Pantheon Report
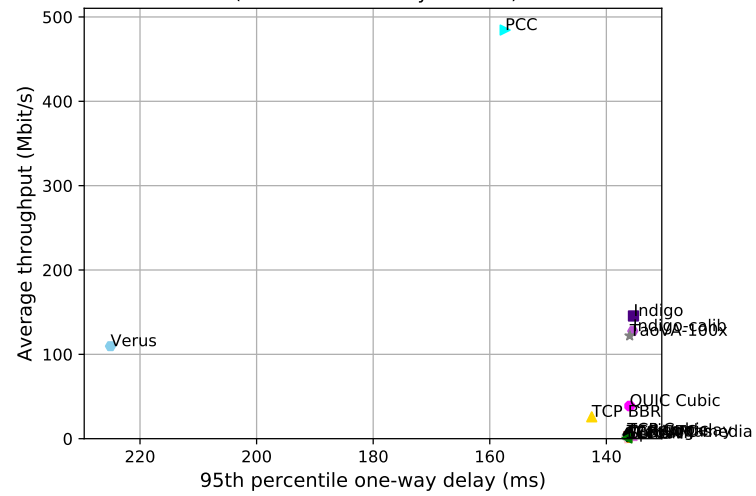
Generated at 2017-09-22 00:16:23 (UTC).

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

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).

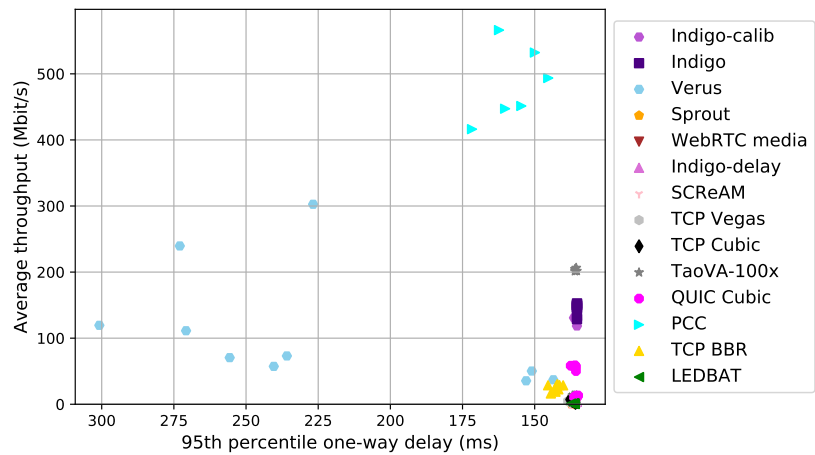Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

```
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 Sydney Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE Sydney Ethernet to GCE London 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	25.95	142.51	0.89
TCP Cubic	10	4.70	136.42	0.66
LEDBAT	10	0.85	136.48	0.24
PCC	6	484.49	157.36	1.08
QUIC Cubic	10	38.75	136.01	0.04
SCReAM	10	0.21	136.71	0.06
WebRTC media	10	2.17	136.19	0.04
Sprout	10	0.43	136.20	0.13
TaoVA-100x	7	121.99	135.99	0.09
TCP Vegas	10	2.45	136.51	0.95
Verus	10	109.68	225.07	4.48
Indigo	10	145.50	135.35	0.14
Indigo-calib	10	127.55	135.47	0.22
Indigo-delay	10	3.82	135.59	1.70

```
Run 1: Statistics of TCP BBR

Start at: 2017-09-21 21:41:49
End at: 2017-09-21 21:42:19

# Below is generated by plot.py at 2017-09-21 23:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.62 Mbit/s
95th percentile per-packet one-way delay: 141.793 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 22.62 Mbit/s
95th percentile per-packet one-way delay: 141.793 ms
Loss rate: 0.40%
```
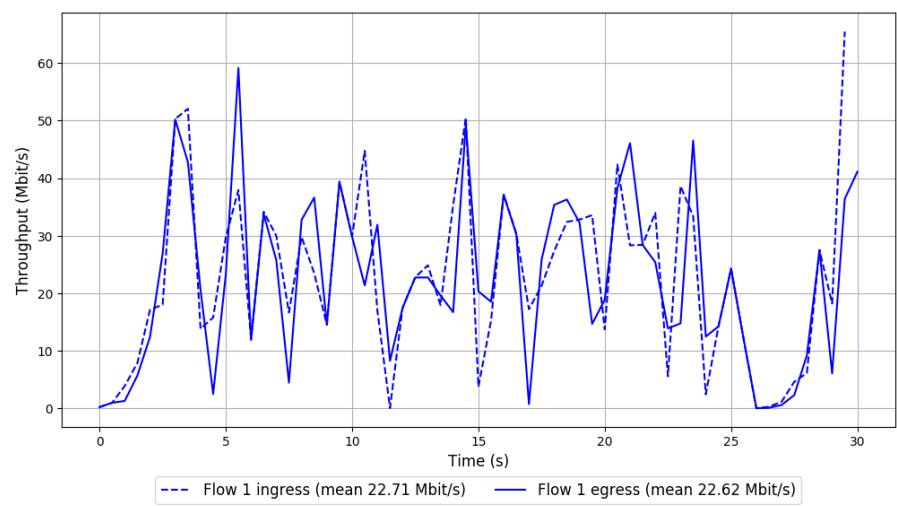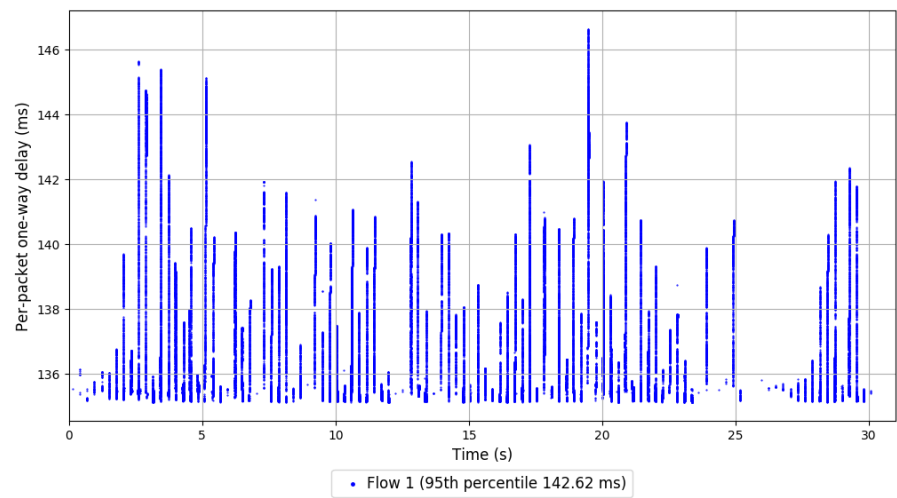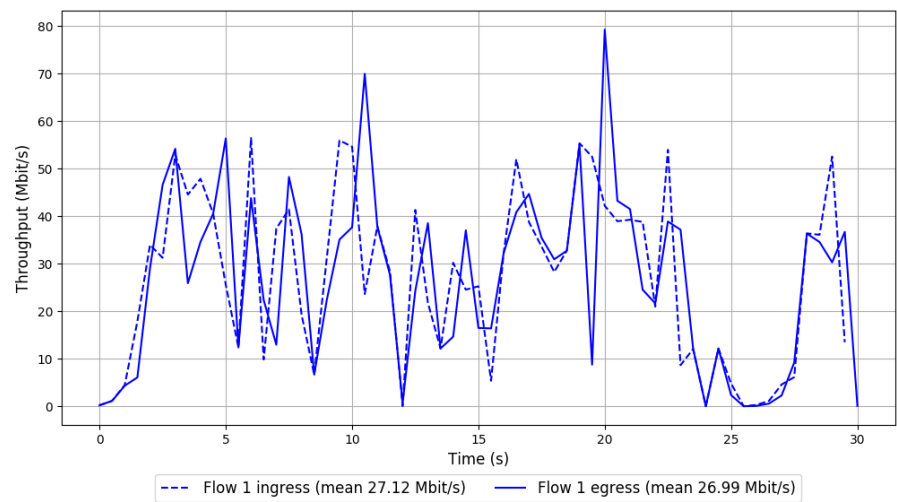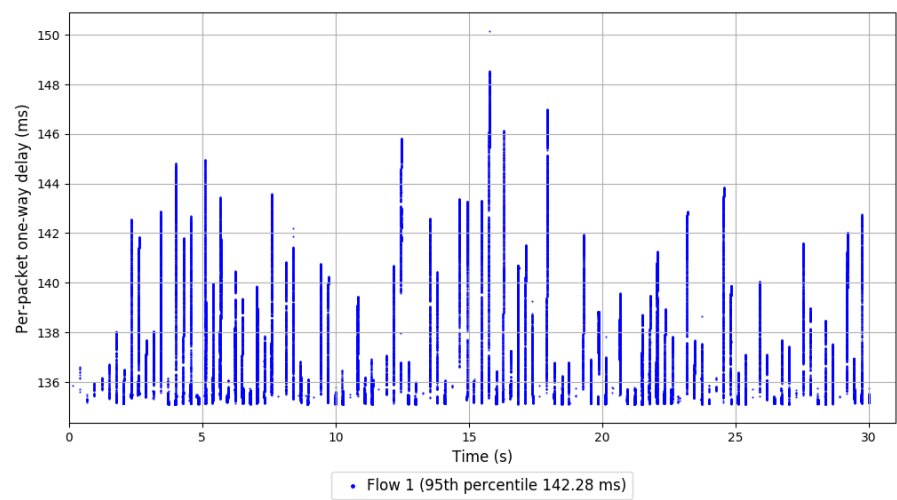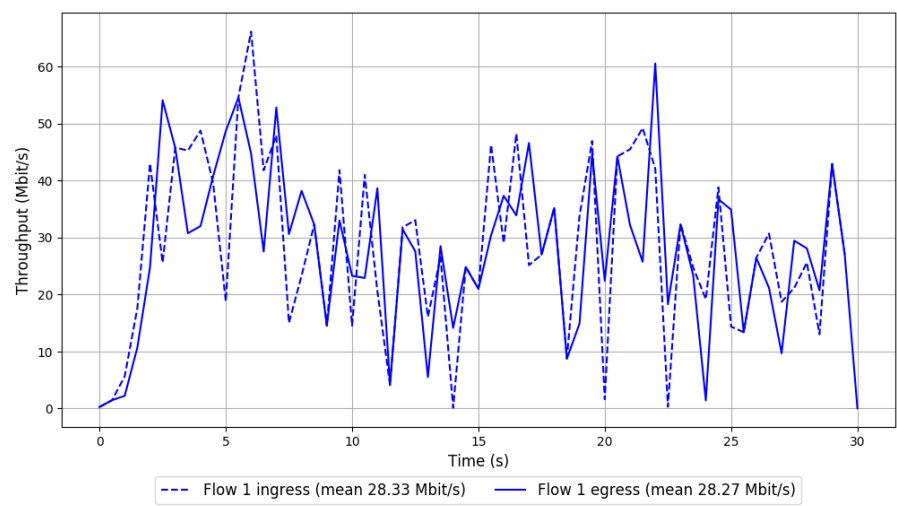
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2017-09-21 21:53:07
End at: 2017-09-21 21:53:37

# Below is generated by plot.py at 2017-09-21 23:53:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 142.622 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 142.622 ms
Loss rate: 0.50%
```
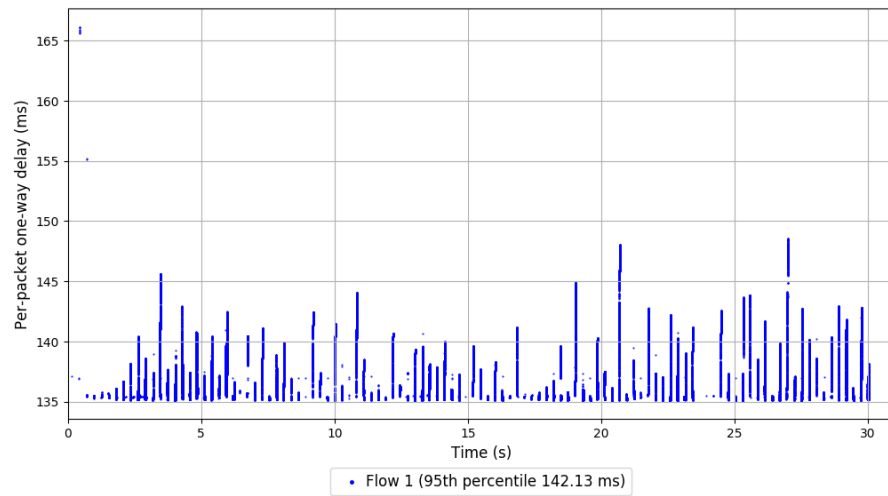
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2017-09-21 22:04:17
End at: 2017-09-21 22:04:47

# Below is generated by plot.py at 2017-09-21 23:53:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.27 Mbit/s
95th percentile per-packet one-way delay: 142.282 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 28.27 Mbit/s
95th percentile per-packet one-way delay: 142.282 ms
Loss rate: 0.21%
```
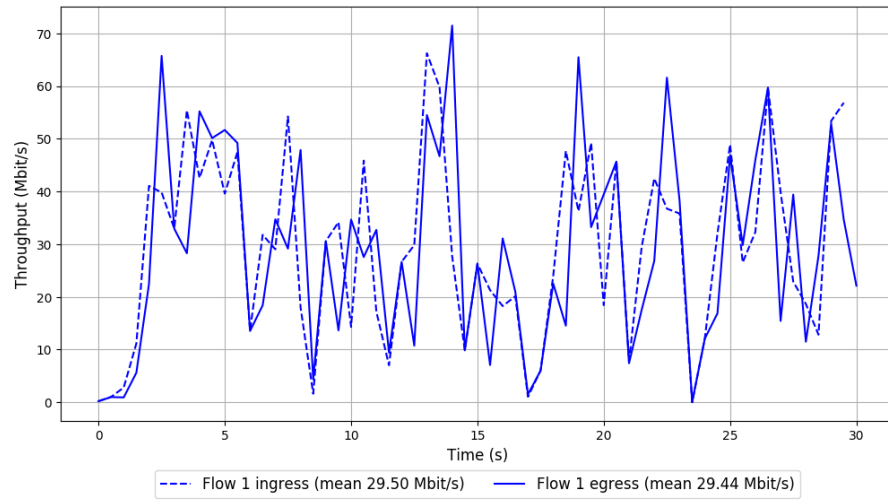
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 28.33 Mbit/s)   Flow 1 egress (mean 28.27 Mbit/s)

Flow 1 (95th percentile 142.28 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2017-09-21 22:15:55
End at: 2017-09-21 22:16:25

# Below is generated by plot.py at 2017-09-21 23:53:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.44 Mbit/s
95th percentile per-packet one-way delay: 142.135 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 29.44 Mbit/s
95th percentile per-packet one-way delay: 142.135 ms
Loss rate: 0.18%
```
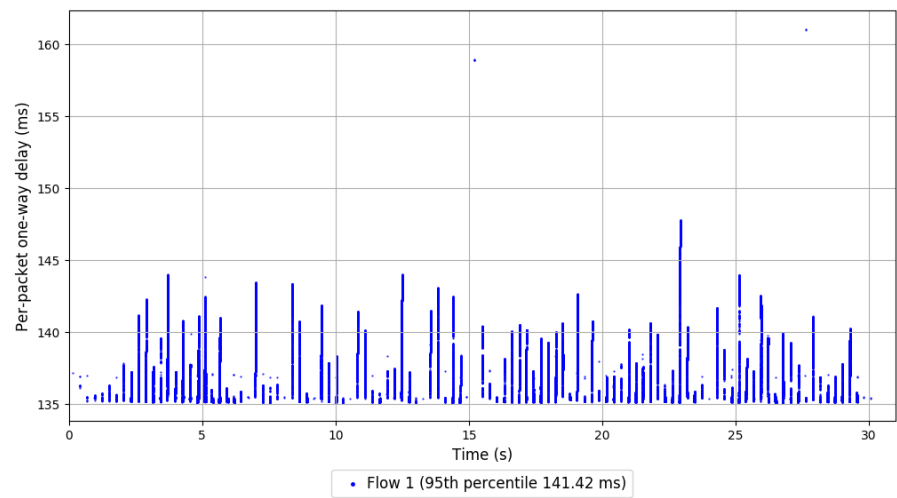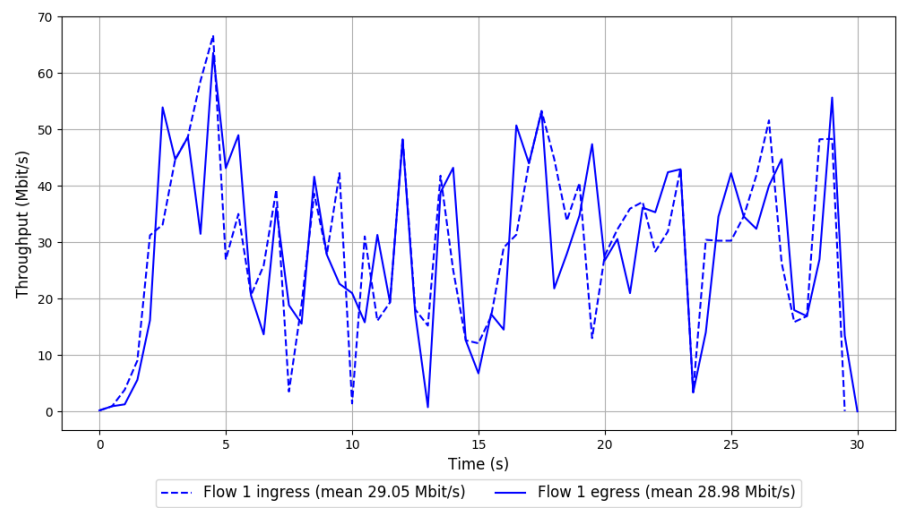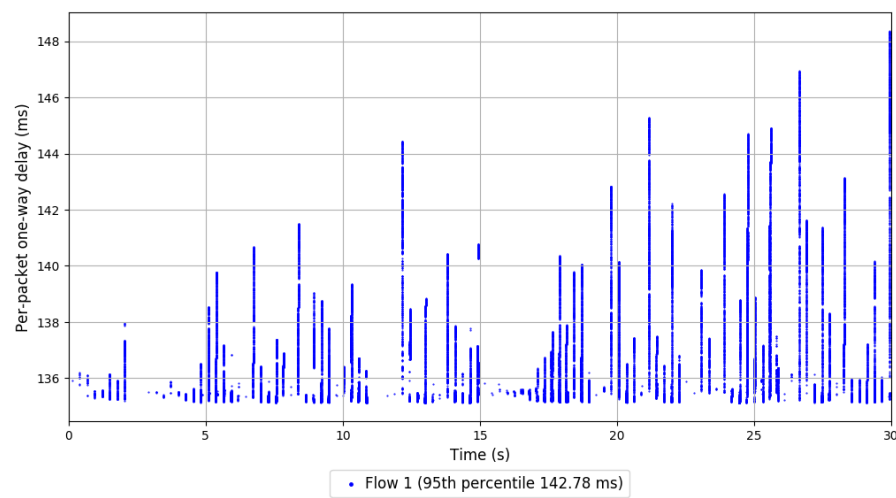
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 29.50 Mbit/s)　　Flow 1 egress (mean 29.44 Mbit/s)

