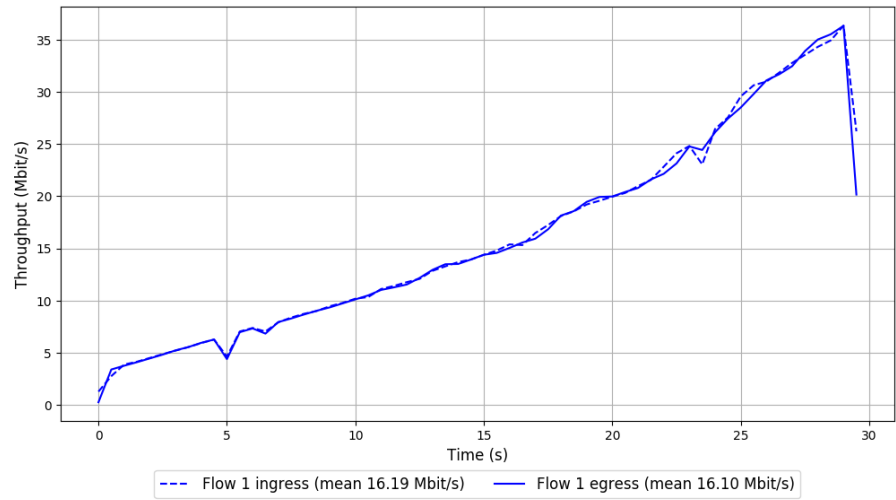
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 16.19 Mbit/s)   Flow 1 egress (mean 16.10 Mbit/s)

Flow 1 (95th percentile 63.56 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2017-09-21 20:45:56
End at: 2017-09-21 20:46:26

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 63.795 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 63.795 ms
Loss rate: 0.65%
```
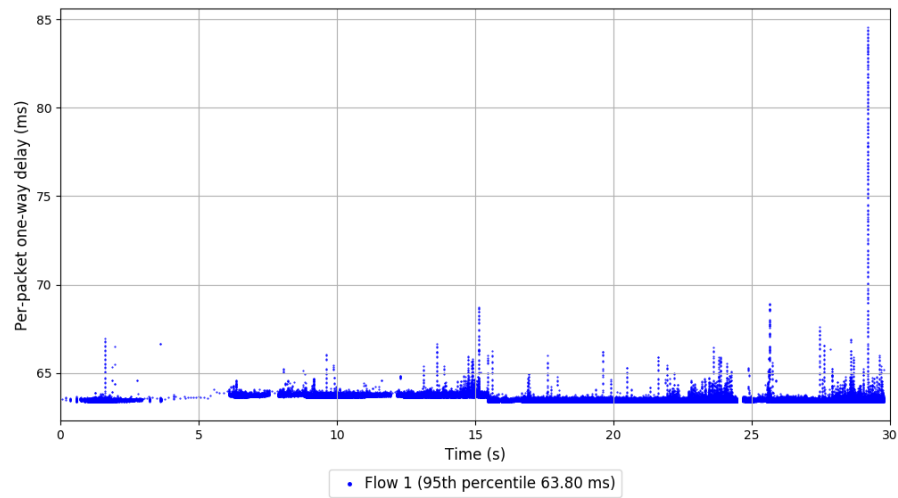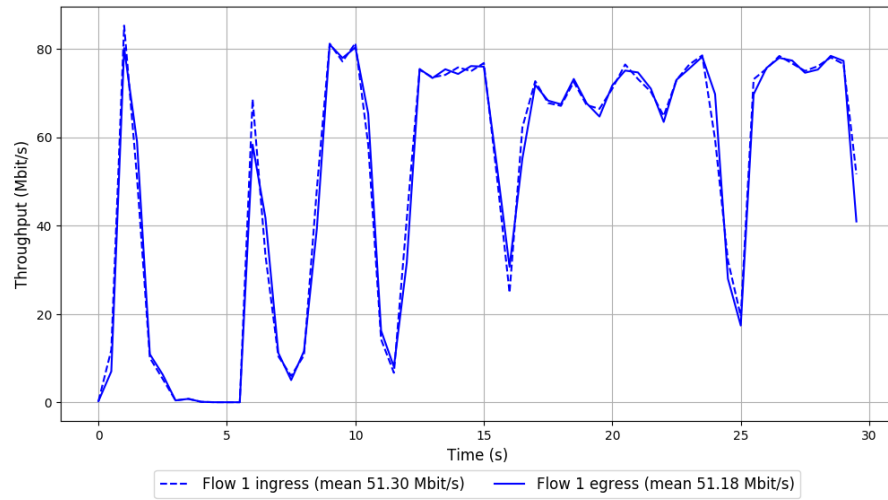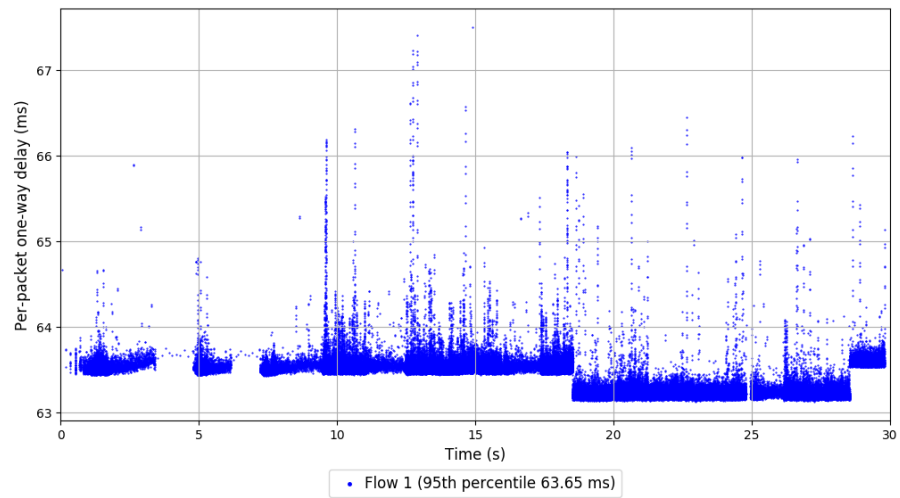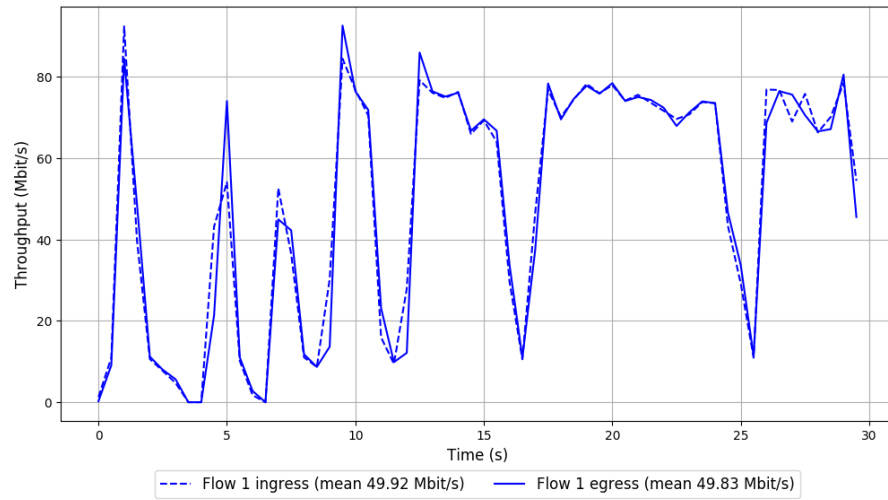
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 51.30 Mbit/s) --- Flow 1 egress (mean 51.18 Mbit/s)

Flow 1 (95th percentile 63.80 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2017-09-21 20:56:33
End at: 2017-09-21 20:57:03

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.83 Mbit/s
95th percentile per-packet one-way delay: 63.653 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 49.83 Mbit/s
95th percentile per-packet one-way delay: 63.653 ms
Loss rate: 0.60%
```

Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2017-09-21 21:07:14
End at: 2017-09-21 21:07:44

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.41 Mbit/s
95th percentile per-packet one-way delay: 63.681 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 44.41 Mbit/s
95th percentile per-packet one-way delay: 63.681 ms
Loss rate: 0.77%
```
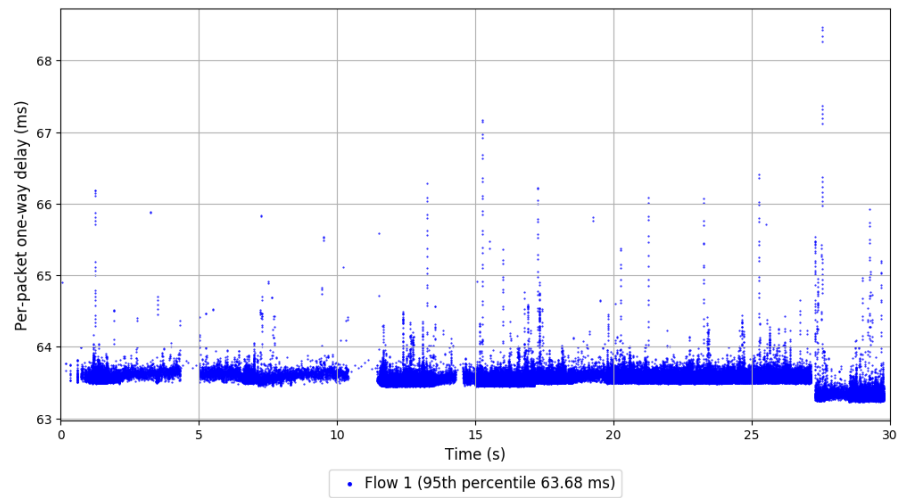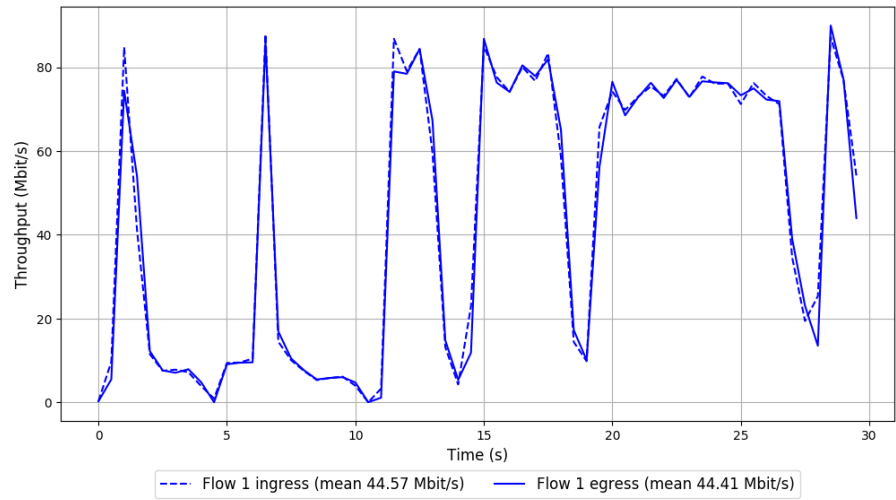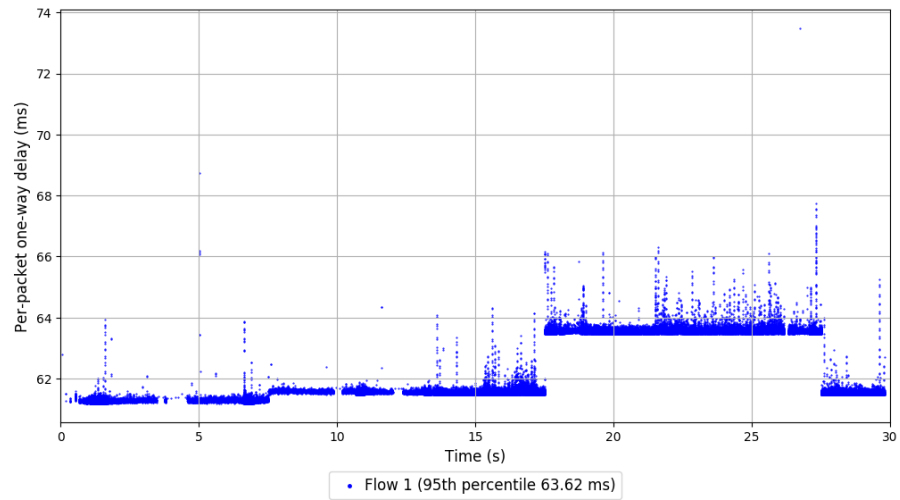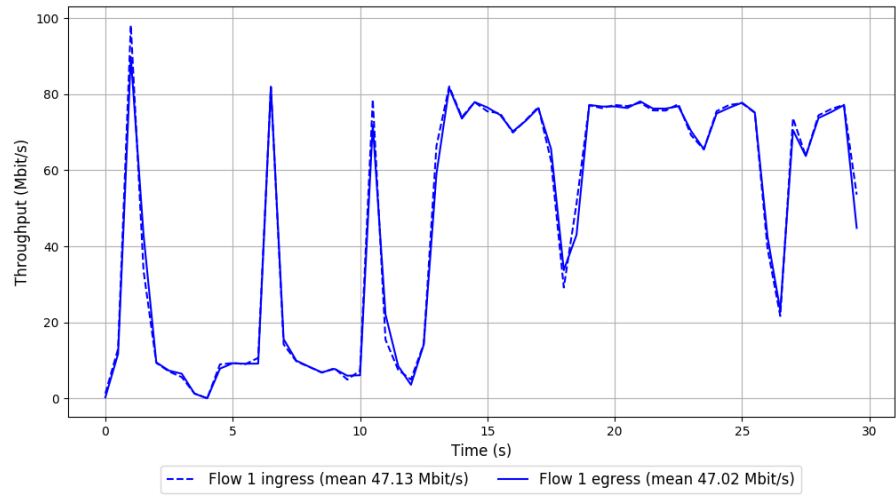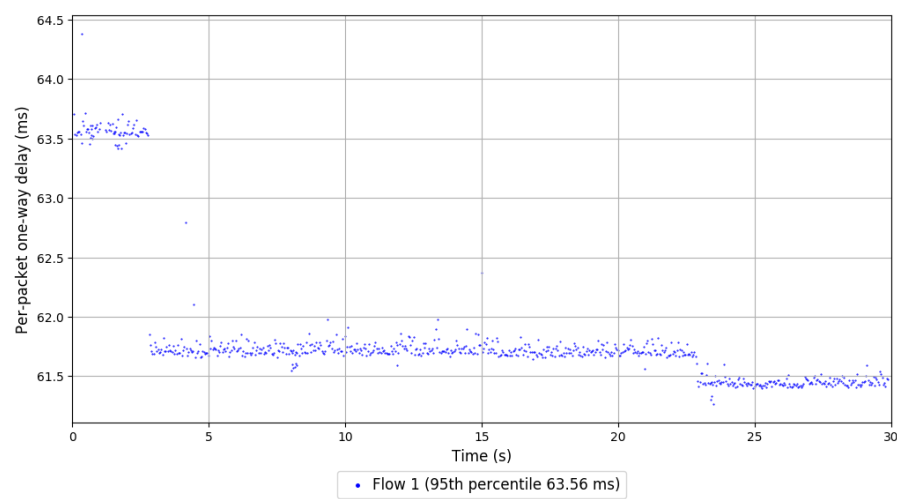
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 44.57 Mbit/s) --- Flow 1 egress (mean 44.41 Mbit/s)

Flow 1 (95th percentile 63.68 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-21 21:18:04
End at: 2017-09-21 21:18:34


# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.02 Mbit/s
95th percentile per-packet one-way delay: 63.619 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 47.02 Mbit/s
95th percentile per-packet one-way delay: 63.619 ms
Loss rate: 0.65%
```
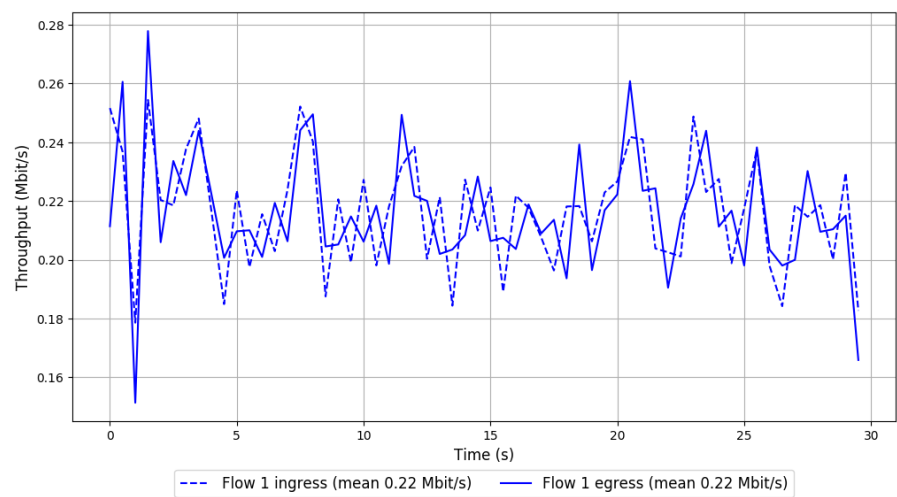
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 47.13 Mbit/s) --- Flow 1 egress (mean 47.02 Mbit/s)

Flow 1 (95th percentile 63.62 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-09-21 19:46:18
End at: 2017-09-21 19:46:48

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.557 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.557 ms
Loss rate: 0.38%
```
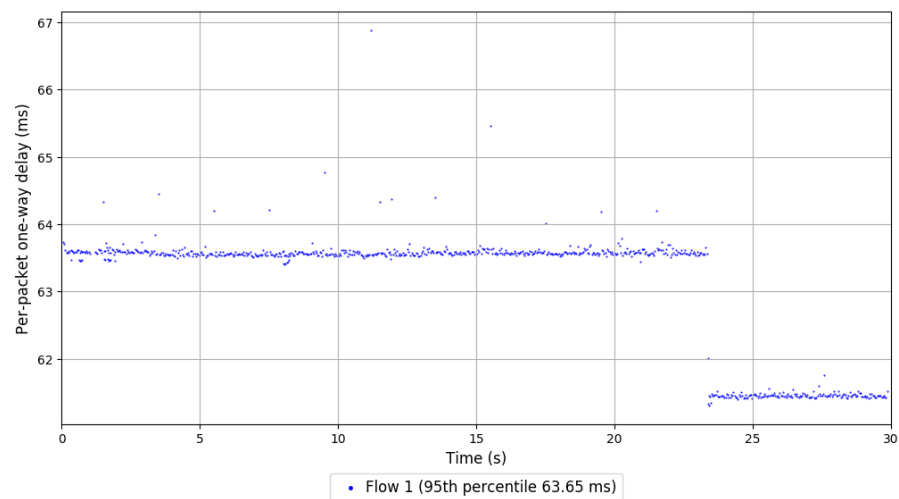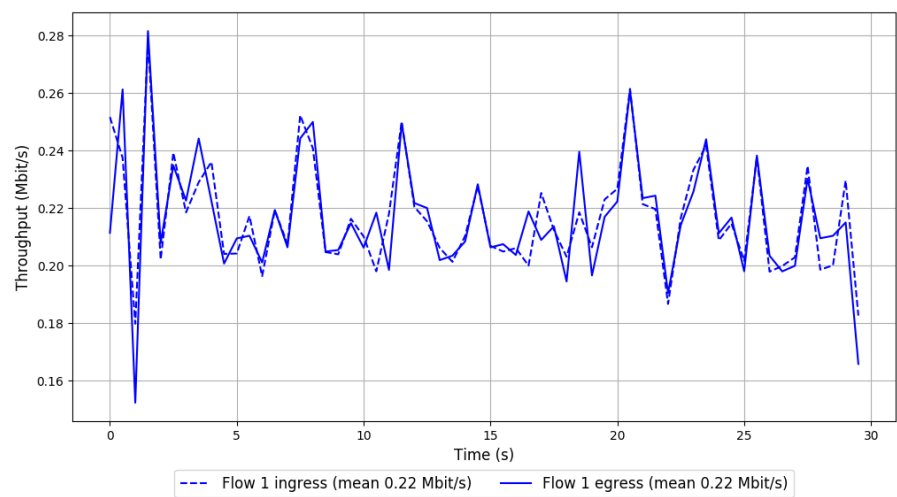
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2017-09-21 19:56:48
End at: 2017-09-21 19:57:18

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.651 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.651 ms
Loss rate: 0.38%
```
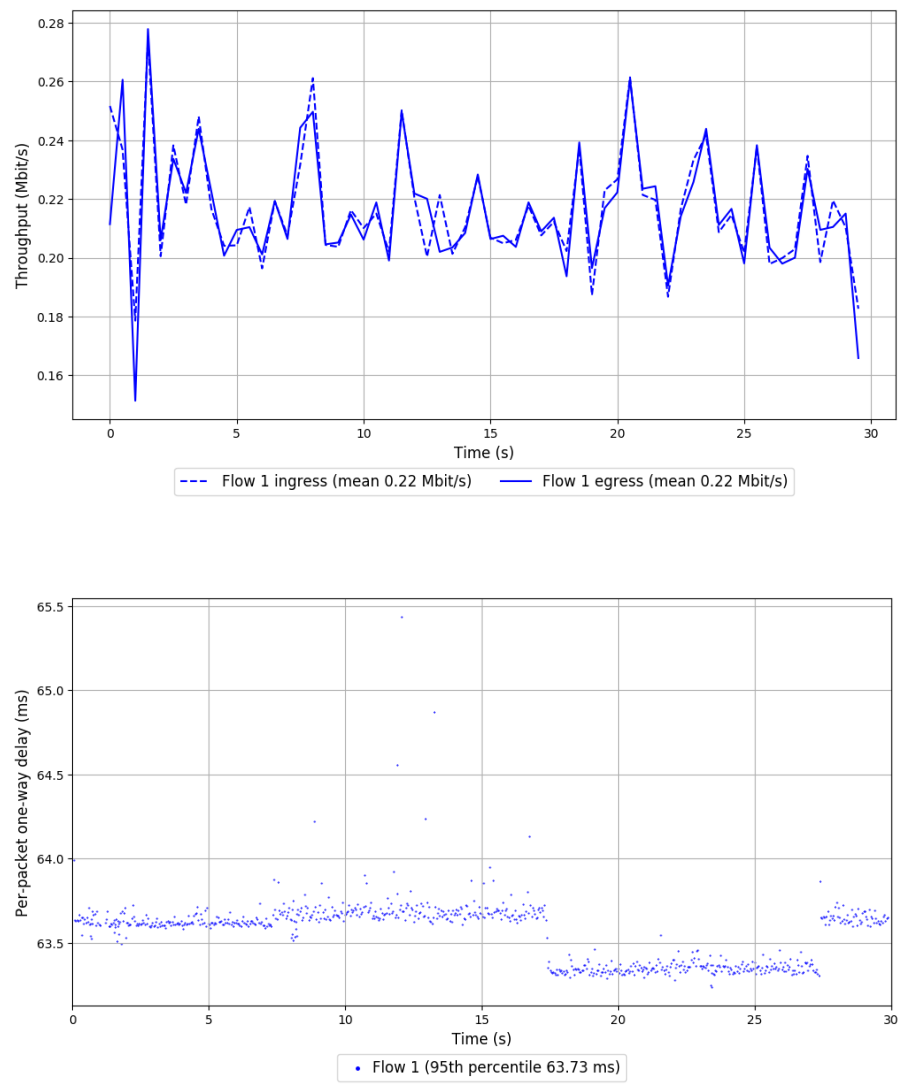
Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 63.65 ms)

```
Run 3: Statistics of SCReAM

Start at: 2017-09-21 20:07:24
End at: 2017-09-21 20:07:54

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.728 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.728 ms
Loss rate: 0.38%
```
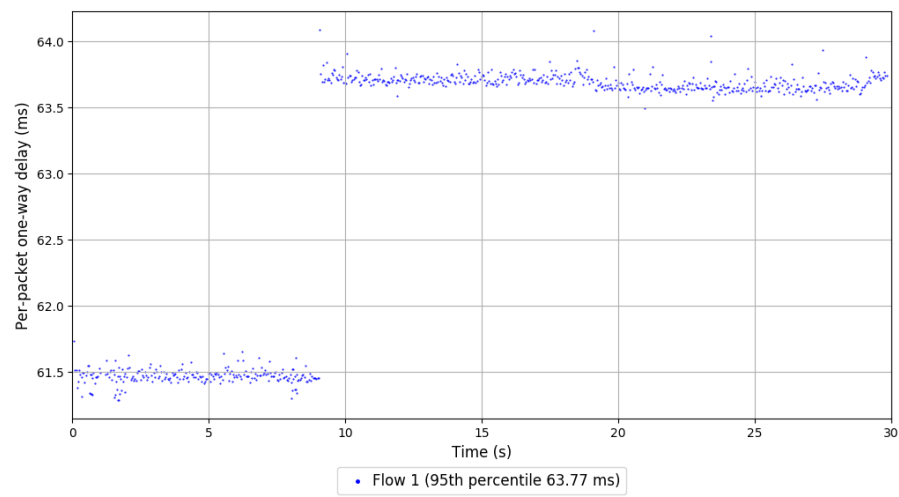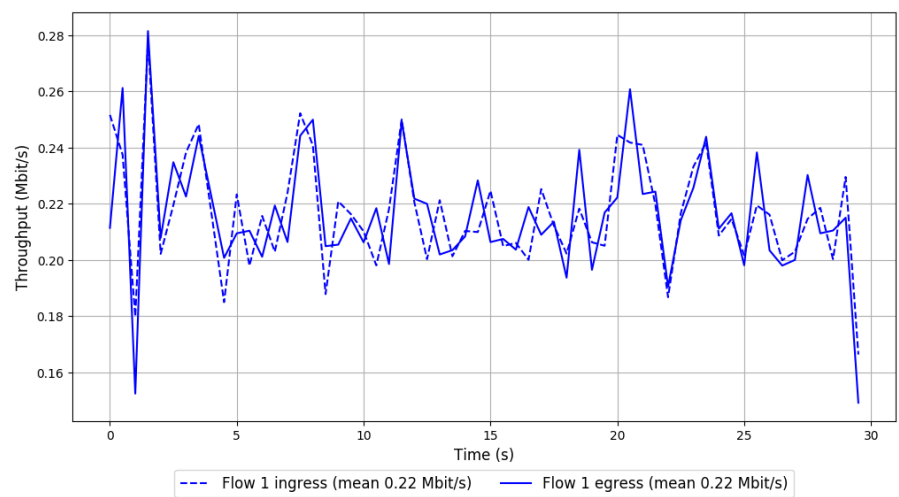
Run 3: Report of SCReAM — Data Link

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```
Run 4: Statistics of SCReAM

Start at: 2017-09-21 20:18:12
End at: 2017-09-21 20:18:42

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.768 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.768 ms
Loss rate: 0.38%
```
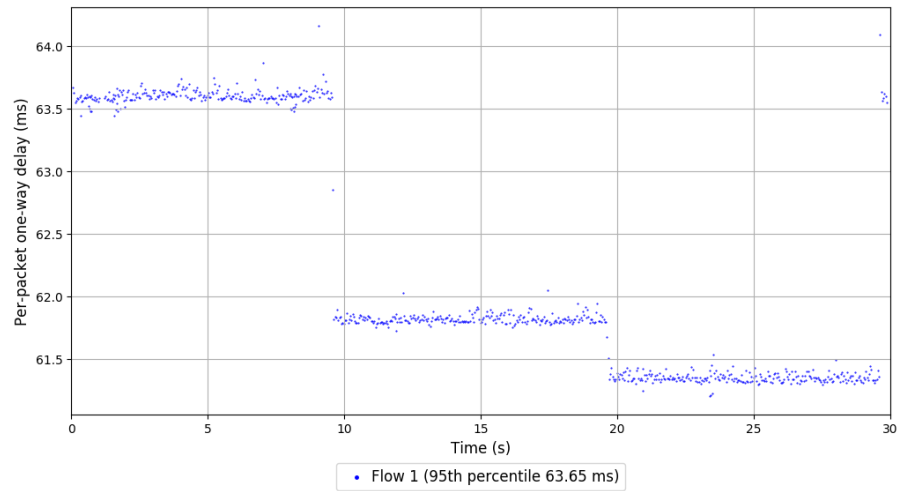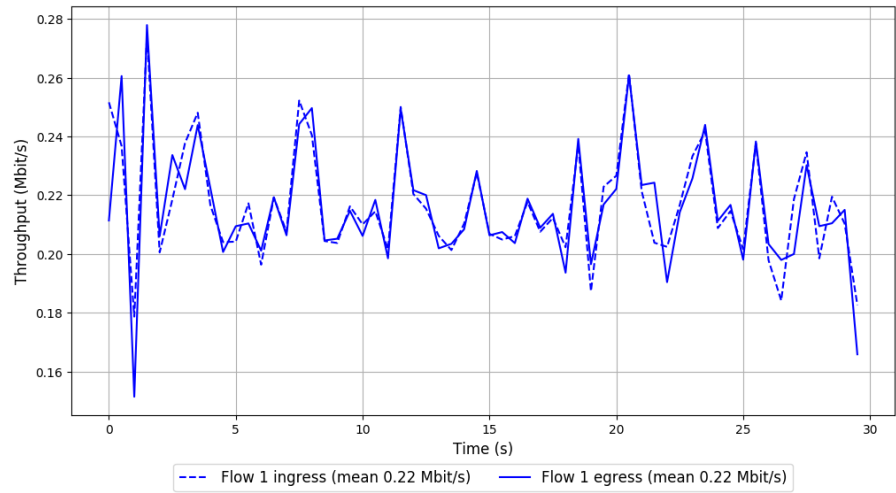
Run 4: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 63.77 ms)

```
Run 5: Statistics of SCReAM

Start at: 2017-09-21 20:28:52
End at: 2017-09-21 20:29:22

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.648 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.648 ms
Loss rate: 0.38%
```
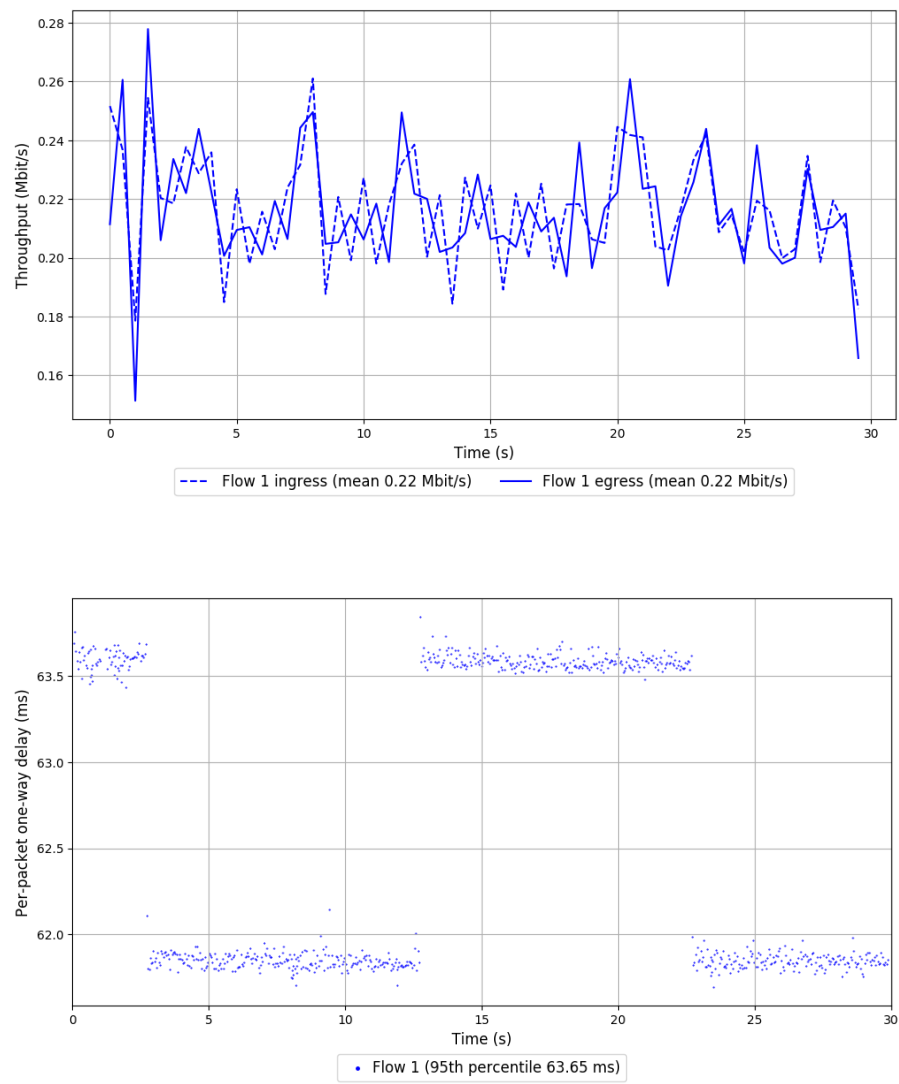
Run 5: Report of SCReAM — Data Link

113

```
Run 6: Statistics of SCReAM

Start at: 2017-09-21 20:39:29
End at: 2017-09-21 20:39:59

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.650 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.650 ms
Loss rate: 0.38%
```
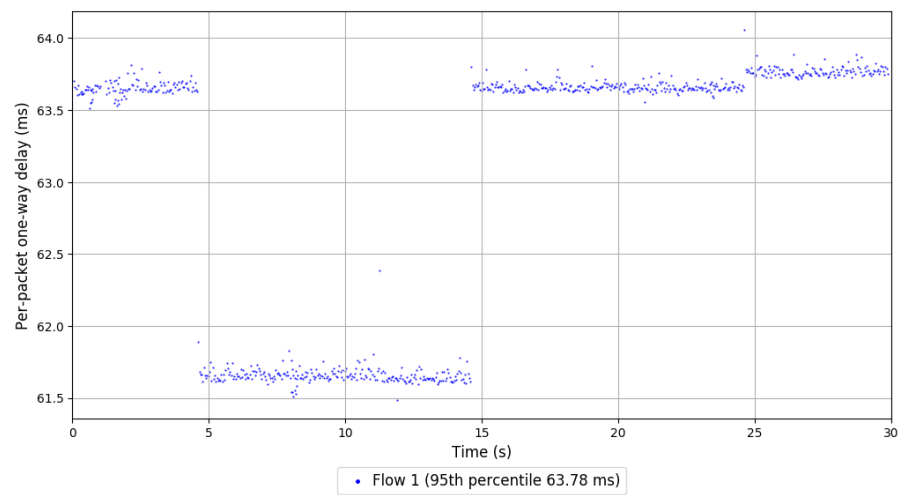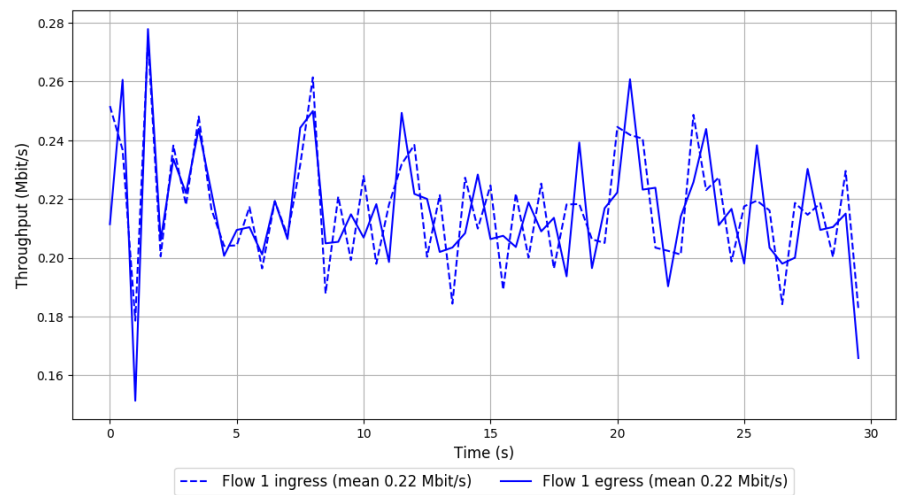
Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2017-09-21 20:50:27
End at: 2017-09-21 20:50:57

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.782 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.782 ms
Loss rate: 0.38%
```
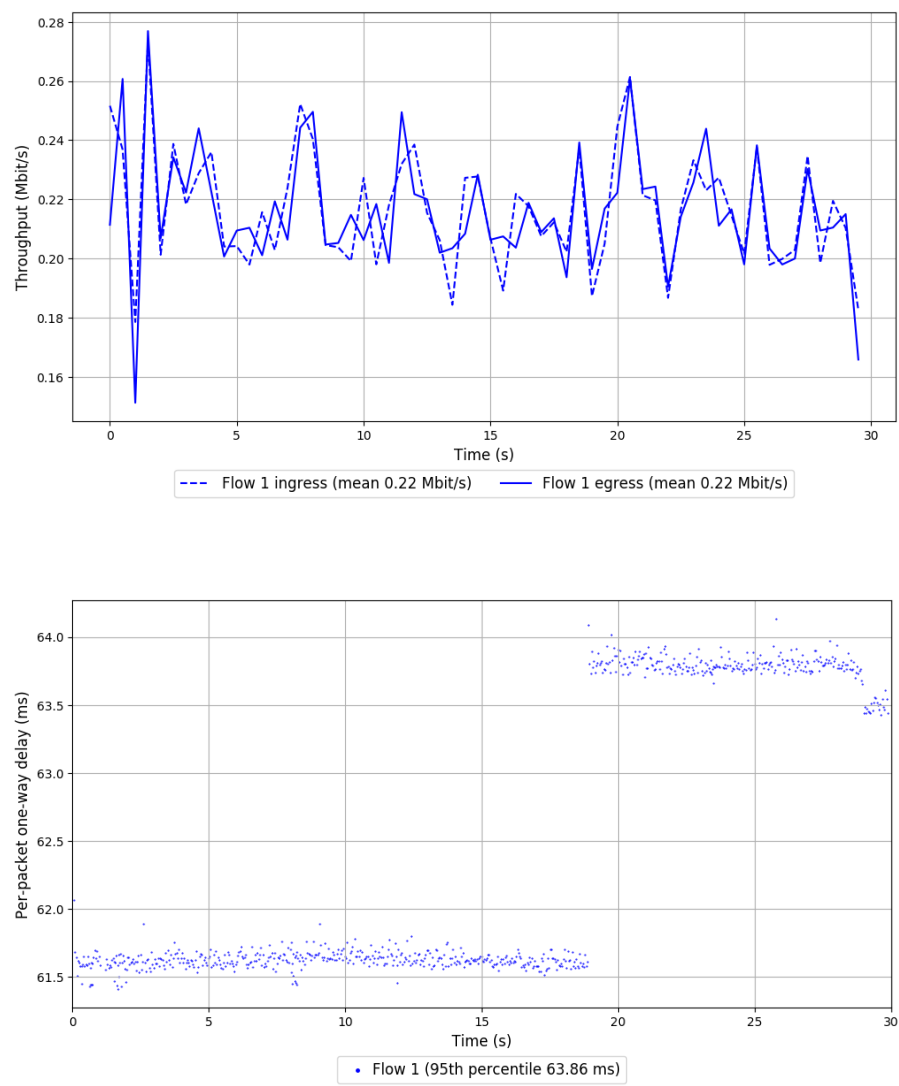
Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2017-09-21 21:01:02
End at: 2017-09-21 21:01:32