Flow 1 (95th percentile 142.13 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2017-09-21 22:26:46
End at: 2017-09-21 22:27:16

# Below is generated by plot.py at 2017-09-21 23:53:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.98 Mbit/s
95th percentile per-packet one-way delay: 141.419 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 28.98 Mbit/s
95th percentile per-packet one-way delay: 141.419 ms
Loss rate: 0.25%
```
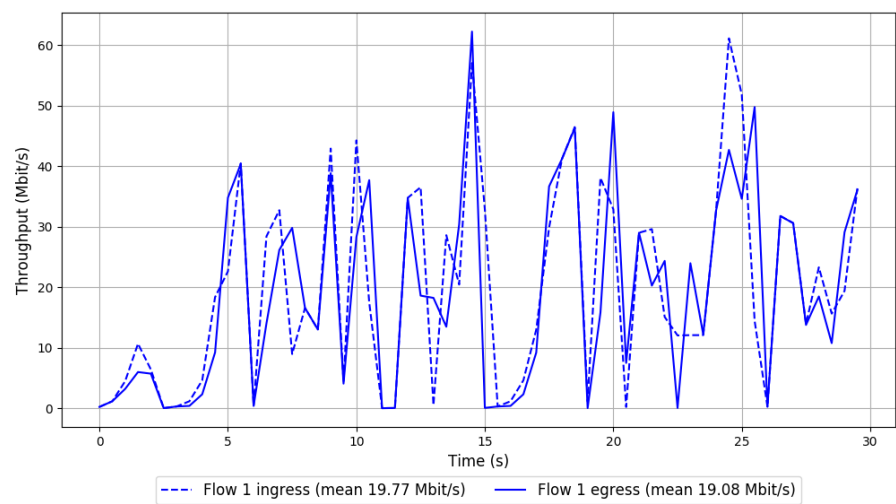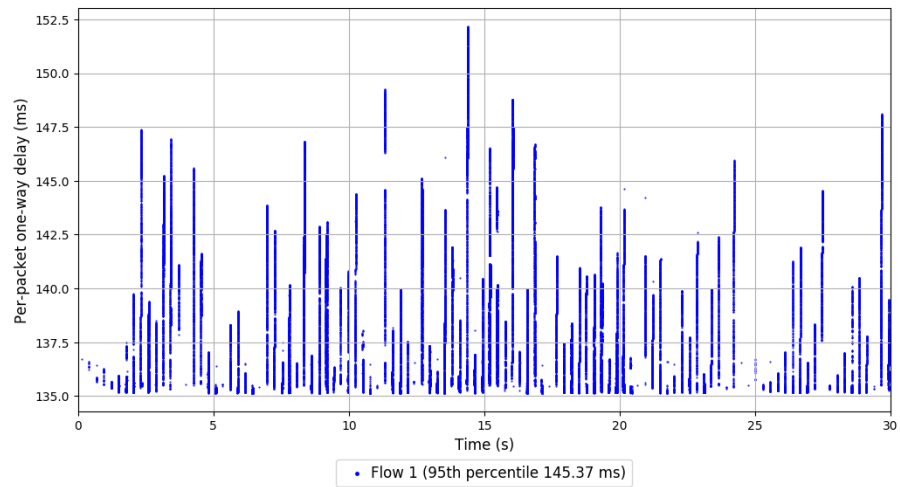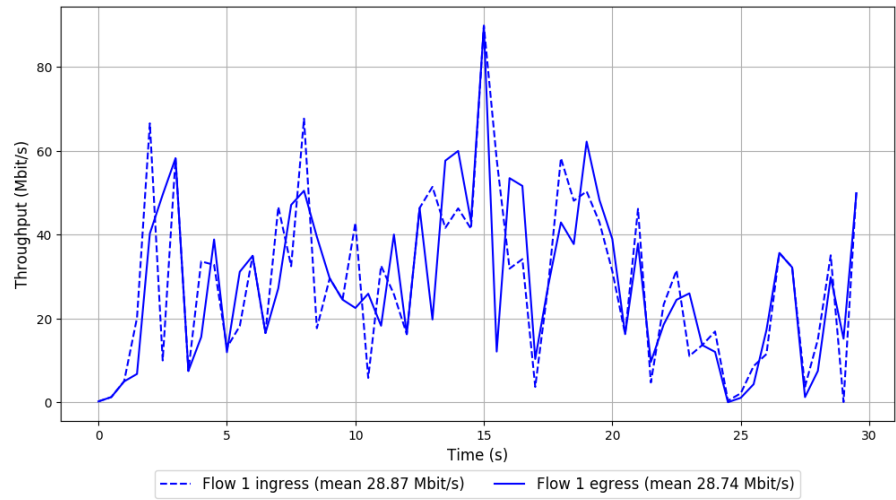
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 29.05 Mbit/s)   Flow 1 egress (mean 28.98 Mbit/s)

• Flow 1 (95th percentile 141.42 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2017-09-21 22:37:50
End at: 2017-09-21 22:38:20

# Below is generated by plot.py at 2017-09-21 23:53:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.08 Mbit/s
95th percentile per-packet one-way delay: 142.782 ms
Loss rate: 3.47%
-- Flow 1:
Average throughput: 19.08 Mbit/s
95th percentile per-packet one-way delay: 142.782 ms
Loss rate: 3.47%
```
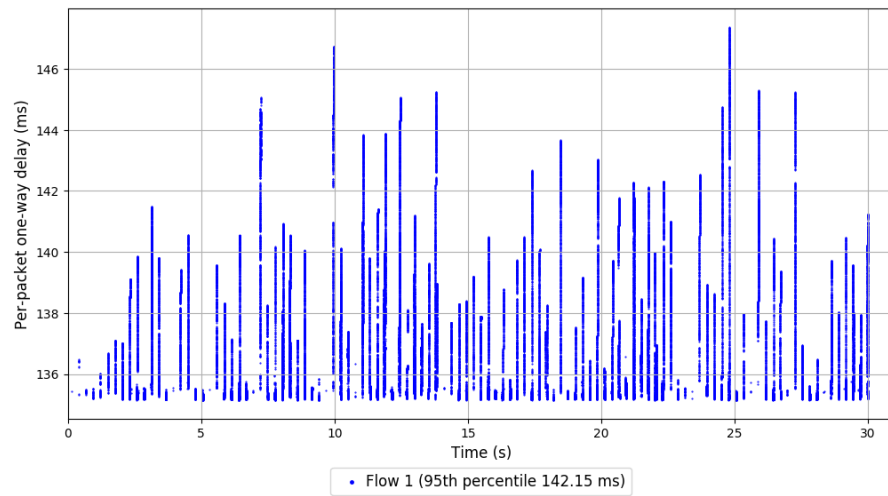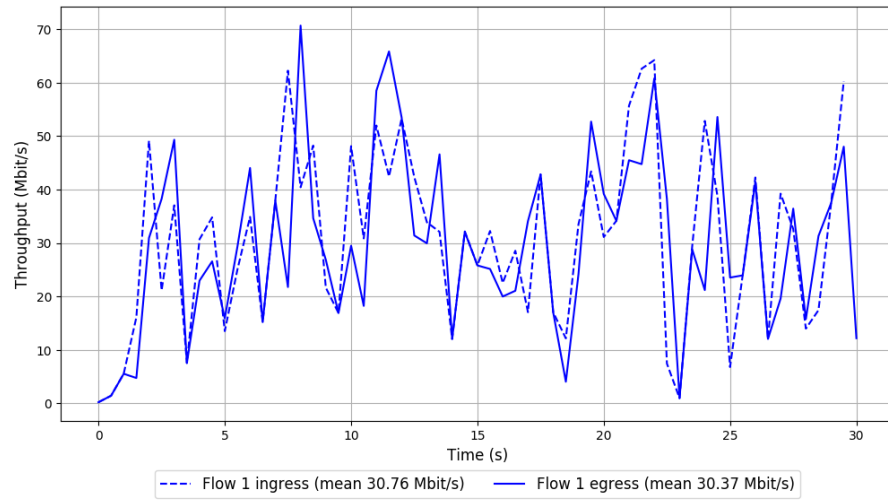
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 19.77 Mbit/s) — Flow 1 egress (mean 19.08 Mbit/s)

Flow 1 (95th percentile 142.78 ms)

15

```
Run 7: Statistics of TCP BBR

Start at: 2017-09-21 22:49:14
End at: 2017-09-21 22:49:44

# Below is generated by plot.py at 2017-09-21 23:53:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.74 Mbit/s
95th percentile per-packet one-way delay: 145.368 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 28.74 Mbit/s
95th percentile per-packet one-way delay: 145.368 ms
Loss rate: 0.46%
```
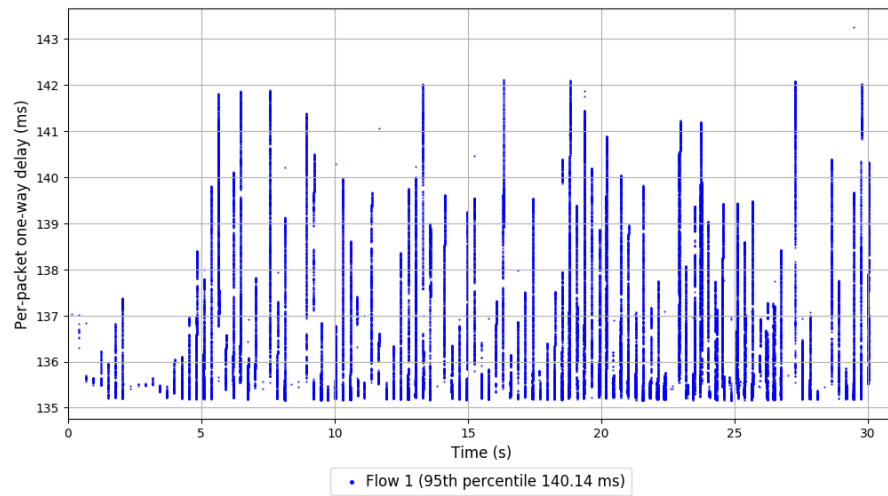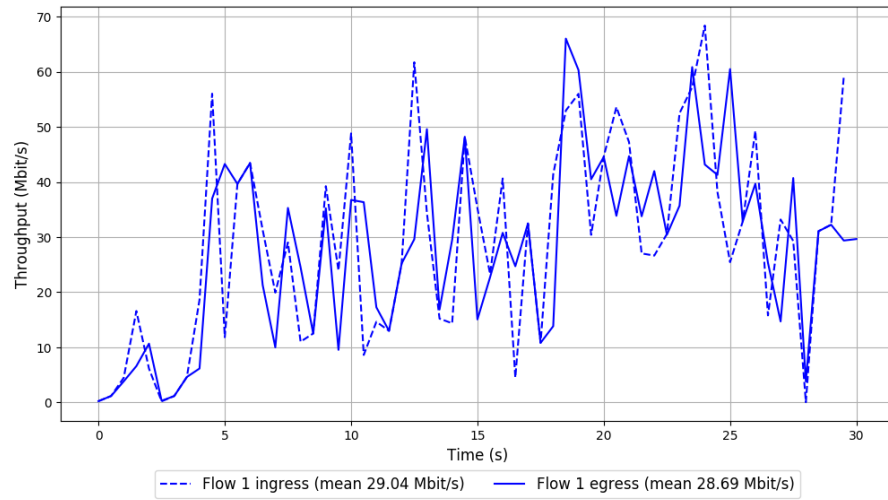
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2017-09-21 23:00:35
End at: 2017-09-21 23:01:05

# Below is generated by plot.py at 2017-09-21 23:53:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 142.151 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 142.151 ms
Loss rate: 1.26%
```
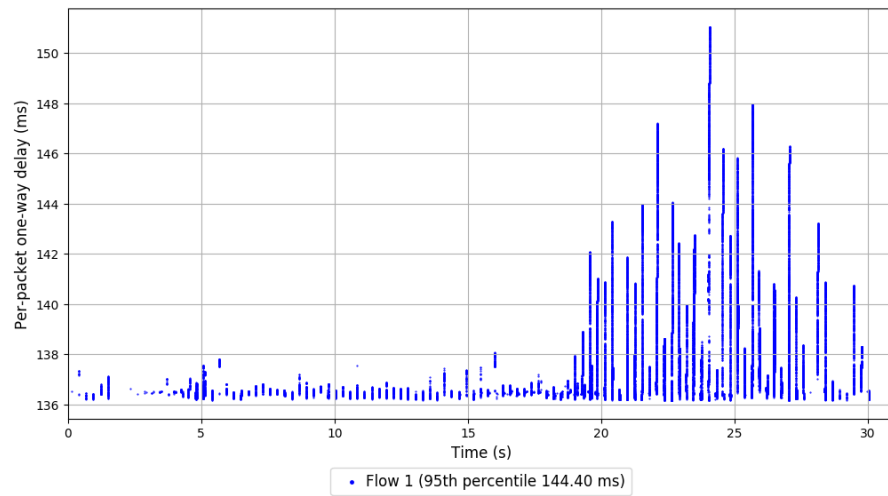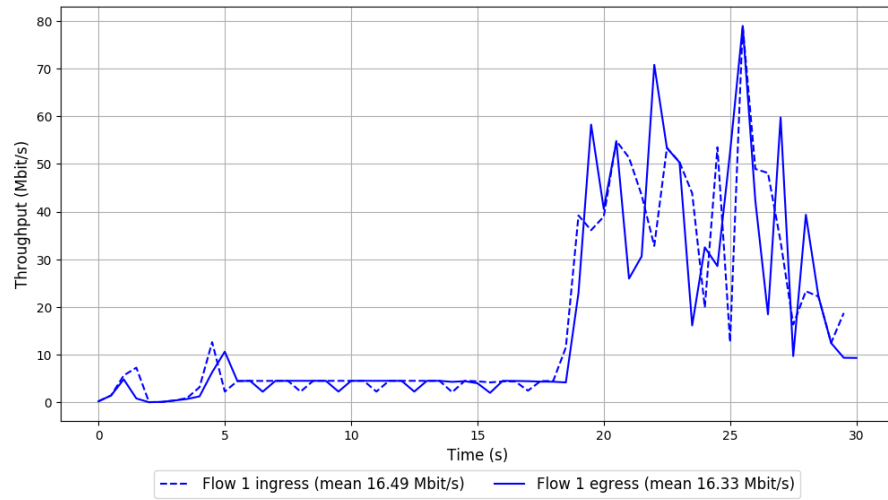
Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2017-09-21 23:11:08
End at: 2017-09-21 23:11:38

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 140.144 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 140.144 ms
Loss rate: 1.22%
```
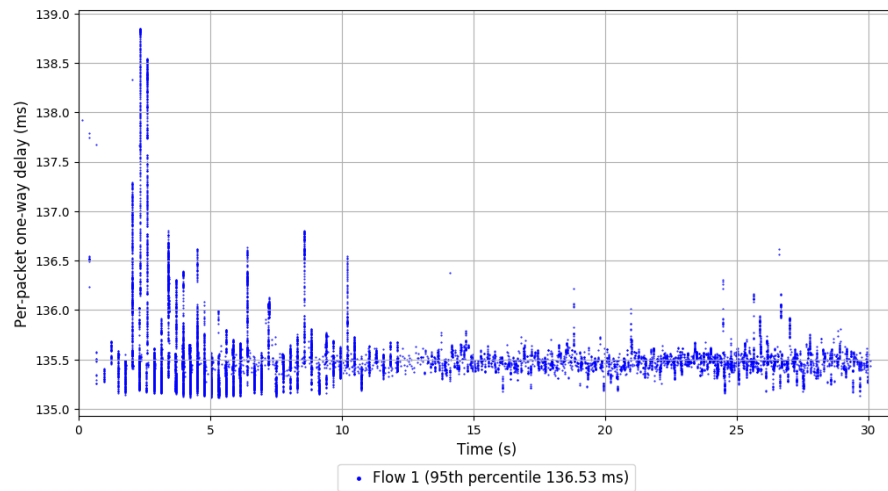
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 29.04 Mbit/s) --- Flow 1 egress (mean 28.69 Mbit/s)

Flow 1 (95th percentile 140.14 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2017-09-21 23:21:47
End at: 2017-09-21 23:22:17

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 144.403 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 144.403 ms
Loss rate: 1.00%
```
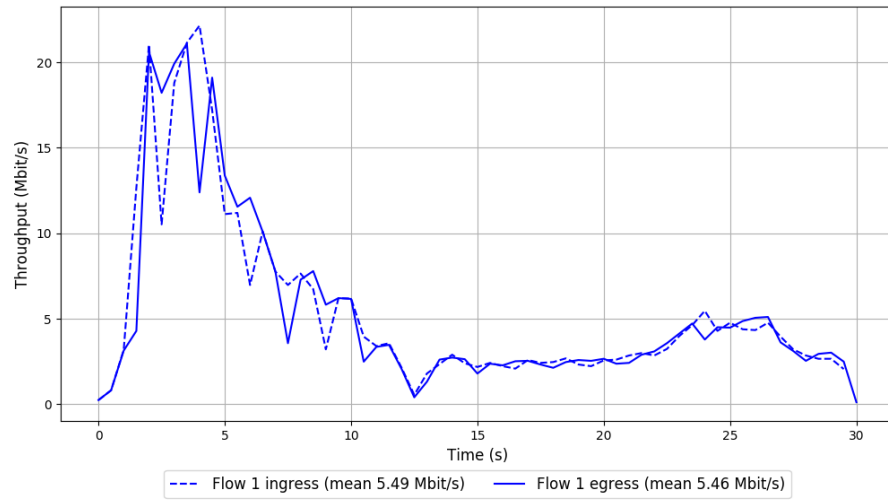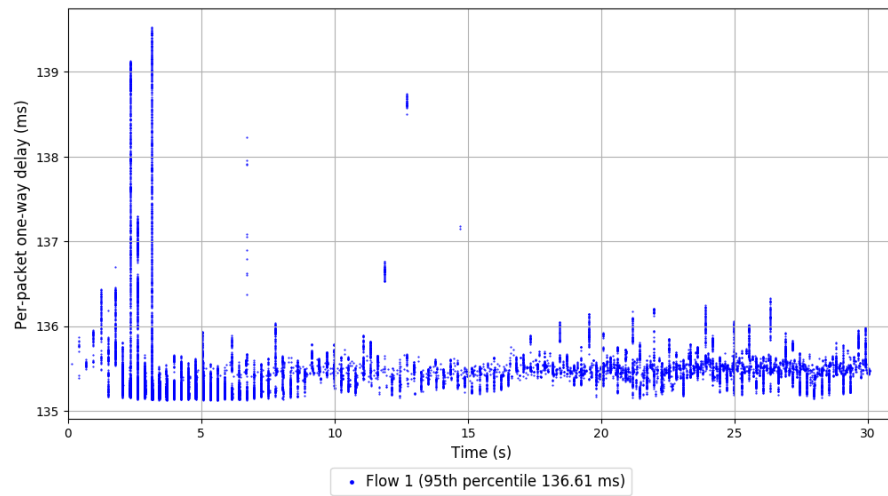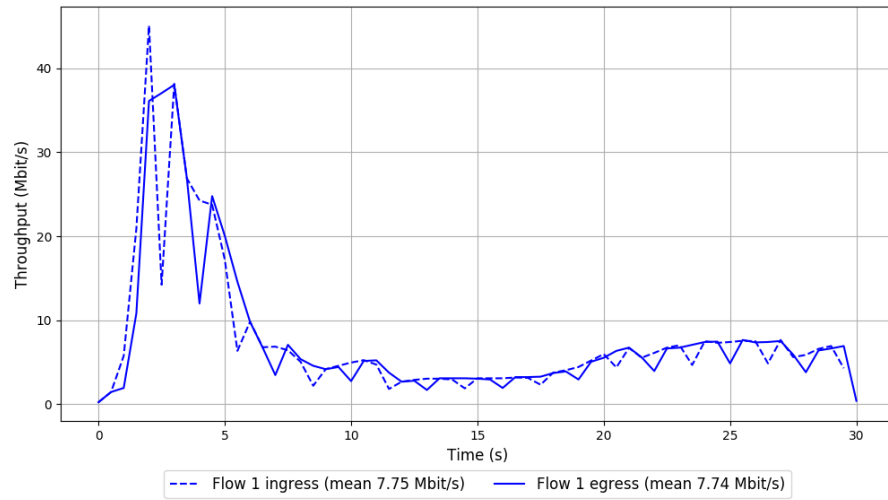
Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-21 21:38:04
End at: 2017-09-21 21:38:34

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 136.529 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 136.529 ms
Loss rate: 0.61%
```
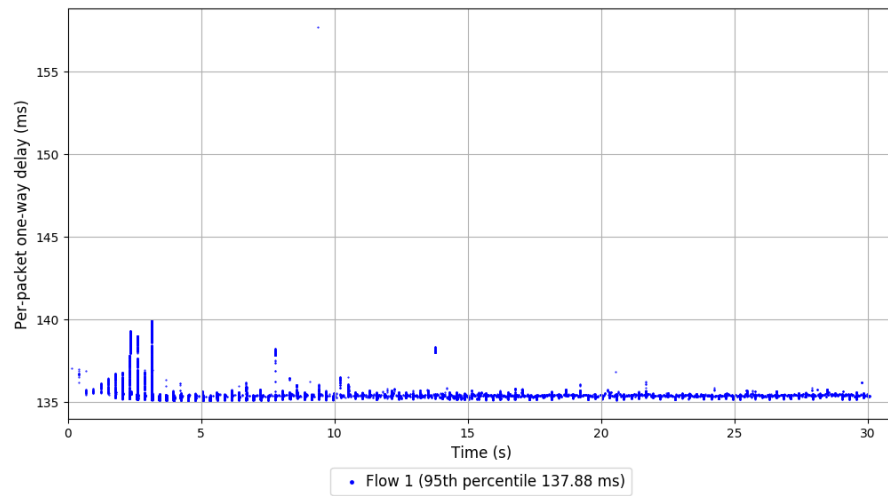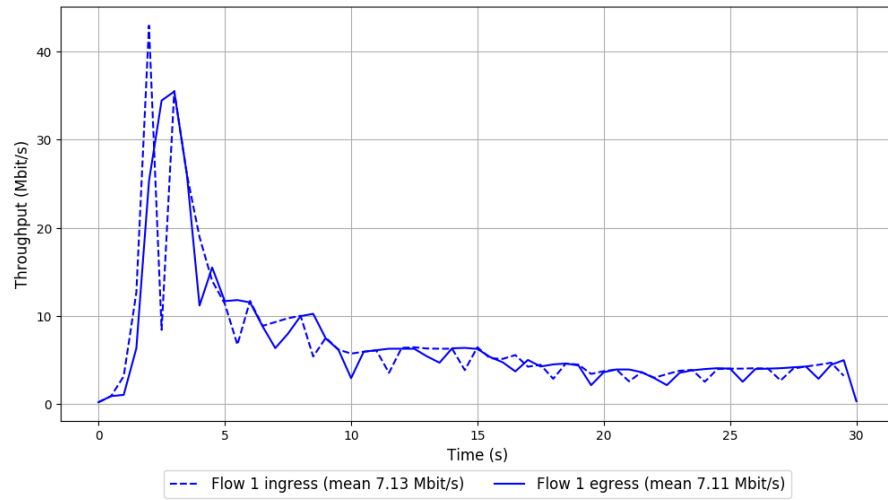
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 5.49 Mbit/s) --- Flow 1 egress (mean 5.46 Mbit/s)

Flow 1 (95th percentile 136.53 ms)

```
Run 2: Statistics of TCP Cubic

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

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 136.610 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 136.610 ms
Loss rate: 0.11%
```
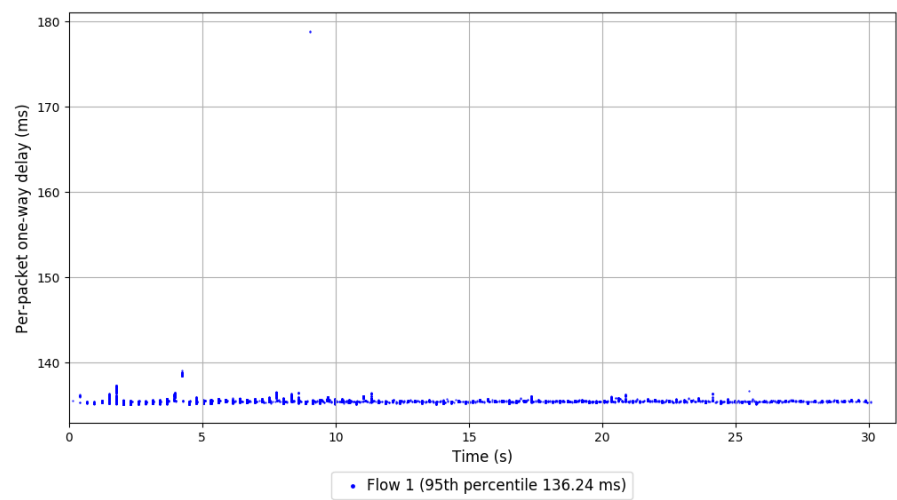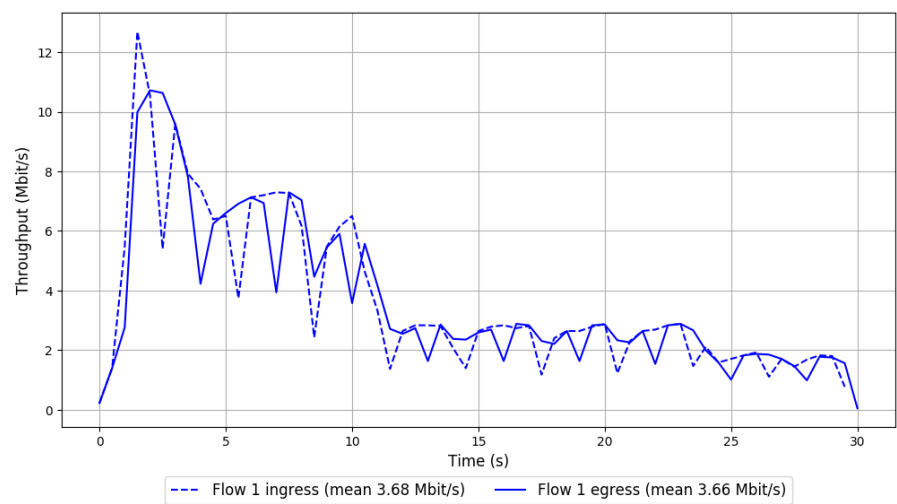
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2017-09-21 22:00:33
End at: 2017-09-21 22:01:03

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.11 Mbit/s
95th percentile per-packet one-way delay: 137.881 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 7.11 Mbit/s
95th percentile per-packet one-way delay: 137.881 ms
Loss rate: 0.36%
```
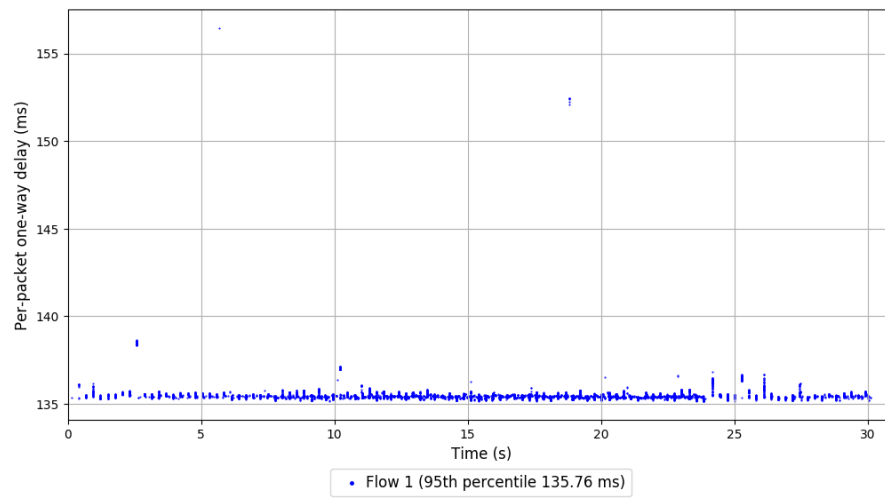
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 7.13 Mbit/s)   Flow 1 egress (mean 7.11 Mbit/s)

Flow 1 (95th percentile 137.88 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2017-09-21 22:11:51
End at: 2017-09-21 22:12:21

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 136.242 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 136.242 ms
Loss rate: 0.55%
```
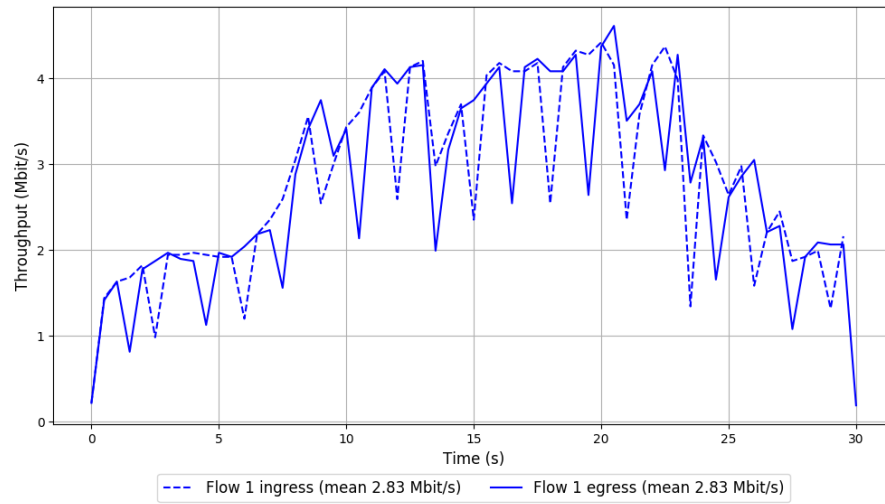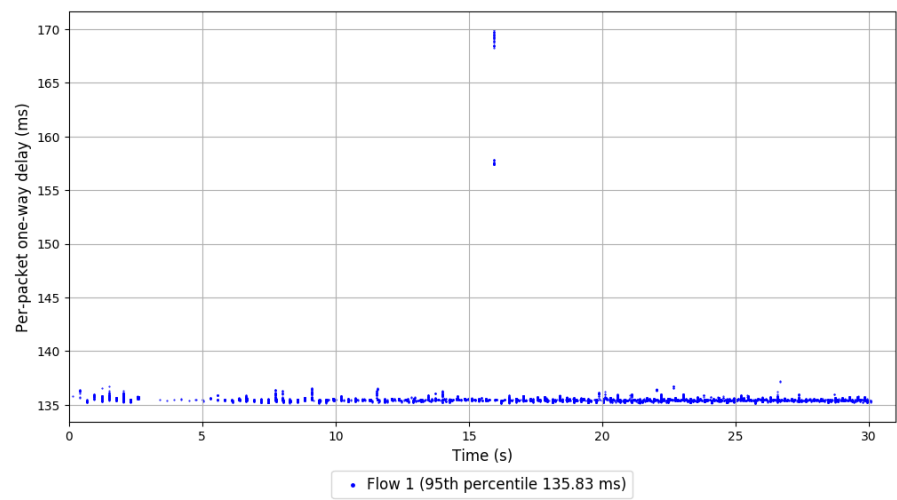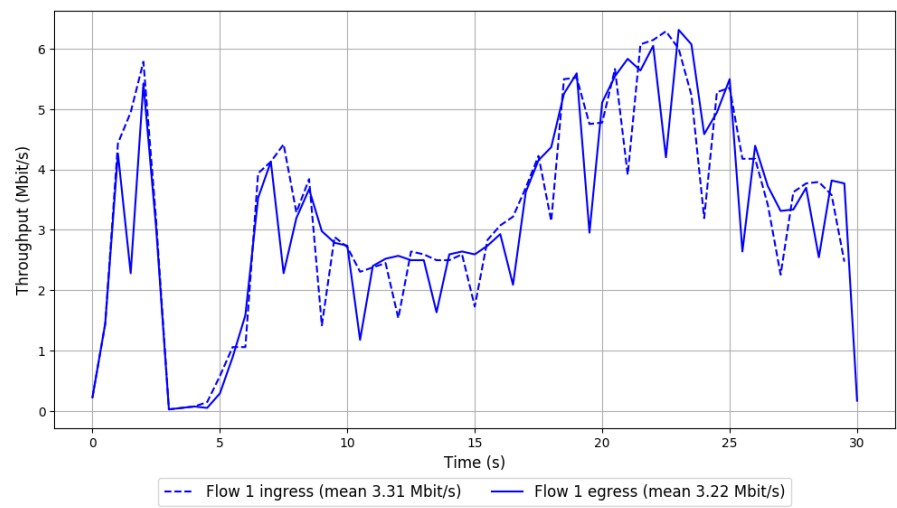
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 3.68 Mbit/s)   Flow 1 egress (mean 3.66 Mbit/s)

Flow 1 (95th percentile 136.24 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2017-09-21 22:22:46
End at: 2017-09-21 22:23:16