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.860 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.860 ms
Loss rate: 0.38%
```
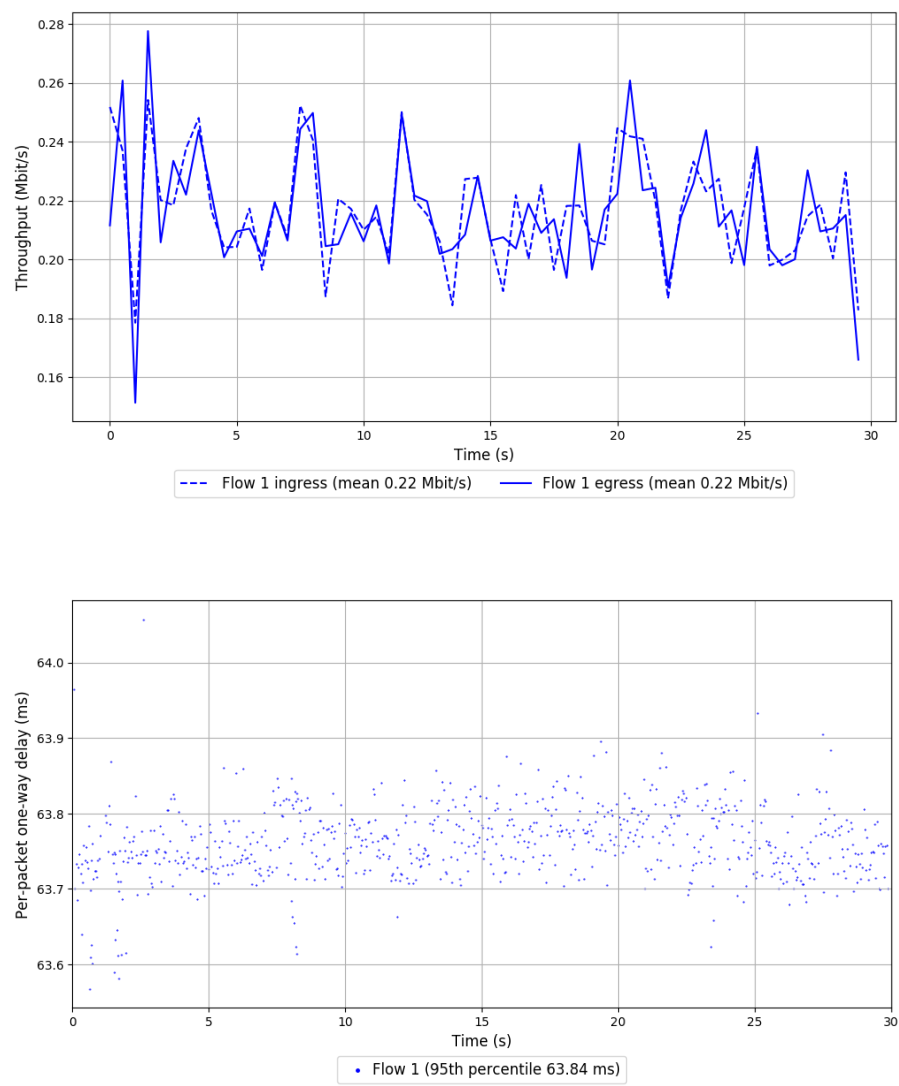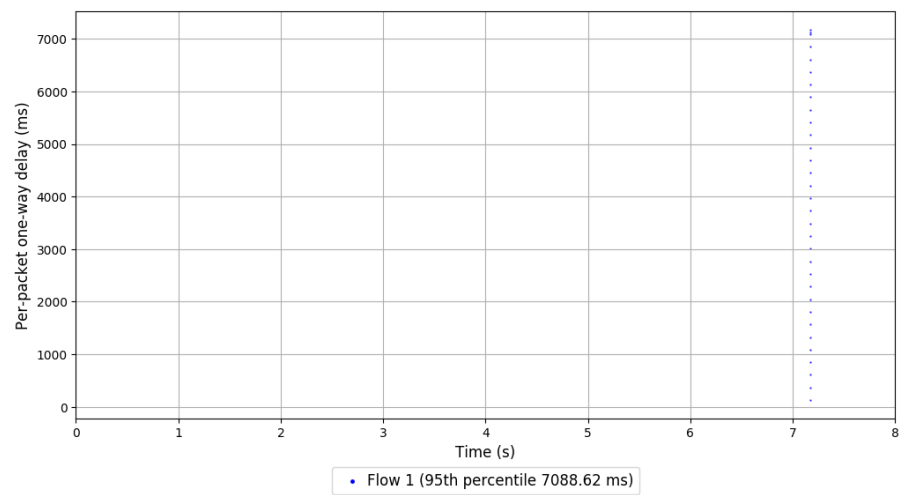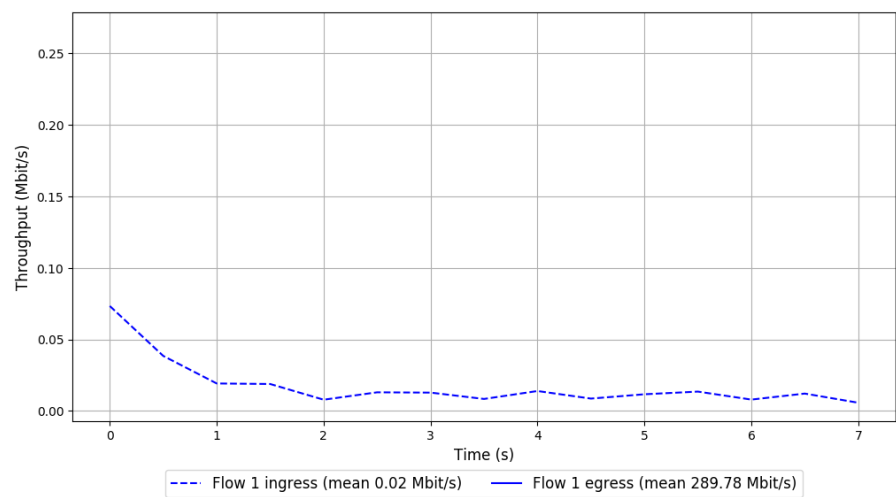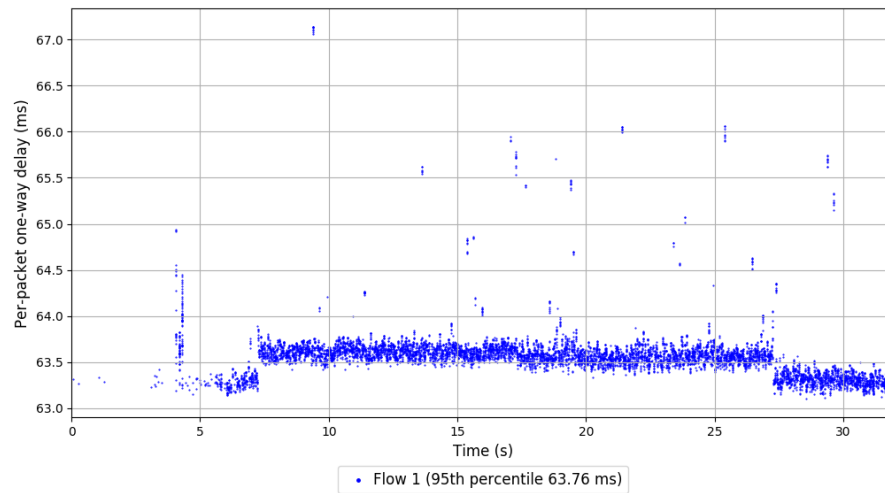
Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2017-09-21 21:11:41
End at: 2017-09-21 21:12:11

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.835 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.835 ms
Loss rate: 0.38%
```

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 63.84 ms)

Run 10: Statistics of SCReAM

Start at: 2017-09-21 21:22:32
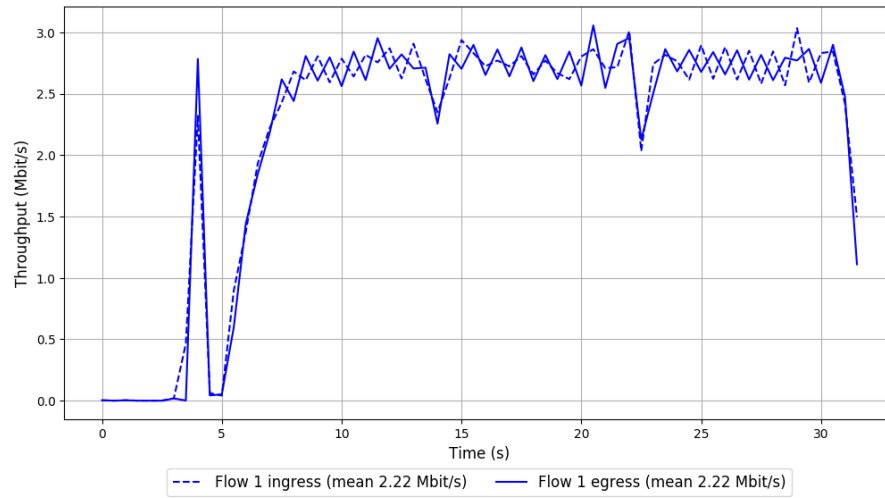End at: 2017-09-21 21:23:02

Run 10: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.02 Mbit/s)   Flow 1 egress (mean 289.78 Mbit/s)

• Flow 1 (95th percentile 7088.62 ms)

123

```
Run 1: Statistics of WebRTC media

Start at: 2017-09-21 19:46:56
End at: 2017-09-21 19:47:26

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 63.755 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 63.755 ms
Loss rate: 0.51%
```
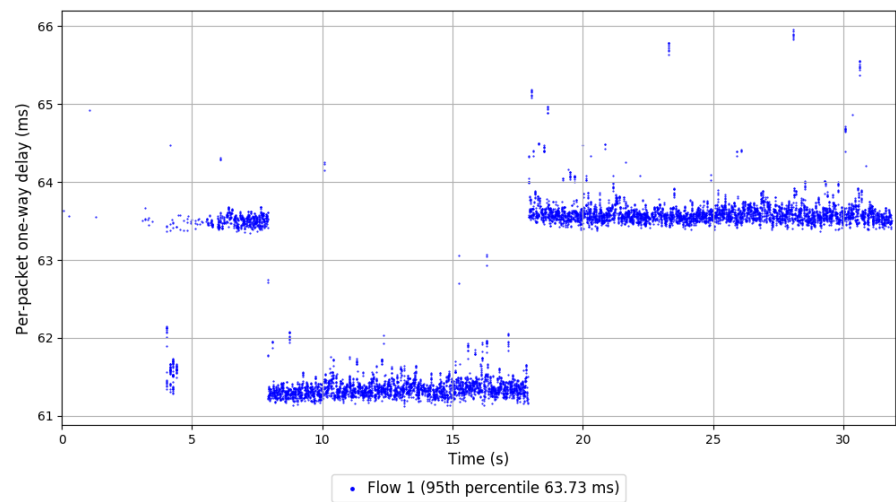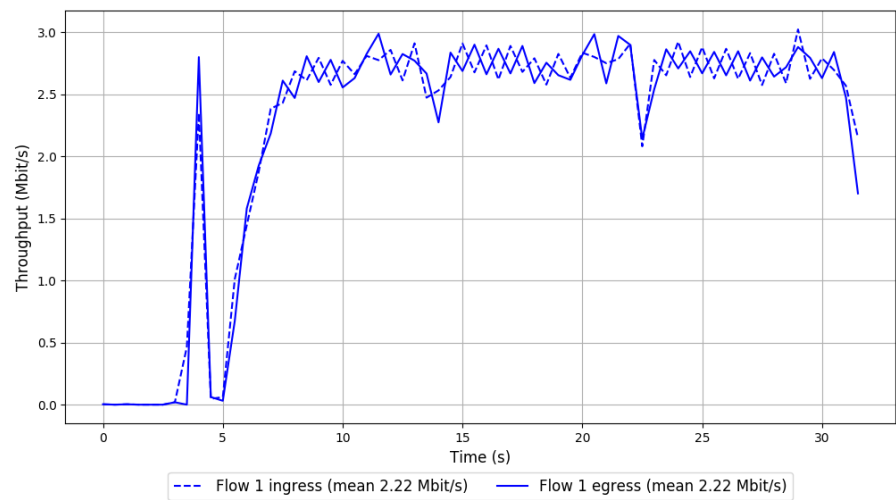
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.22 Mbit/s) ---- Flow 1 egress (mean 2.22 Mbit/s)

Flow 1 (95th percentile 63.76 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2017-09-21 19:57:25
End at: 2017-09-21 19:57:55

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 63.733 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 63.733 ms
Loss rate: 0.56%
```
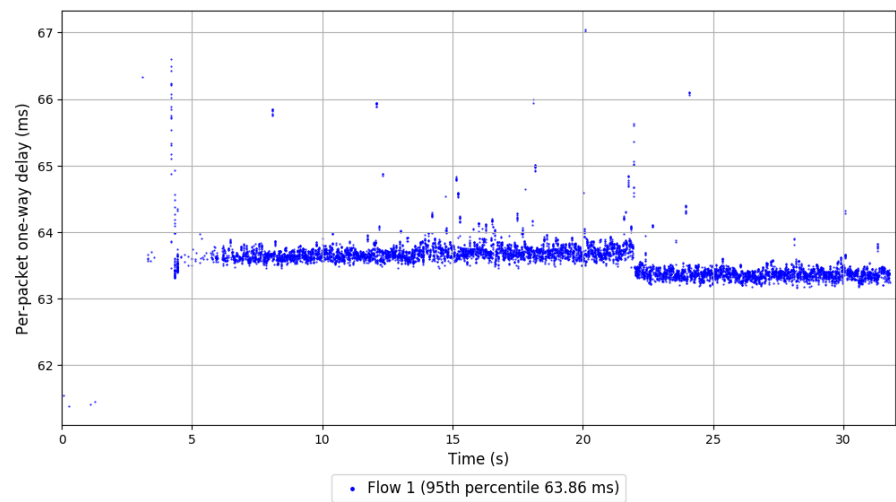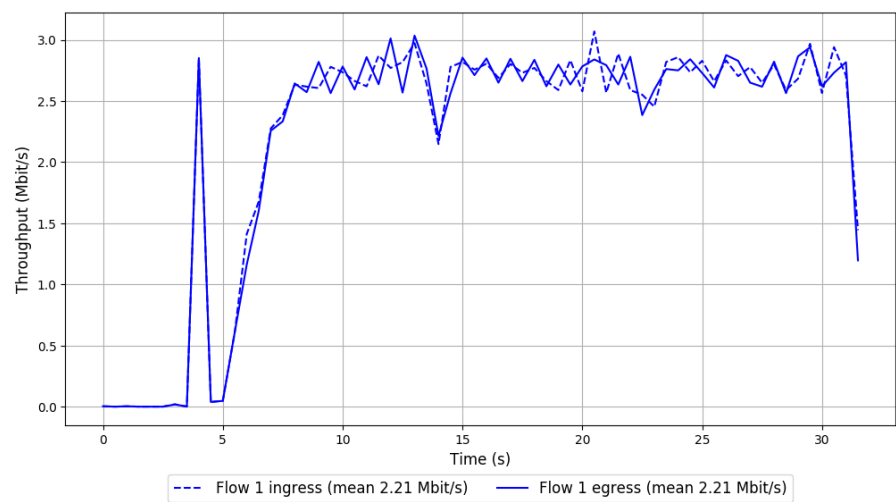
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2017-09-21 20:08:01
End at: 2017-09-21 20:08:31

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.861 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.861 ms
Loss rate: 0.40%
```
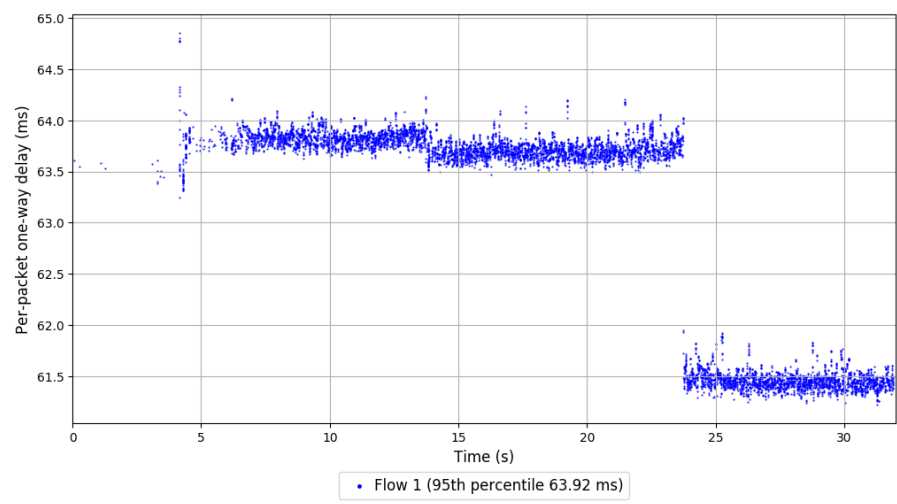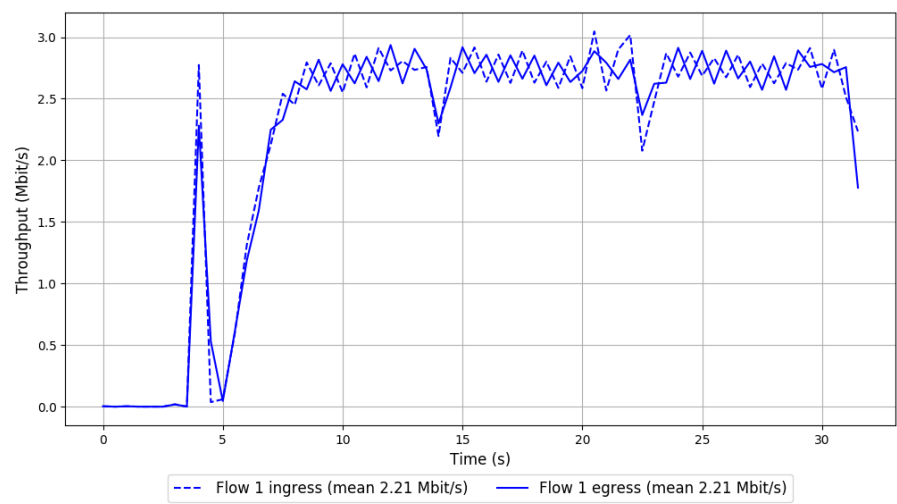
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2017-09-21 20:18:50
End at: 2017-09-21 20:19:20

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.921 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.921 ms
Loss rate: 0.44%
```
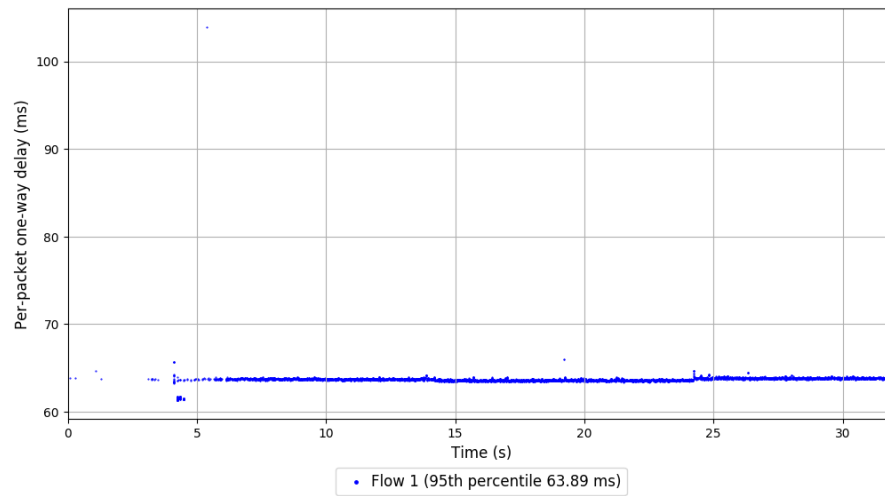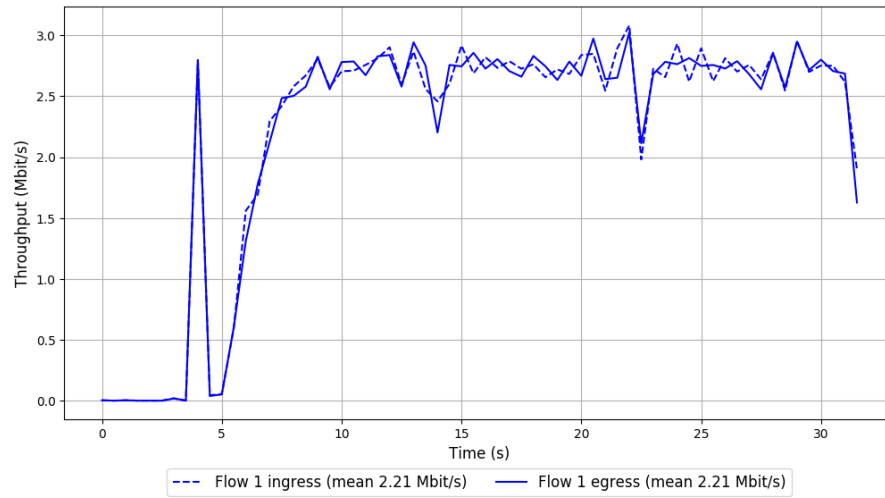
Run 4: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.21 Mbit/s) --- Flow 1 egress (mean 2.21 Mbit/s)

Flow 1 (95th percentile 63.92 ms)

```
Run 5: Statistics of WebRTC media

Start at: 2017-09-21 20:29:29
End at: 2017-09-21 20:29:59

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.893 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.893 ms
Loss rate: 0.44%
```
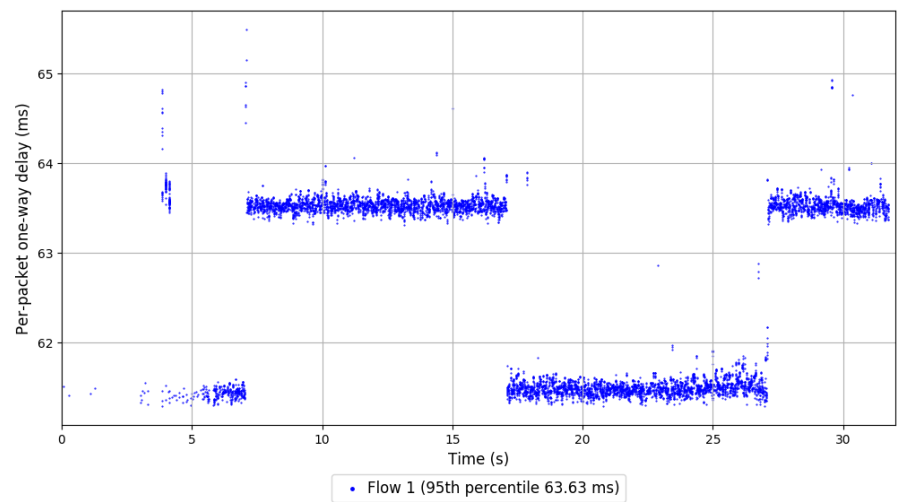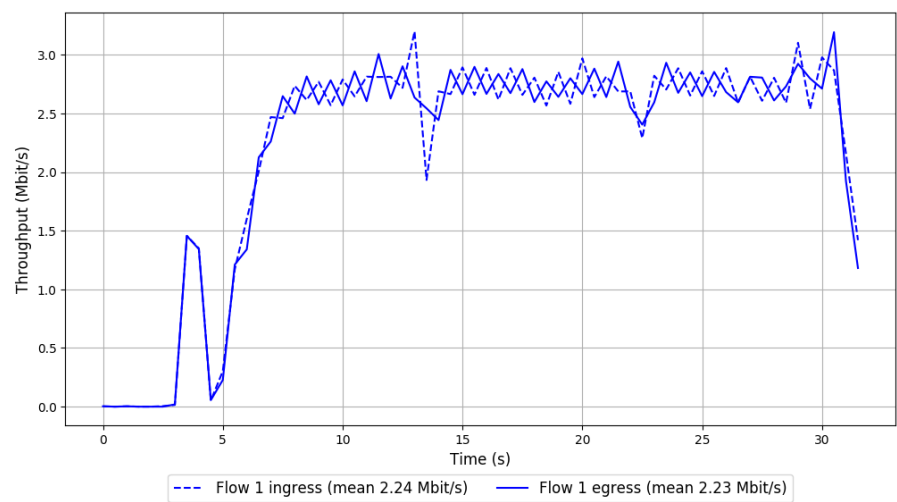
Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2017-09-21 20:40:06
End at: 2017-09-21 20:40:36

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 63.635 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 63.635 ms
Loss rate: 0.44%
```
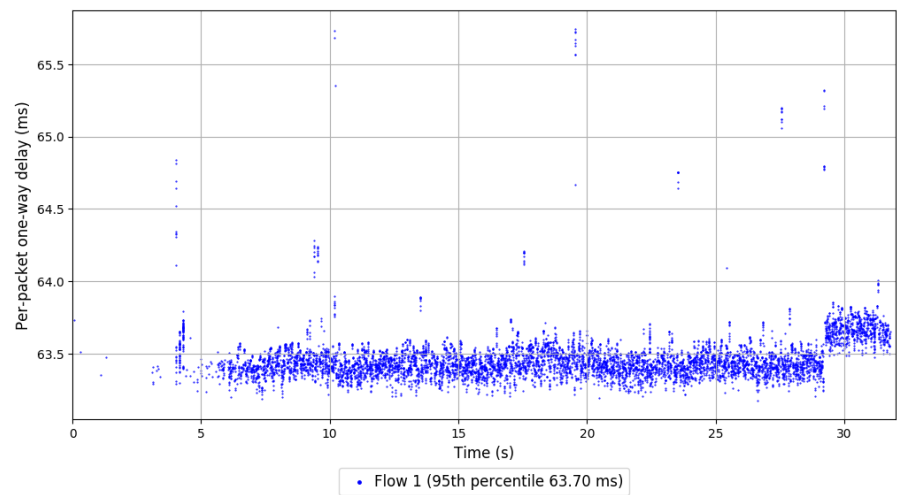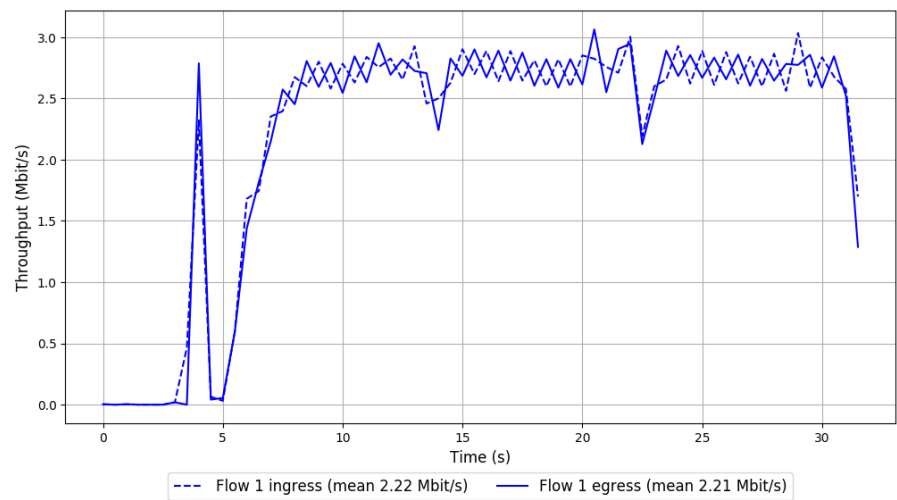
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2017-09-21 20:51:04
End at: 2017-09-21 20:51:34


# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.699 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.699 ms
Loss rate: 0.54%
```
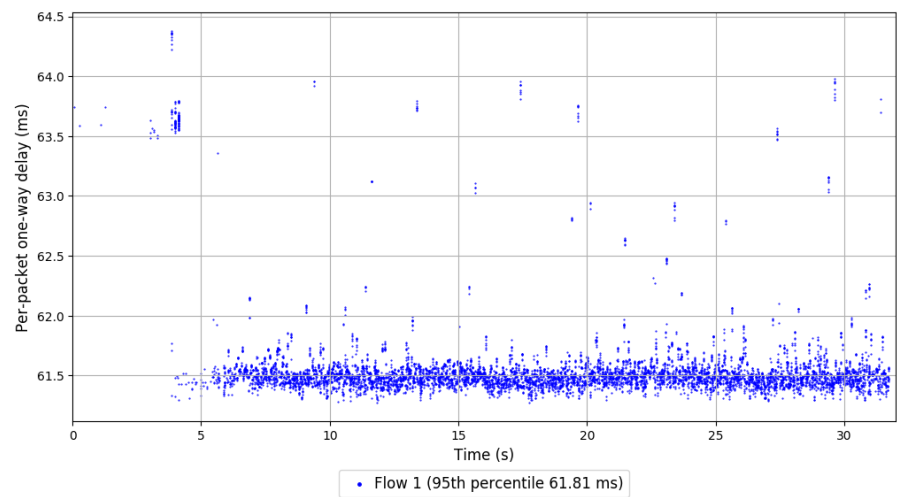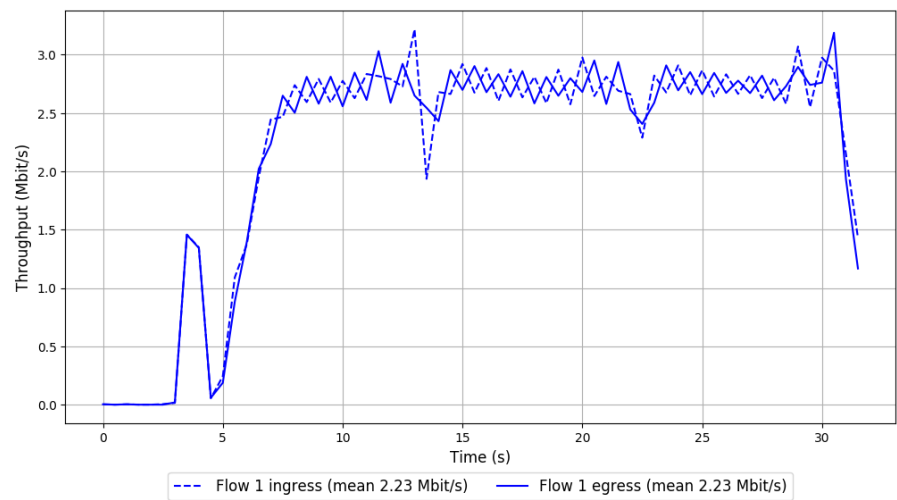
Run 7: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.22 Mbit/s)   Flow 1 egress (mean 2.21 Mbit/s)

Flow 1 (95th percentile 63.70 ms)

```
Run 8: Statistics of WebRTC media

Start at: 2017-09-21 21:01:40
End at: 2017-09-21 21:02:10

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 61.807 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 61.807 ms
Loss rate: 0.45%
```
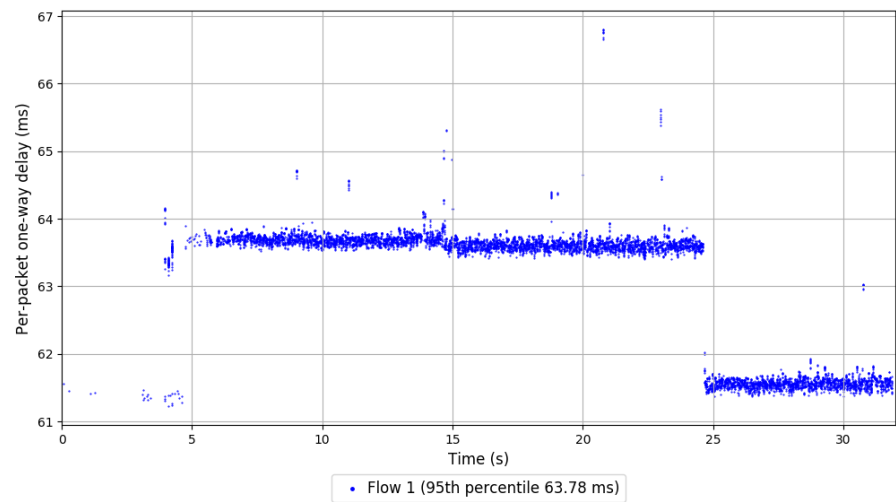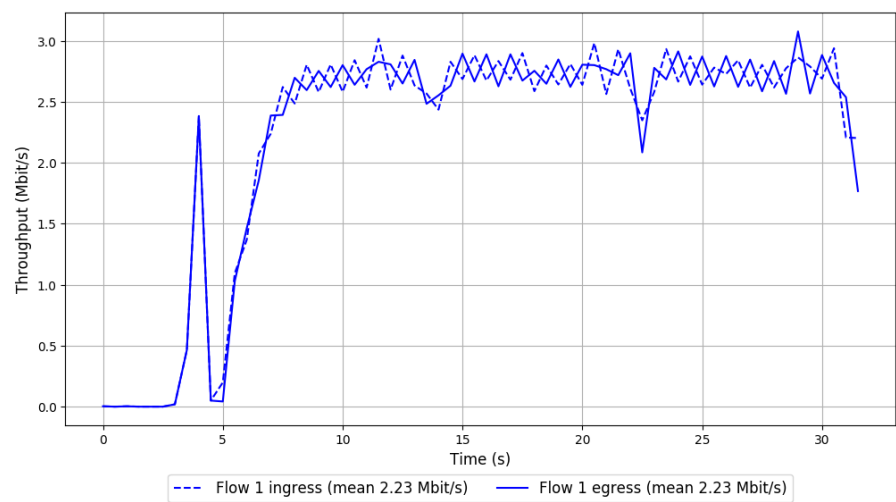
Run 8: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.23 Mbit/s) --- Flow 1 egress (mean 2.23 Mbit/s)

Flow 1 (95th percentile 61.81 ms)

```
Run 9: Statistics of WebRTC media

Start at: 2017-09-21 21:12:19
End at: 2017-09-21 21:12:49

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 63.779 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 63.779 ms
Loss rate: 0.44%
```
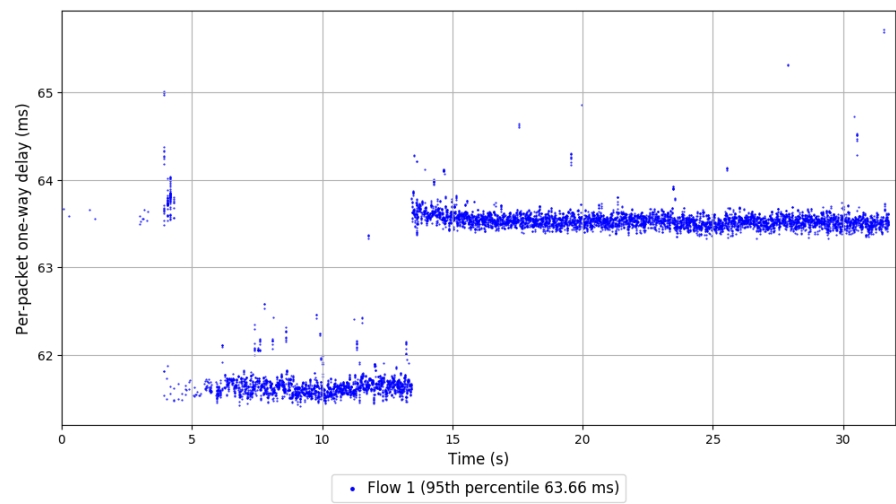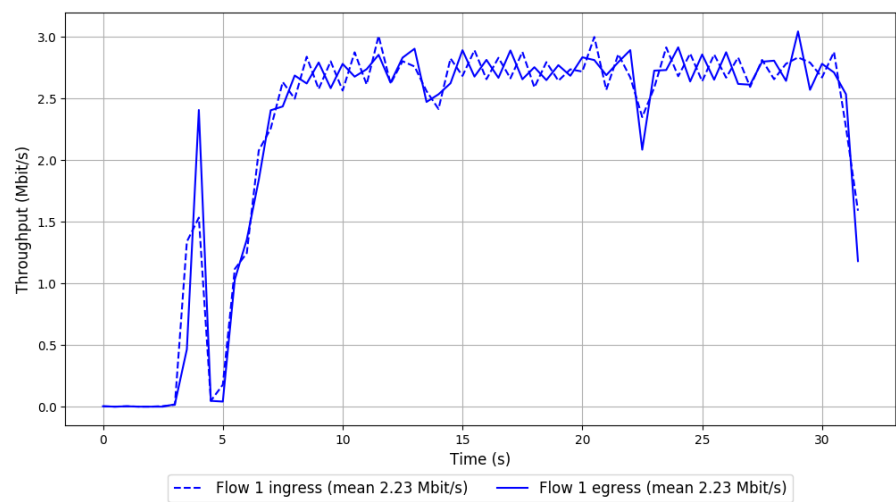
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2017-09-21 21:23:10
End at: 2017-09-21 21:23:40

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 63.661 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 63.661 ms
Loss rate: 0.44%
```

Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2017-09-21 19:43:22
End at: 2017-09-21 19:43:52

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 64.091 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 64.091 ms
Loss rate: 1.15%
```
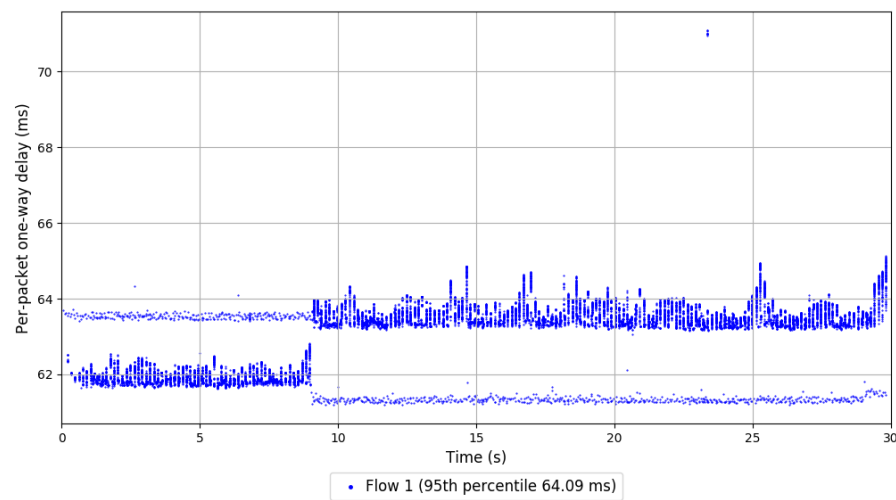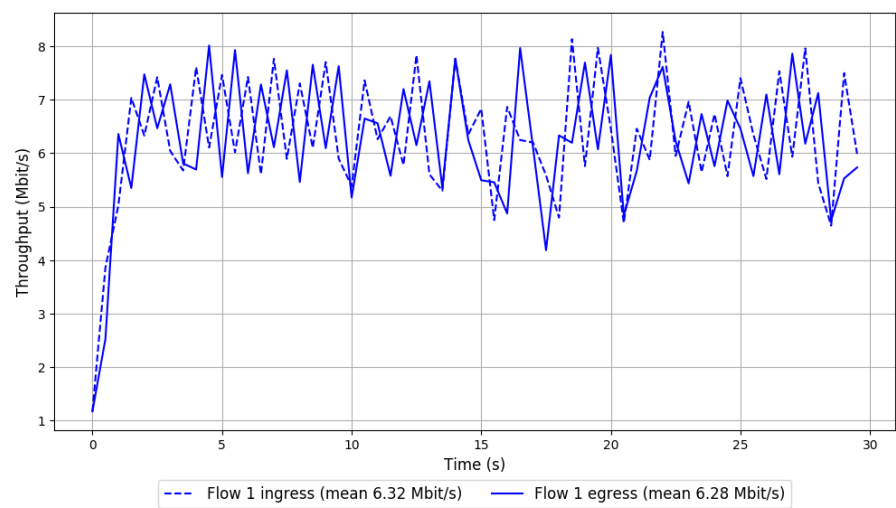
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2017-09-21 19:53:52
End at: 2017-09-21 19:54:22

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.55 Mbit/s
95th percentile per-packet one-way delay: 64.457 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 6.55 Mbit/s
95th percentile per-packet one-way delay: 64.457 ms
Loss rate: 0.74%
```
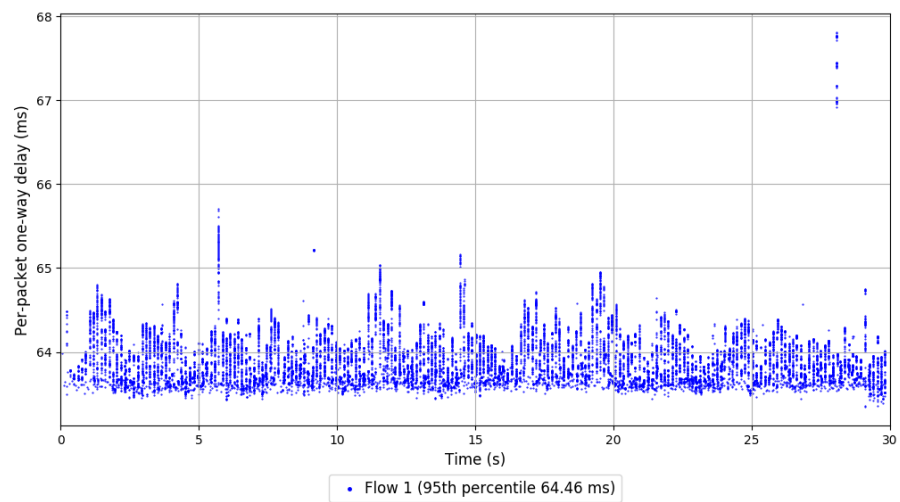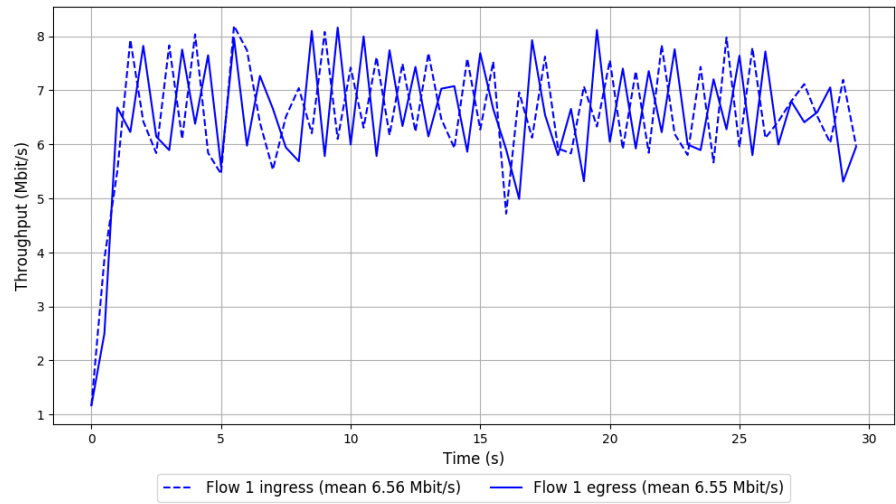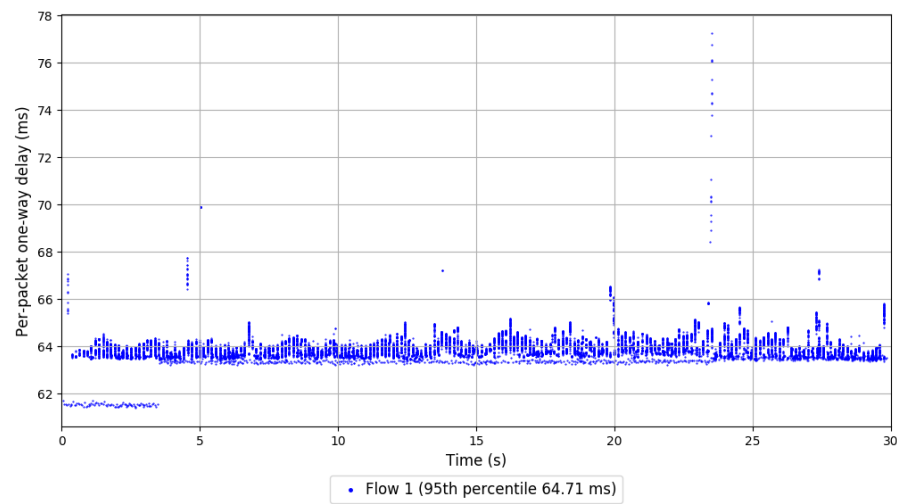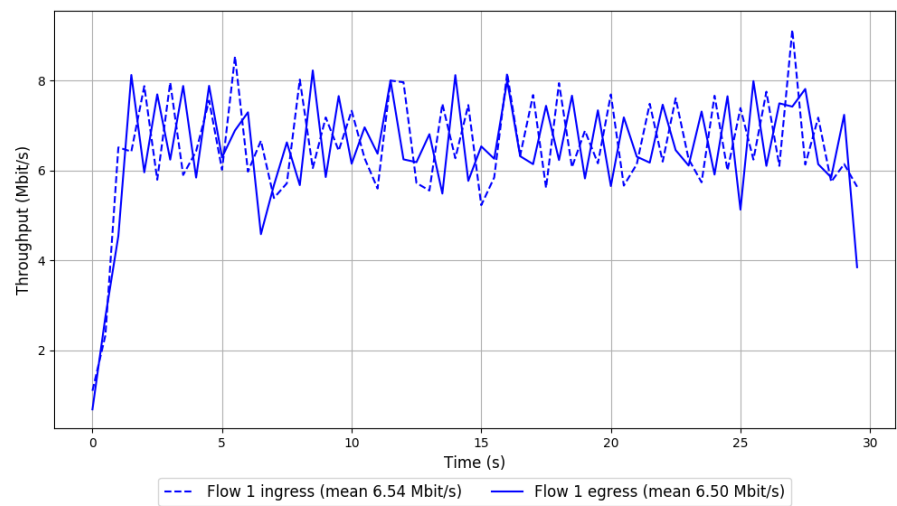
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2017-09-21 20:04:28
End at: 2017-09-21 20:04:58


# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 64.708 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 64.708 ms
Loss rate: 0.99%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 6.54 Mbit/s) — — —   Flow 1 egress (mean 6.50 Mbit/s) ———

• Flow 1 (95th percentile 64.71 ms)

```
Run 4: Statistics of Sprout

Start at: 2017-09-21 20:15:17
End at: 2017-09-21 20:15:47

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 64.721 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 64.721 ms
Loss rate: 1.21%
```
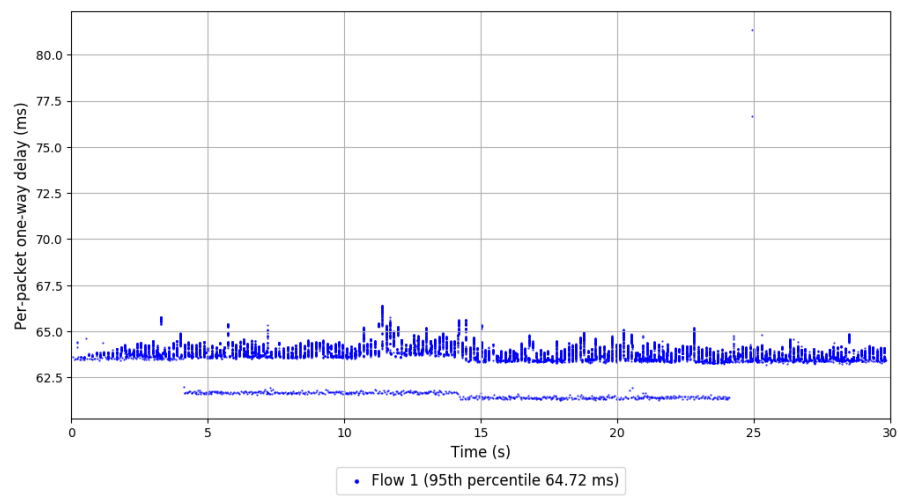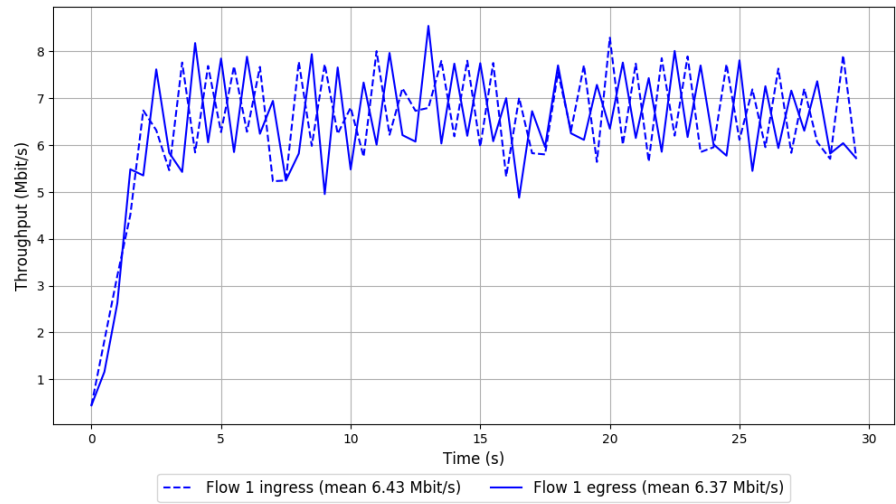
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2017-09-21 20:25:56
End at: 2017-09-21 20:26:26

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 63.709 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 63.709 ms
Loss rate: 0.79%
```
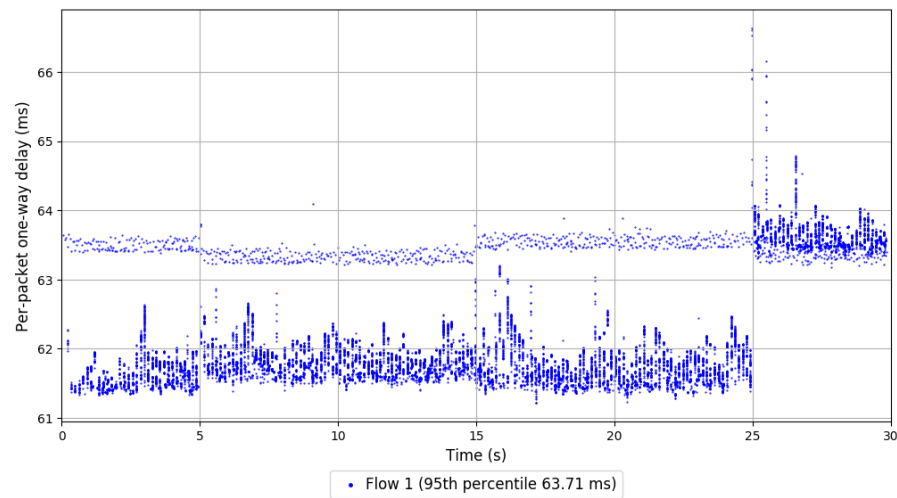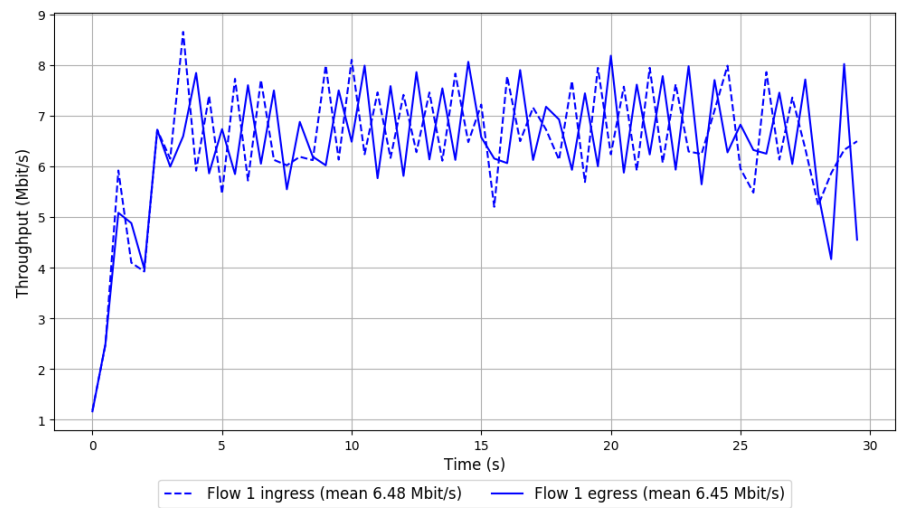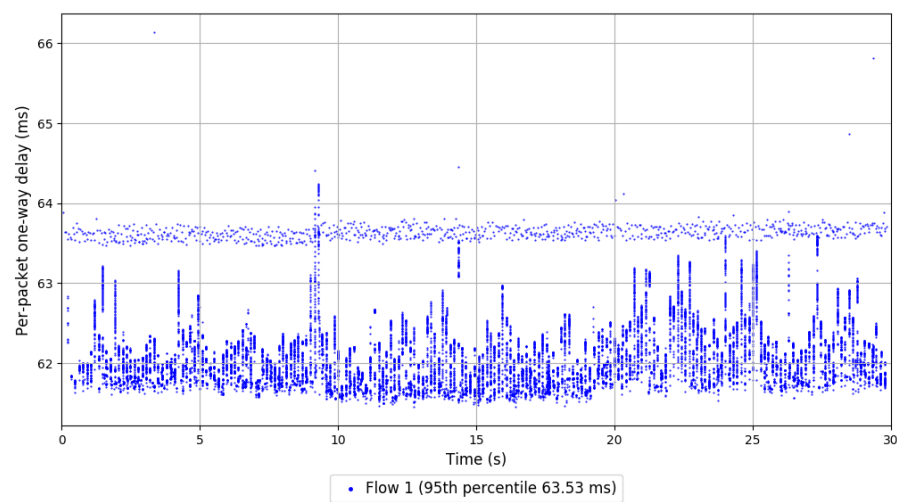
Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 6.48 Mbit/s)   Flow 1 egress (mean 6.45 Mbit/s)

• Flow 1 (95th percentile 63.71 ms)

```
Run 6: Statistics of Sprout

Start at: 2017-09-21 20:36:32
End at: 2017-09-21 20:37:02

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 0.83%
```
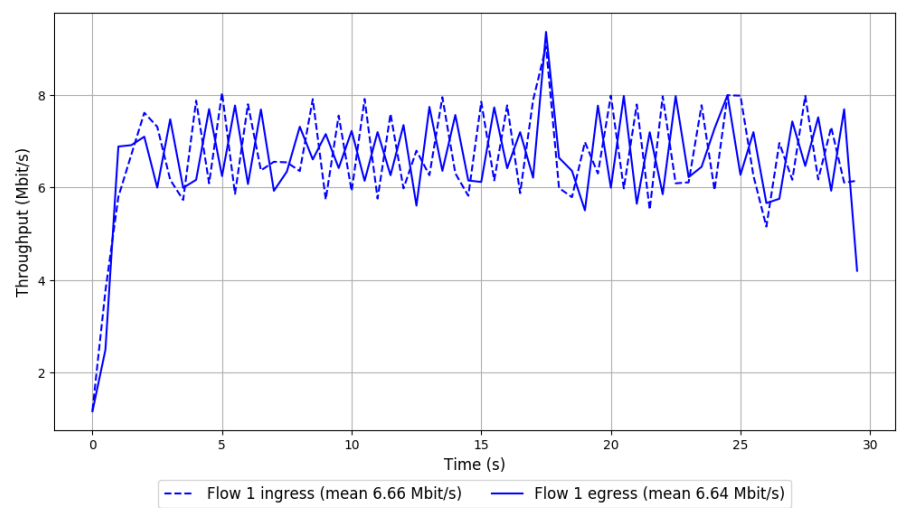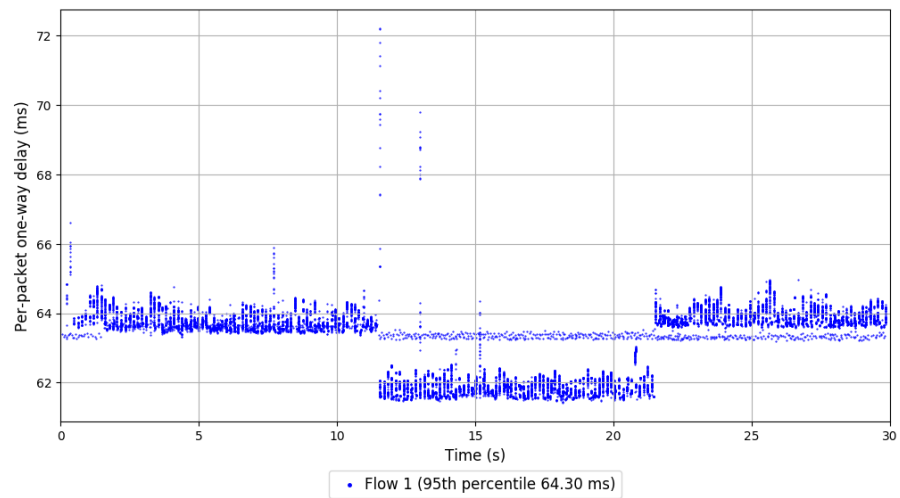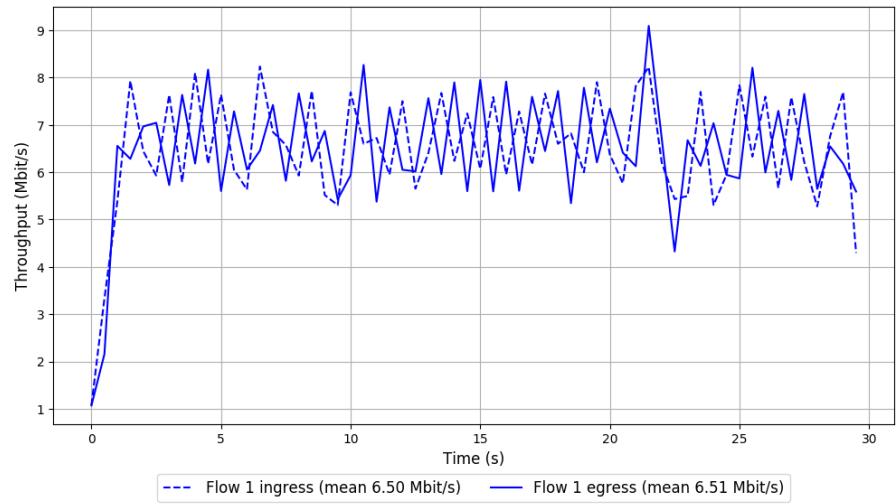
Run 6: Report of Sprout — Data Link

Flow 1 ingress (mean 6.66 Mbit/s) ——— Flow 1 egress (mean 6.64 Mbit/s)

· Flow 1 (95th percentile 63.53 ms)

```
Run 7: Statistics of Sprout

Start at: 2017-09-21 20:47:30
End at: 2017-09-21 20:48:00

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 64.297 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 64.297 ms
Loss rate: 0.27%
```
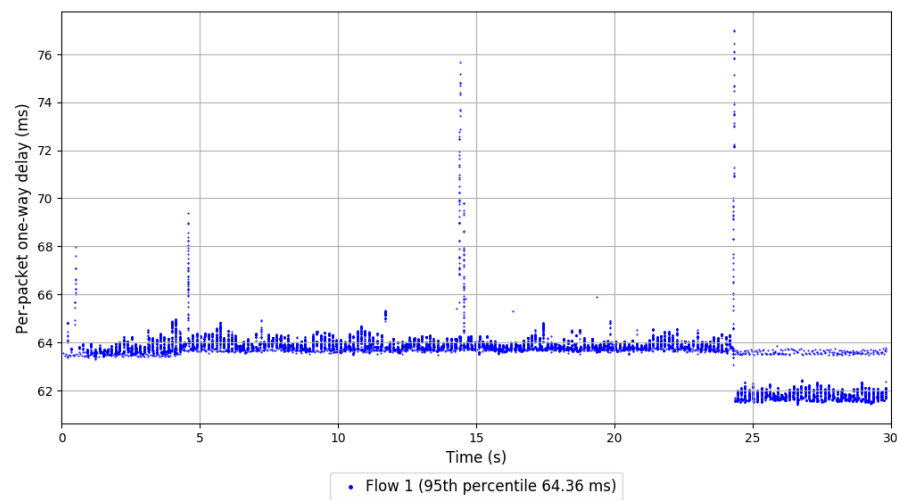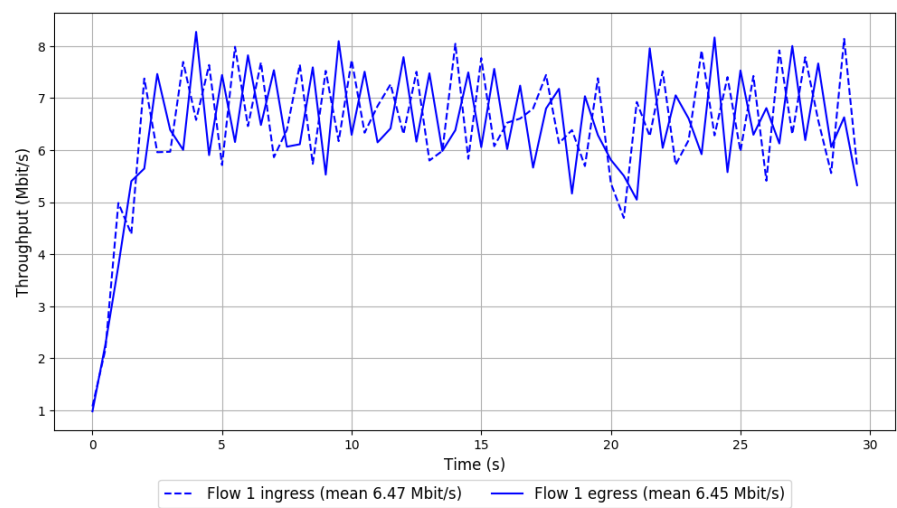
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2017-09-21 20:58:07
End at: 2017-09-21 20:58:37

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 64.355 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 64.355 ms
Loss rate: 0.67%
```
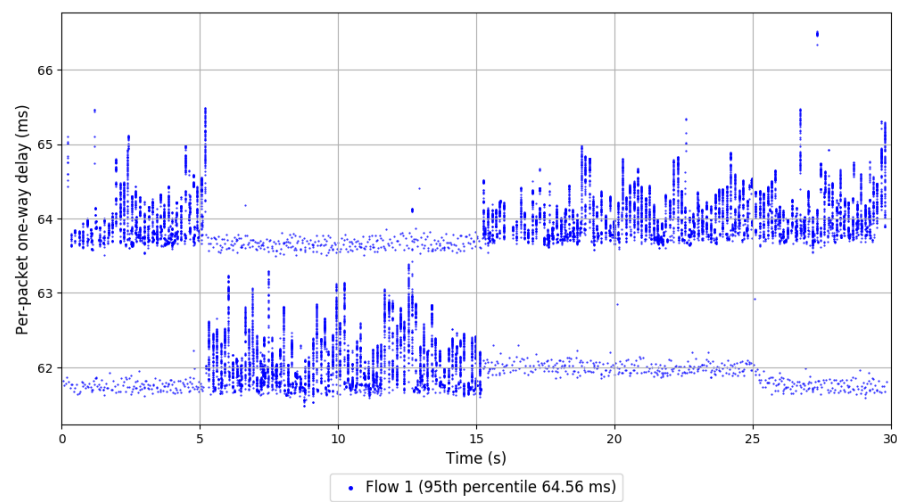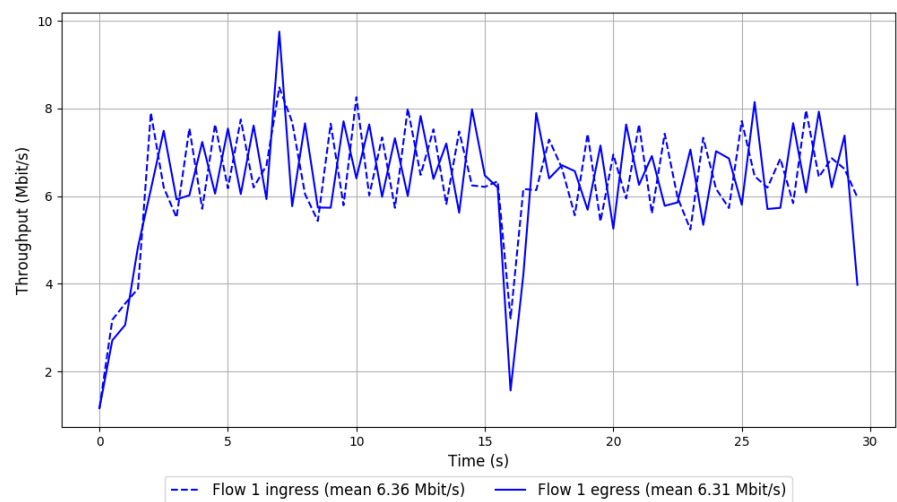
Run 8: Report of Sprout — Data Link

Flow 1 ingress (mean 6.47 Mbit/s) --- Flow 1 egress (mean 6.45 Mbit/s)

• Flow 1 (95th percentile 64.36 ms)

```
Run 9: Statistics of Sprout

Start at: 2017-09-21 21:08:46
End at: 2017-09-21 21:09:16


# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.31 Mbit/s
95th percentile per-packet one-way delay: 64.556 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 6.31 Mbit/s
95th percentile per-packet one-way delay: 64.556 ms
Loss rate: 1.15%
```

Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2017-09-21 21:19:36
End at: 2017-09-21 21:20:06

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 64.323 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 64.323 ms
Loss rate: 0.93%
```
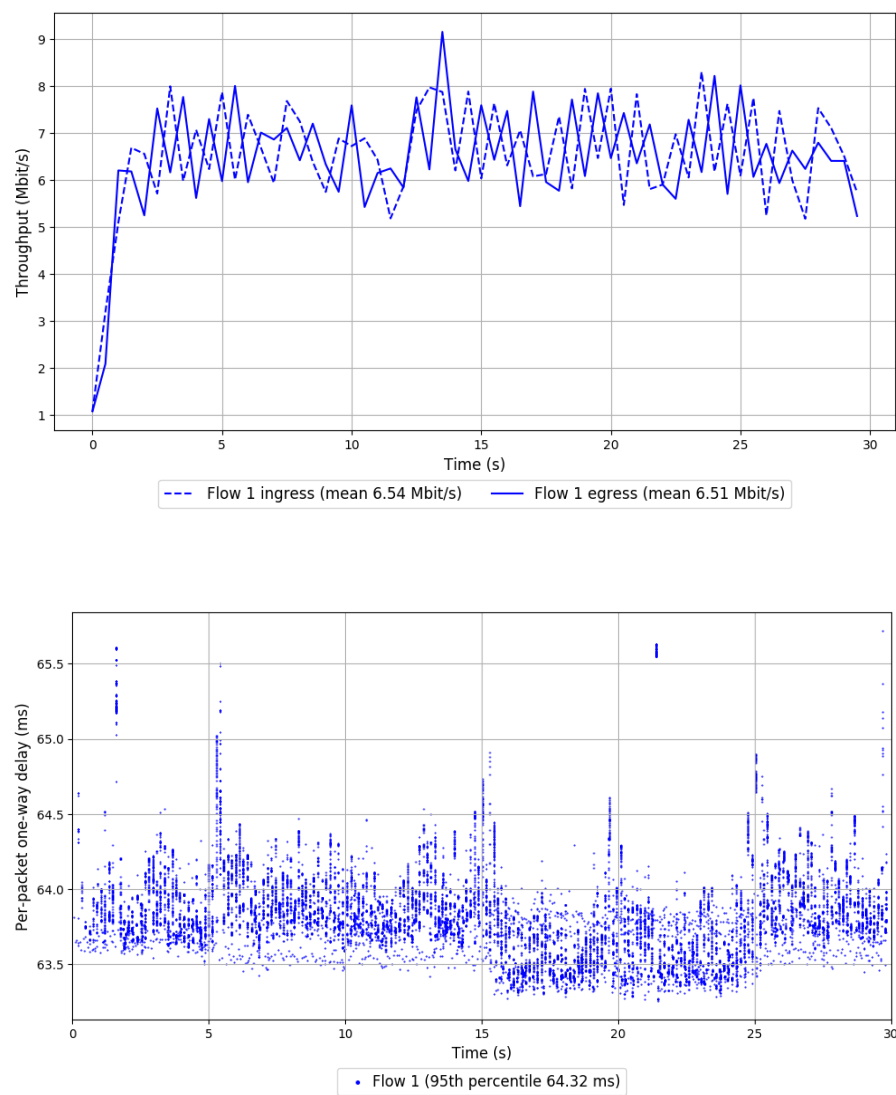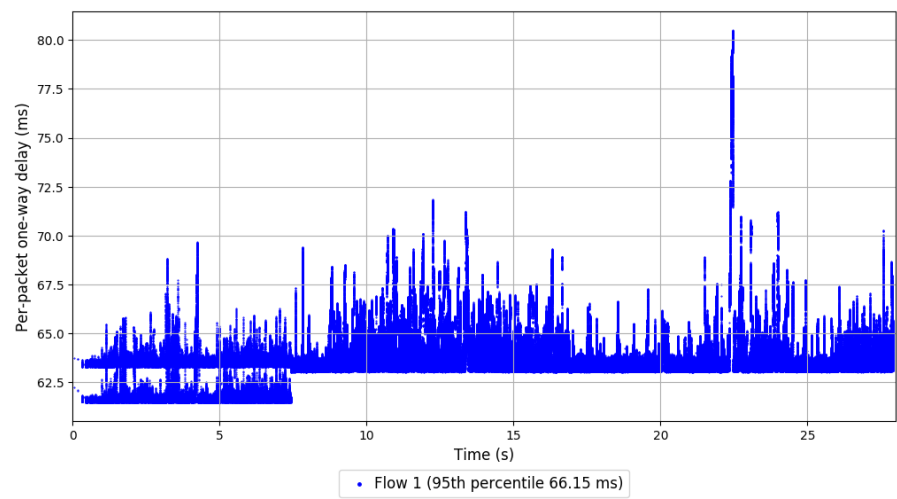
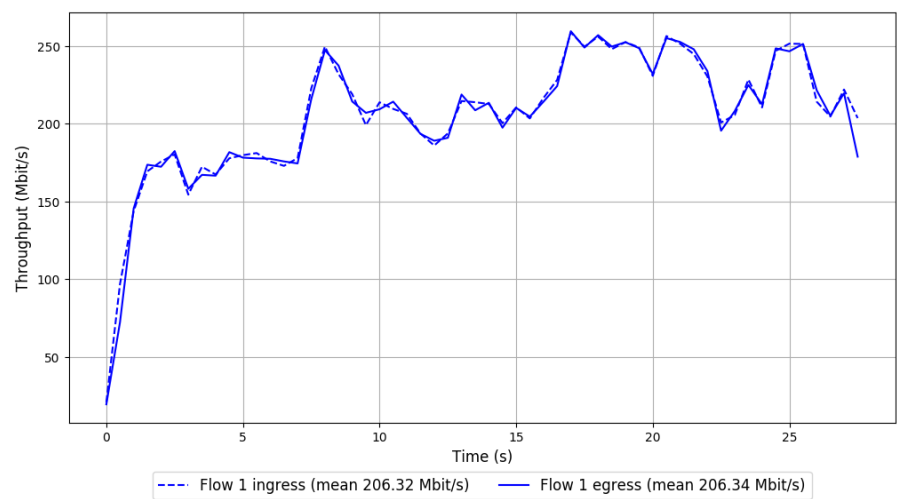Run 10: Report of Sprout — Data Link

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

Start at: 2017-09-21 19:40:52
End at: 2017-09-21 19:41:22

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.34 Mbit/s
95th percentile per-packet one-way delay: 66.149 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 206.34 Mbit/s
95th percentile per-packet one-way delay: 66.149 ms
Loss rate: 0.45%
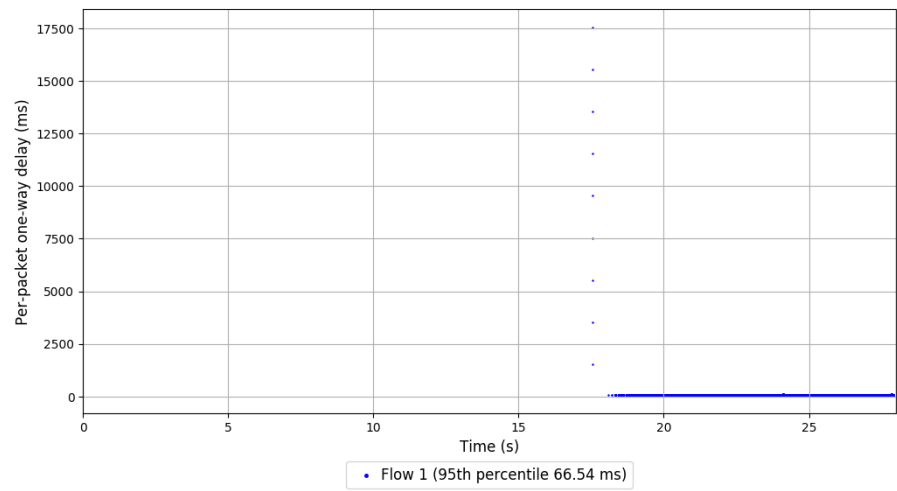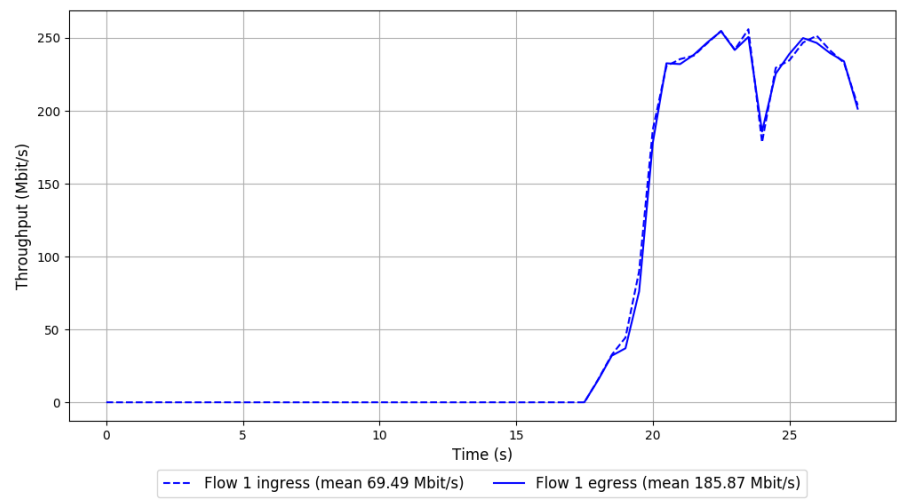```

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

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

Start at: 2017-09-21 19:51:34
End at: 2017-09-21 19:52:04
```