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 135.765 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 135.765 ms
Loss rate: 0.14%
```
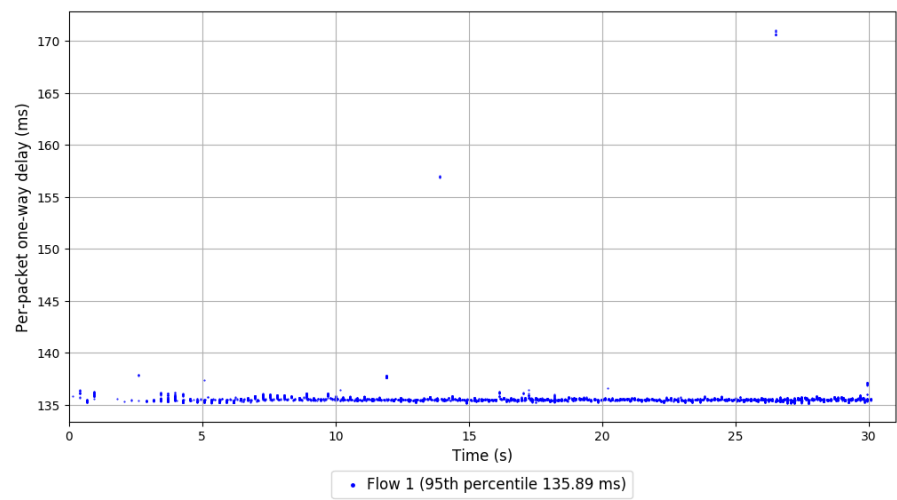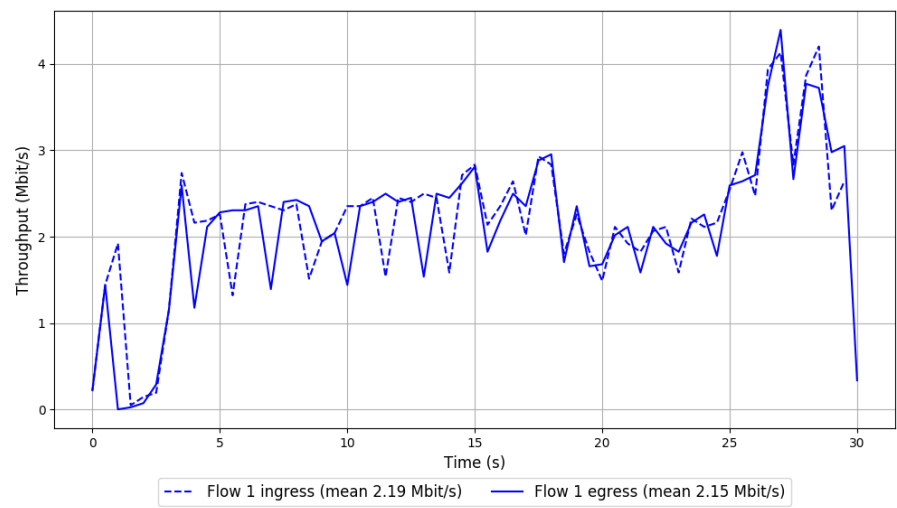
Run 5: Report of TCP Cubic — Data Link

```
Run 6: Statistics of TCP Cubic

Start at: 2017-09-21 22:34:08
End at: 2017-09-21 22:34:38

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 135.833 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 135.833 ms
Loss rate: 2.52%
```
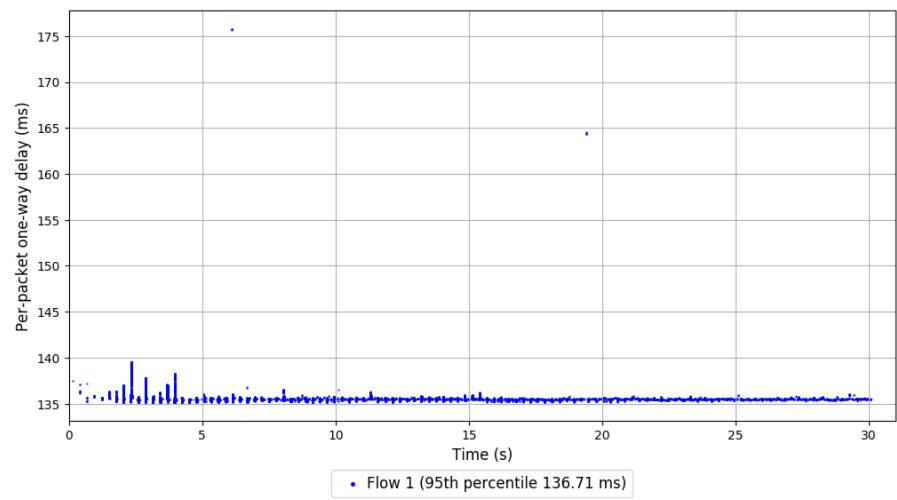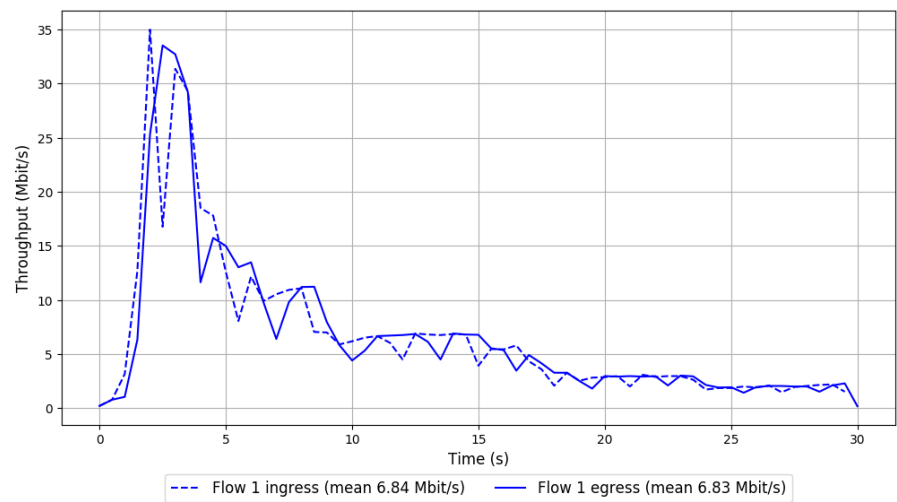
Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 3.31 Mbit/s) --- Flow 1 egress (mean 3.22 Mbit/s)

Flow 1 (95th percentile 135.83 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2017-09-21 22:45:29
End at: 2017-09-21 22:45:59

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 135.894 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 135.894 ms
Loss rate: 1.69%
```
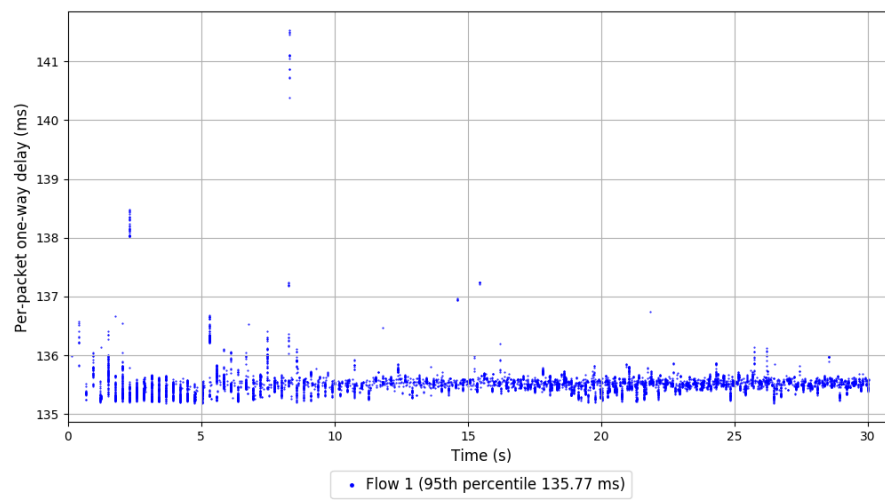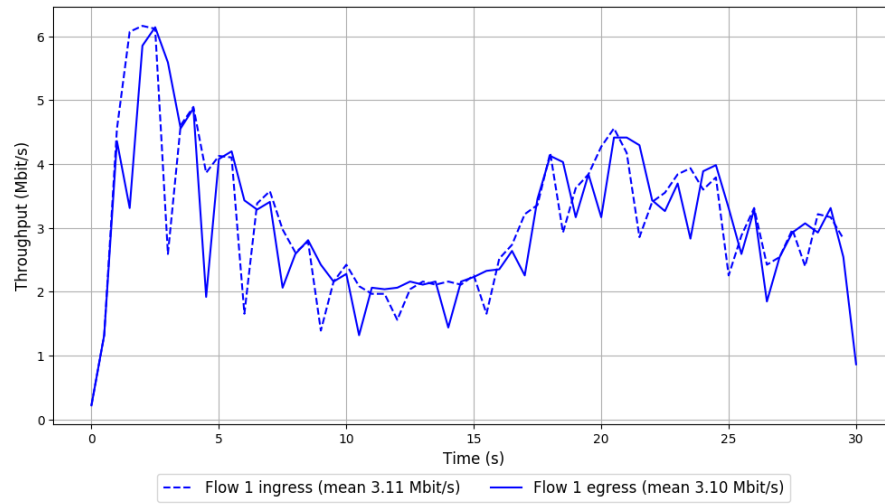
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2017-09-21 22:56:55
End at: 2017-09-21 22:57:25

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 136.711 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 136.711 ms
Loss rate: 0.15%
```
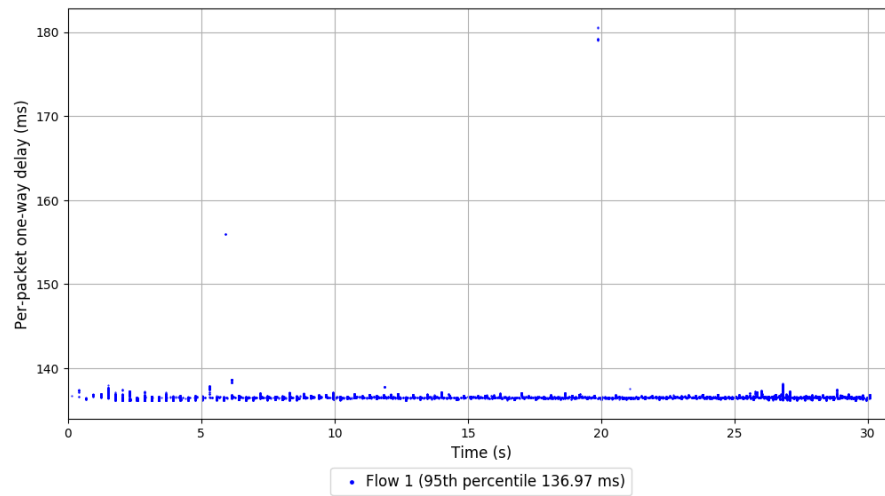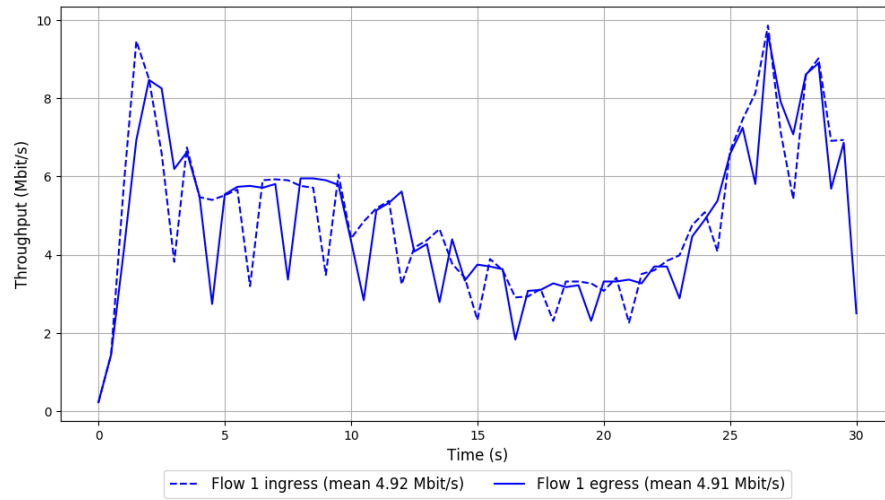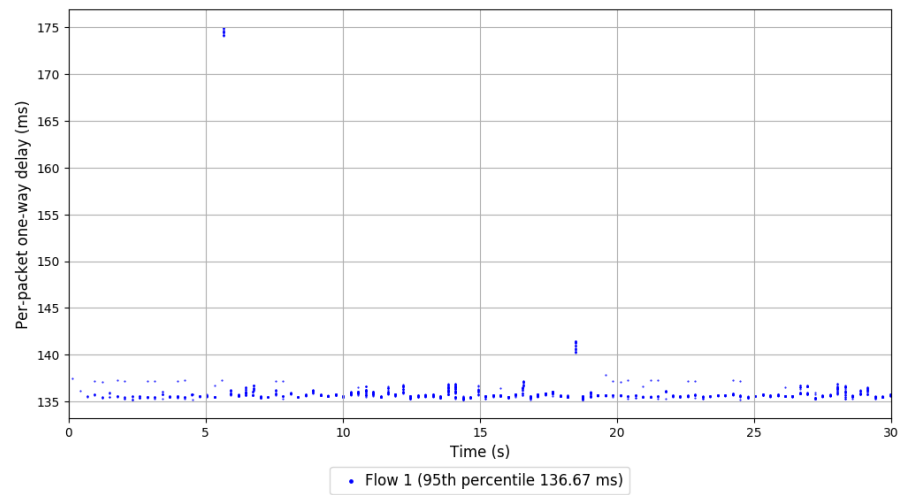
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 6.84 Mbit/s)   Flow 1 egress (mean 6.83 Mbit/s)

• Flow 1 (95th percentile 136.71 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2017-09-21 23:07:26
End at: 2017-09-21 23:07:56

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 135.766 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 135.766 ms
Loss rate: 0.34%
```
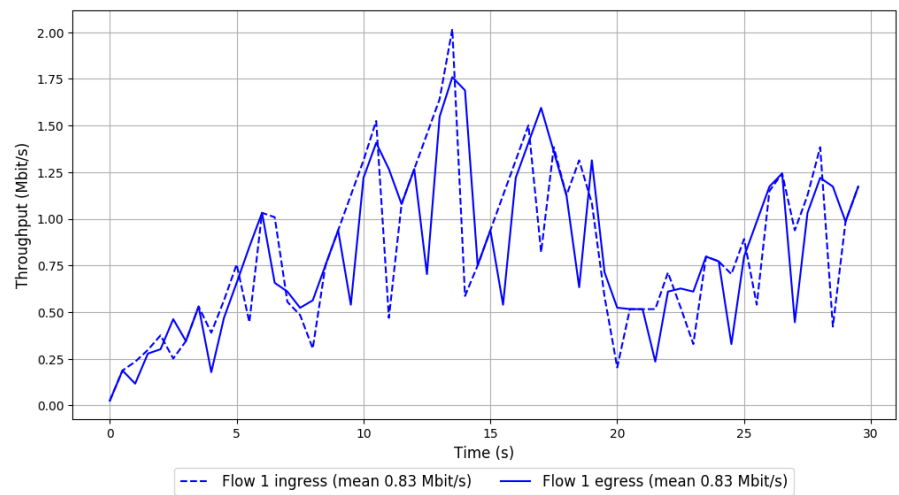
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 3.11 Mbit/s) --- Flow 1 egress (mean 3.10 Mbit/s)

• Flow 1 (95th percentile 135.77 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2017-09-21 23:18:01
End at: 2017-09-21 23:18:31

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 136.973 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 136.973 ms
Loss rate: 0.15%
```
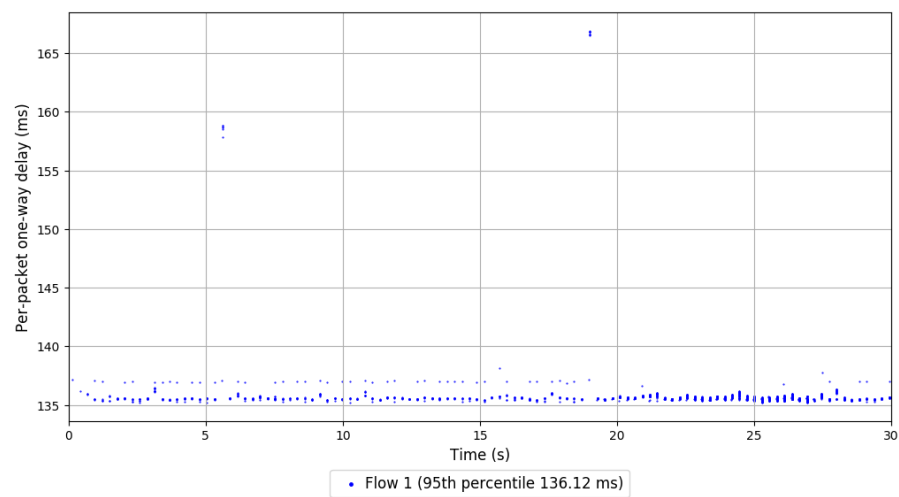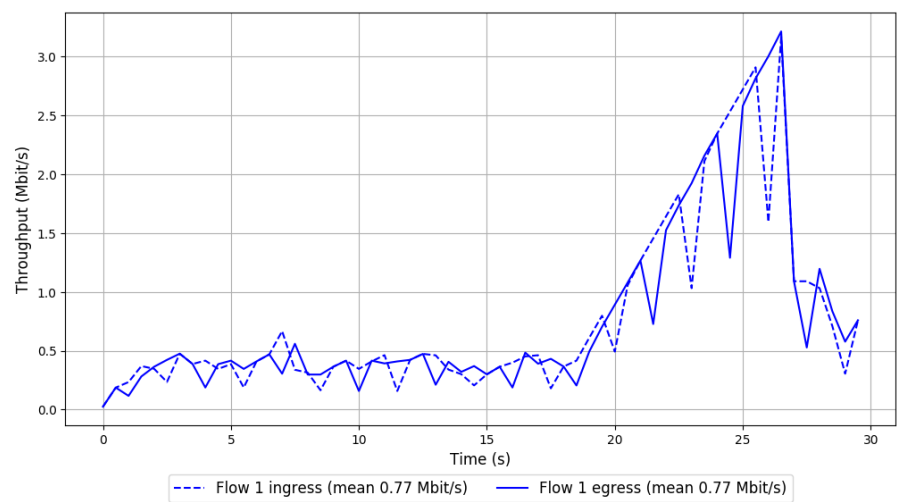
Run 10: Report of TCP Cubic — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2017-09-21 21:34:55
End at: 2017-09-21 21:35:25

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 136.672 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 136.672 ms
Loss rate: 0.05%
```
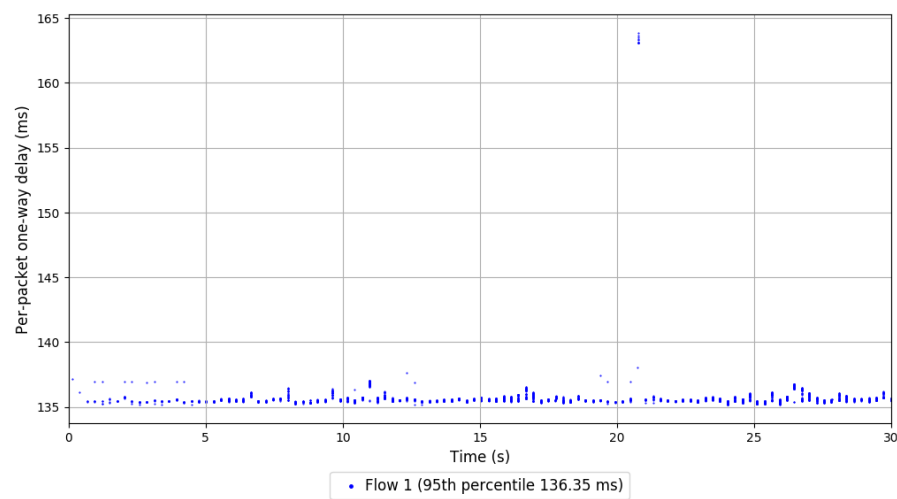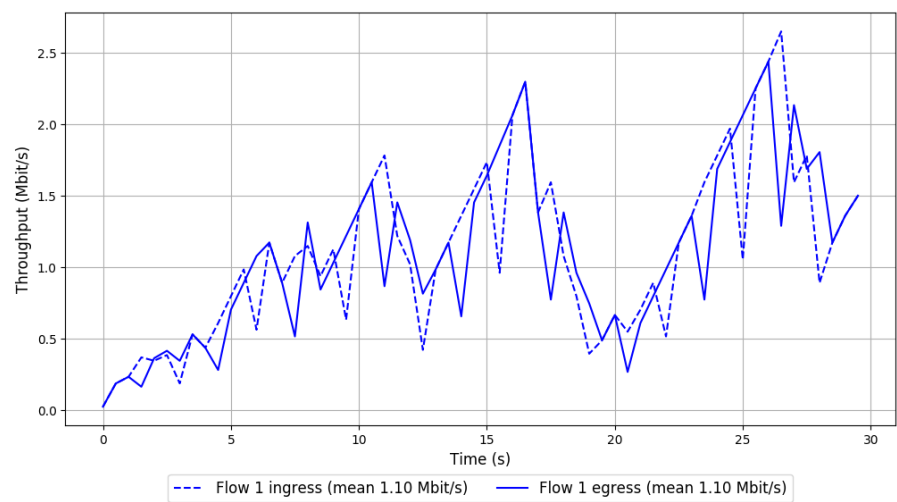
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.83 Mbit/s)   Flow 1 egress (mean 0.83 Mbit/s)

Flow 1 (95th percentile 136.67 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2017-09-21 21:45:48
End at: 2017-09-21 21:46:18

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 136.118 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 136.118 ms
Loss rate: 0.10%
```
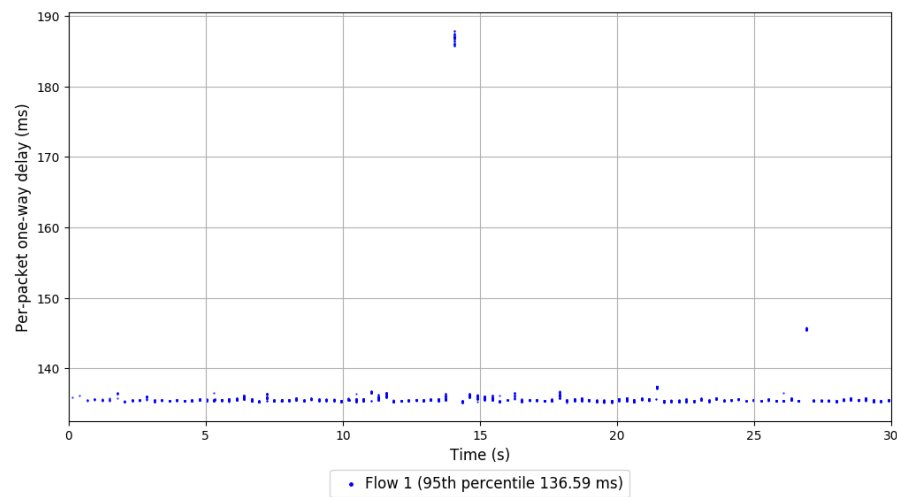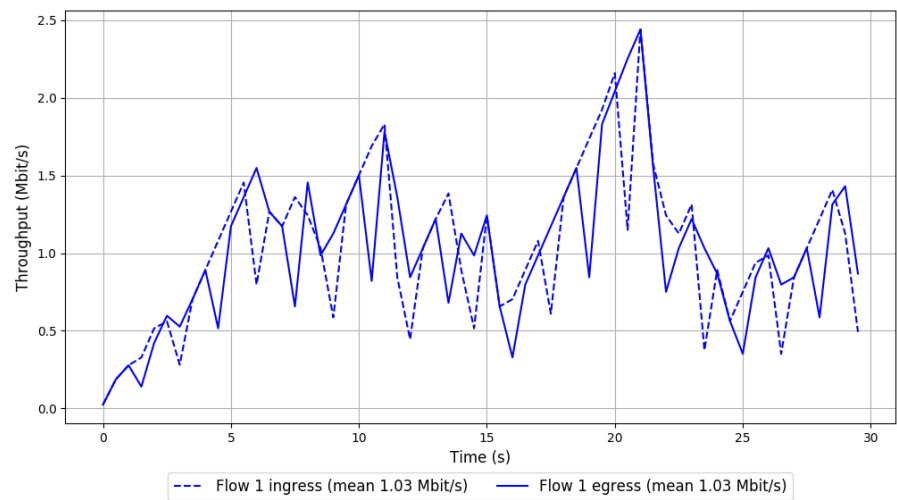
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.77 Mbit/s)   Flow 1 egress (mean 0.77 Mbit/s)

Flow 1 (95th percentile 136.12 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2017-09-21 21:57:05
End at: 2017-09-21 21:57:35

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 136.355 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 136.355 ms
Loss rate: 0.18%
```
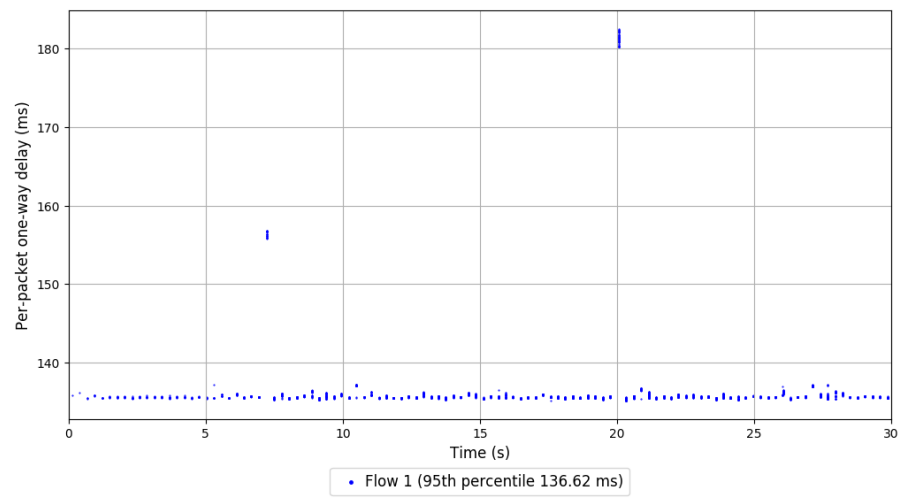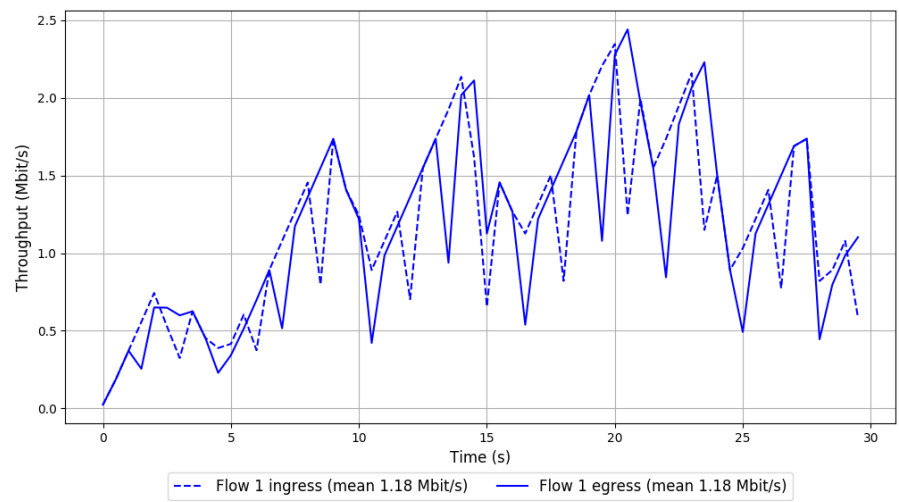
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 1.10 Mbit/s) --- Flow 1 egress (mean 1.10 Mbit/s)

Flow 1 (95th percentile 136.35 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2017-09-21 22:08:18
End at: 2017-09-21 22:08:48

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 136.591 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 136.591 ms
Loss rate: 0.19%
```
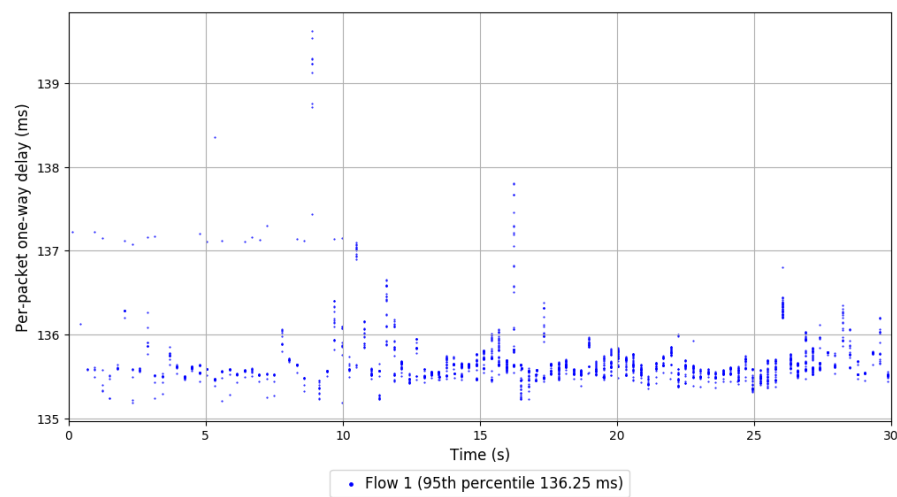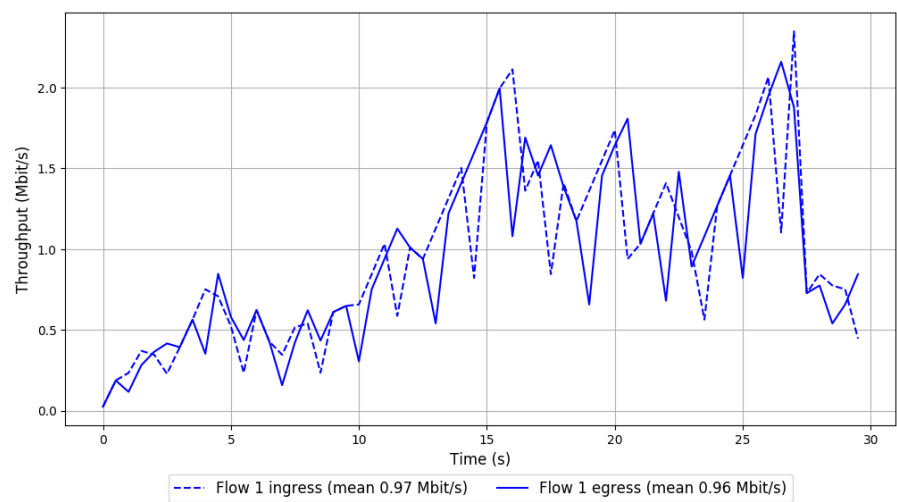
Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 1.03 Mbit/s)   Flow 1 egress (mean 1.03 Mbit/s)

Flow 1 (95th percentile 136.59 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2017-09-21 22:19:56
End at: 2017-09-21 22:20:26

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 136.620 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 136.620 ms
Loss rate: 0.37%
```
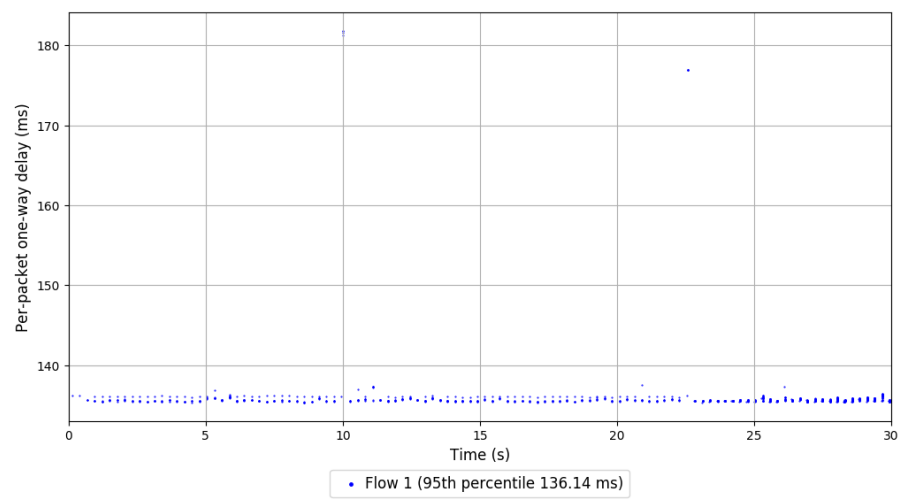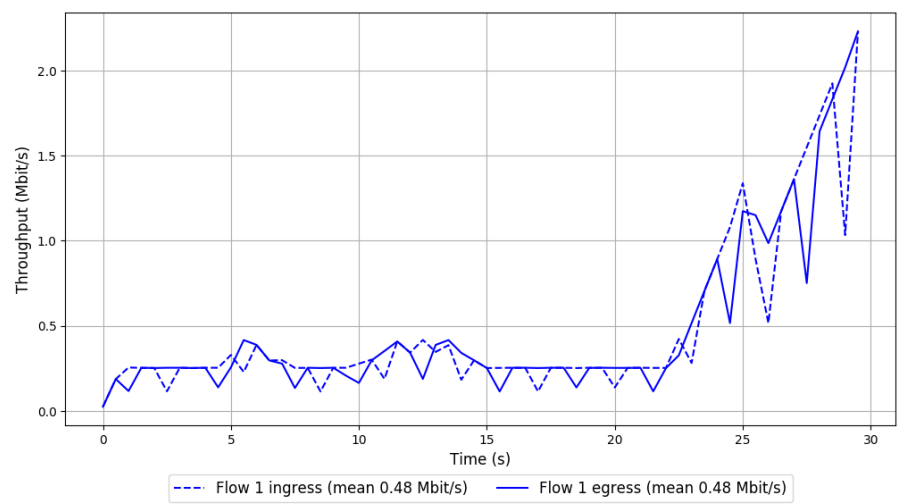
Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2017-09-21 22:30:46
End at: 2017-09-21 22:31:16