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

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

Start at: 2017-09-21 20:01:59
End at: 2017-09-21 20:02:29

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.93 Mbit/s
95th percentile per-packet one-way delay: 65.432 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 186.93 Mbit/s
95th percentile per-packet one-way delay: 65.432 ms
Loss rate: 0.44%
```
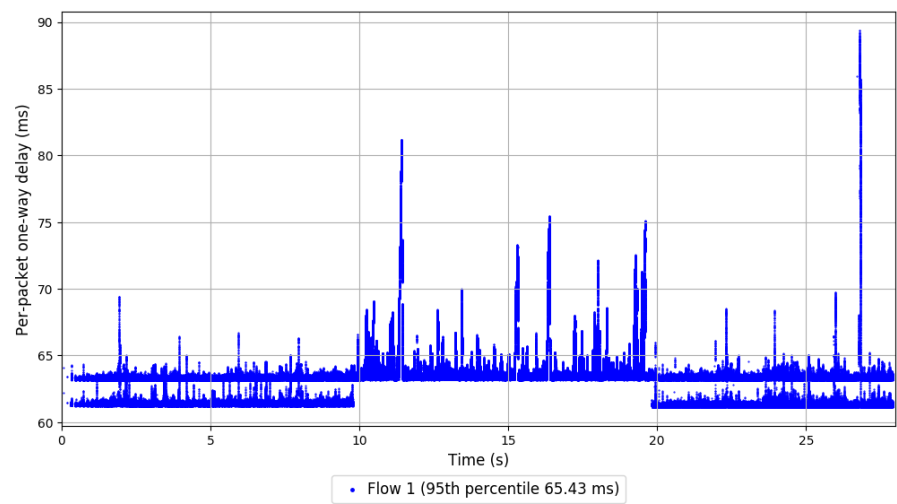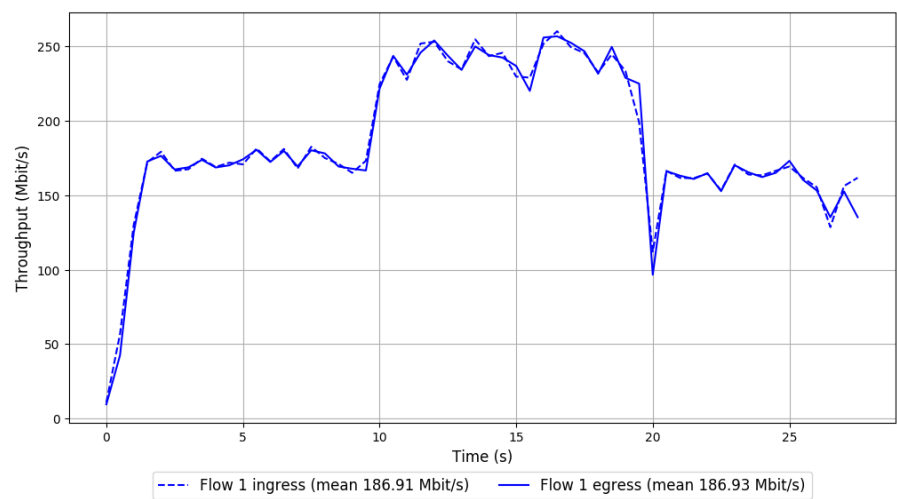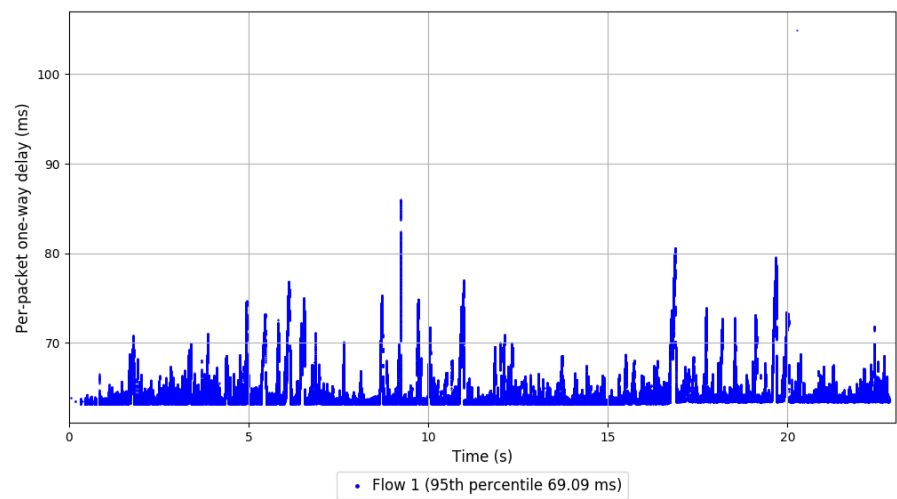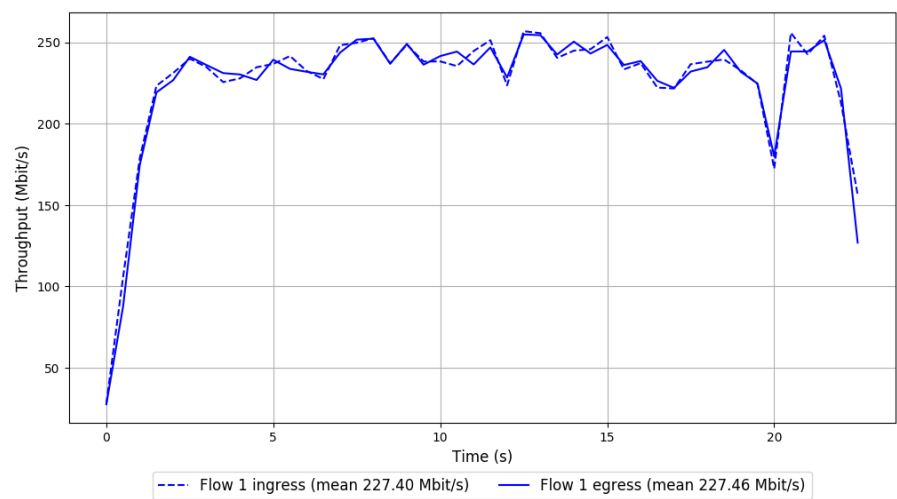
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 186.91 Mbit/s) — — — Flow 1 egress (mean 186.93 Mbit/s)

• Flow 1 (95th percentile 65.43 ms)

169

Run 4: Statistics of TaoVA-100x

Start at: 2017-09-21 20:12:47
End at: 2017-09-21 20:13:17

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

Flow 1 ingress (mean 227.40 Mbit/s) --- Flow 1 egress (mean 227.46 Mbit/s)

Flow 1 (95th percentile 69.09 ms)

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

Start at: 2017-09-21 20:23:34
End at: 2017-09-21 20:24:04

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 111.97 Mbit/s
95th percentile per-packet one-way delay: 64.026 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 111.97 Mbit/s
95th percentile per-packet one-way delay: 64.026 ms
Loss rate: 0.36%
```
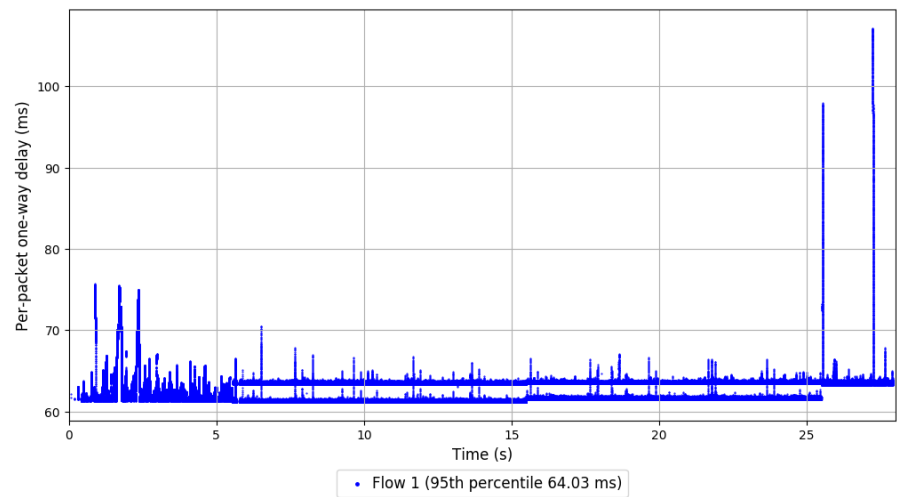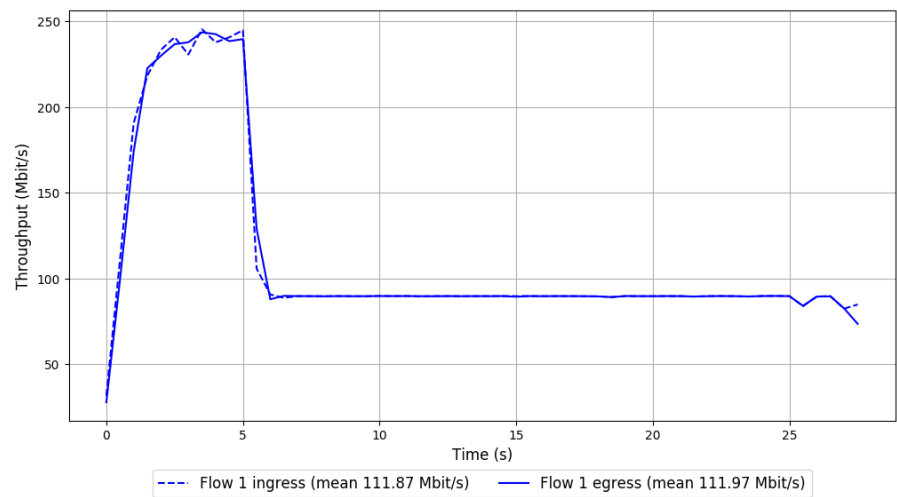
Run 5: Report of TaoVA-100x — Data Link

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

Start at: 2017-09-21 20:34:06
End at: 2017-09-21 20:34:36

# Below is generated by plot.py at 2017-09-21 23:43:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 182.75 Mbit/s
95th percentile per-packet one-way delay: 66.563 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 182.75 Mbit/s
95th percentile per-packet one-way delay: 66.563 ms
Loss rate: 0.58%
```
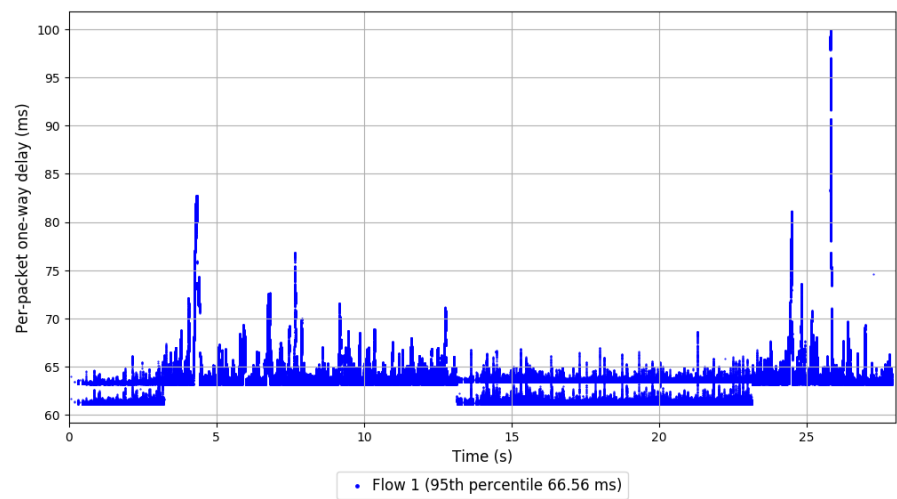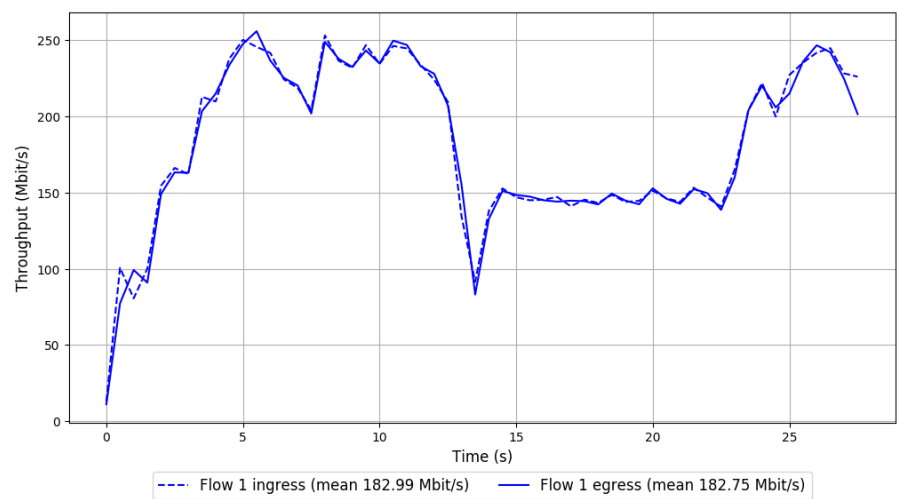
Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2017-09-21 20:44:57
End at: 2017-09-21 20:45:27

# Below is generated by plot.py at 2017-09-21 23:44:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.04 Mbit/s
95th percentile per-packet one-way delay: 71.497 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 214.04 Mbit/s
95th percentile per-packet one-way delay: 71.497 ms
Loss rate: 0.36%
```
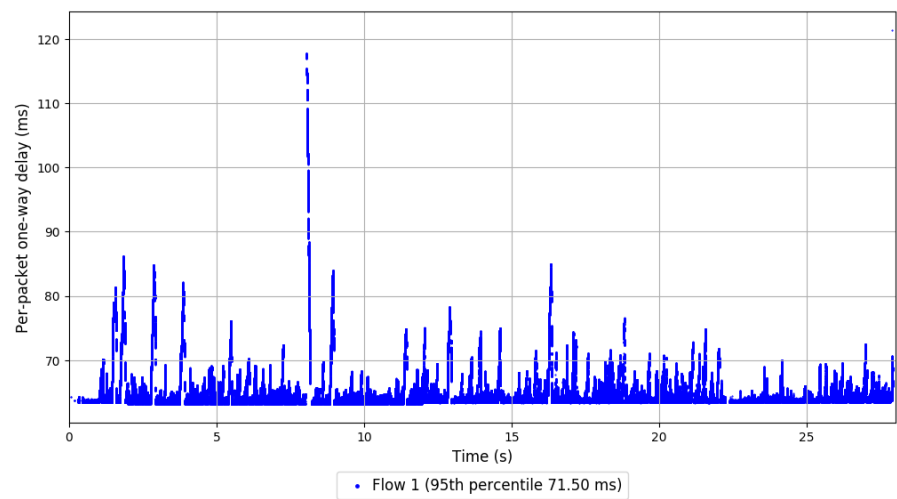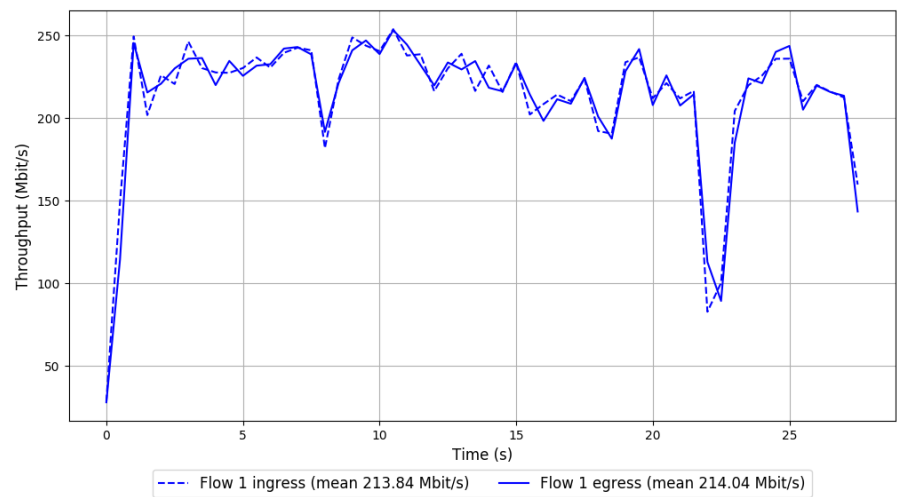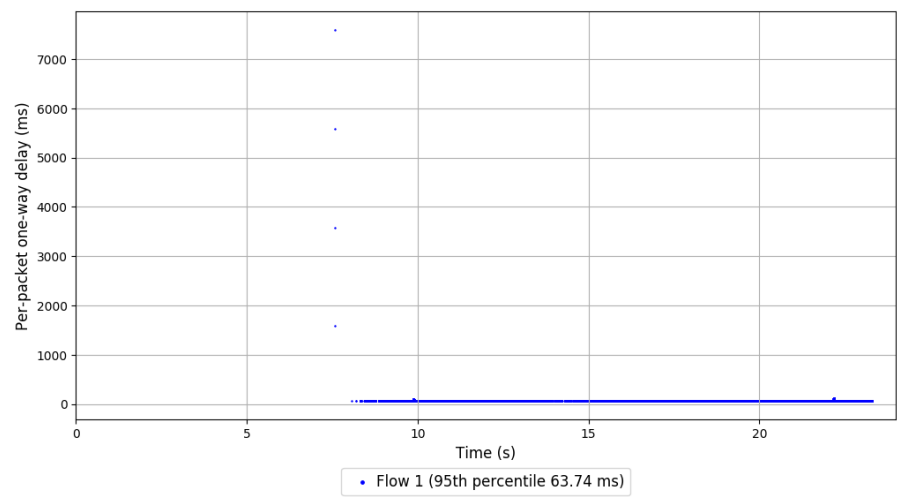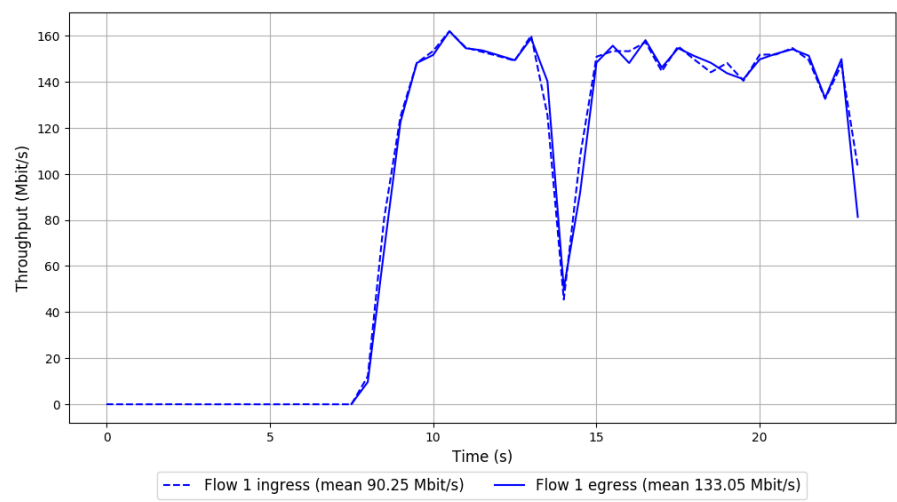
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 213.84 Mbit/s)   Flow 1 egress (mean 214.04 Mbit/s)

Flow 1 (95th percentile 71.50 ms)

177

Run 8: Statistics of TaoVA-100x

Start at: 2017-09-21 20:55:48
End at: 2017-09-21 20:56:18

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

Flow 1 ingress (mean 90.25 Mbit/s) --- Flow 1 egress (mean 133.05 Mbit/s)

Flow 1 (95th percentile 63.74 ms)

179

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

Start at: 2017-09-21 21:06:23
End at: 2017-09-21 21:06:53

# Below is generated by plot.py at 2017-09-21 23:45:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 160.55 Mbit/s
95th percentile per-packet one-way delay: 63.877 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 160.55 Mbit/s
95th percentile per-packet one-way delay: 63.877 ms
Loss rate: 0.44%
```
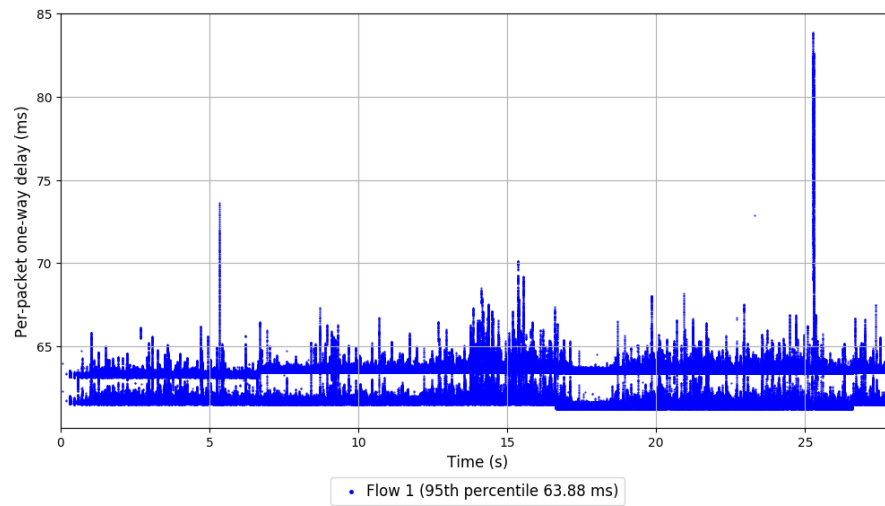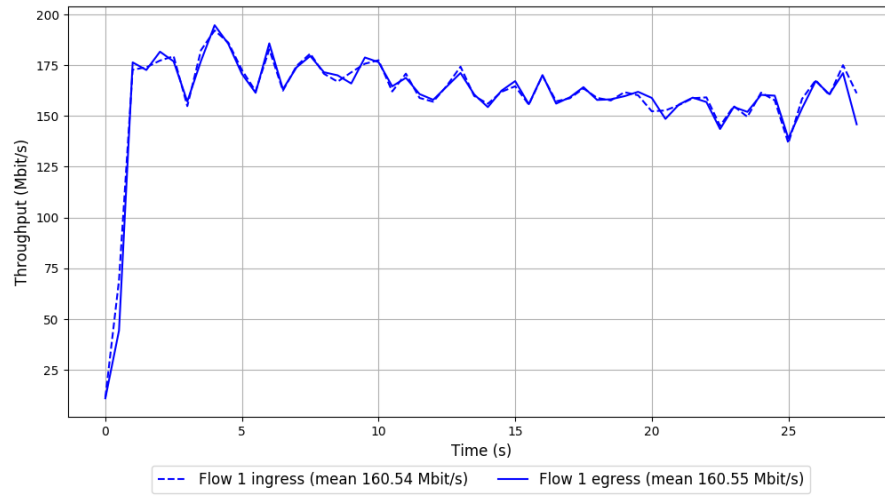
Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 160.54 Mbit/s) — Flow 1 egress (mean 160.55 Mbit/s)
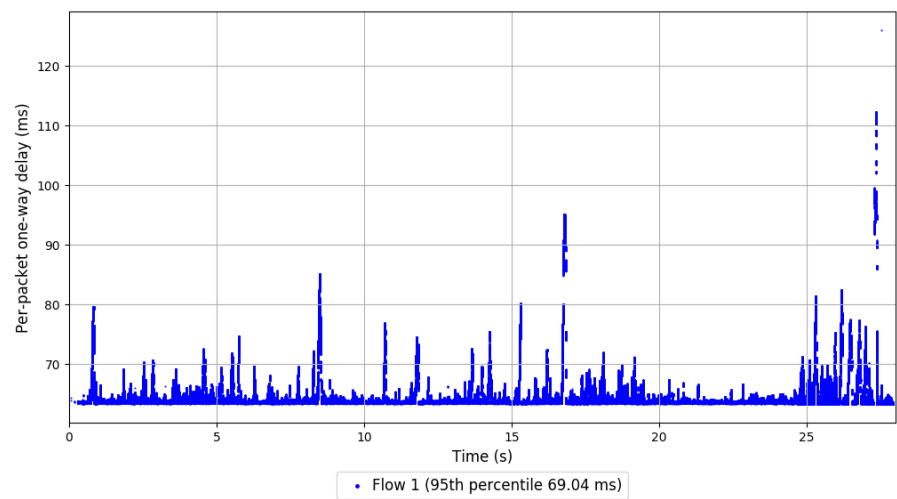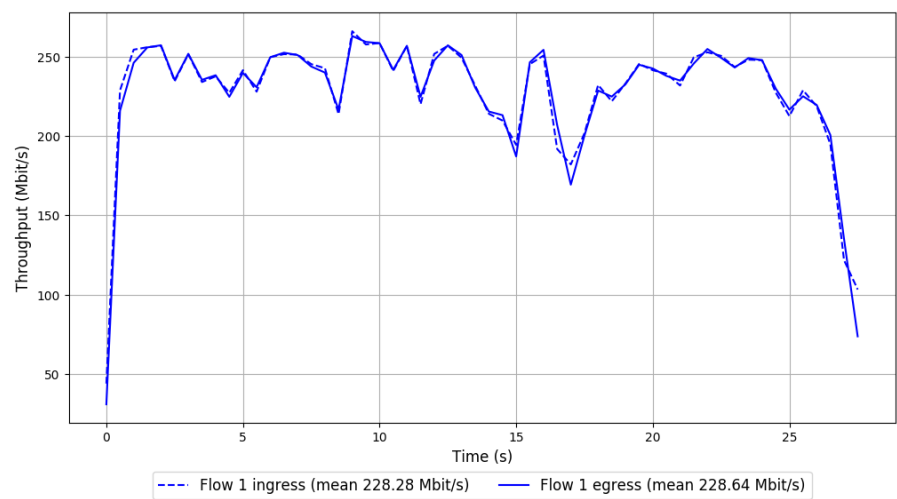

Flow 1 (95th percentile 63.88 ms)

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

Start at: 2017-09-21 21:17:05
End at: 2017-09-21 21:17:35

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.64 Mbit/s
95th percentile per-packet one-way delay: 69.037 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 228.64 Mbit/s
95th percentile per-packet one-way delay: 69.037 ms
Loss rate: 0.29%
```

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

Flow 1 ingress (mean 228.28 Mbit/s)   Flow 1 egress (mean 228.64 Mbit/s)

Flow 1 (95th percentile 69.04 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2017-09-21 19:47:34
End at: 2017-09-21 19:48:04

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.48 Mbit/s
95th percentile per-packet one-way delay: 64.152 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 12.48 Mbit/s
95th percentile per-packet one-way delay: 64.152 ms
Loss rate: 0.59%
```
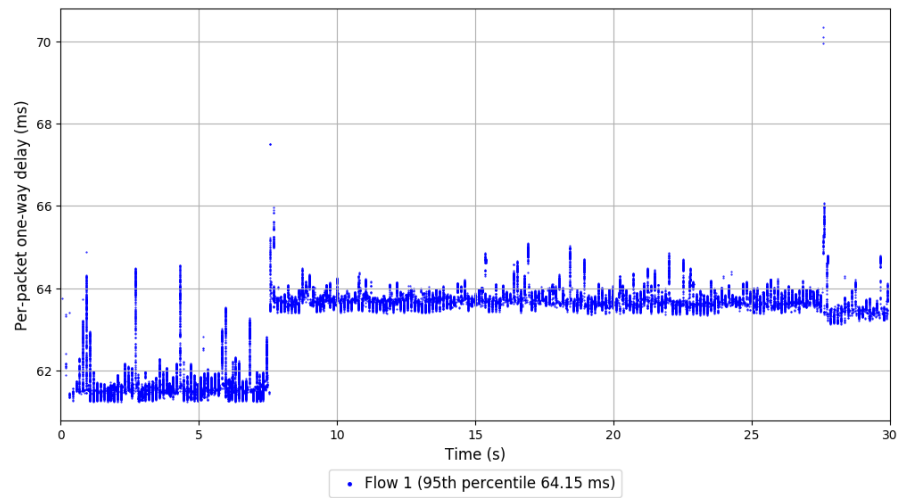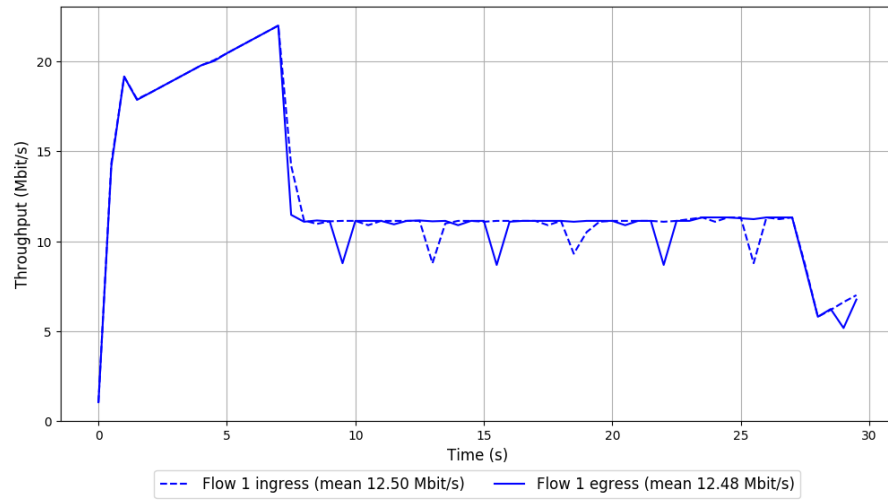
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2017-09-21 19:58:03
End at: 2017-09-21 19:58:33

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 25.13 Mbit/s
95th percentile per-packet one-way delay: 64.998 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 25.13 Mbit/s
95th percentile per-packet one-way delay: 64.998 ms
Loss rate: 0.23%
```
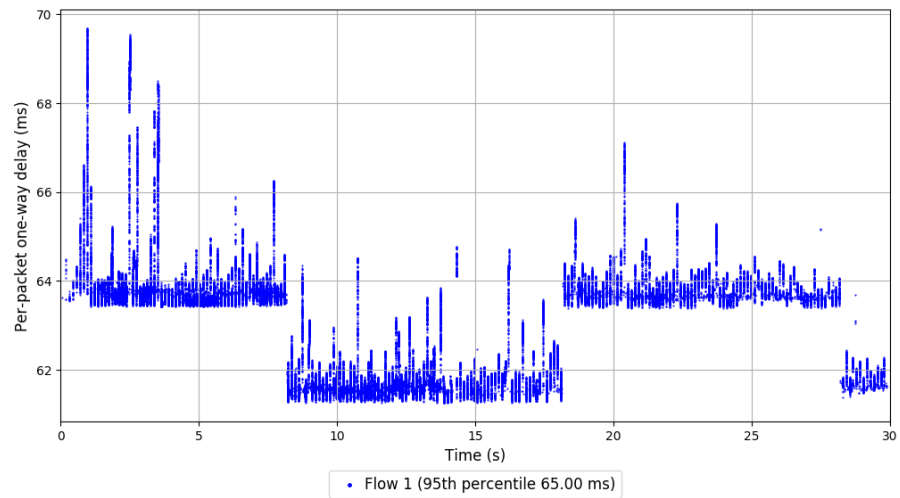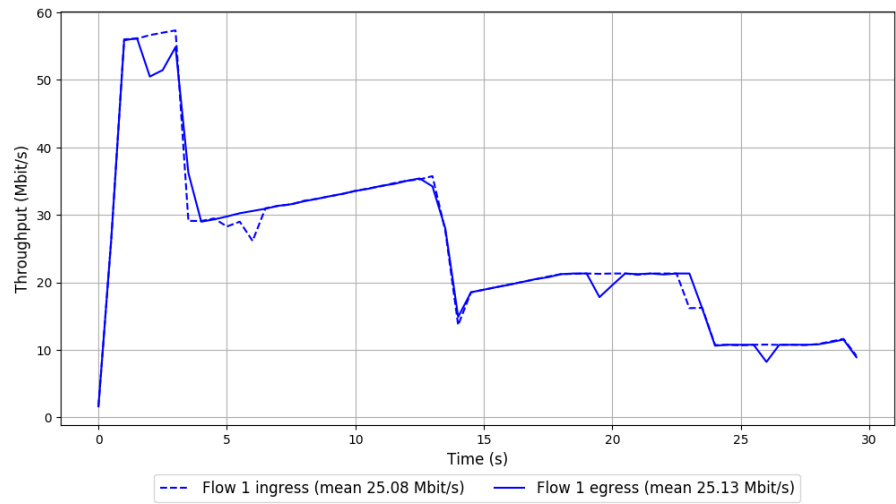
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2017-09-21 20:08:39
End at: 2017-09-21 20:09:09

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 63.869 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 63.869 ms
Loss rate: 0.24%
```
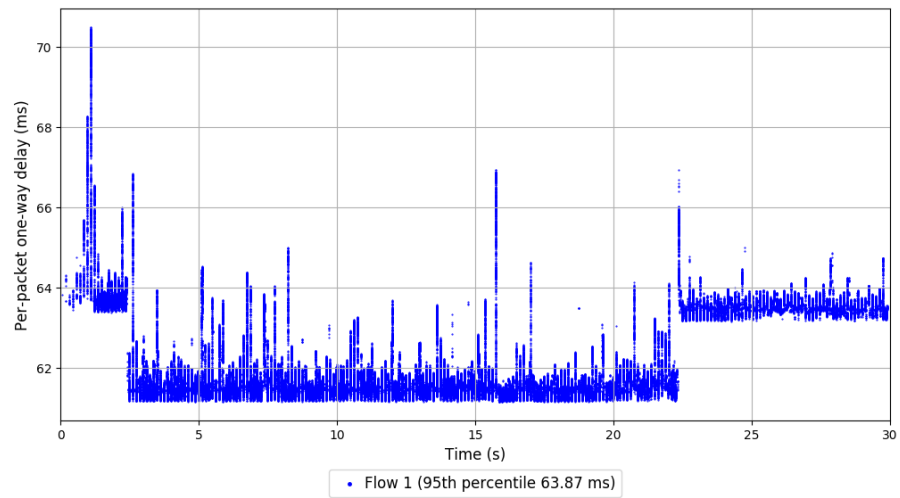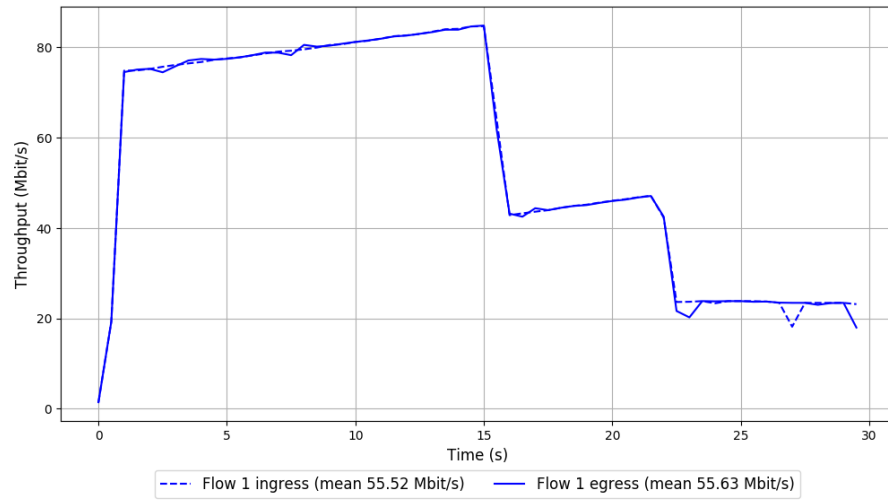
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 55.52 Mbit/s) --- Flow 1 egress (mean 55.63 Mbit/s)

Flow 1 (95th percentile 63.87 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2017-09-21 20:19:27
End at: 2017-09-21 20:19:57

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.35 Mbit/s
95th percentile per-packet one-way delay: 64.422 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 14.35 Mbit/s
95th percentile per-packet one-way delay: 64.422 ms
Loss rate: 0.49%
```
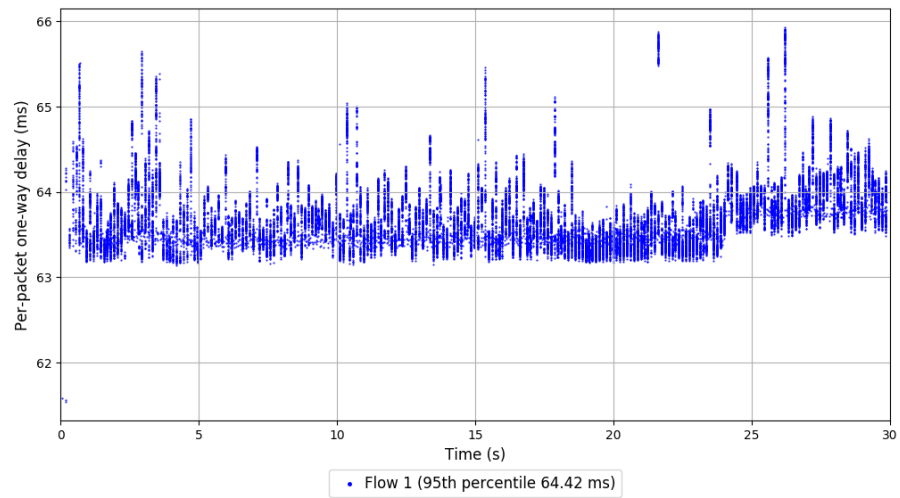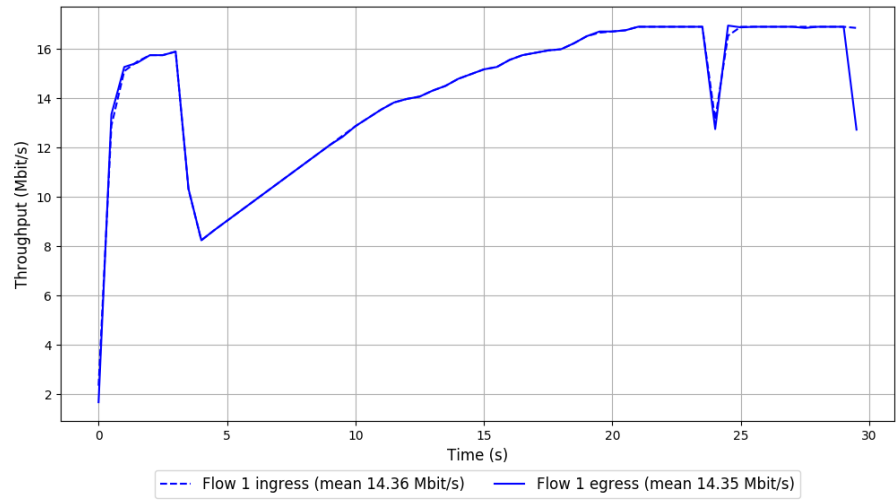
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 14.36 Mbit/s)   Flow 1 egress (mean 14.35 Mbit/s)