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 136.246 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 136.246 ms
Loss rate: 0.93%
```
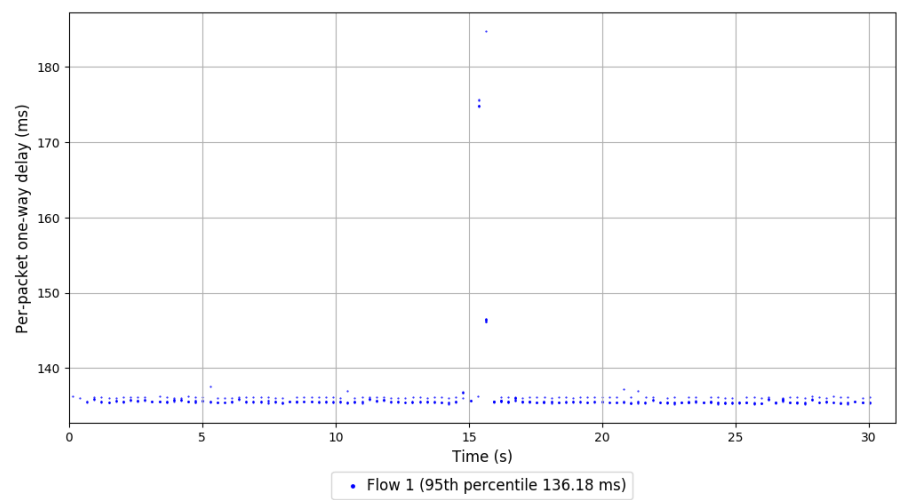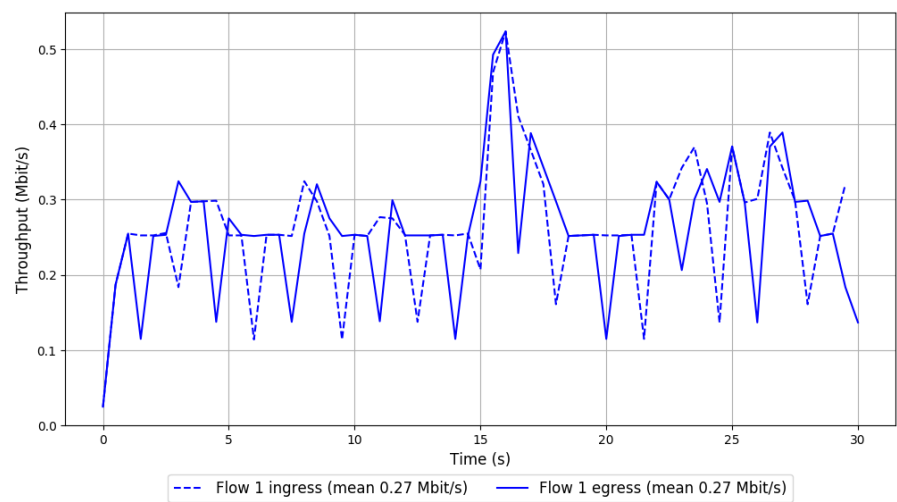
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.97 Mbit/s) — Flow 1 egress (mean 0.96 Mbit/s)

• Flow 1 (95th percentile 136.25 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2017-09-21 22:41:51
End at: 2017-09-21 22:42:21

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 136.144 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 136.144 ms
Loss rate: 0.00%
```
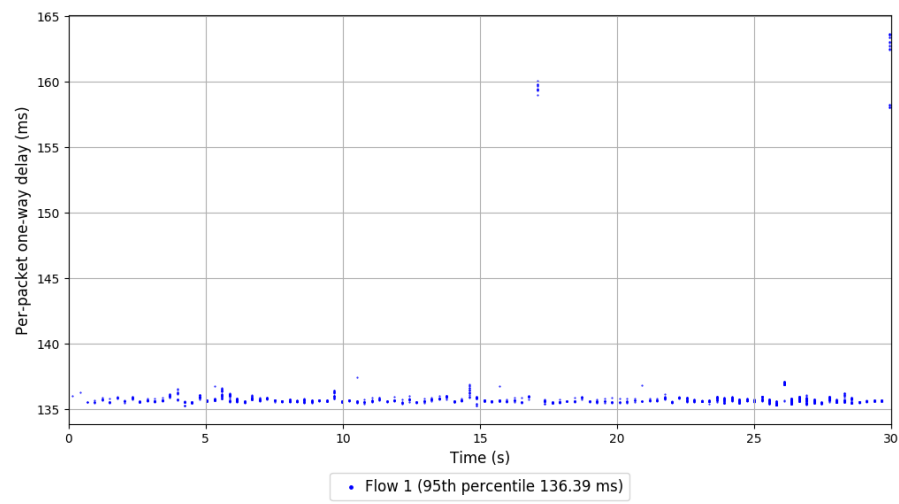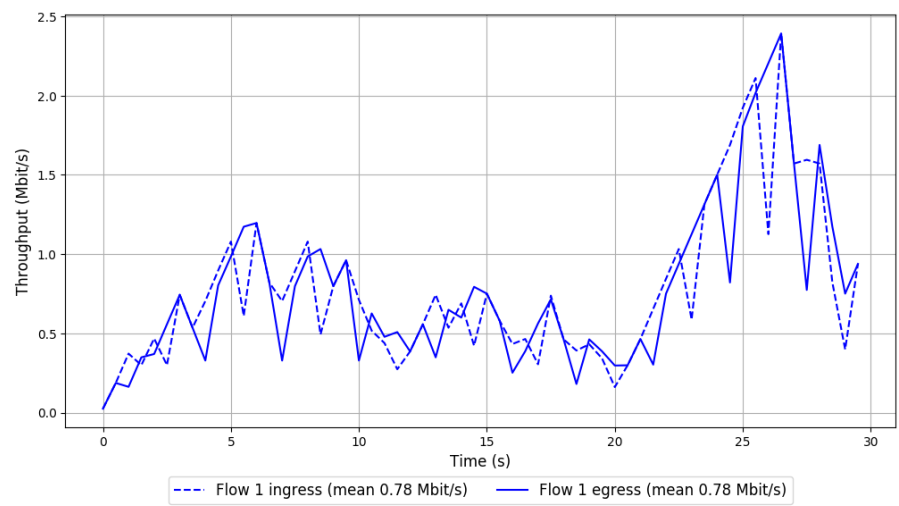
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.48 Mbit/s)   Flow 1 egress (mean 0.48 Mbit/s)

Flow 1 (95th percentile 136.14 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2017-09-21 22:53:18
End at: 2017-09-21 22:53:48

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 136.183 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 136.183 ms
Loss rate: 0.00%
```
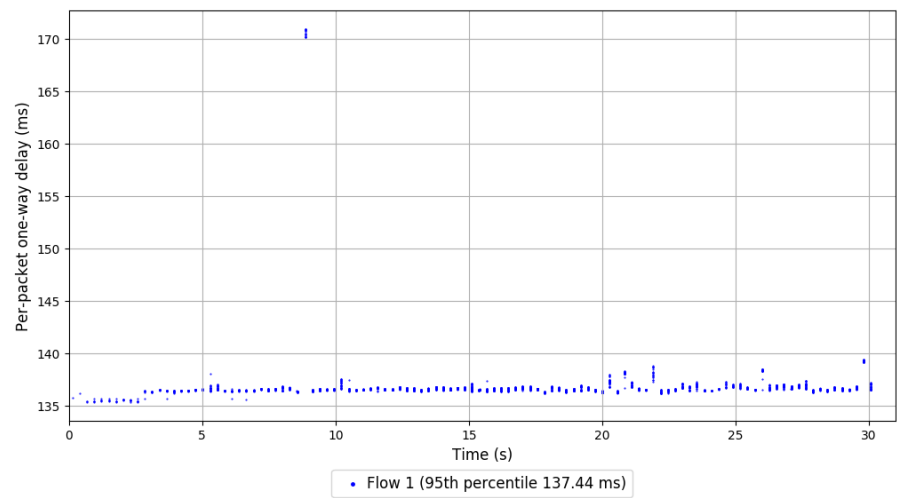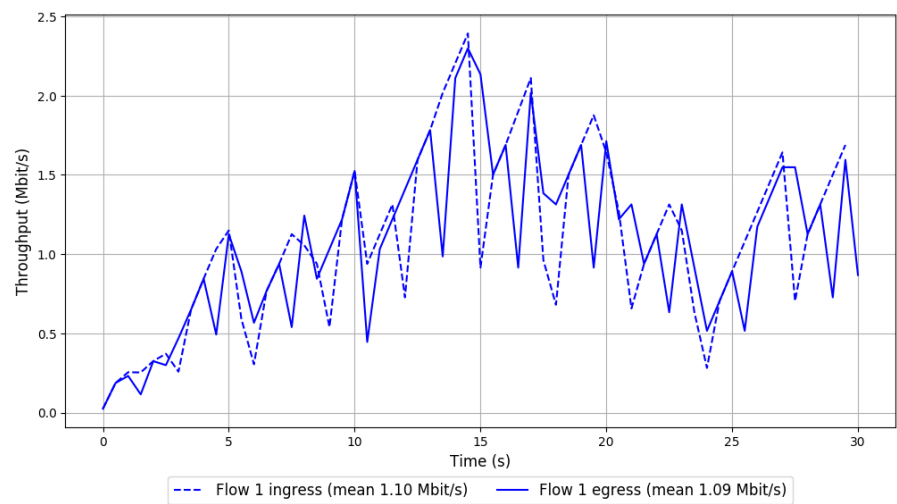
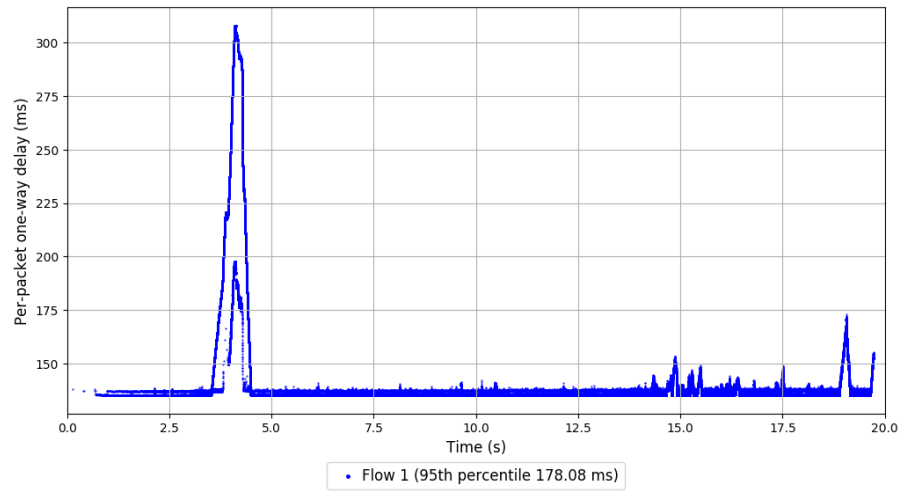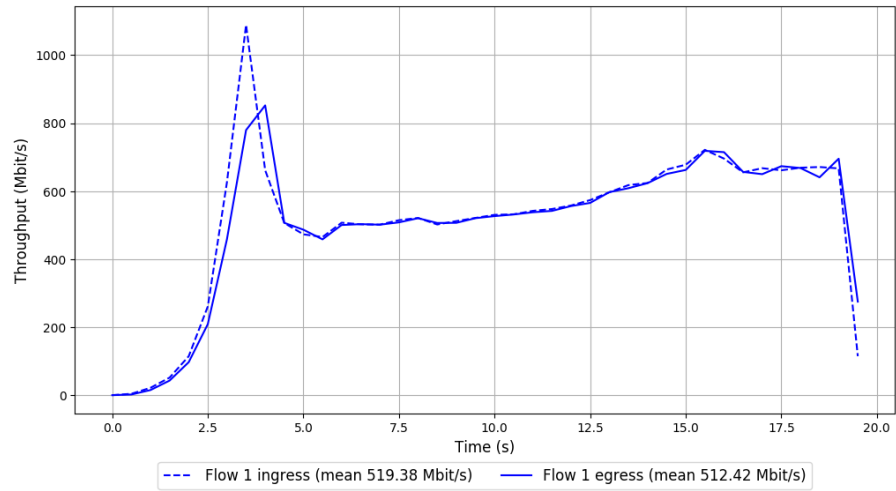# Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.27 Mbit/s) --- Flow 1 egress (mean 0.27 Mbit/s)

• Flow 1 (95th percentile 136.18 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2017-09-21 23:04:35
End at: 2017-09-21 23:05:05

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 136.387 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 136.387 ms
Loss rate: 0.10%
```
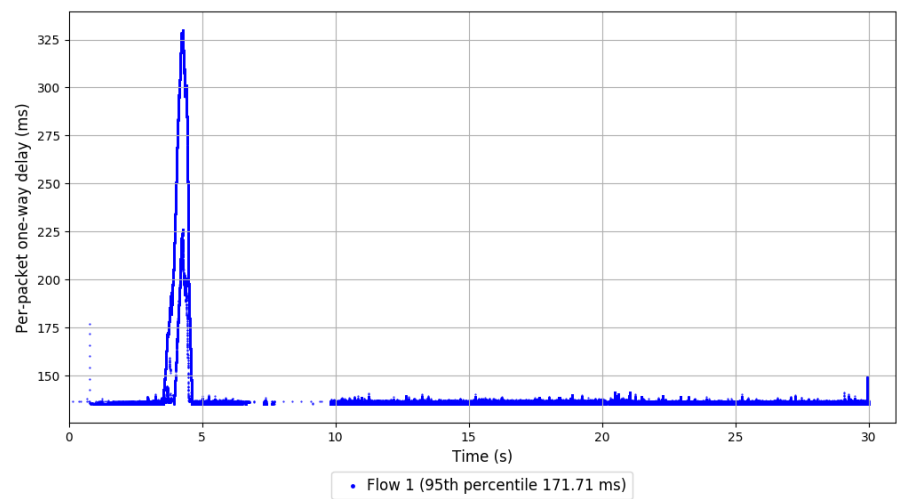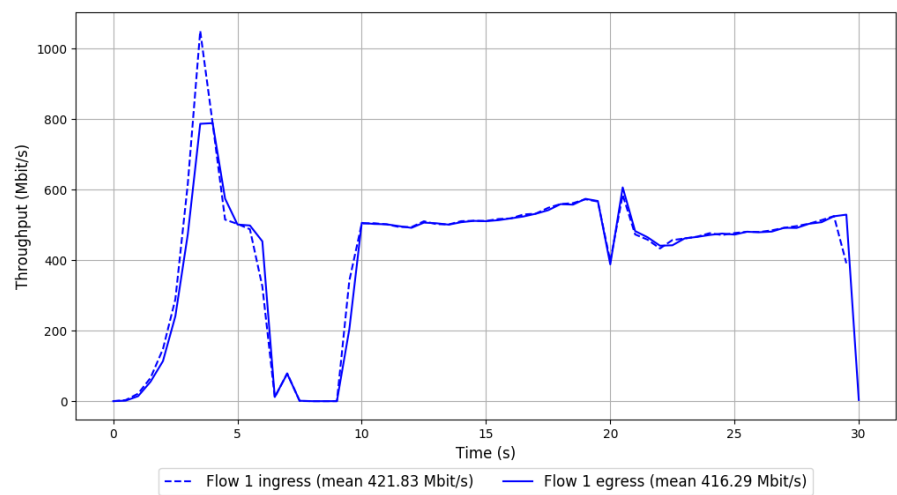
Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.78 Mbit/s)   Flow 1 egress (mean 0.78 Mbit/s)

Flow 1 (95th percentile 136.39 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2017-09-21 23:15:09
End at: 2017-09-21 23:15:39

# Below is generated by plot.py at 2017-09-21 23:54:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 137.437 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 137.437 ms
Loss rate: 0.50%
```
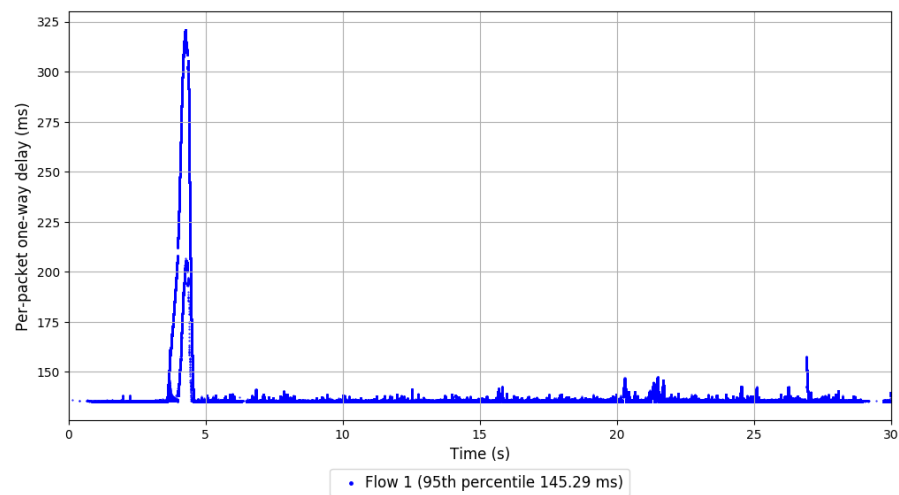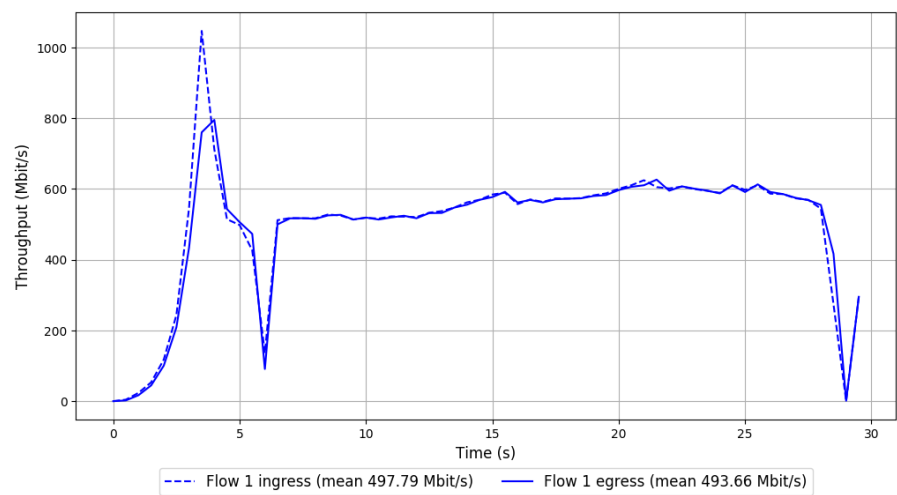
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 1.10 Mbit/s) ——— Flow 1 egress (mean 1.09 Mbit/s)

Flow 1 (95th percentile 137.44 ms)

Run 1: Statistics of PCC

Start at: 2017-09-21 21:37:05
End at: 2017-09-21 21:37:35

Run 1: Report of PCC — Data Link