Flow 1 (95th percentile 64.42 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2017-09-21 20:30:07
End at: 2017-09-21 20:30:37

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 72.890 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 72.890 ms
Loss rate: 0.32%
```
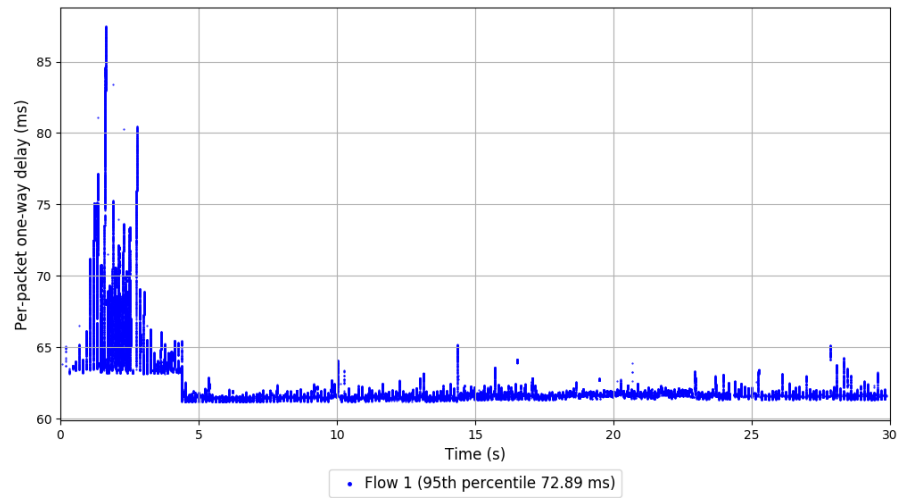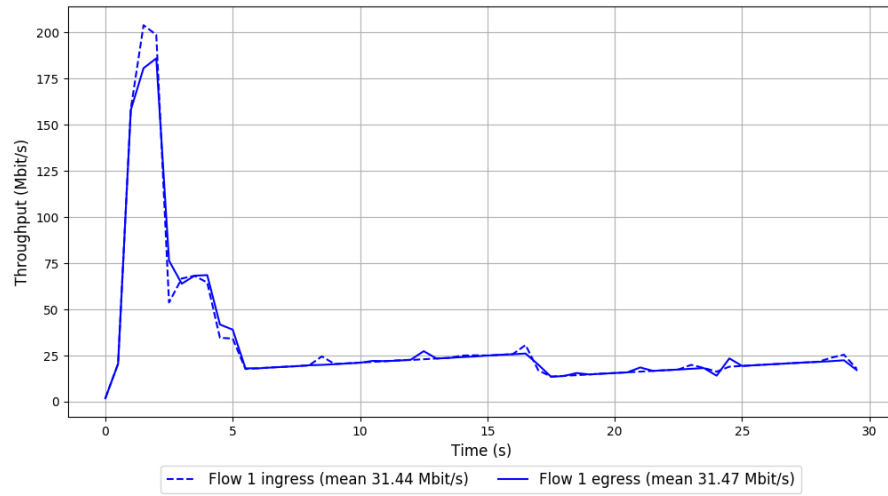
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2017-09-21 20:40:44
End at: 2017-09-21 20:41:14

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.34 Mbit/s
95th percentile per-packet one-way delay: 64.754 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 48.34 Mbit/s
95th percentile per-packet one-way delay: 64.754 ms
Loss rate: 0.17%
```
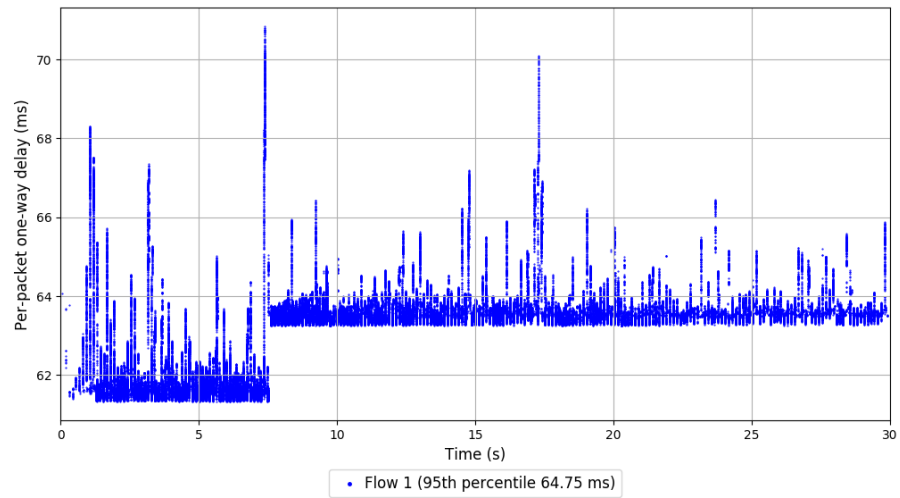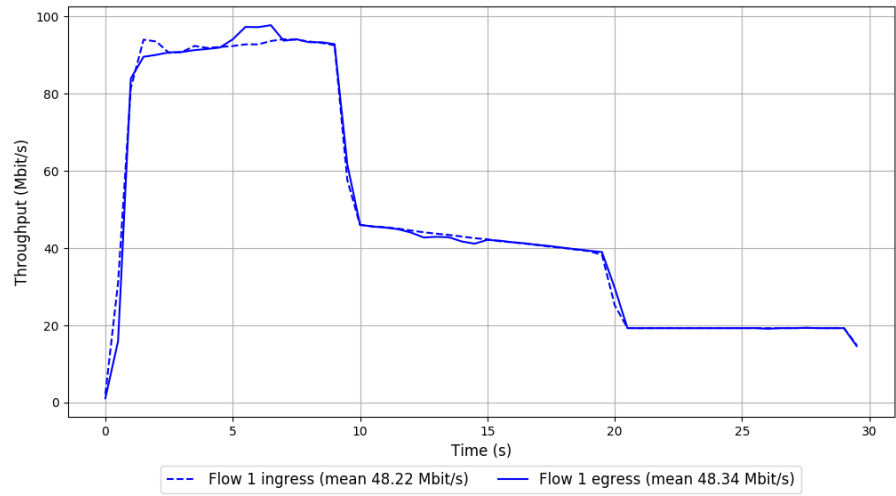
Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 48.22 Mbit/s)   Flow 1 egress (mean 48.34 Mbit/s)

Flow 1 (95th percentile 64.75 ms)

```
Run 7: Statistics of TCP Vegas

Start at: 2017-09-21 20:51:42
End at: 2017-09-21 20:52:12

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.36 Mbit/s
95th percentile per-packet one-way delay: 64.347 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 9.36 Mbit/s
95th percentile per-packet one-way delay: 64.347 ms
Loss rate: 0.68%
```
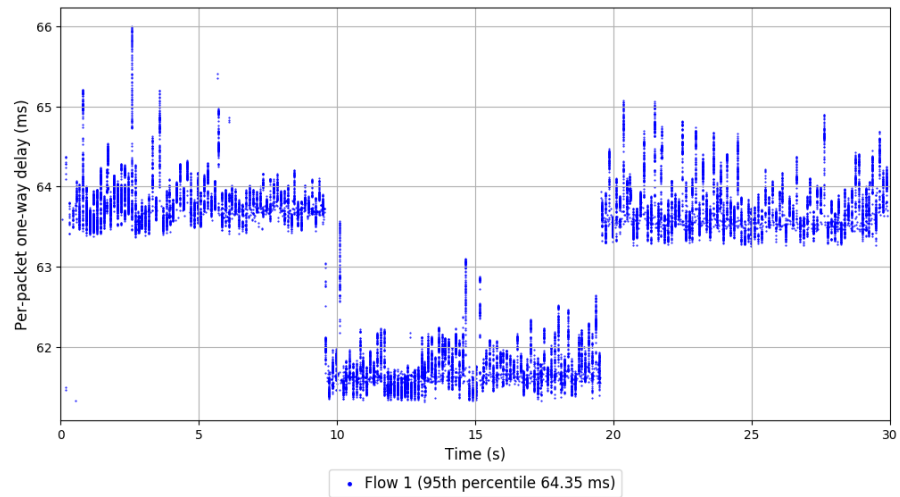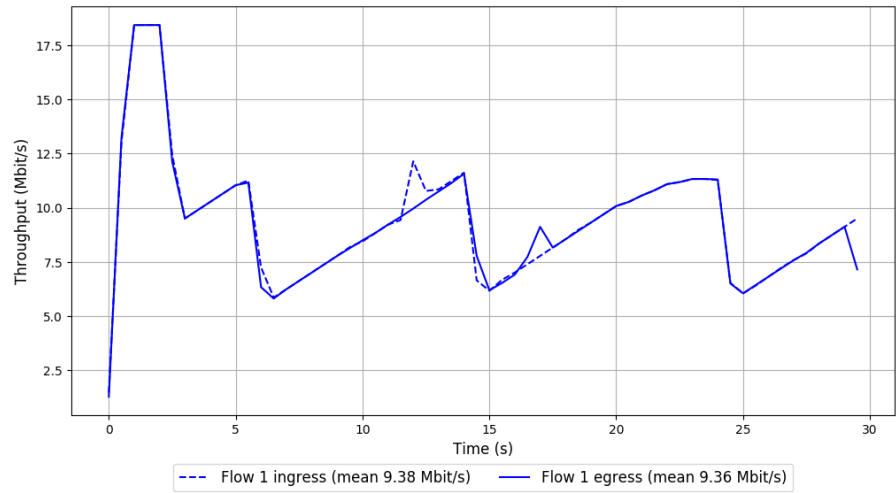
Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 9.38 Mbit/s)   Flow 1 egress (mean 9.36 Mbit/s)

Flow 1 (95th percentile 64.35 ms)

```
Run 8: Statistics of TCP Vegas

Start at: 2017-09-21 21:02:18
End at: 2017-09-21 21:02:48

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.87 Mbit/s
95th percentile per-packet one-way delay: 64.255 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 27.87 Mbit/s
95th percentile per-packet one-way delay: 64.255 ms
Loss rate: 0.27%
```
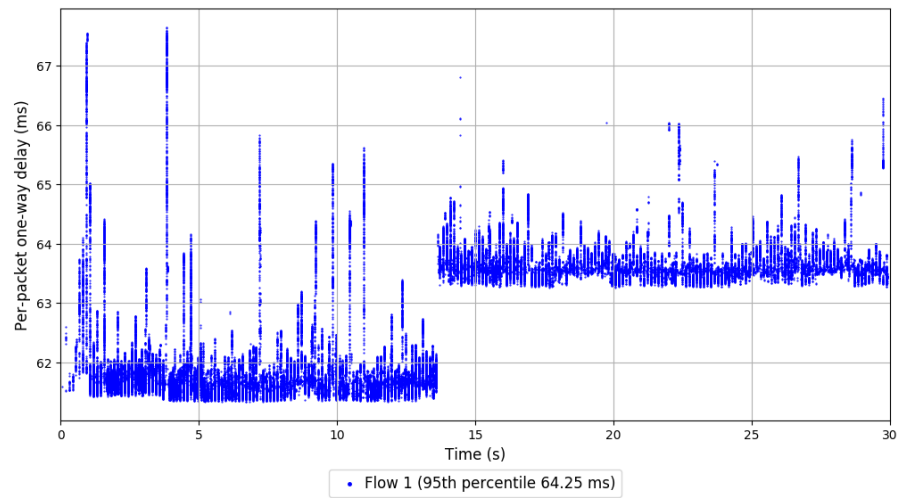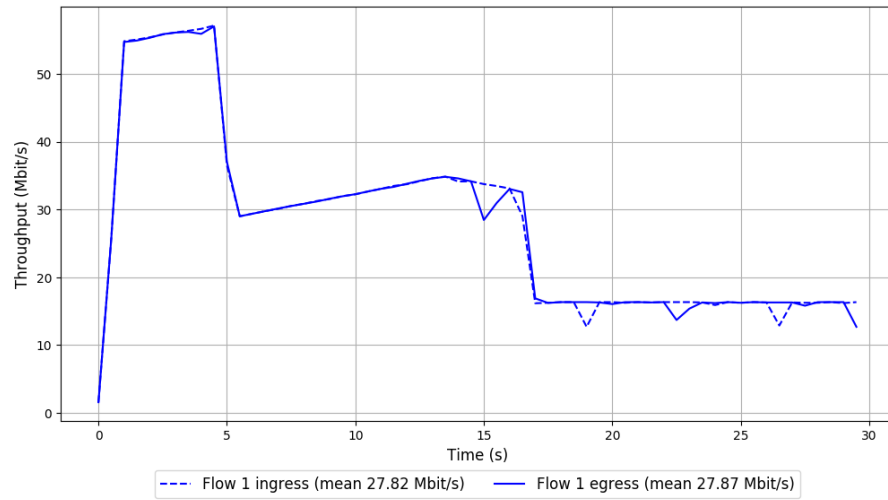
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 27.82 Mbit/s) --- Flow 1 egress (mean 27.87 Mbit/s)

Flow 1 (95th percentile 64.25 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2017-09-21 21:12:56
End at: 2017-09-21 21:13:26


# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.37 Mbit/s
95th percentile per-packet one-way delay: 64.954 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 21.37 Mbit/s
95th percentile per-packet one-way delay: 64.954 ms
Loss rate: 0.27%
```
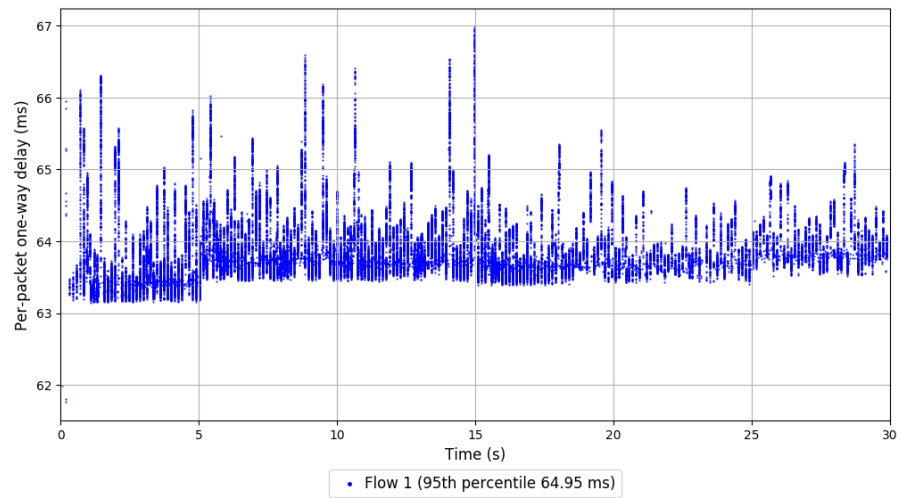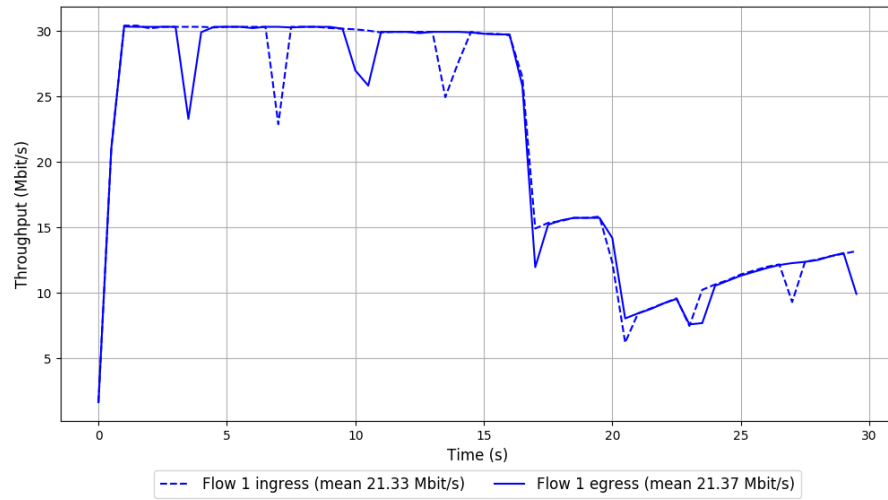
Run 9: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 21.33 Mbit/s) --- Flow 1 egress (mean 21.37 Mbit/s)

Flow 1 (95th percentile 64.95 ms)

201

Run 10: Statistics of TCP Vegas

Start at: 2017-09-21 21:23:47
End at: 2017-09-21 21:24:17

Below is generated by plot.py at 2017-09-21 23:49:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 54.85 Mbit/s
95th percentile per-packet one-way delay: 64.969 ms
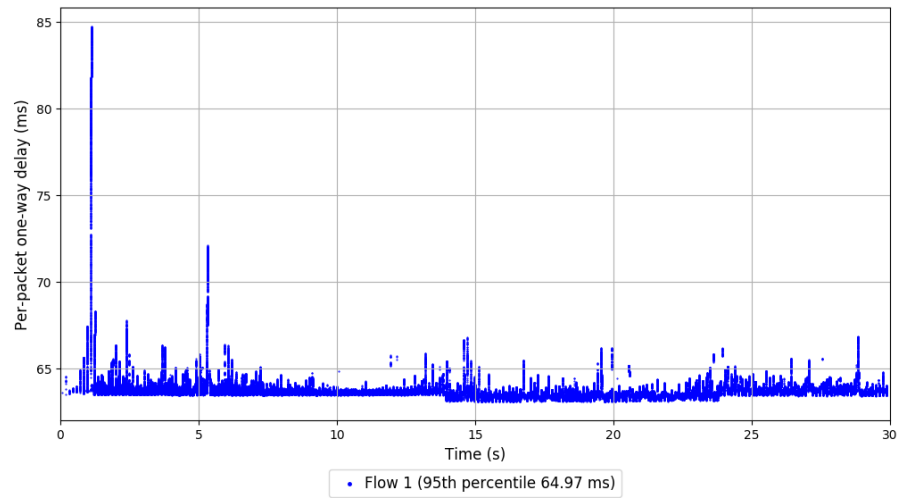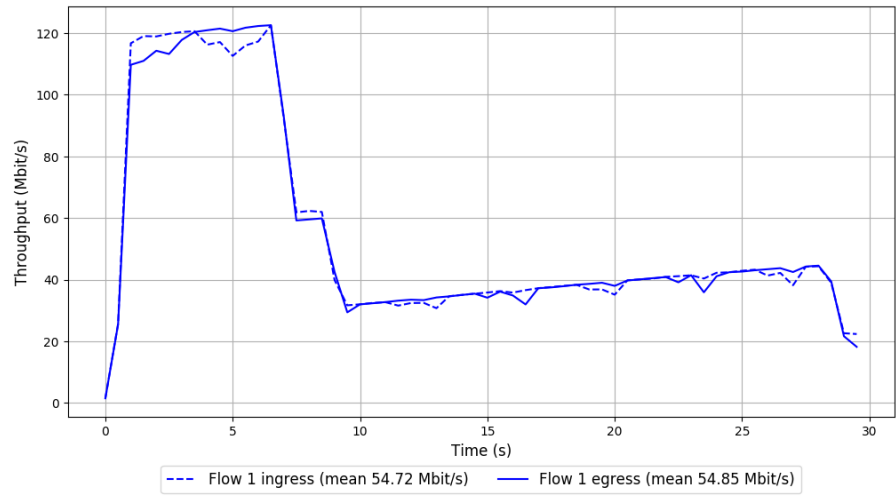Loss rate: 0.19%
-- Flow 1:
Average throughput: 54.85 Mbit/s
95th percentile per-packet one-way delay: 64.969 ms
Loss rate: 0.19%

Run 10: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 54.72 Mbit/s)   Flow 1 egress (mean 54.85 Mbit/s)

Flow 1 (95th percentile 64.97 ms)

```
Run 1: Statistics of Verus

Start at: 2017-09-21 19:39:55
End at: 2017-09-21 19:40:25

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.38 Mbit/s
95th percentile per-packet one-way delay: 94.884 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 249.38 Mbit/s
95th percentile per-packet one-way delay: 94.884 ms
Loss rate: 2.52%
```
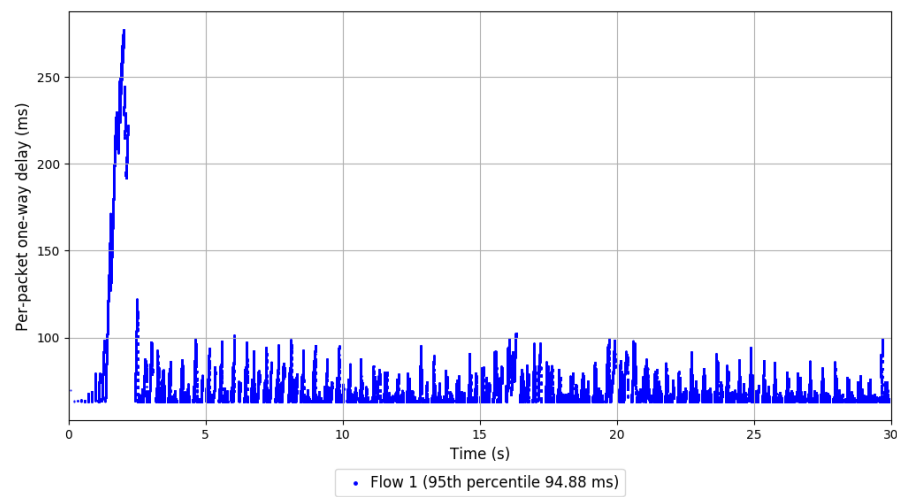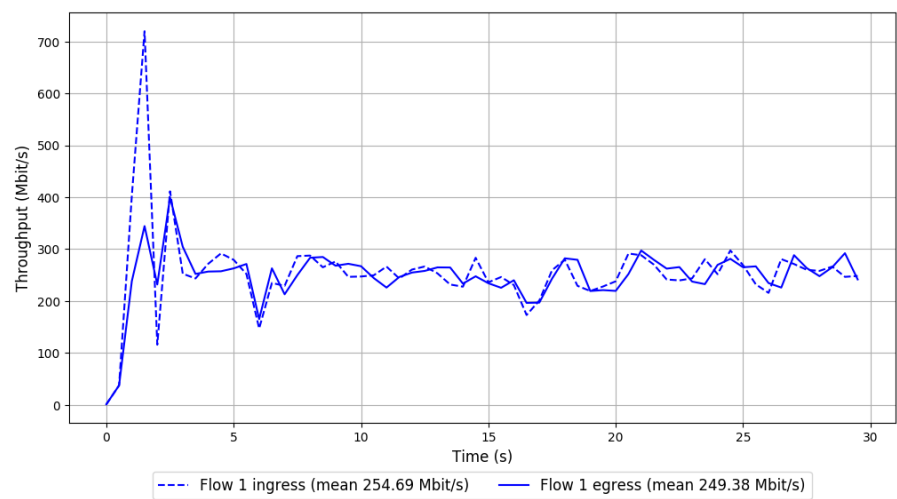
Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 254.69 Mbit/s) ----   Flow 1 egress (mean 249.38 Mbit/s) ——

• Flow 1 (95th percentile 94.88 ms)

205

```
Run 2: Statistics of Verus

Start at: 2017-09-21 19:50:39
End at: 2017-09-21 19:51:09

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 239.02 Mbit/s
95th percentile per-packet one-way delay: 130.686 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 239.02 Mbit/s
95th percentile per-packet one-way delay: 130.686 ms
Loss rate: 2.74%
```
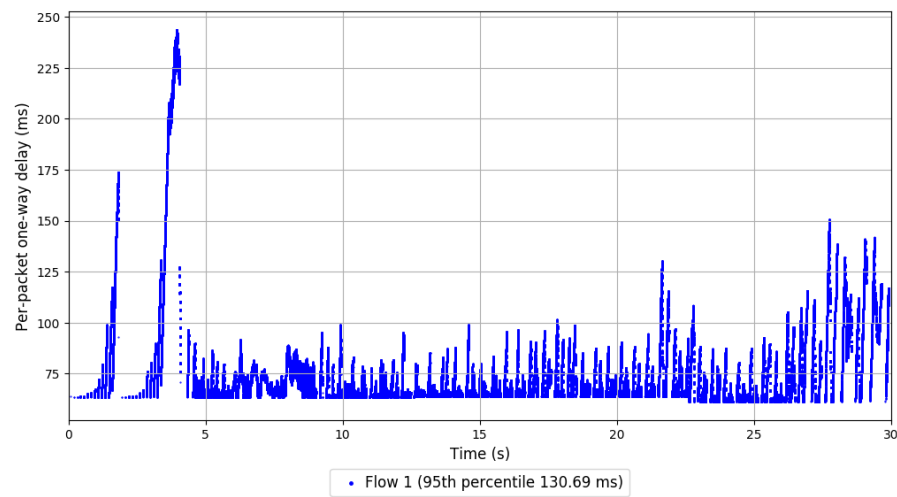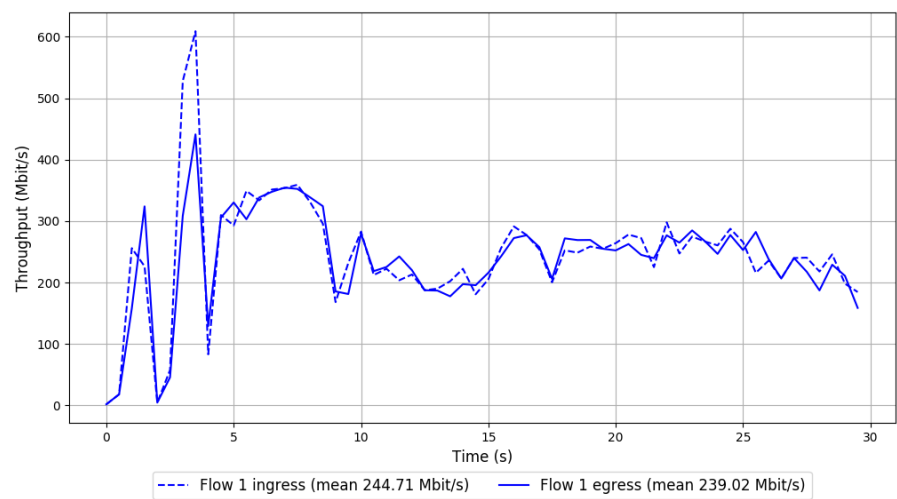
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2017-09-21 20:01:14
End at: 2017-09-21 20:01:44

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 99.20 Mbit/s
95th percentile per-packet one-way delay: 172.504 ms
Loss rate: 4.74%
-- Flow 1:
Average throughput: 99.20 Mbit/s
95th percentile per-packet one-way delay: 172.504 ms
Loss rate: 4.74%
```
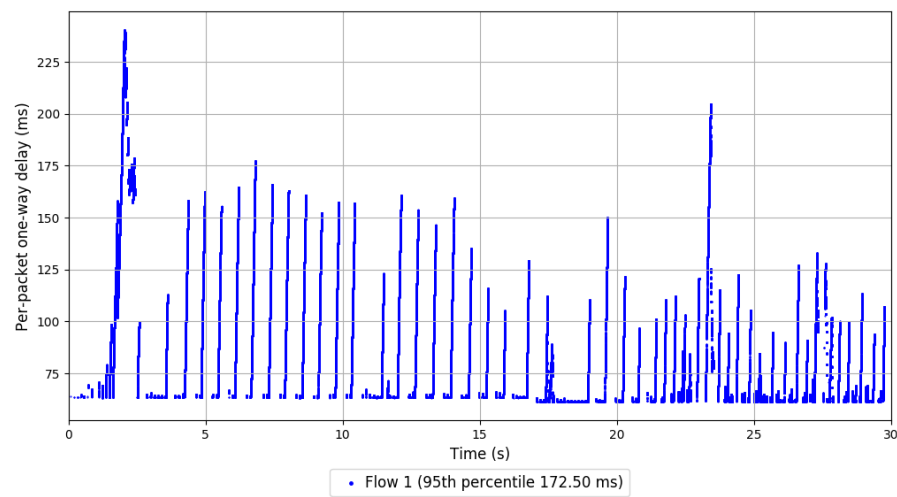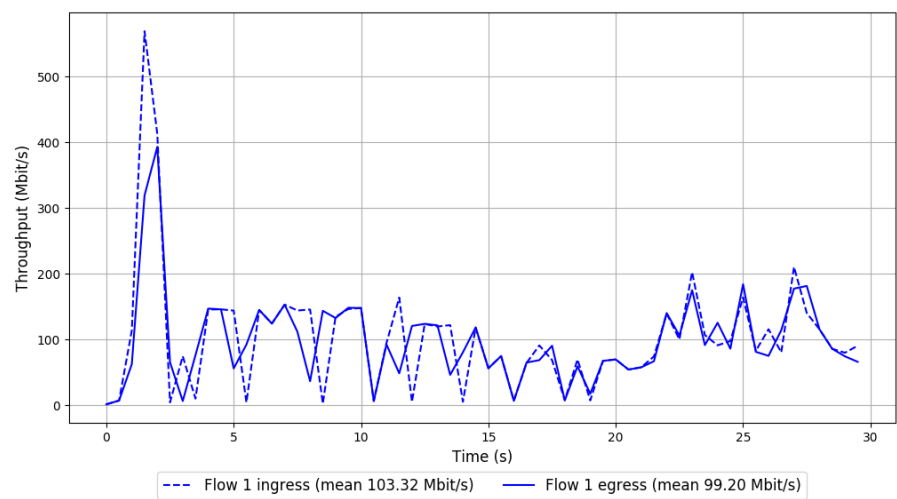
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2017-09-21 20:11:52
End at: 2017-09-21 20:12:22

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 240.72 Mbit/s
95th percentile per-packet one-way delay: 208.436 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 240.72 Mbit/s
95th percentile per-packet one-way delay: 208.436 ms
Loss rate: 2.84%
```
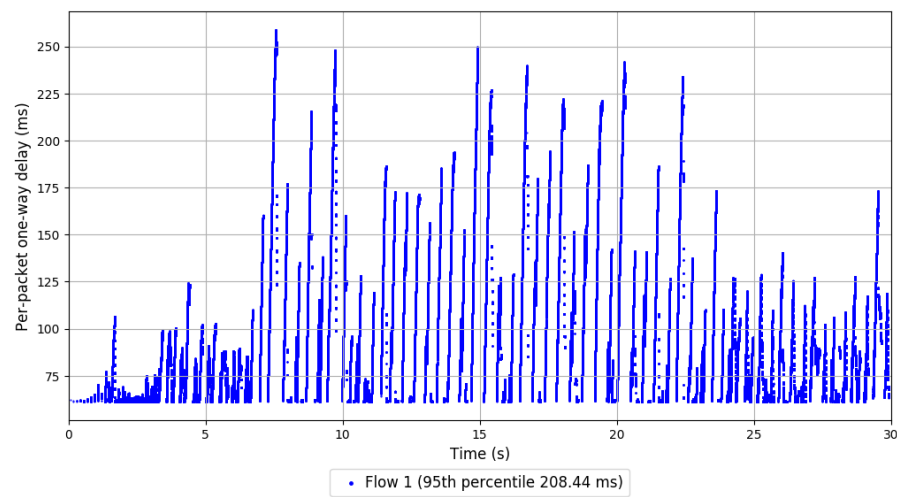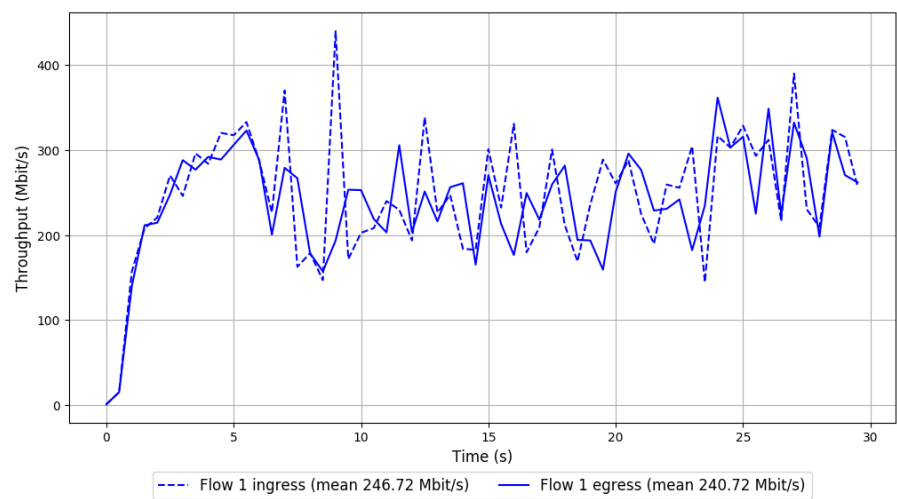
Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 246.72 Mbit/s)   Flow 1 egress (mean 240.72 Mbit/s)

• Flow 1 (95th percentile 208.44 ms)

```
Run 5: Statistics of Verus

Start at: 2017-09-21 20:22:37
End at: 2017-09-21 20:23:07

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.01 Mbit/s
95th percentile per-packet one-way delay: 148.159 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 248.01 Mbit/s
95th percentile per-packet one-way delay: 148.159 ms
Loss rate: 1.59%
```
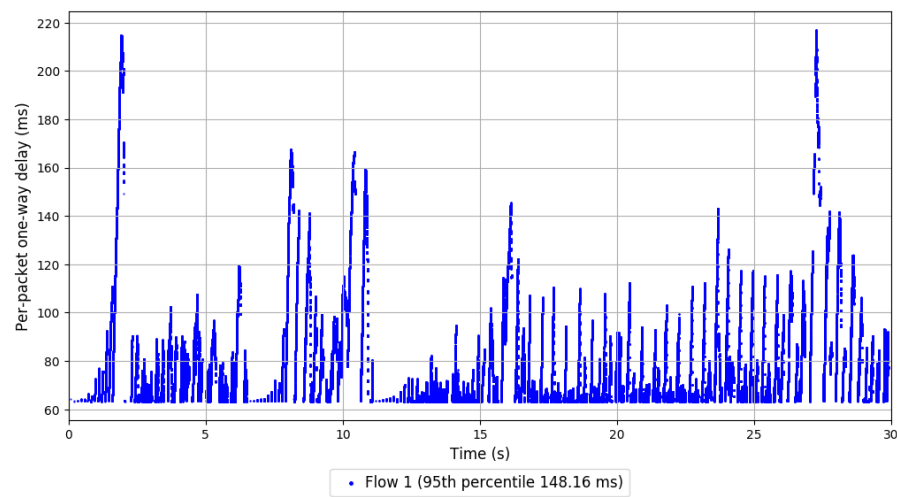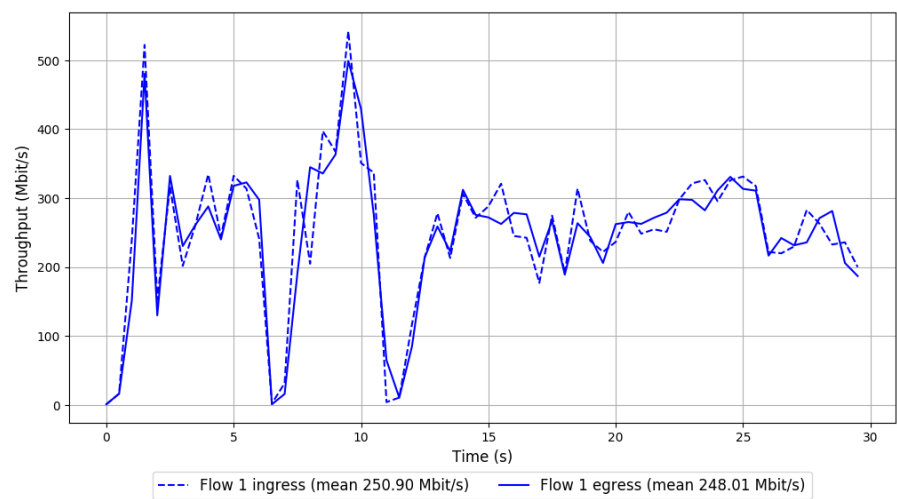
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2017-09-21 20:33:12
End at: 2017-09-21 20:33:42

# Below is generated by plot.py at 2017-09-21 23:49:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 208.39 Mbit/s
95th percentile per-packet one-way delay: 112.787 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 208.39 Mbit/s
95th percentile per-packet one-way delay: 112.787 ms
Loss rate: 0.63%
```
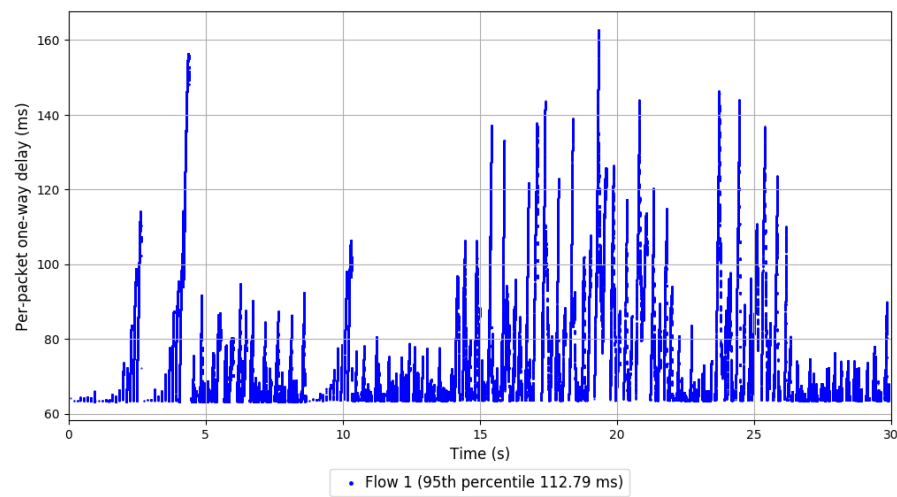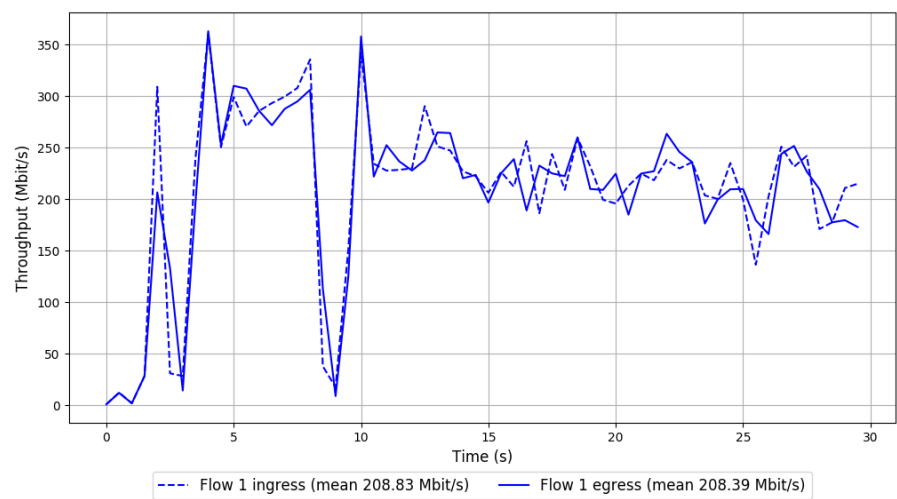
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2017-09-21 20:44:01
End at: 2017-09-21 20:44:31


# Below is generated by plot.py at 2017-09-21 23:50:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.70 Mbit/s
95th percentile per-packet one-way delay: 118.907 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 255.70 Mbit/s
95th percentile per-packet one-way delay: 118.907 ms
Loss rate: 1.07%
```
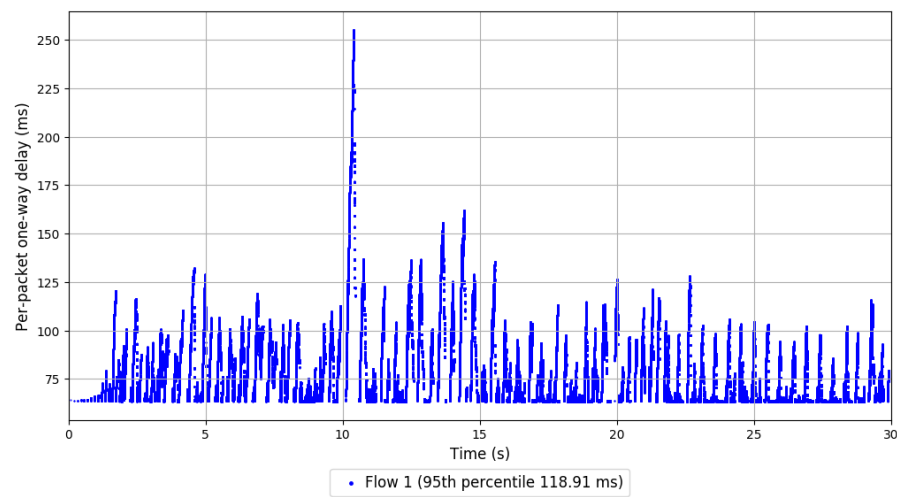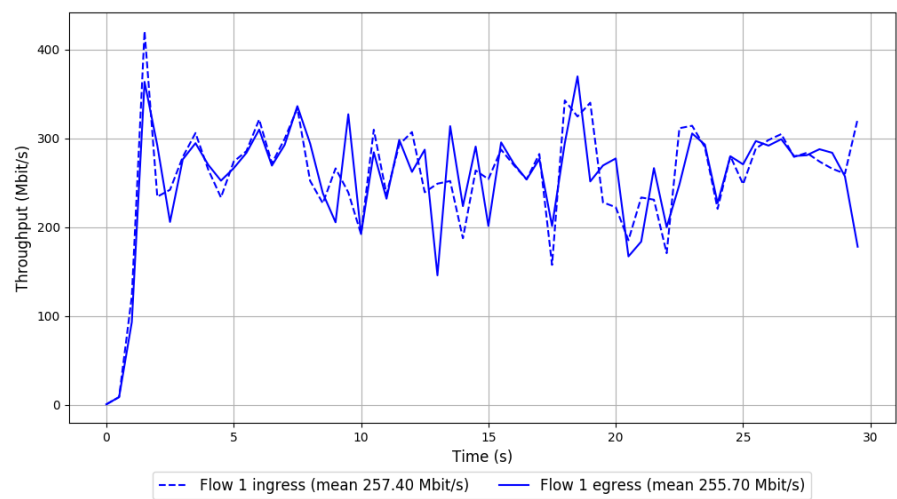
Run 7: Report of Verus — Data Link

Flow 1 ingress (mean 257.40 Mbit/s)   Flow 1 egress (mean 255.70 Mbit/s)

Flow 1 (95th percentile 118.91 ms)

```
Run 8: Statistics of Verus

Start at: 2017-09-21 20:54:51
End at: 2017-09-21 20:55:21

# Below is generated by plot.py at 2017-09-21 23:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.47 Mbit/s
95th percentile per-packet one-way delay: 211.041 ms
Loss rate: 6.17%
-- Flow 1:
Average throughput: 250.47 Mbit/s
95th percentile per-packet one-way delay: 211.041 ms
Loss rate: 6.17%
```
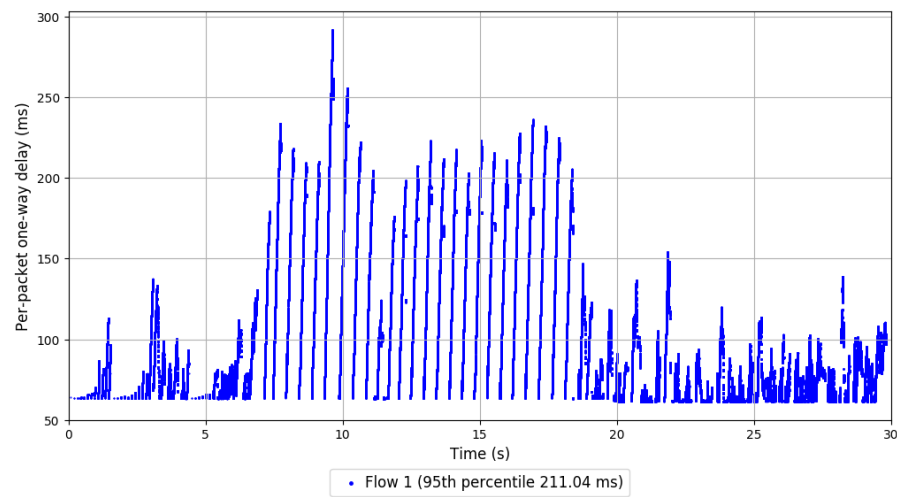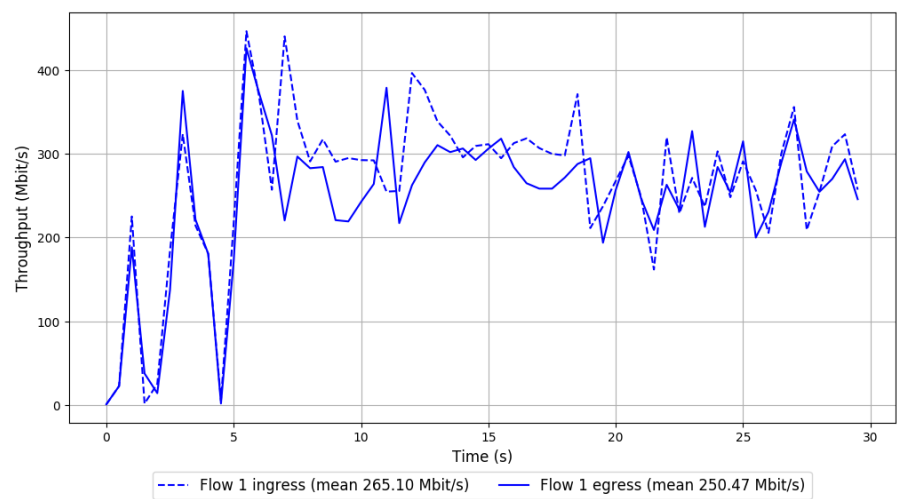
Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 265.10 Mbit/s)   Flow 1 egress (mean 250.47 Mbit/s)

Flow 1 (95th percentile 211.04 ms)

```
Run 9: Statistics of Verus

Start at: 2017-09-21 21:05:31
End at: 2017-09-21 21:06:01

# Below is generated by plot.py at 2017-09-21 23:51:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.97 Mbit/s
95th percentile per-packet one-way delay: 136.461 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 185.97 Mbit/s
95th percentile per-packet one-way delay: 136.461 ms
Loss rate: 0.22%
```
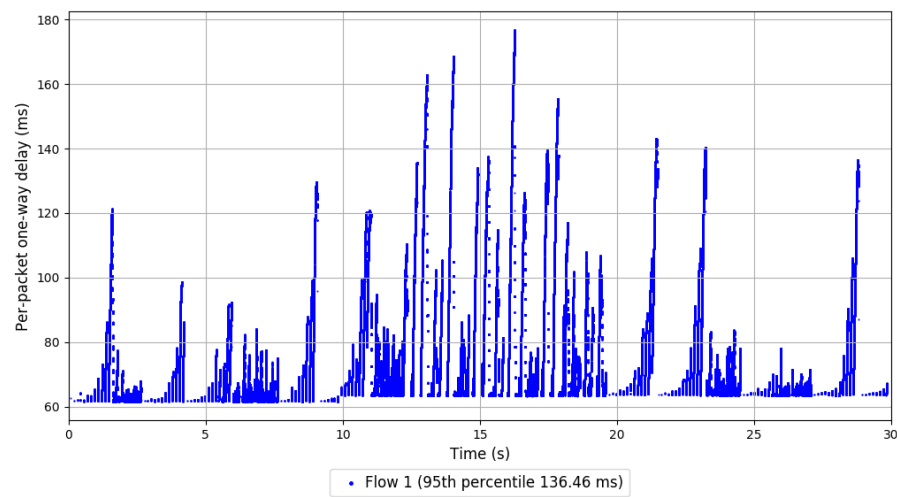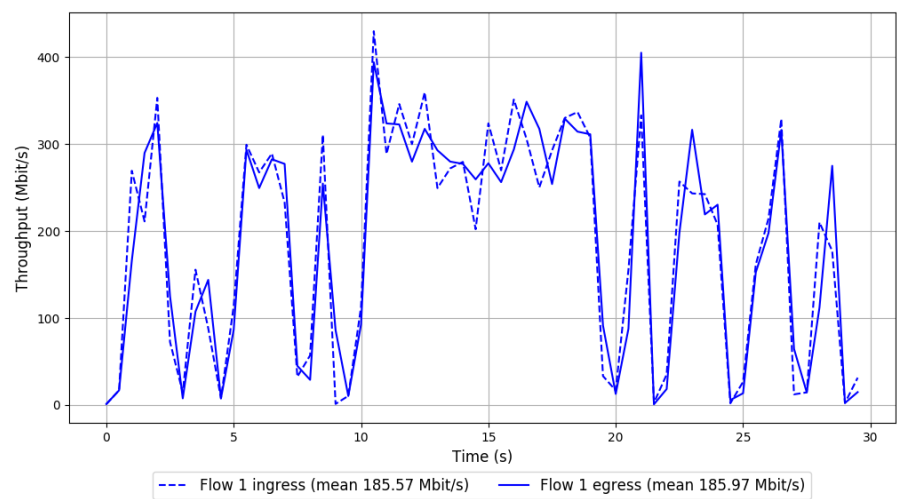
Run 9: Report of Verus — Data Link

Flow 1 ingress (mean 185.57 Mbit/s)   Flow 1 egress (mean 185.97 Mbit/s)

Flow 1 (95th percentile 136.46 ms)

```
Run 10: Statistics of Verus

Start at: 2017-09-21 21:16:08
End at: 2017-09-21 21:16:39

# Below is generated by plot.py at 2017-09-21 23:53:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.23 Mbit/s
95th percentile per-packet one-way delay: 101.572 ms
Loss rate: 2.80%
-- Flow 1:
Average throughput: 245.23 Mbit/s
95th percentile per-packet one-way delay: 101.572 ms
Loss rate: 2.80%
```
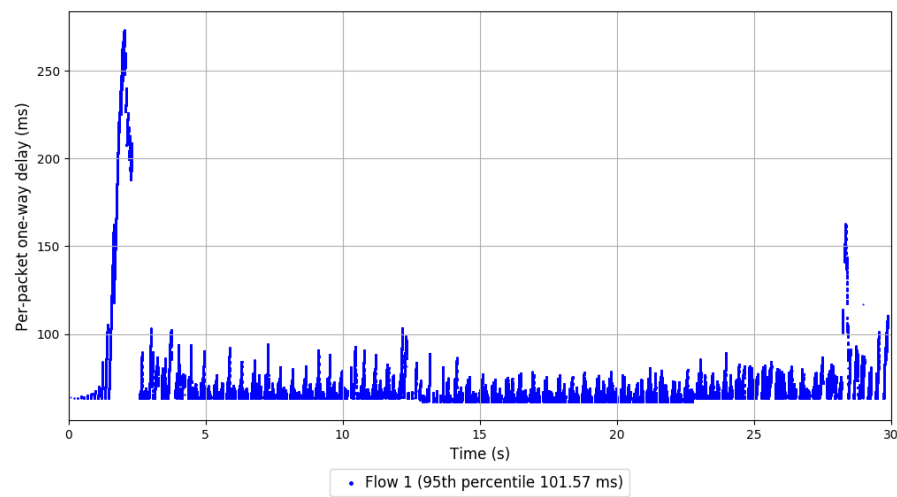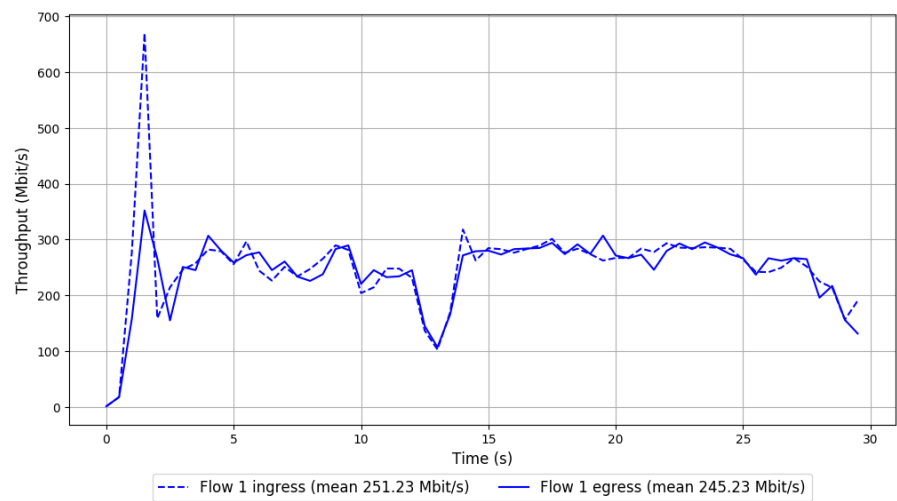
Run 10: Report of Verus — Data Link

Flow 1 ingress (mean 251.23 Mbit/s)   Flow 1 egress (mean 245.23 Mbit/s)

Flow 1 (95th percentile 101.57 ms)

```
Run 1: Statistics of Indigo

Start at: 2017-09-21 19:39:03
End at: 2017-09-21 19:39:33

# Below is generated by plot.py at 2017-09-21 23:53:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.96 Mbit/s
95th percentile per-packet one-way delay: 64.148 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 191.96 Mbit/s
95th percentile per-packet one-way delay: 64.148 ms
Loss rate: 0.45%
```
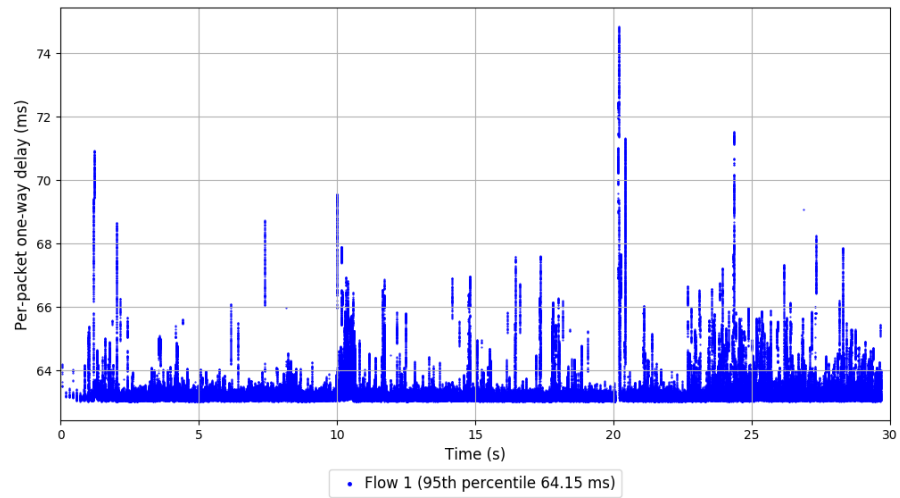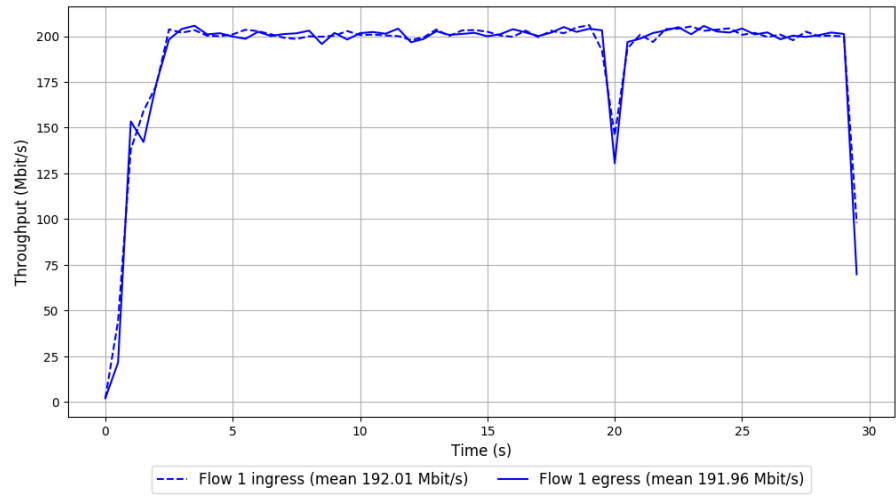
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2017-09-21 19:49:47
End at: 2017-09-21 19:50:17

# Below is generated by plot.py at 2017-09-21 23:53:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.10 Mbit/s
95th percentile per-packet one-way delay: 63.739 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 188.10 Mbit/s
95th percentile per-packet one-way delay: 63.739 ms
Loss rate: 0.43%
```
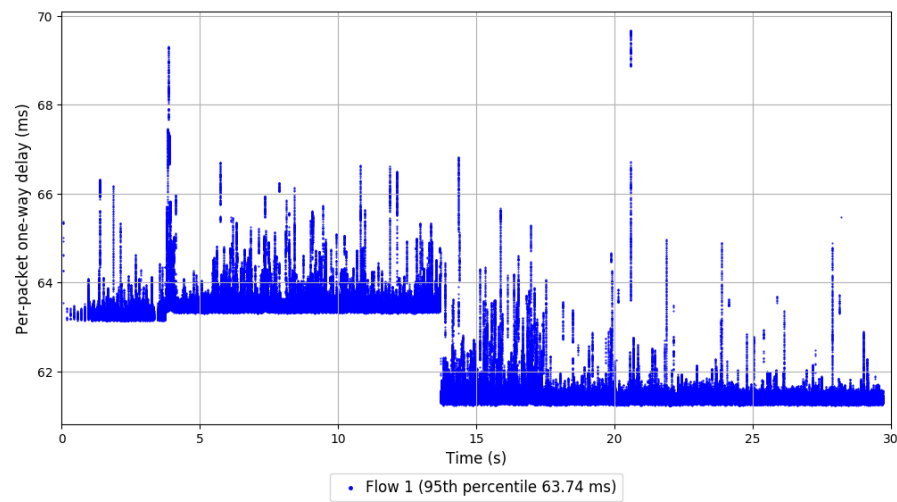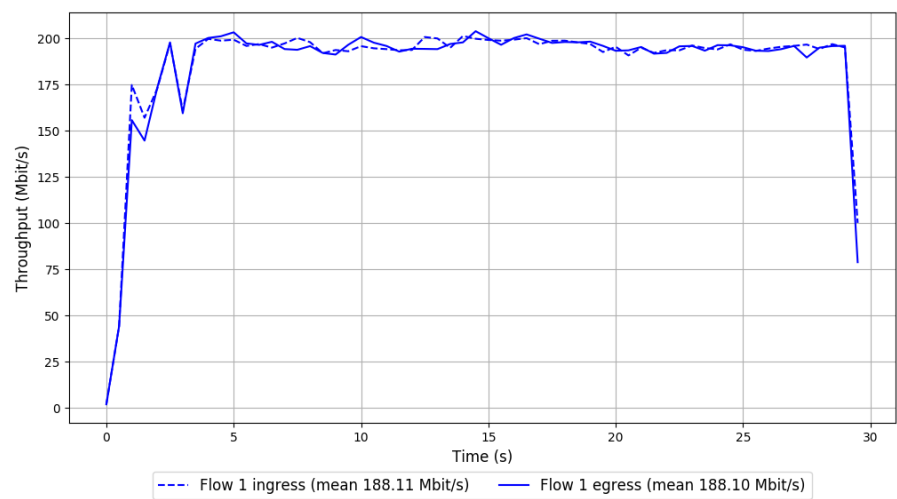
Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 188.11 Mbit/s)   Flow 1 egress (mean 188.10 Mbit/s)

Flow 1 (95th percentile 63.74 ms)

```
Run 3: Statistics of Indigo

Start at: 2017-09-21 20:00:22
End at: 2017-09-21 20:00:52

# Below is generated by plot.py at 2017-09-21 23:53:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.33 Mbit/s
95th percentile per-packet one-way delay: 64.178 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 187.33 Mbit/s
95th percentile per-packet one-way delay: 64.178 ms
Loss rate: 0.21%
```
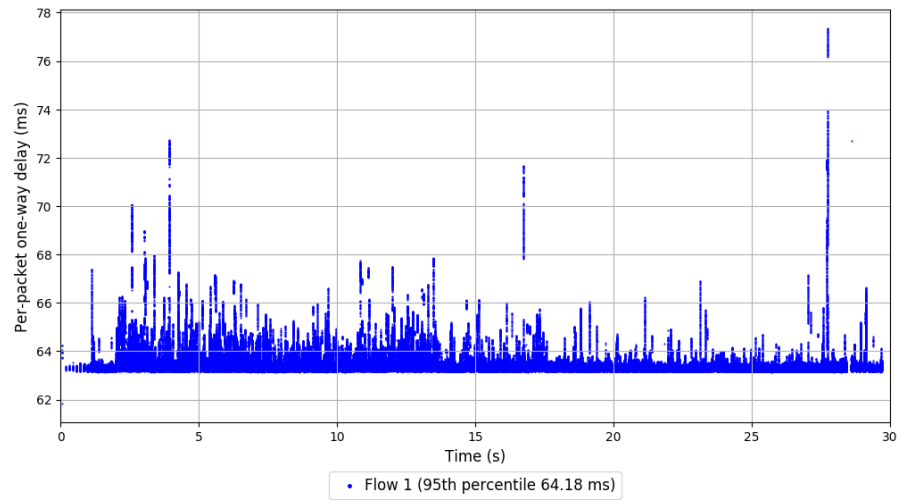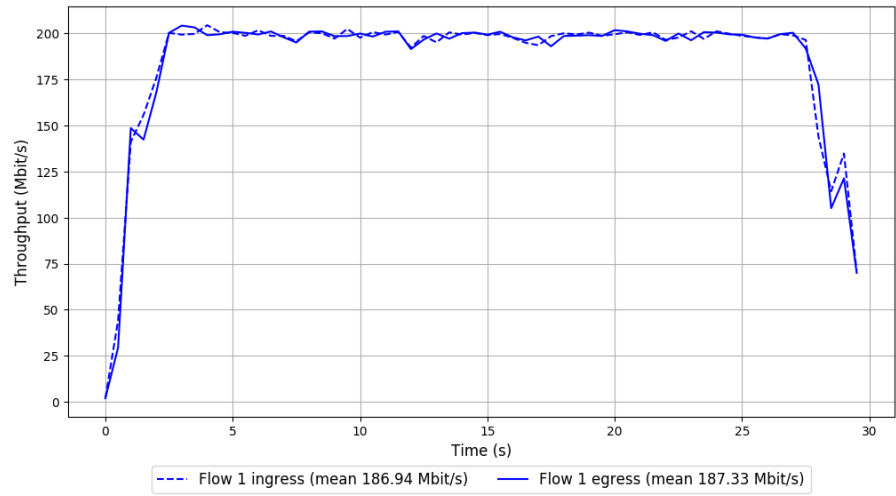
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2017-09-21 20:11:00
End at: 2017-09-21 20:11:30

# Below is generated by plot.py at 2017-09-21 23:53:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.83 Mbit/s
95th percentile per-packet one-way delay: 64.098 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 187.83 Mbit/s
95th percentile per-packet one-way delay: 64.098 ms
Loss rate: 0.45%
```
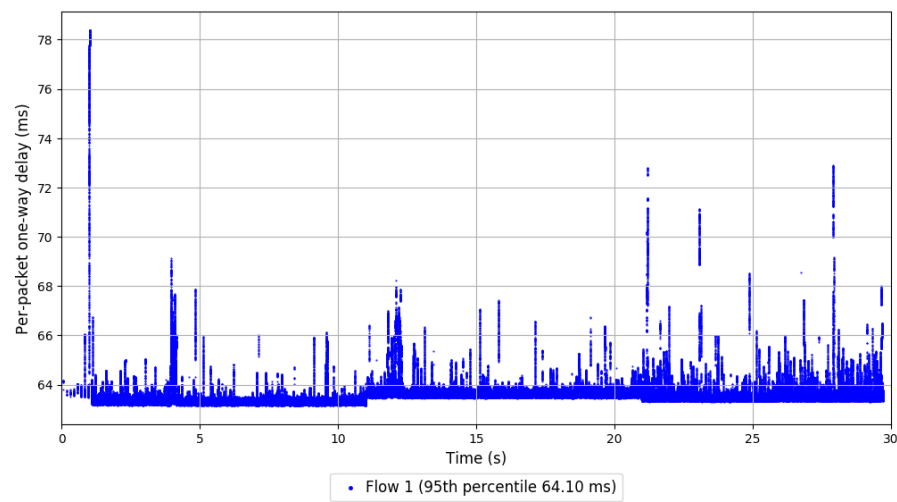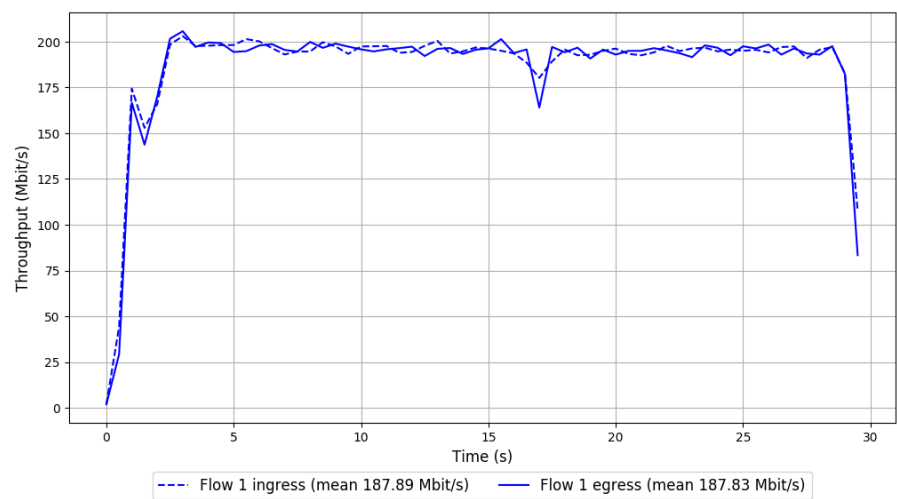
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2017-09-21 20:21:47
End at: 2017-09-21 20:22:17

# Below is generated by plot.py at 2017-09-21 23:53:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.46 Mbit/s
95th percentile per-packet one-way delay: 63.931 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 179.46 Mbit/s
95th percentile per-packet one-way delay: 63.931 ms
Loss rate: 0.46%
```
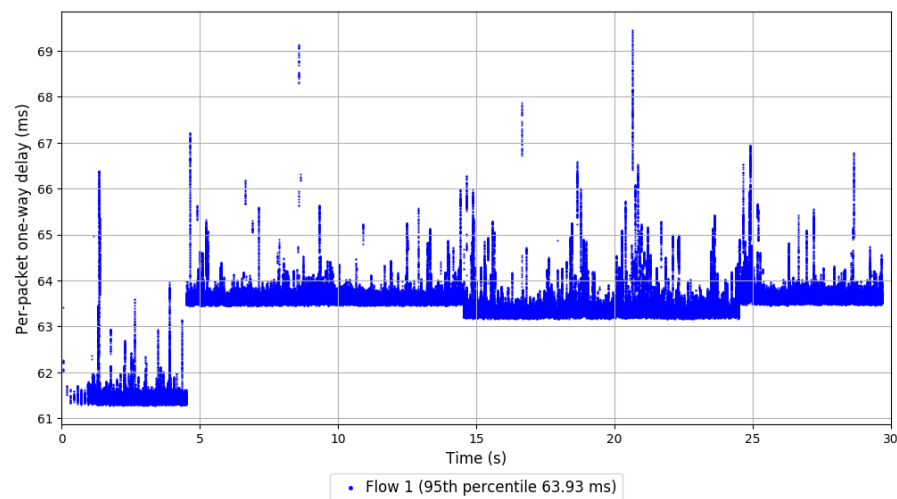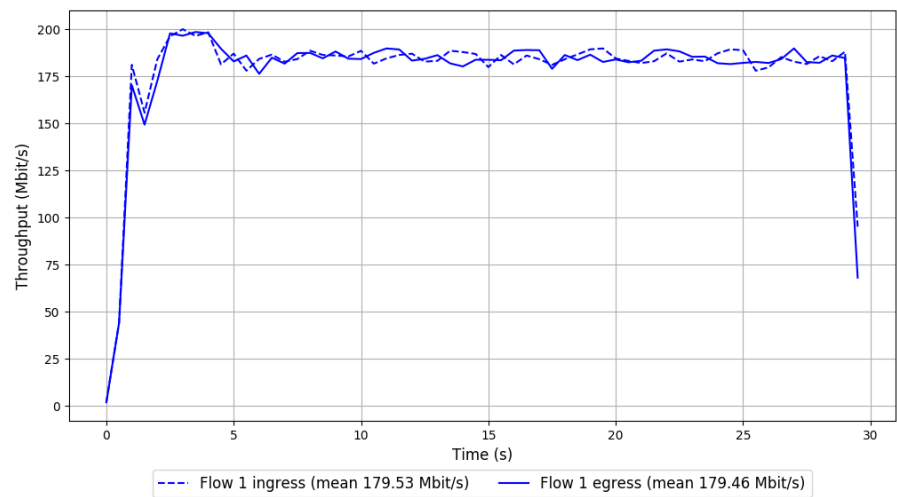
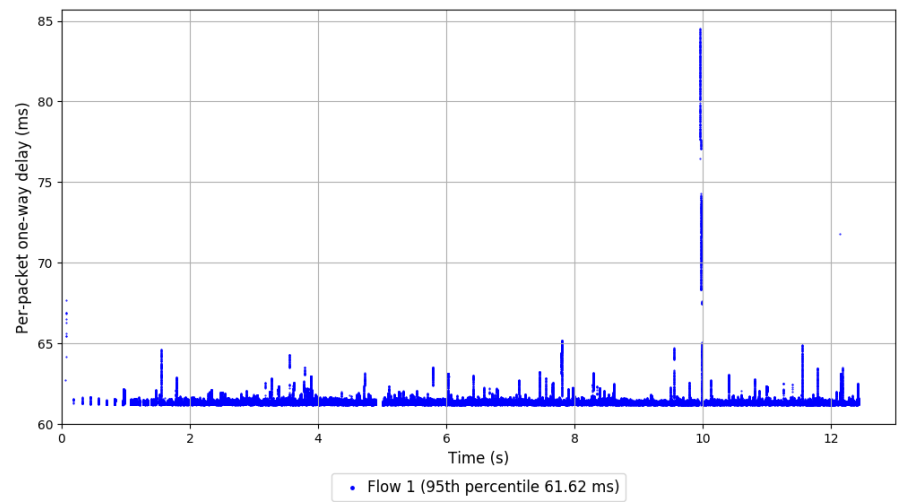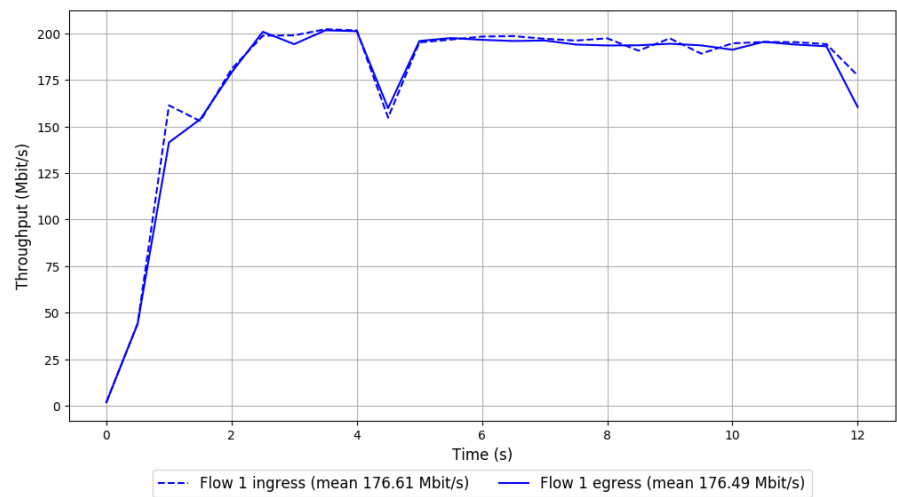Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 179.53 Mbit/s)   Flow 1 egress (mean 179.46 Mbit/s)

Flow 1 (95th percentile 63.93 ms)

Run 6: Statistics of Indigo

Start at: 2017-09-21 20:32:28
End at: 2017-09-21 20:32:58

Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2017-09-21 20:43:09
End at: 2017-09-21 20:43:39