```
Run 2: Statistics of PCC

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

# Below is generated by plot.py at 2017-09-22 00:02:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 416.29 Mbit/s
95th percentile per-packet one-way delay: 171.708 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 416.29 Mbit/s
95th percentile per-packet one-way delay: 171.708 ms
Loss rate: 1.32%
```
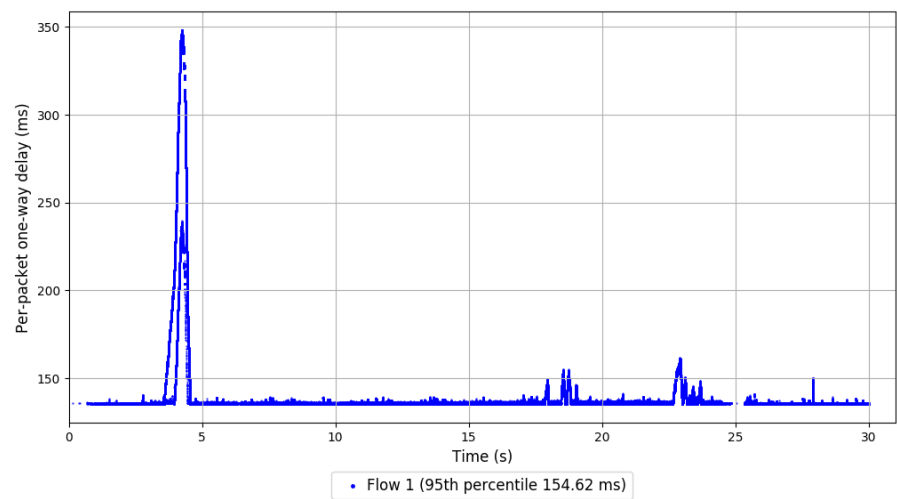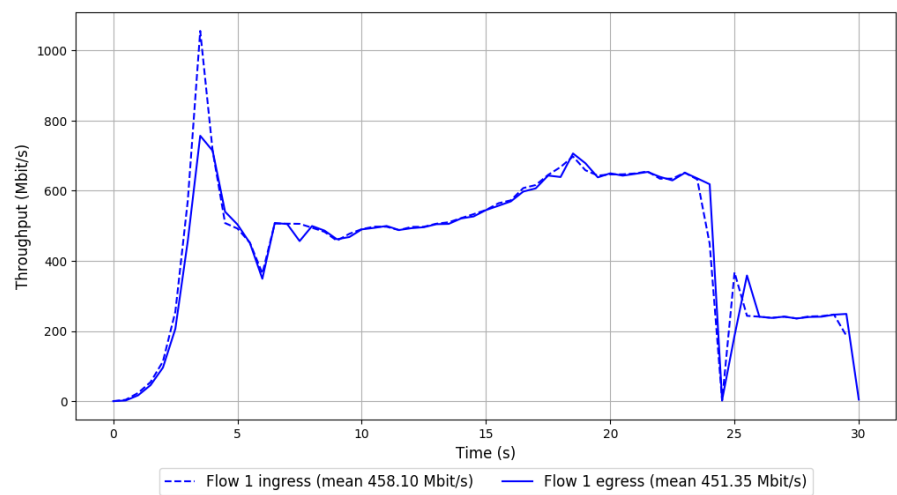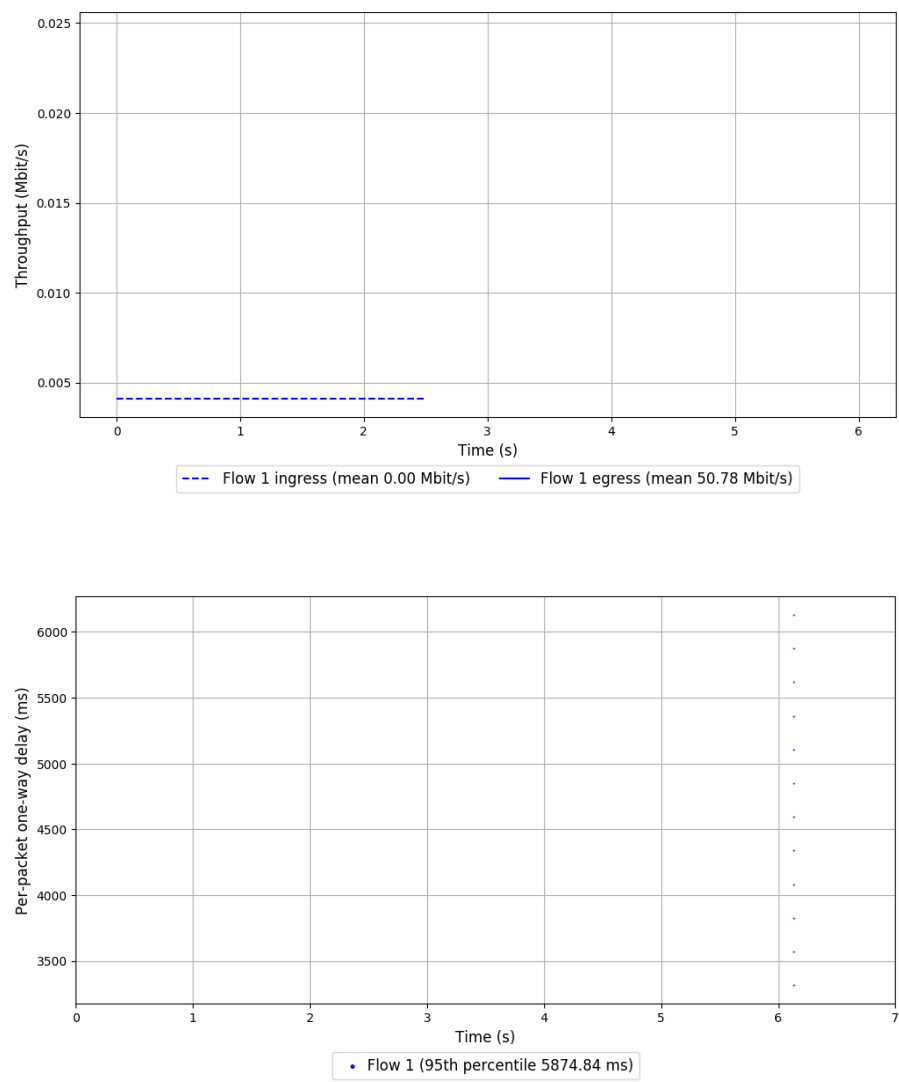
Run 2: Report of PCC — Data Link

```
Run 3: Statistics of PCC

Start at: 2017-09-21 21:59:27
End at: 2017-09-21 21:59:57

# Below is generated by plot.py at 2017-09-22 00:03:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 493.66 Mbit/s
95th percentile per-packet one-way delay: 145.294 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 493.66 Mbit/s
95th percentile per-packet one-way delay: 145.294 ms
Loss rate: 0.82%
```
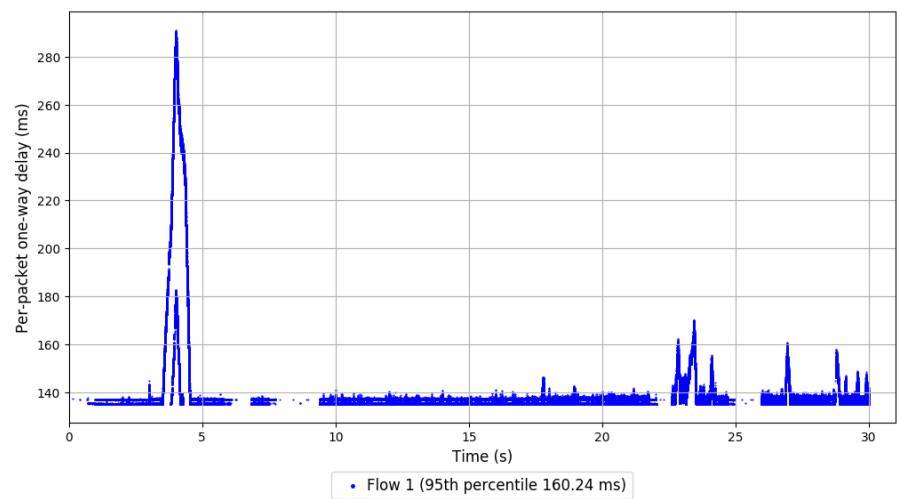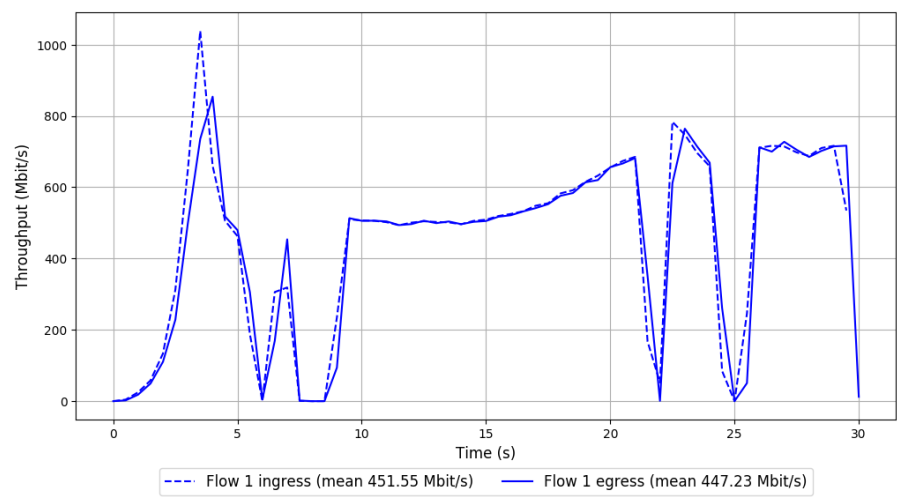
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 497.79 Mbit/s) — Flow 1 egress (mean 493.66 Mbit/s)

• Flow 1 (95th percentile 145.29 ms)

```
Run 4: Statistics of PCC

Start at: 2017-09-21 22:10:47
End at: 2017-09-21 22:11:17


# Below is generated by plot.py at 2017-09-22 00:03:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 451.35 Mbit/s
95th percentile per-packet one-way delay: 154.625 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 451.35 Mbit/s
95th percentile per-packet one-way delay: 154.625 ms
Loss rate: 1.48%
```
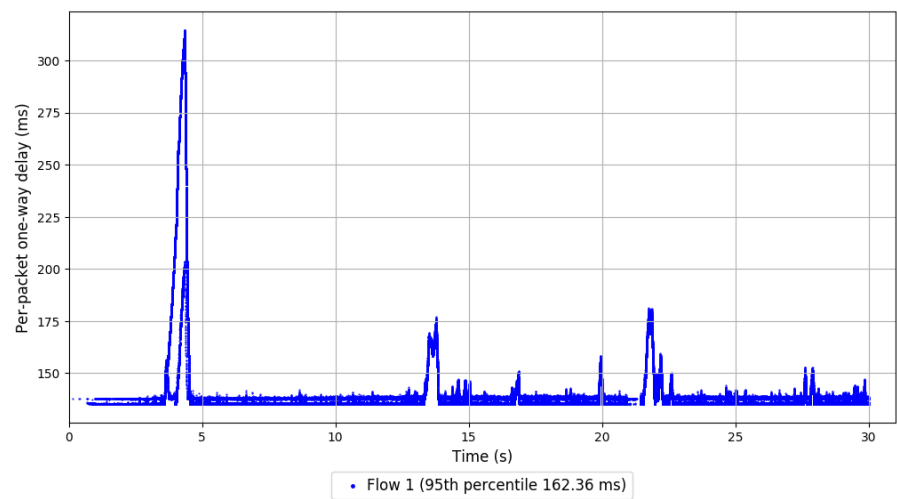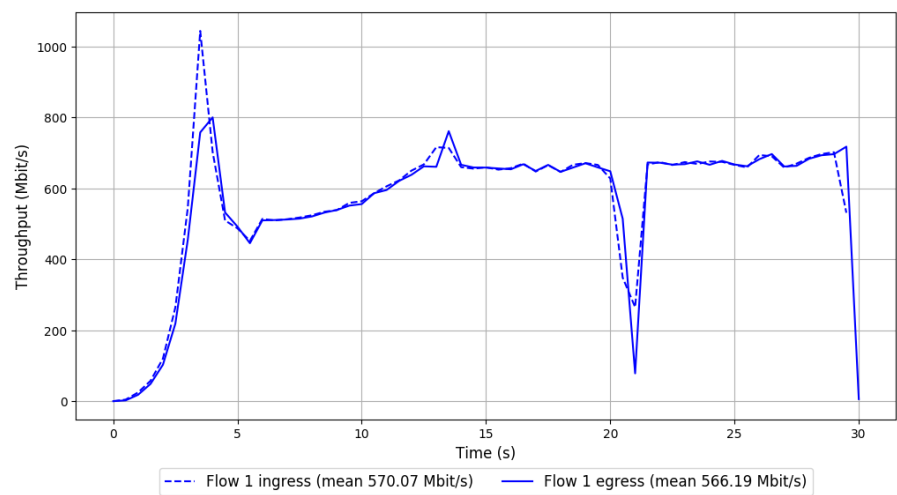
Run 4: Report of PCC — Data Link

Run 5: Statistics of PCC

Start at: 2017-09-21 22:22:05
End at: 2017-09-21 22:22:35

Run 5: Report of PCC — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 50.78 Mbit/s)

Flow 1 (95th percentile 5874.84 ms)

```
Run 6: Statistics of PCC

Start at: 2017-09-21 22:33:05
End at: 2017-09-21 22:33:35

# Below is generated by plot.py at 2017-09-22 00:03:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 447.23 Mbit/s
95th percentile per-packet one-way delay: 160.242 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 447.23 Mbit/s
95th percentile per-packet one-way delay: 160.242 ms
Loss rate: 0.96%
```
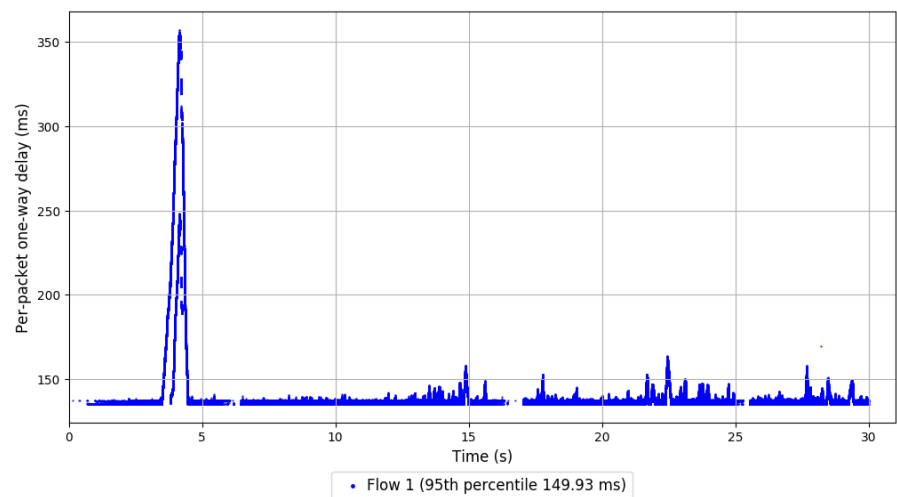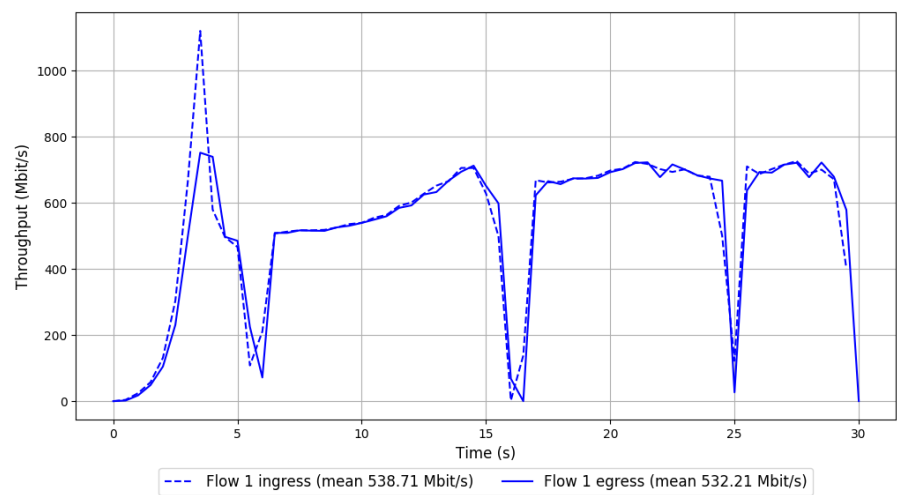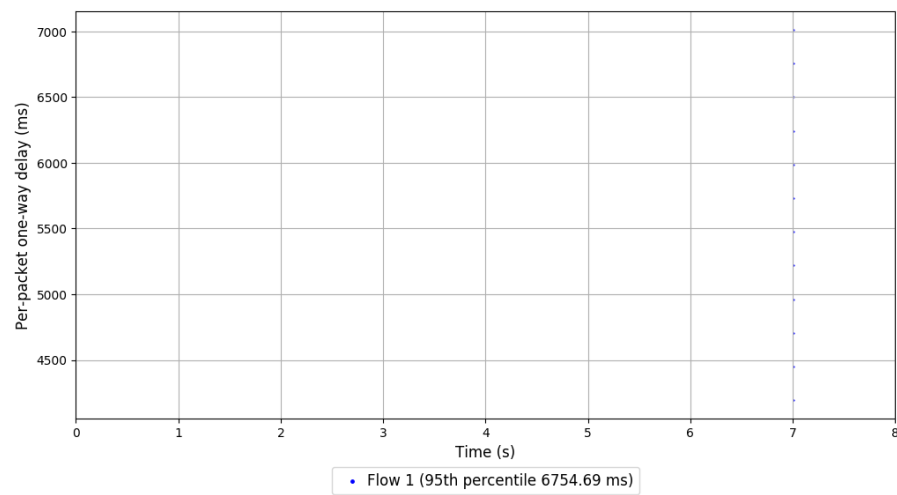
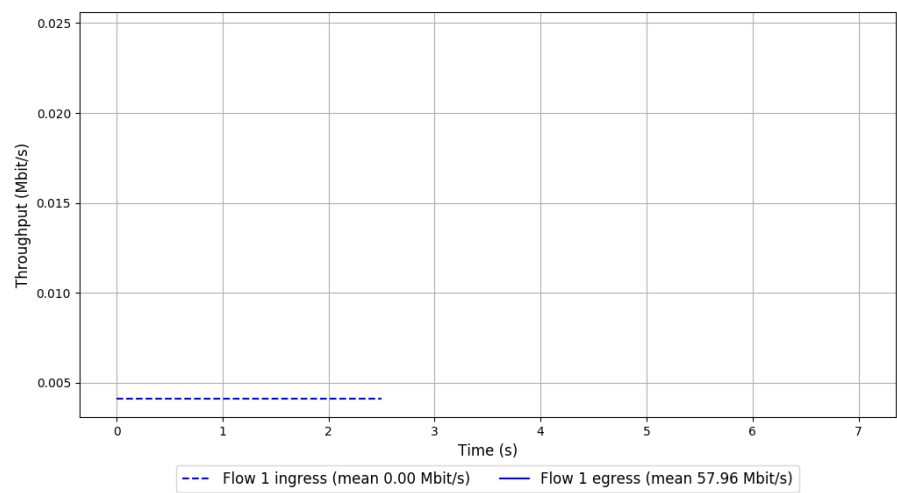# Run 6: Report of PCC — Data Link

Flow 1 ingress (mean 451.55 Mbit/s) — — — Flow 1 egress (mean 447.23 Mbit/s)

• Flow 1 (95th percentile 160.24 ms)

75