# Below is generated by plot.py at 2017-09-21 23:55:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.63 Mbit/s
95th percentile per-packet one-way delay: 63.892 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 187.63 Mbit/s
95th percentile per-packet one-way delay: 63.892 ms
Loss rate: 0.44%
```
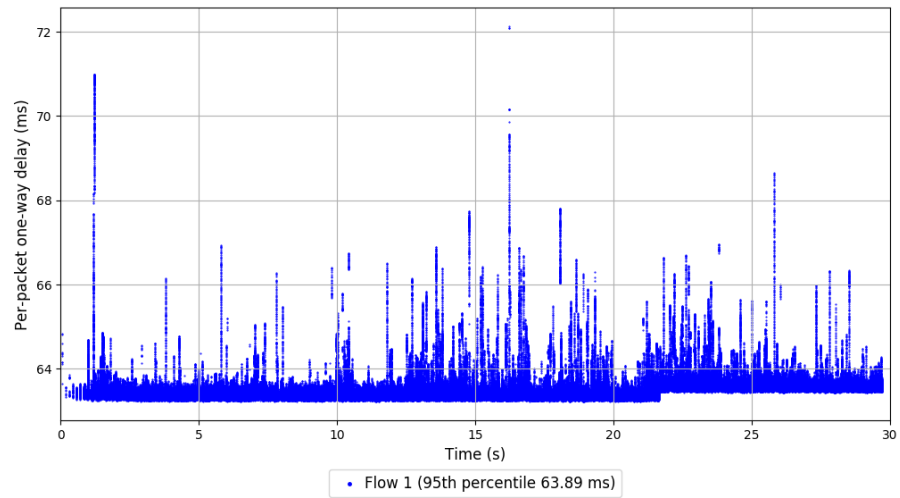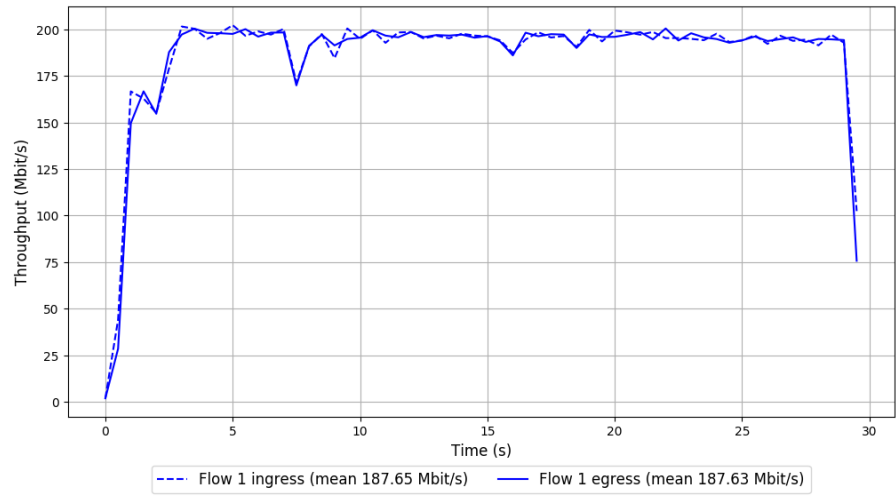
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2017-09-21 20:53:59
End at: 2017-09-21 20:54:29

# Below is generated by plot.py at 2017-09-21 23:55:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.27 Mbit/s
95th percentile per-packet one-way delay: 64.358 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 191.27 Mbit/s
95th percentile per-packet one-way delay: 64.358 ms
Loss rate: 0.45%
```
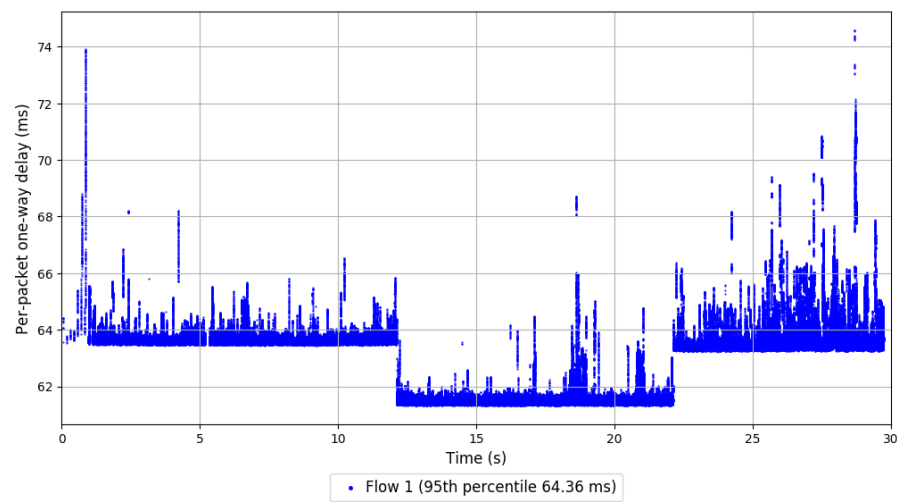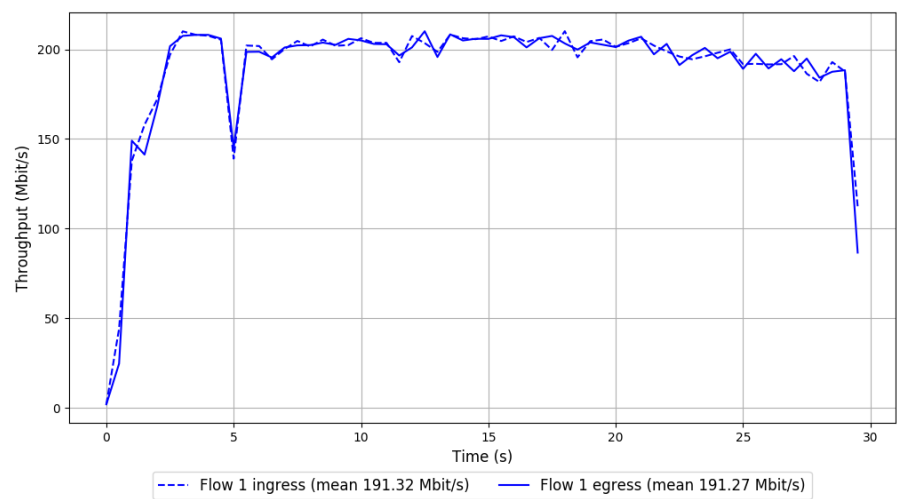
Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2017-09-21 21:04:40
End at: 2017-09-21 21:05:10

# Below is generated by plot.py at 2017-09-21 23:55:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.88 Mbit/s
95th percentile per-packet one-way delay: 63.383 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 185.88 Mbit/s
95th percentile per-packet one-way delay: 63.383 ms
Loss rate: 0.43%
```
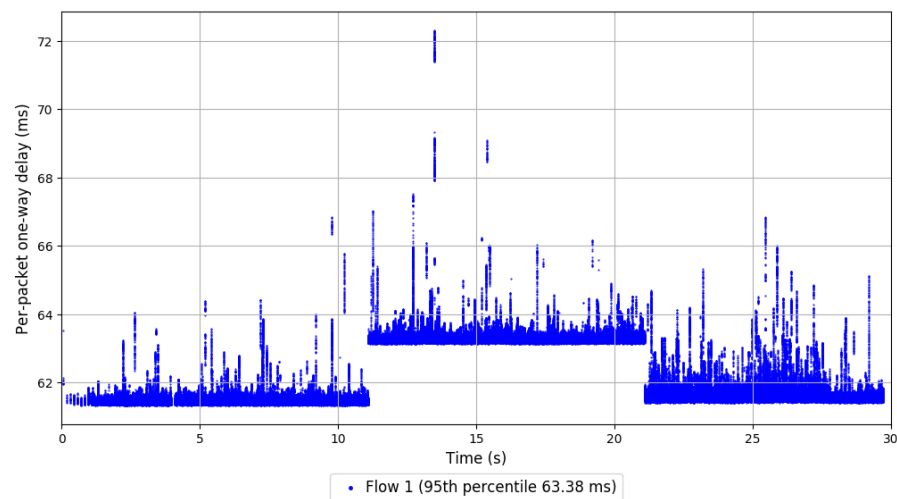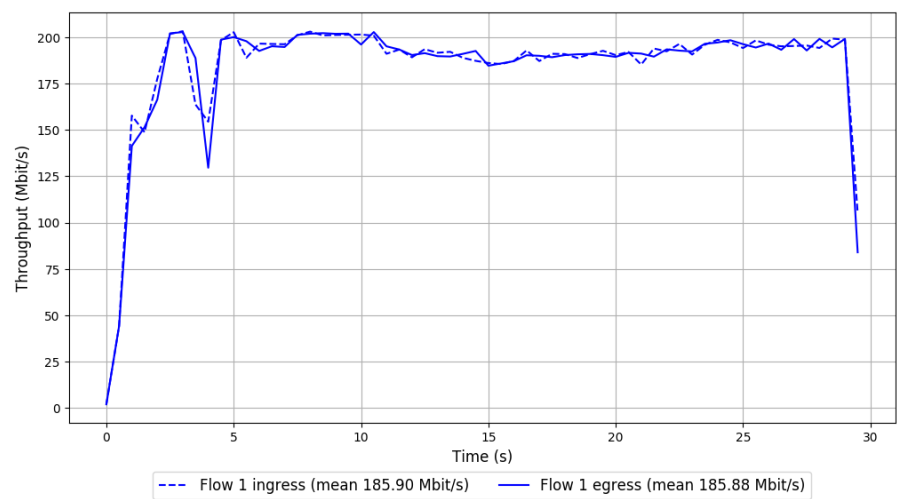
Run 9: Report of Indigo — Data Link

Flow 1 ingress (mean 185.90 Mbit/s)   Flow 1 egress (mean 185.88 Mbit/s)

Flow 1 (95th percentile 63.38 ms)

```
Run 10: Statistics of Indigo

Start at: 2017-09-21 21:15:17
End at: 2017-09-21 21:15:47

# Below is generated by plot.py at 2017-09-21 23:56:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.51 Mbit/s
95th percentile per-packet one-way delay: 63.912 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 185.51 Mbit/s
95th percentile per-packet one-way delay: 63.912 ms
Loss rate: 0.48%
```
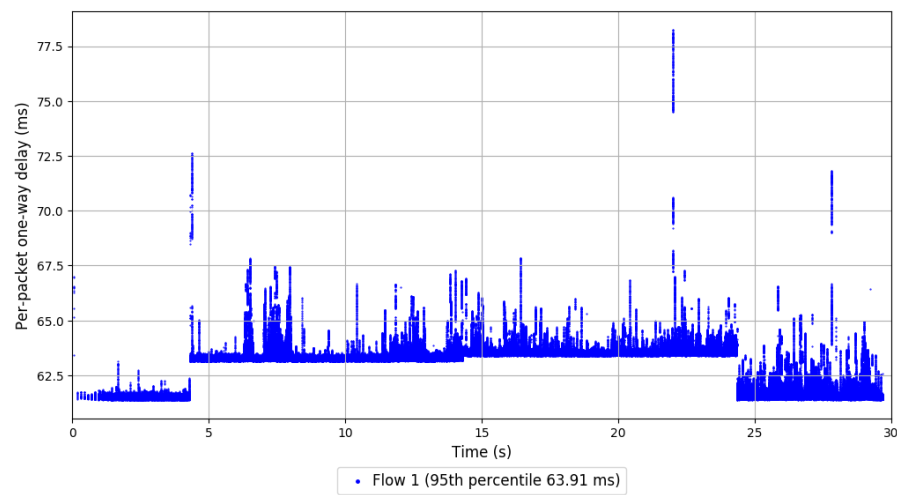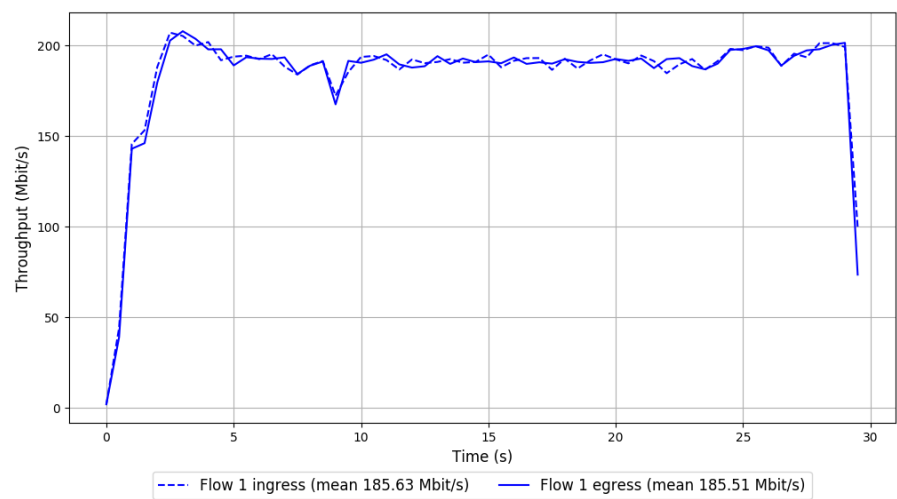
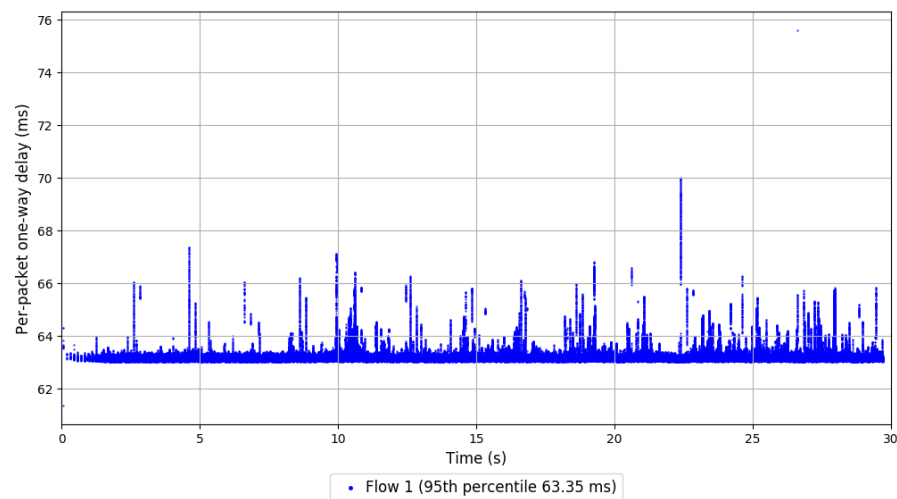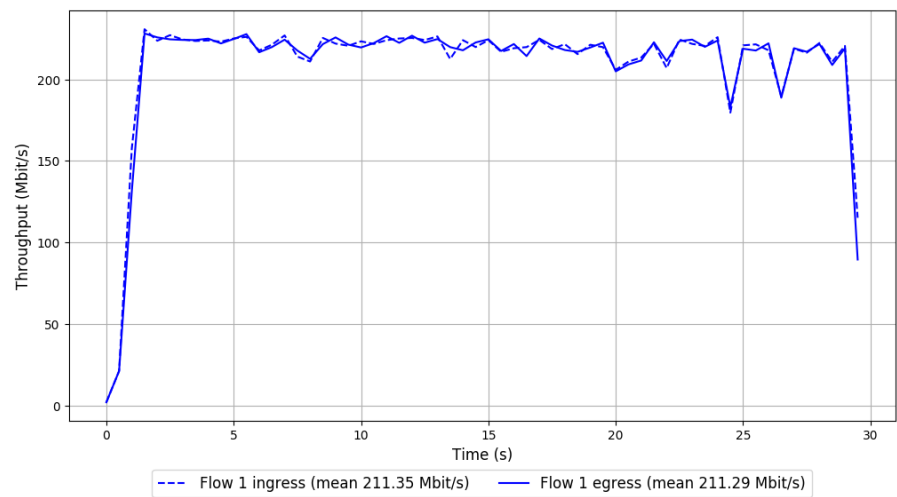## Run 10: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-calib

Start at: 2017-09-21 19:42:29
End at: 2017-09-21 19:42:59

# Below is generated by plot.py at 2017-09-21 23:57:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.29 Mbit/s
95th percentile per-packet one-way delay: 63.354 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 211.29 Mbit/s
95th percentile per-packet one-way delay: 63.354 ms
Loss rate: 0.45%
```

Run 1: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 211.35 Mbit/s)   Flow 1 egress (mean 211.29 Mbit/s)
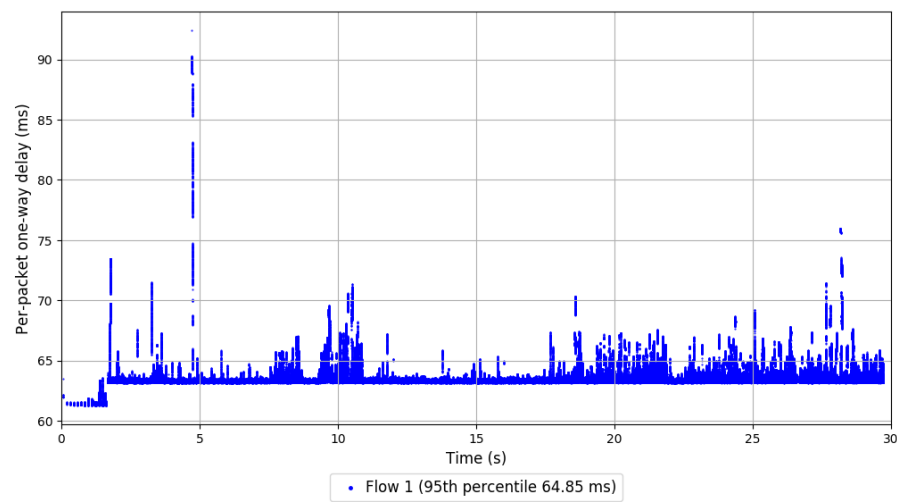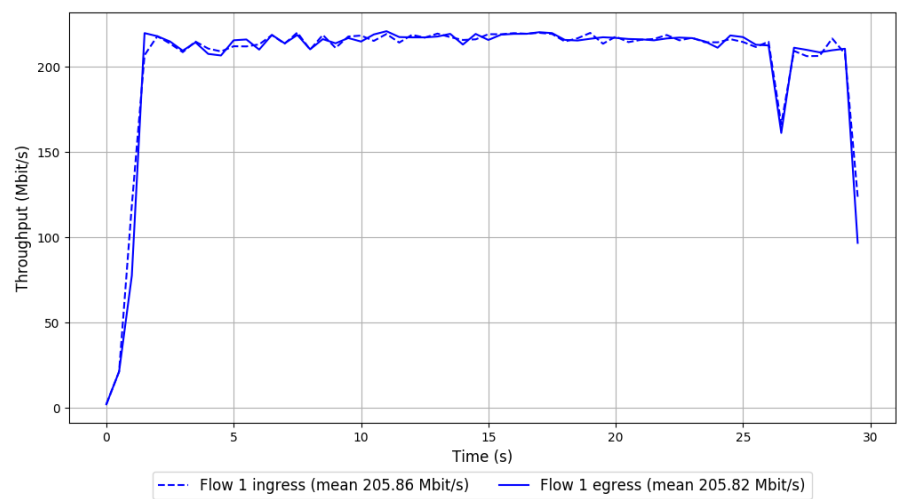

Flow 1 (95th percentile 63.35 ms)

```
Run 2: Statistics of Indigo-calib

Start at: 2017-09-21 19:52:59
End at: 2017-09-21 19:53:29

# Below is generated by plot.py at 2017-09-21 23:57:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 205.82 Mbit/s
95th percentile per-packet one-way delay: 64.854 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 205.82 Mbit/s
95th percentile per-packet one-way delay: 64.854 ms
Loss rate: 0.45%
```

Run 2: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 205.86 Mbit/s)   Flow 1 egress (mean 205.82 Mbit/s)

Flow 1 (95th percentile 64.85 ms)

```
Run 3: Statistics of Indigo-calib

Start at: 2017-09-21 20:03:35
End at: 2017-09-21 20:04:05

# Below is generated by plot.py at 2017-09-21 23:57:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.26 Mbit/s
95th percentile per-packet one-way delay: 64.438 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 209.26 Mbit/s
95th percentile per-packet one-way delay: 64.438 ms
Loss rate: 0.45%
```
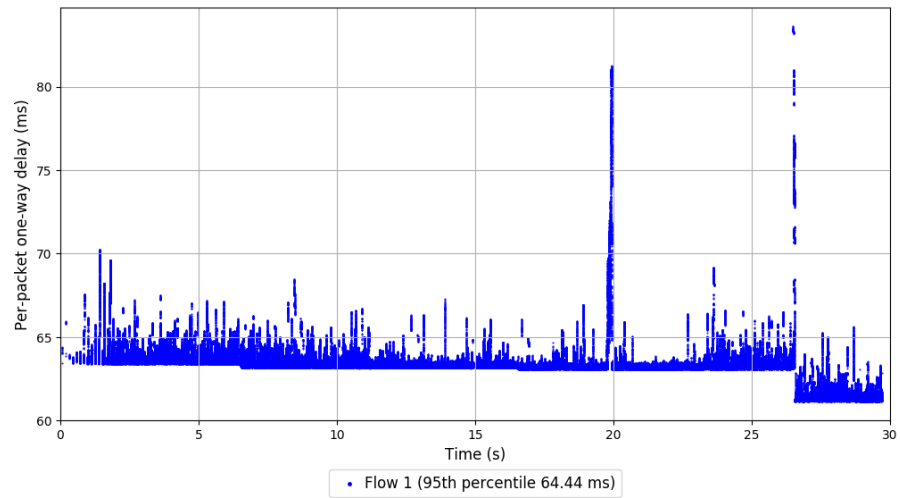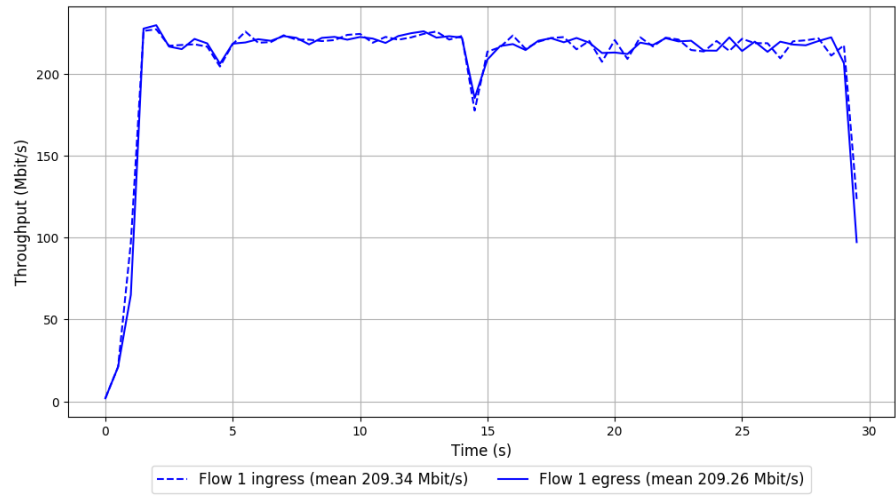
Run 3: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 209.34 Mbit/s)   Flow 1 egress (mean 209.26 Mbit/s)

• Flow 1 (95th percentile 64.44 ms)

```
Run 4: Statistics of Indigo-calib

Start at: 2017-09-21 20:14:23
End at: 2017-09-21 20:14:53

# Below is generated by plot.py at 2017-09-21 23:58:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.07 Mbit/s
95th percentile per-packet one-way delay: 64.244 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 213.07 Mbit/s
95th percentile per-packet one-way delay: 64.244 ms
Loss rate: 0.44%
```
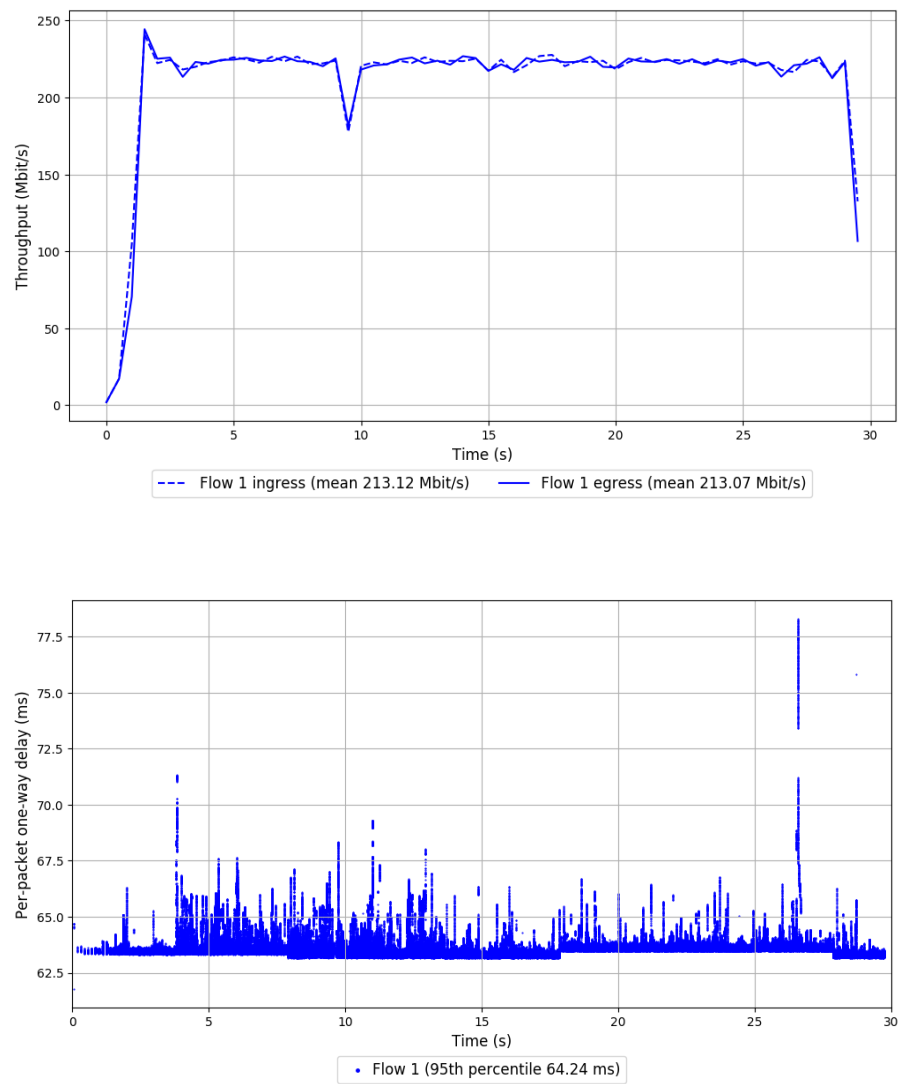
Run 4: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 213.12 Mbit/s)   Flow 1 egress (mean 213.07 Mbit/s)

Flow 1 (95th percentile 64.24 ms)

```
Run 5: Statistics of Indigo-calib

Start at: 2017-09-21 20:25:04
End at: 2017-09-21 20:25:34


# Below is generated by plot.py at 2017-09-21 23:59:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.64 Mbit/s
95th percentile per-packet one-way delay: 64.340 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 207.64 Mbit/s
95th percentile per-packet one-way delay: 64.340 ms
Loss rate: 0.45%
```
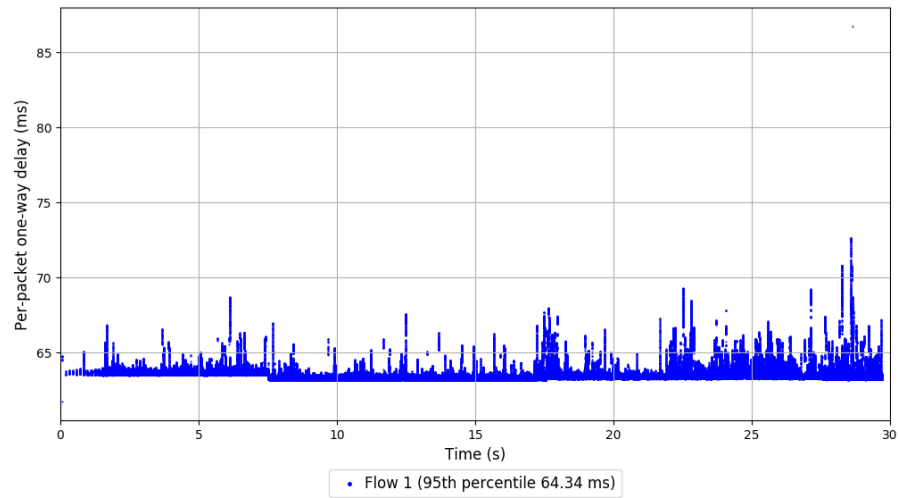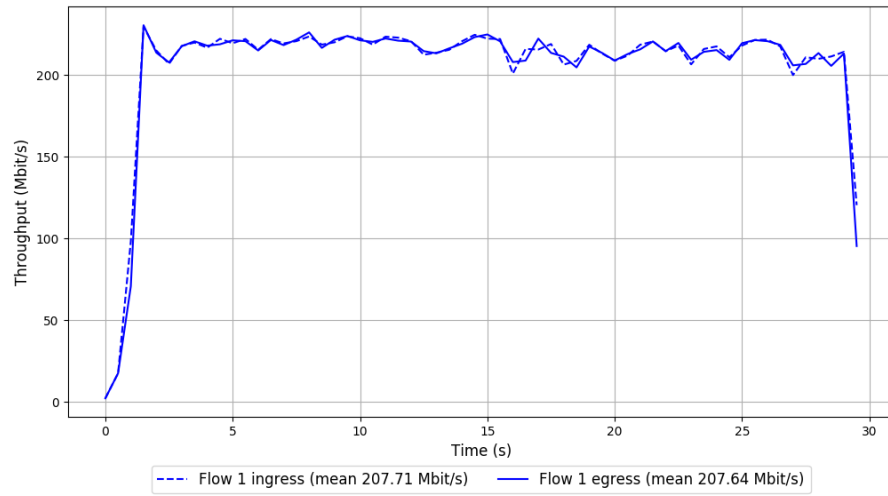
Run 5: Report of Indigo-calib — Data Link

```
Run 6: Statistics of Indigo-calib

Start at: 2017-09-21 20:35:39
End at: 2017-09-21 20:36:09

# Below is generated by plot.py at 2017-09-21 23:59:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.42 Mbit/s
95th percentile per-packet one-way delay: 63.521 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 201.42 Mbit/s
95th percentile per-packet one-way delay: 63.521 ms
Loss rate: 0.43%
```
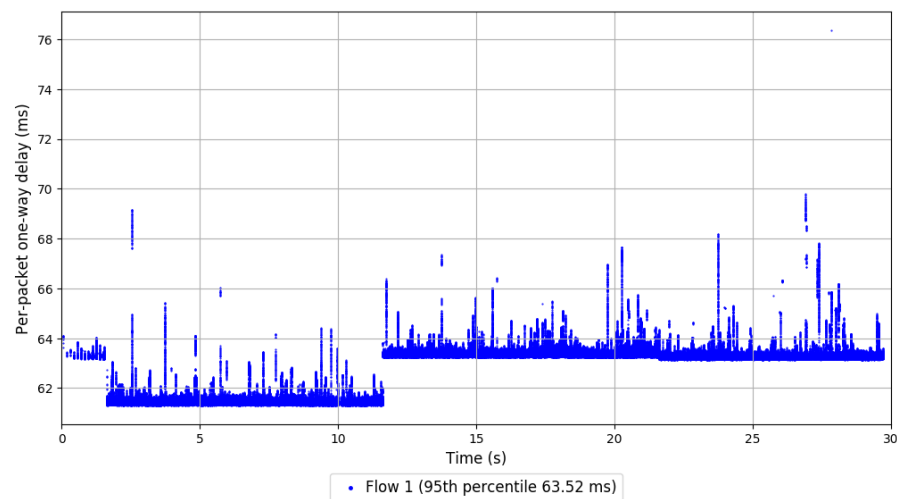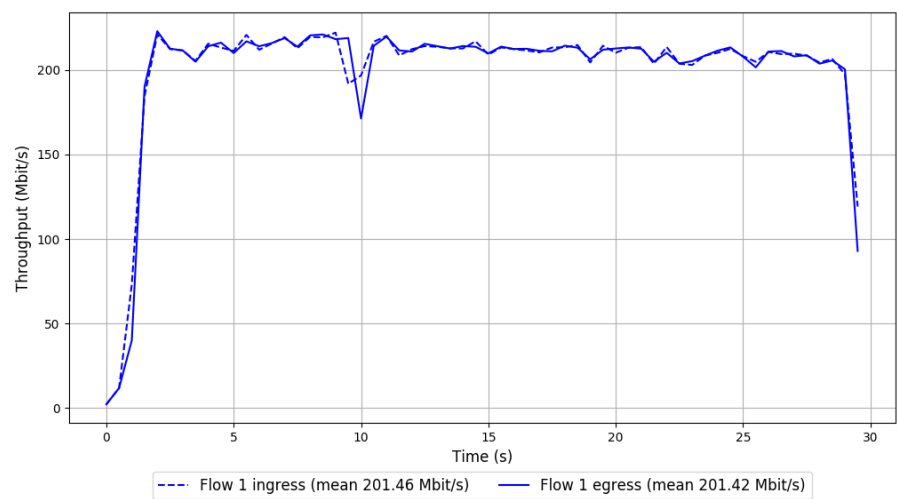
Run 6: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 201.46 Mbit/s)   Flow 1 egress (mean 201.42 Mbit/s)

Flow 1 (95th percentile 63.52 ms)

```
Run 7: Statistics of Indigo-calib

Start at: 2017-09-21 20:46:37
End at: 2017-09-21 20:47:07

# Below is generated by plot.py at 2017-09-21 23:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.97 Mbit/s
95th percentile per-packet one-way delay: 64.608 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 203.97 Mbit/s
95th percentile per-packet one-way delay: 64.608 ms
Loss rate: 0.45%
```
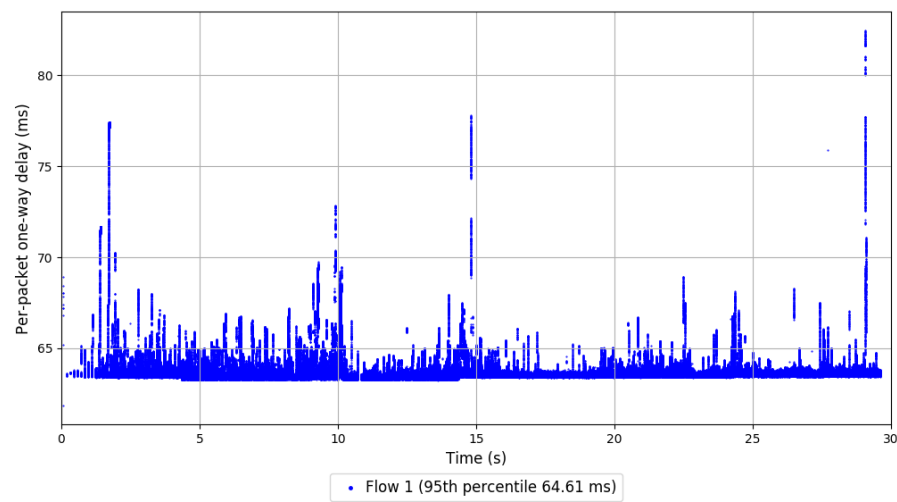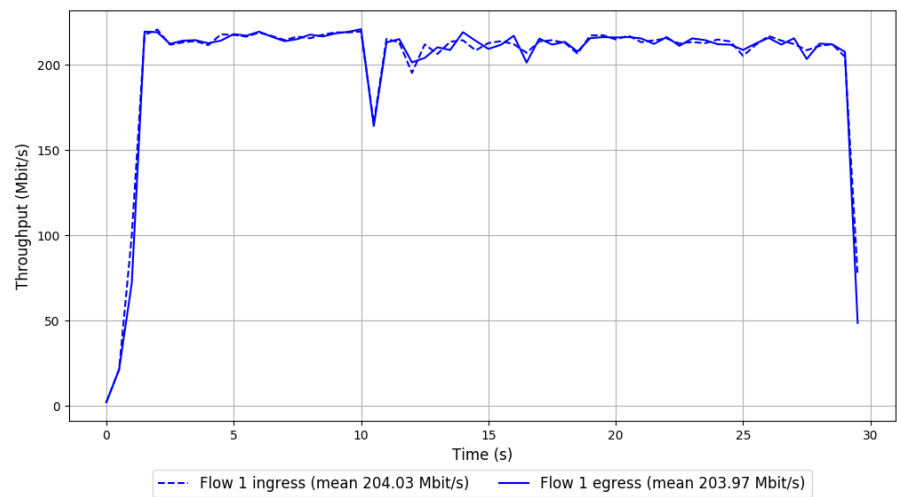
Run 7: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 204.03 Mbit/s)   Flow 1 egress (mean 203.97 Mbit/s)

Flow 1 (95th percentile 64.61 ms)

```
Run 8: Statistics of Indigo-calib

Start at: 2017-09-21 20:57:13
End at: 2017-09-21 20:57:43

# Below is generated by plot.py at 2017-09-22 00:00:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.34 Mbit/s
95th percentile per-packet one-way delay: 64.133 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 210.34 Mbit/s
95th percentile per-packet one-way delay: 64.133 ms
Loss rate: 0.44%
```
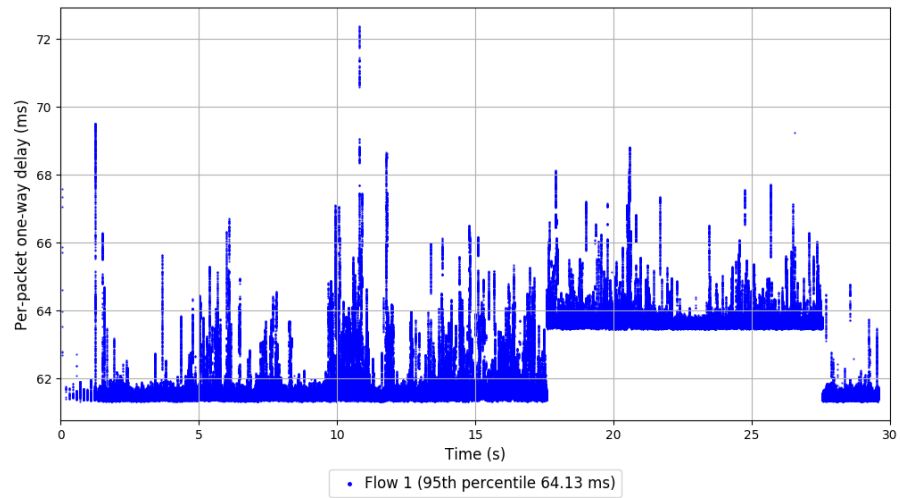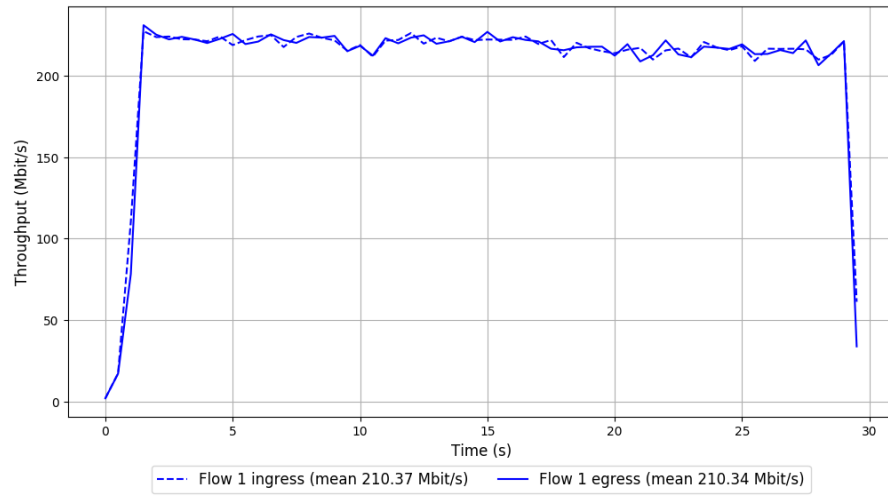
Run 8: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 210.37 Mbit/s)   Flow 1 egress (mean 210.34 Mbit/s)
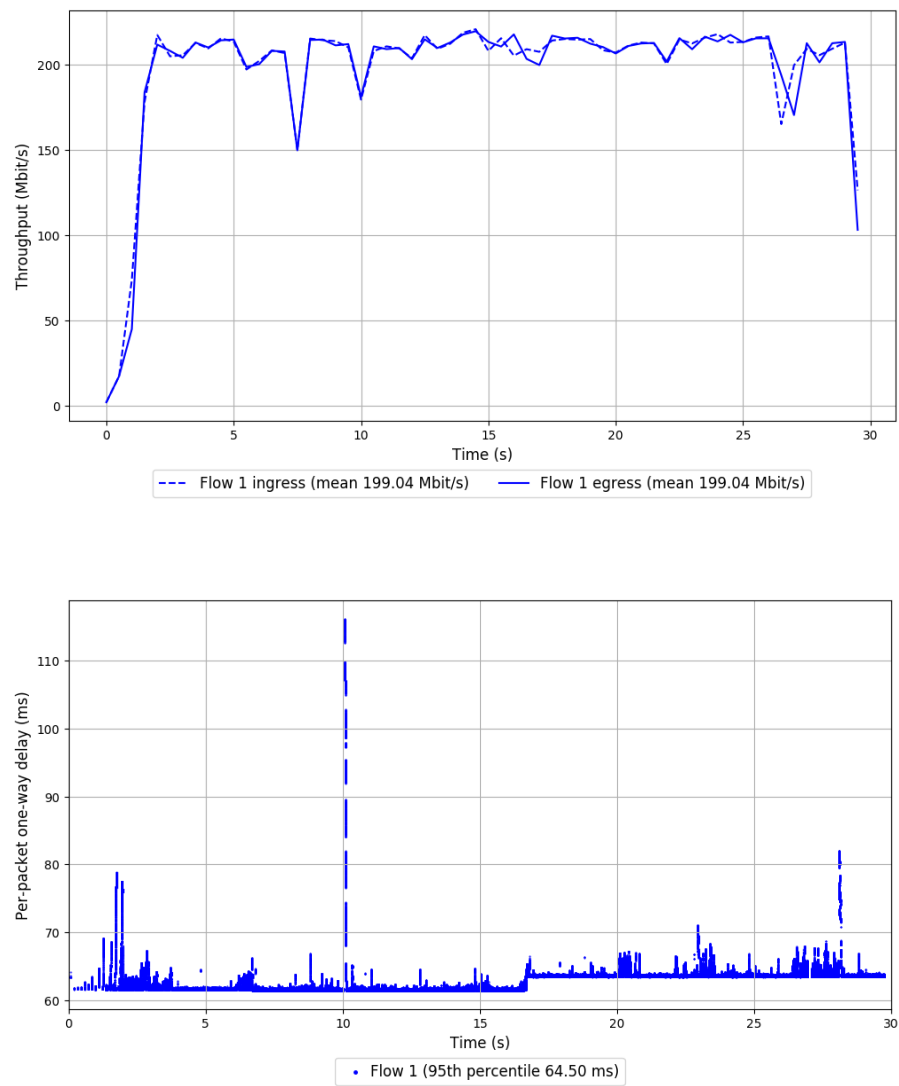

Flow 1 (95th percentile 64.13 ms)

```
Run 9: Statistics of Indigo-calib

Start at: 2017-09-21 21:07:54
End at: 2017-09-21 21:08:24

# Below is generated by plot.py at 2017-09-22 00:01:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 199.04 Mbit/s
95th percentile per-packet one-way delay: 64.499 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 199.04 Mbit/s
95th percentile per-packet one-way delay: 64.499 ms
Loss rate: 0.42%
```
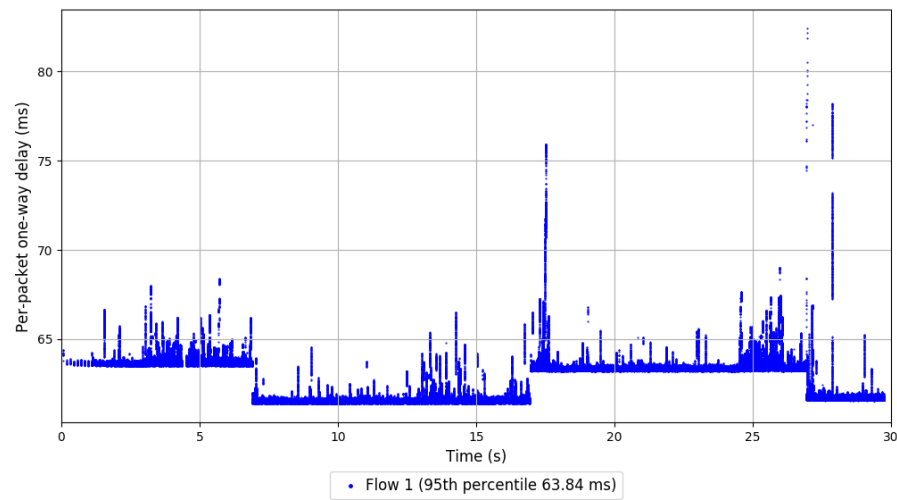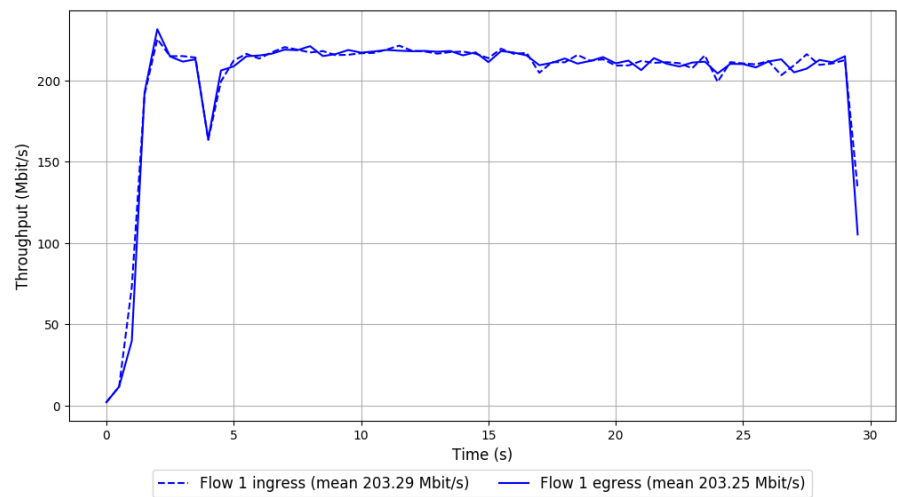
Run 9: Report of Indigo-calib — Data Link

```
Run 10: Statistics of Indigo-calib

Start at: 2017-09-21 21:18:44
End at: 2017-09-21 21:19:14


# Below is generated by plot.py at 2017-09-22 00:01:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.25 Mbit/s
95th percentile per-packet one-way delay: 63.836 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 203.25 Mbit/s
95th percentile per-packet one-way delay: 63.836 ms
Loss rate: 0.44%
```
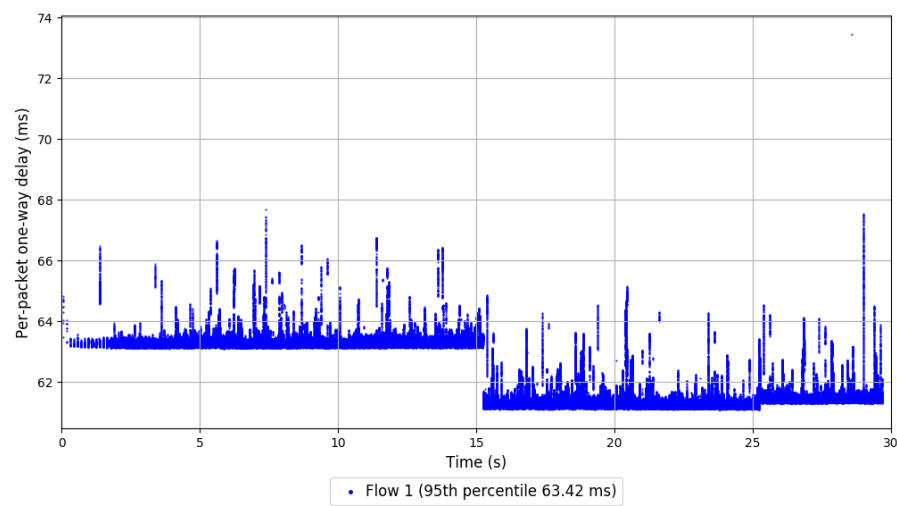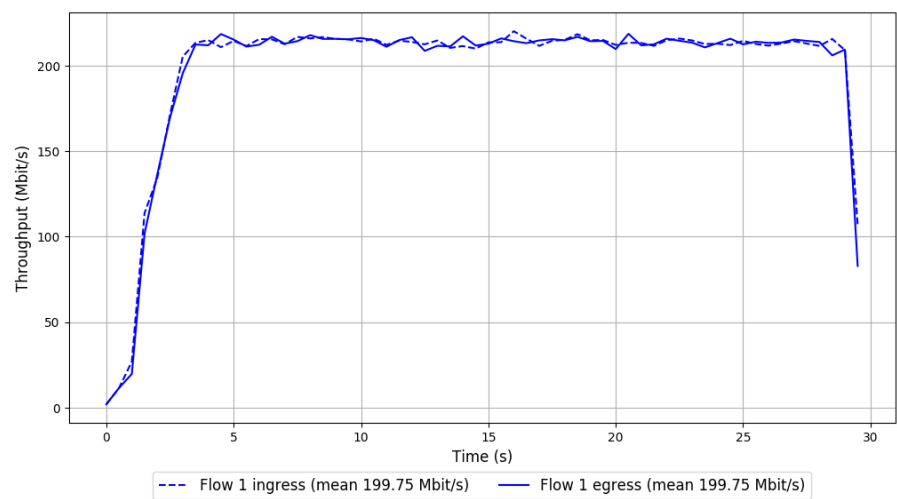
Run 10: Report of Indigo-calib — Data Link

```
Run 1: Statistics of Indigo-delay

Start at: 2017-09-21 19:45:26
End at: 2017-09-21 19:45:56

# Below is generated by plot.py at 2017-09-22 00:01:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 199.75 Mbit/s
95th percentile per-packet one-way delay: 63.420 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 199.75 Mbit/s
95th percentile per-packet one-way delay: 63.420 ms
Loss rate: 0.45%
```
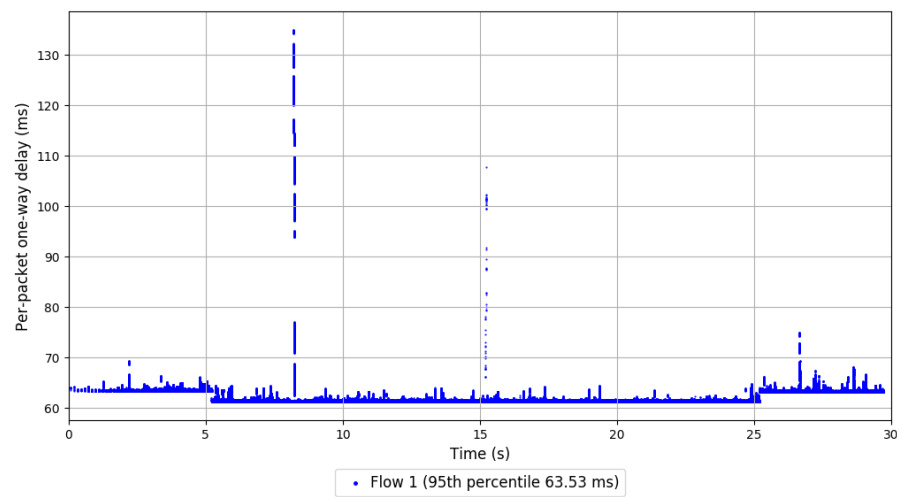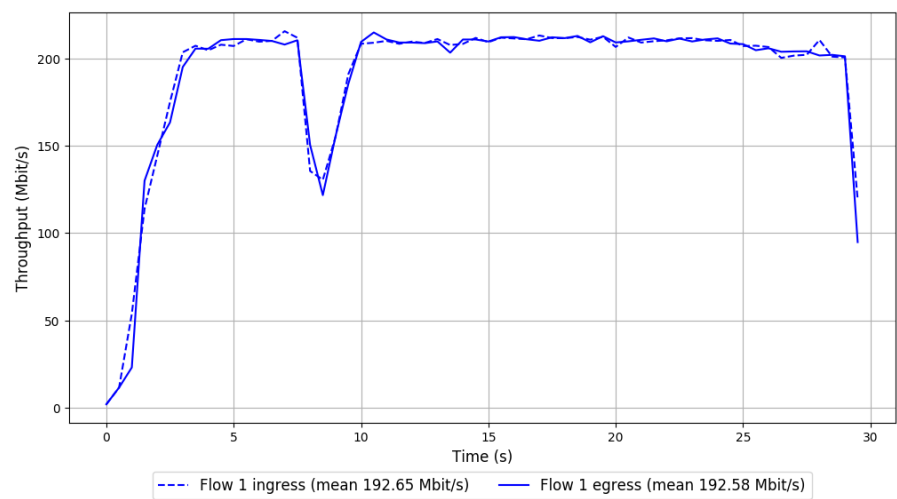
Run 1: Report of Indigo-delay — Data Link

```
Run 2: Statistics of Indigo-delay

Start at: 2017-09-21 19:55:56
End at: 2017-09-21 19:56:26

# Below is generated by plot.py at 2017-09-22 00:02:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.58 Mbit/s
95th percentile per-packet one-way delay: 63.531 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 192.58 Mbit/s
95th percentile per-packet one-way delay: 63.531 ms
Loss rate: 0.46%
```
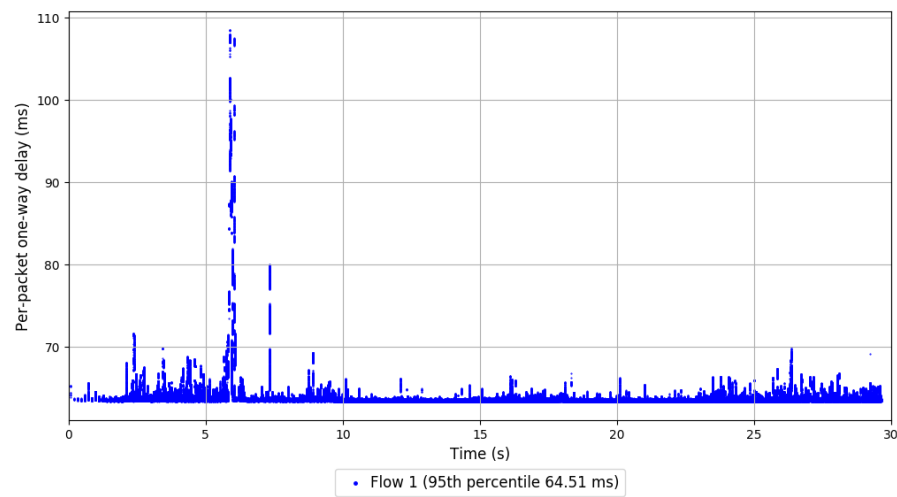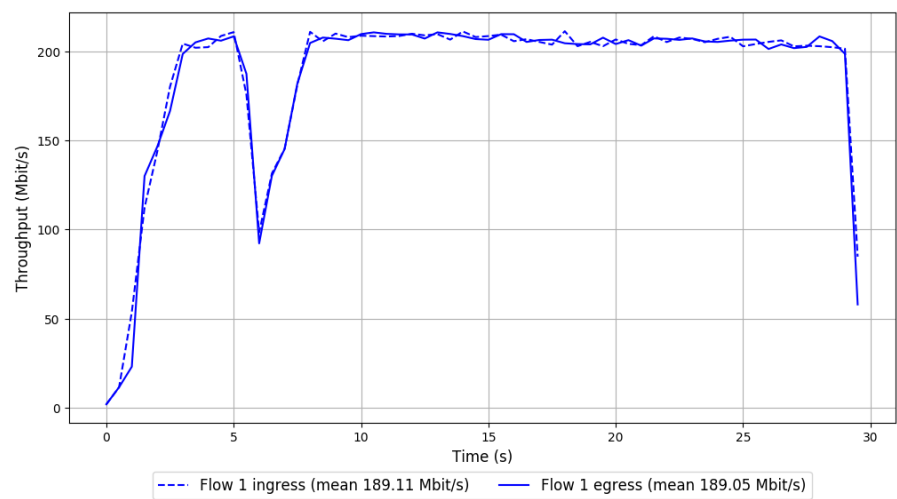
Run 2: Report of Indigo-delay — Data Link

```
Run 3: Statistics of Indigo-delay

Start at: 2017-09-21 20:06:31
End at: 2017-09-21 20:07:01

# Below is generated by plot.py at 2017-09-22 00:03:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 189.05 Mbit/s
95th percentile per-packet one-way delay: 64.510 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 189.05 Mbit/s
95th percentile per-packet one-way delay: 64.510 ms
Loss rate: 0.46%
```

Run 3: Report of Indigo-delay — Data Link

```
Run 4: Statistics of Indigo-delay

Start at: 2017-09-21 20:17:20
End at: 2017-09-21 20:17:50

# Below is generated by plot.py at 2017-09-22 00:03:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.15 Mbit/s
95th percentile per-packet one-way delay: 61.982 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 191.15 Mbit/s
95th percentile per-packet one-way delay: 61.982 ms
Loss rate: 0.45%
```
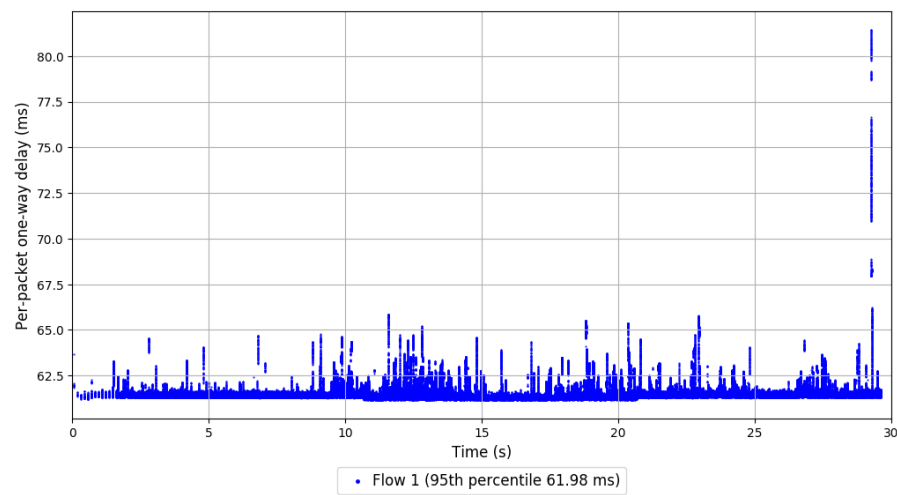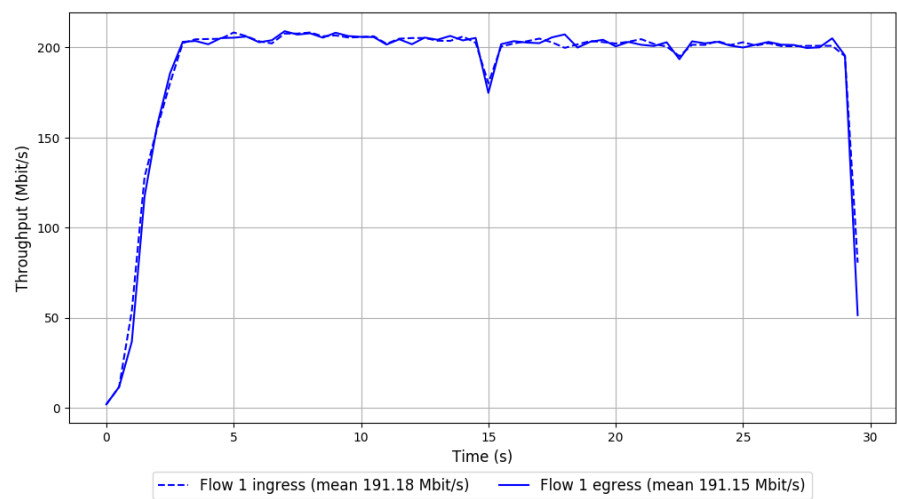
Run 4: Report of Indigo-delay — Data Link

```
Run 5: Statistics of Indigo-delay

Start at: 2017-09-21 20:28:01
End at: 2017-09-21 20:28:31


# Below is generated by plot.py at 2017-09-22 00:03:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 180.51 Mbit/s
95th percentile per-packet one-way delay: 63.448 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 180.51 Mbit/s
95th percentile per-packet one-way delay: 63.448 ms
Loss rate: 0.44%
```
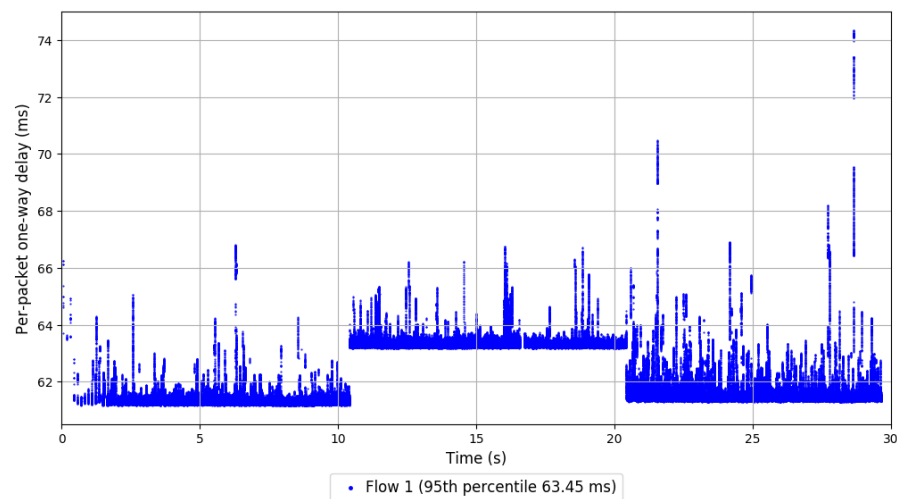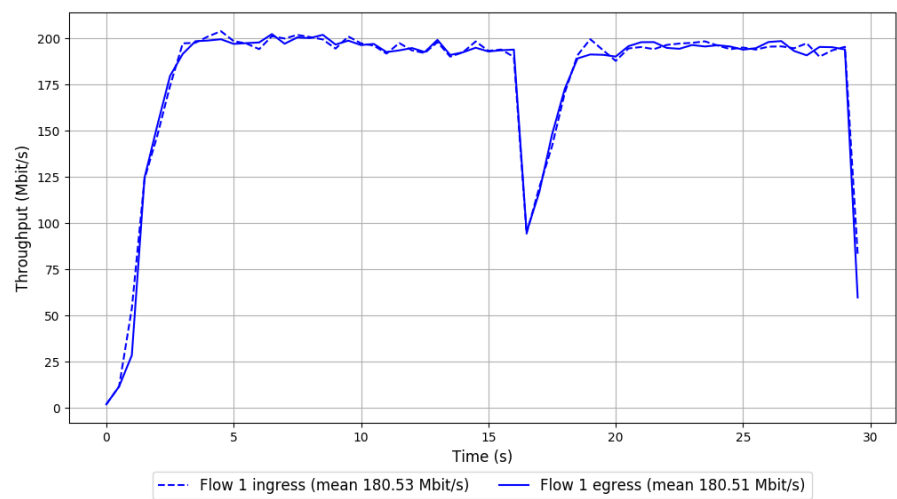
Run 5: Report of Indigo-delay — Data Link

```
Run 6: Statistics of Indigo-delay

Start at: 2017-09-21 20:38:36
End at: 2017-09-21 20:39:06


# Below is generated by plot.py at 2017-09-22 00:04:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 200.42 Mbit/s
95th percentile per-packet one-way delay: 63.892 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 200.42 Mbit/s
95th percentile per-packet one-way delay: 63.892 ms
Loss rate: 0.40%
```
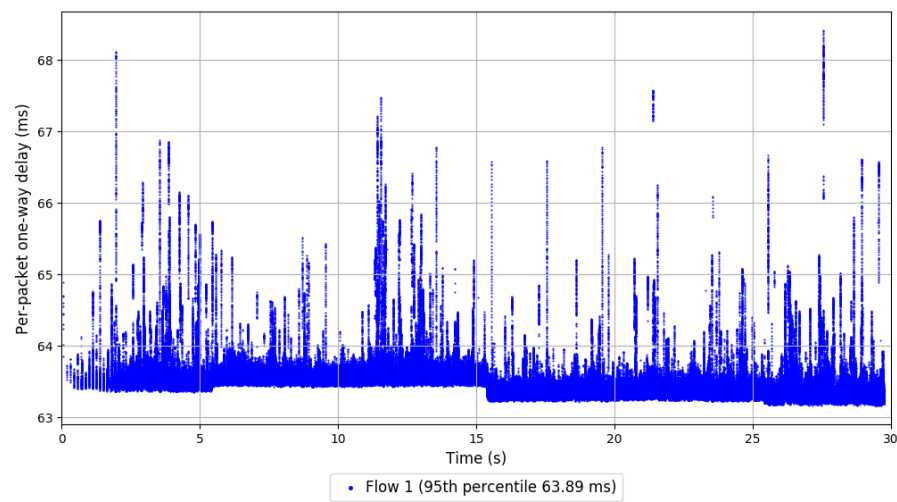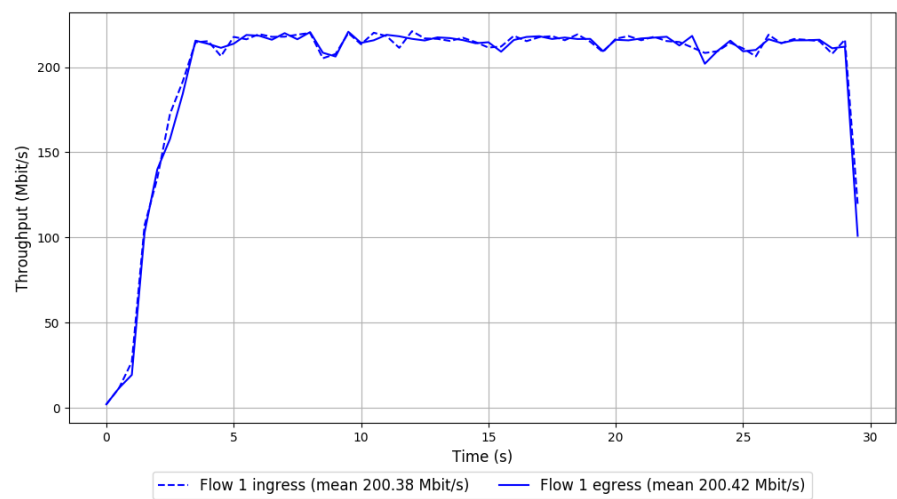
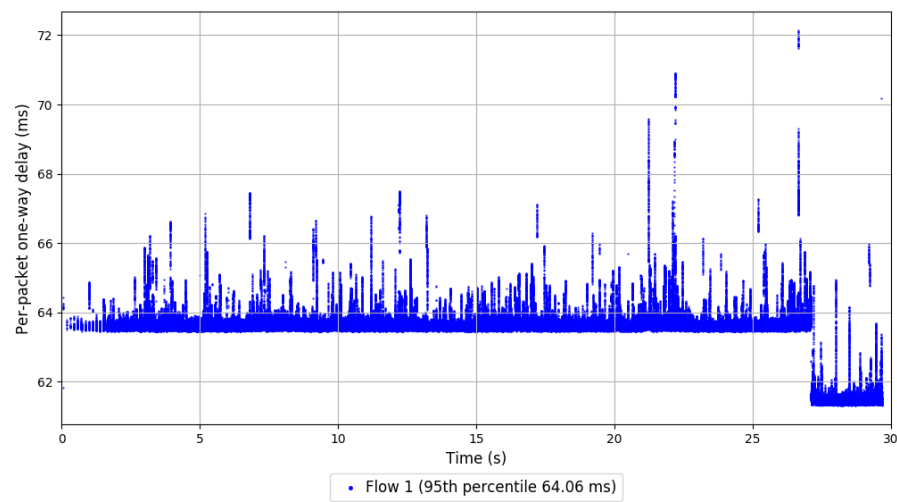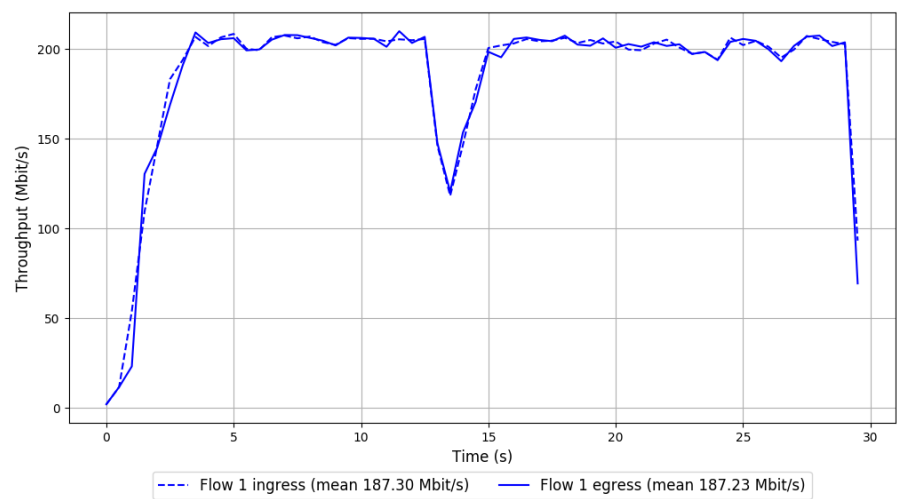Run 6: Report of Indigo-delay — Data Link

```
Run 7: Statistics of Indigo-delay

Start at: 2017-09-21 20:49:34
End at: 2017-09-21 20:50:04

# Below is generated by plot.py at 2017-09-22 00:04:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.23 Mbit/s
95th percentile per-packet one-way delay: 64.058 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 187.23 Mbit/s
95th percentile per-packet one-way delay: 64.058 ms
Loss rate: 0.45%
```

Run 7: Report of Indigo-delay — Data Link

```
Run 8: Statistics of Indigo-delay

Start at: 2017-09-21 21:00:11
End at: 2017-09-21 21:00:41

# Below is generated by plot.py at 2017-09-22 00:04:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.74 Mbit/s
95th percentile per-packet one-way delay: 64.249 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 185.74 Mbit/s
95th percentile per-packet one-way delay: 64.249 ms
Loss rate: 0.46%
```
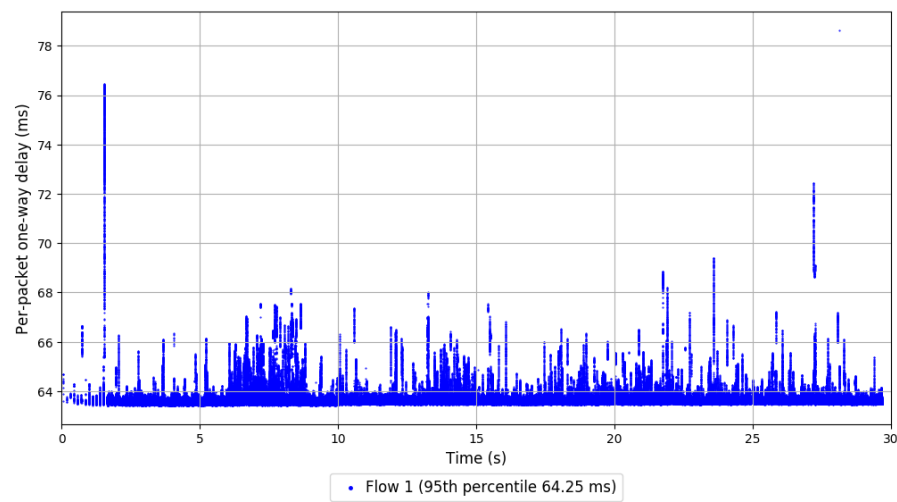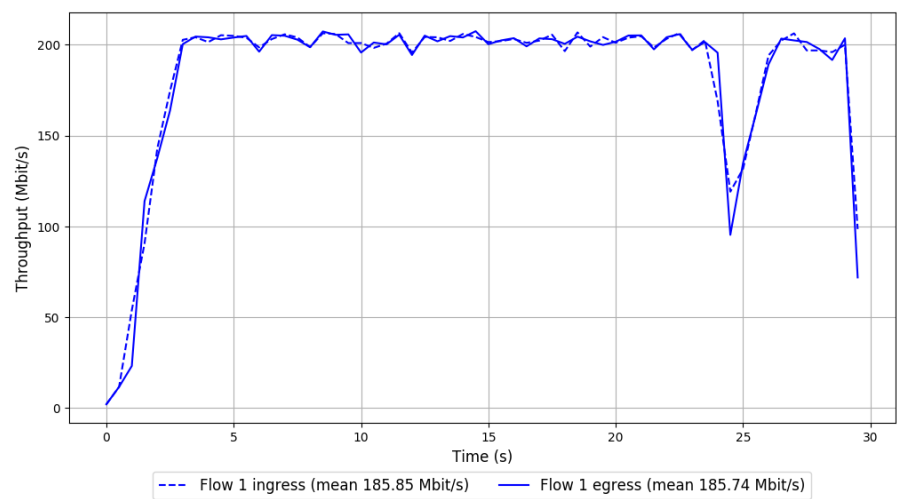
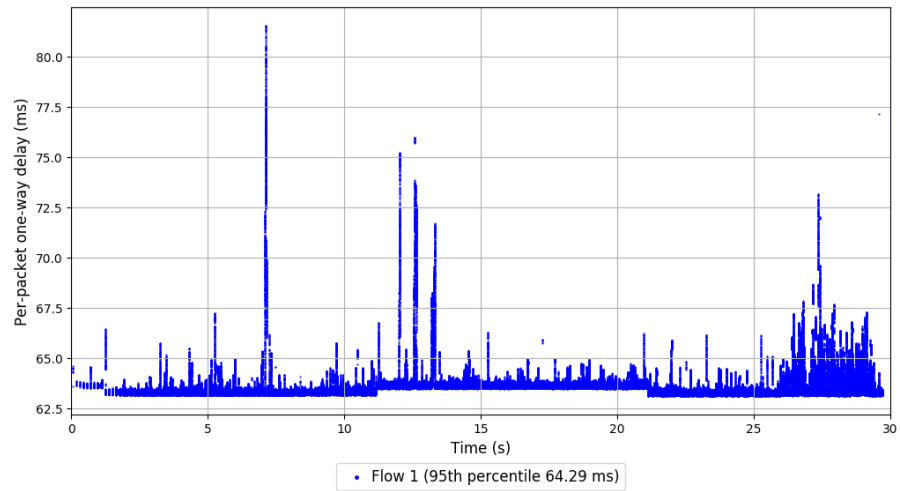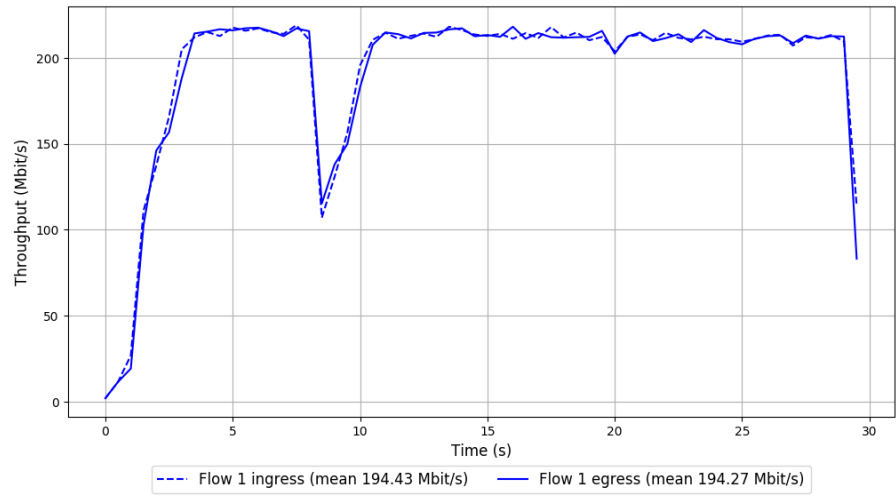## Run 8: Report of Indigo-delay — Data Link

```
Run 9: Statistics of Indigo-delay

Start at: 2017-09-21 21:10:50
End at: 2017-09-21 21:11:20

# Below is generated by plot.py at 2017-09-22 00:04:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 194.27 Mbit/s
95th percentile per-packet one-way delay: 64.291 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 194.27 Mbit/s
95th percentile per-packet one-way delay: 64.291 ms
Loss rate: 0.47%
```

Run 9: Report of Indigo-delay — Data Link

Flow 1 ingress (mean 194.43 Mbit/s)   Flow 1 egress (mean 194.27 Mbit/s)

Flow 1 (95th percentile 64.29 ms)

```
Run 10: Statistics of Indigo-delay

Start at: 2017-09-21 21:21:40
End at: 2017-09-21 21:22:10

# Below is generated by plot.py at 2017-09-22 00:04:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.25 Mbit/s
95th percentile per-packet one-way delay: 64.302 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 196.25 Mbit/s
95th percentile per-packet one-way delay: 64.302 ms
Loss rate: 0.47%
```

Run 10: Report of Indigo-delay — Data Link