```
Run 7: Statistics of PCC

Start at: 2017-09-21 22:44:20
End at: 2017-09-21 22:44:50

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 566.19 Mbit/s
95th percentile per-packet one-way delay: 162.359 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 566.19 Mbit/s
95th percentile per-packet one-way delay: 162.359 ms
Loss rate: 0.68%
```
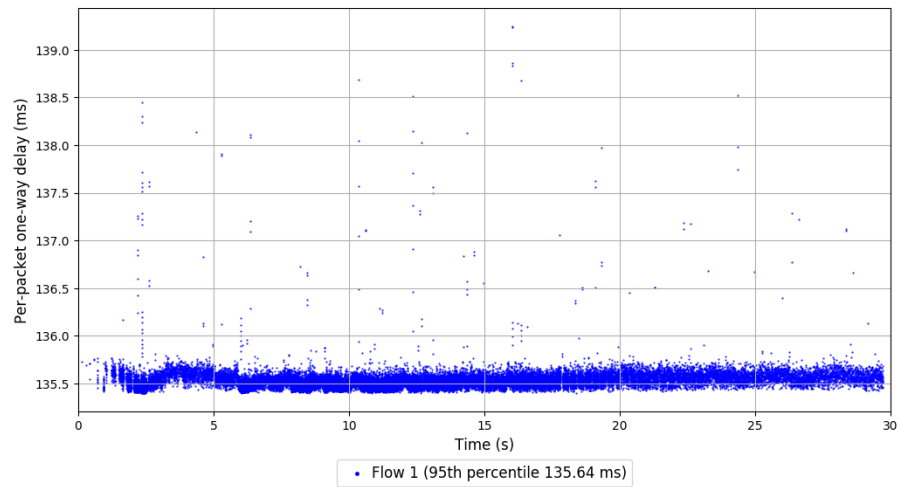
Run 7: Report of PCC — Data Link

Flow 1 ingress (mean 570.07 Mbit/s) Flow 1 egress (mean 566.19 Mbit/s)

Flow 1 (95th percentile 162.36 ms)
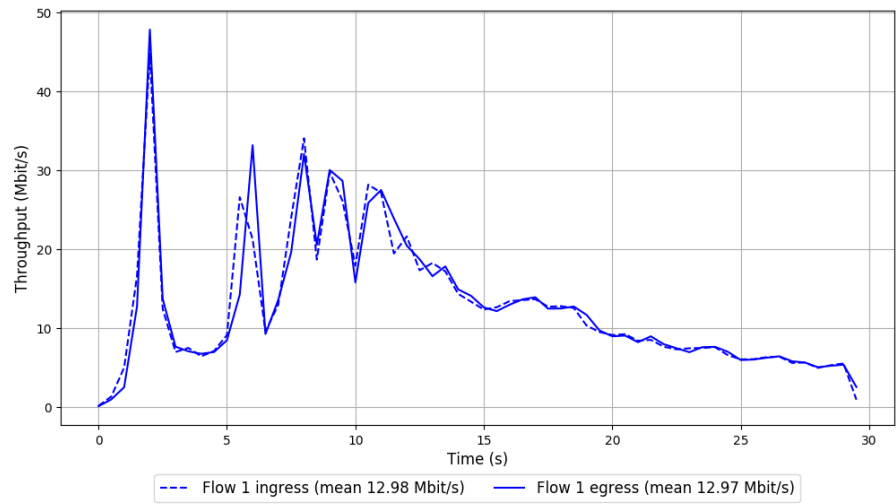
```
Run 8: Statistics of PCC

Start at: 2017-09-21 22:55:47
End at: 2017-09-21 22:56:17


# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 532.21 Mbit/s
95th percentile per-packet one-way delay: 149.930 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 532.21 Mbit/s
95th percentile per-packet one-way delay: 149.930 ms
Loss rate: 1.21%
```
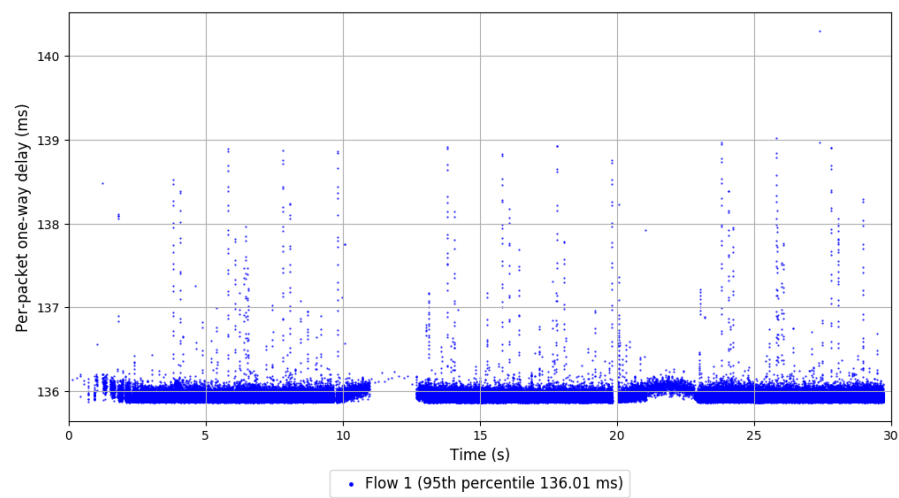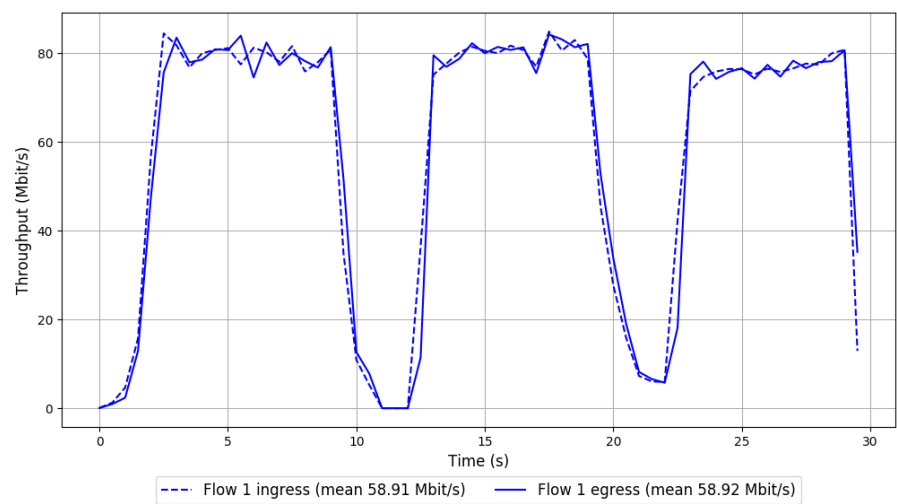
Run 8: Report of PCC — Data Link

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Run 9: Statistics of PCC

Start at: 2017-09-21 23:06:44
End at: 2017-09-21 23:07:15

Run 9: Report of PCC — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) —— Flow 1 egress (mean 57.96 Mbit/s)

• Flow 1 (95th percentile 6754.69 ms)

Run 10: Statistics of PCC

Start at: 2017-09-21 23:17:18
End at: 2017-09-21 23:17:48

Run 10: Report of PCC — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) — Flow 1 egress (mean 37.24 Mbit/s)

Flow 1 (95th percentile 9783.31 ms)

```
Run 1: Statistics of QUIC Cubic

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

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.97 Mbit/s
95th percentile per-packet one-way delay: 135.642 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 12.97 Mbit/s
95th percentile per-packet one-way delay: 135.642 ms
Loss rate: 0.11%
```
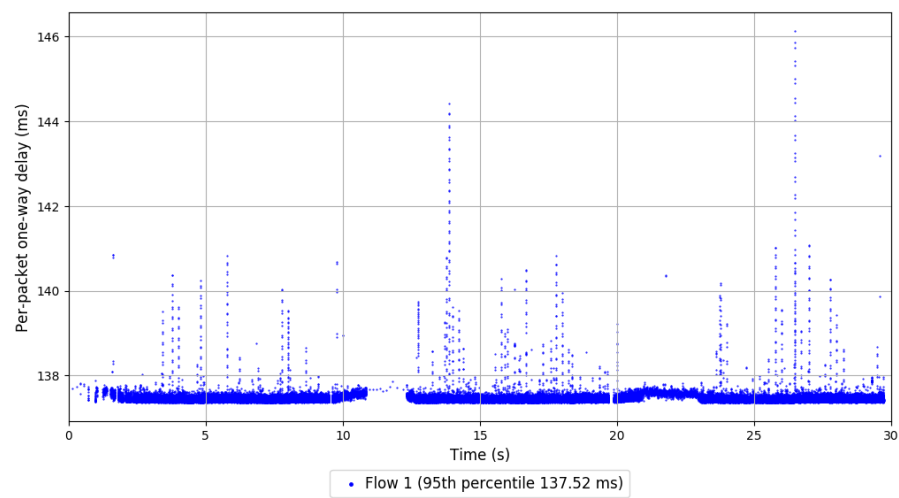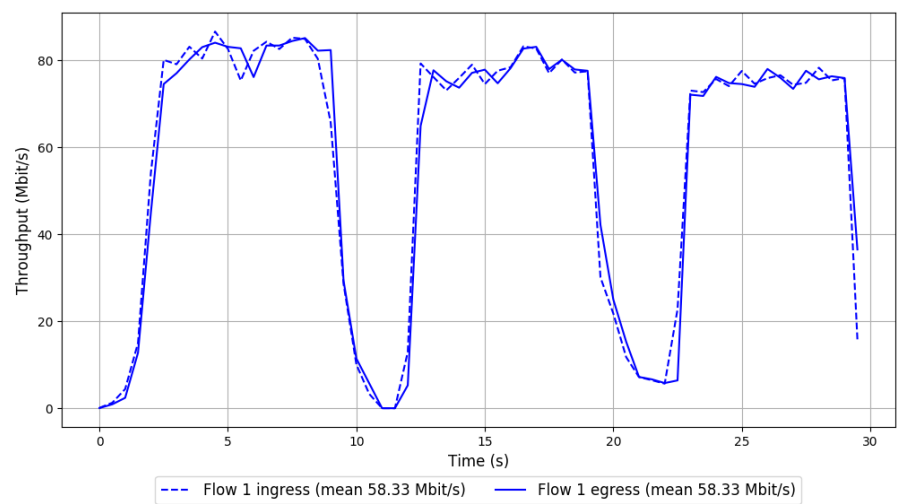
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-09-21 21:51:37
End at: 2017-09-21 21:52:07

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 136.014 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 136.014 ms
Loss rate: 0.00%
```
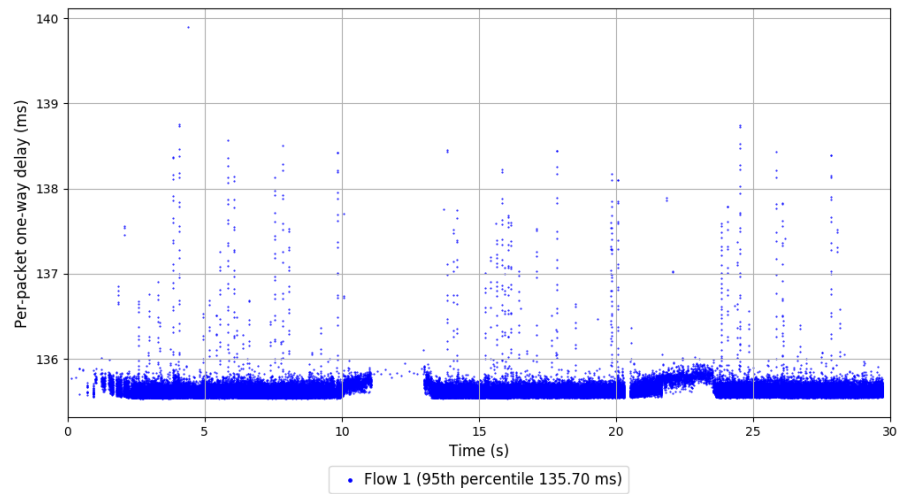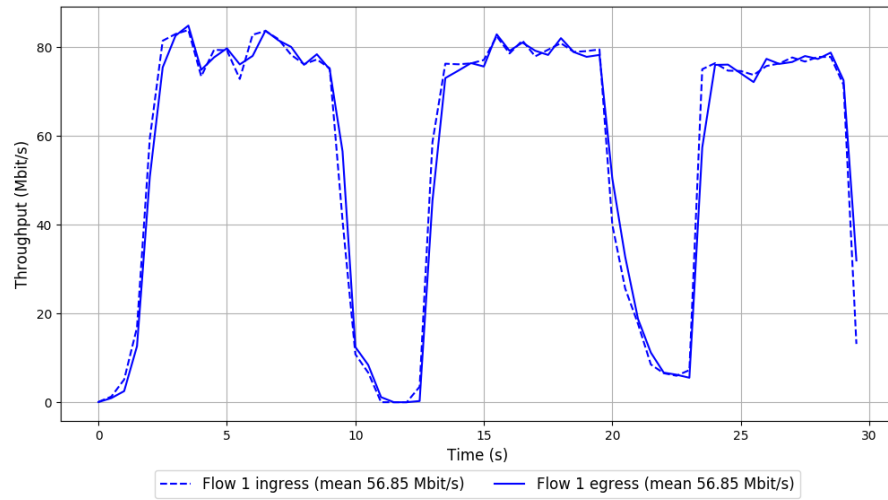
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 58.91 Mbit/s)   —— Flow 1 egress (mean 58.92 Mbit/s)

· Flow 1 (95th percentile 136.01 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2017-09-21 22:02:47
End at: 2017-09-21 22:03:17


# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.33 Mbit/s
95th percentile per-packet one-way delay: 137.524 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.33 Mbit/s
95th percentile per-packet one-way delay: 137.524 ms
Loss rate: 0.00%
```
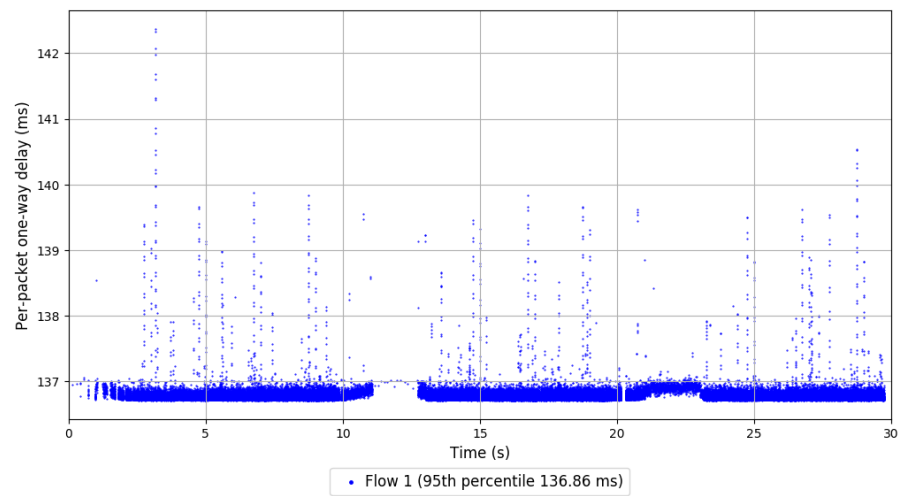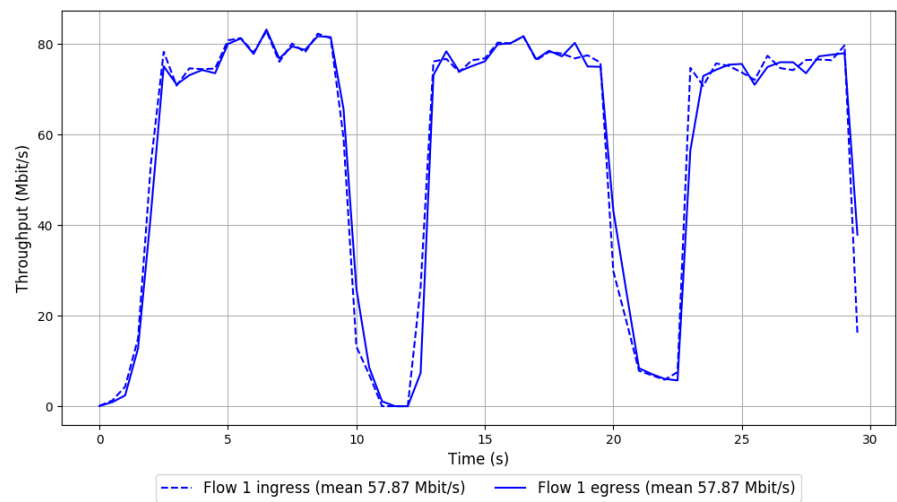
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 58.33 Mbit/s)   Flow 1 egress (mean 58.33 Mbit/s)

Flow 1 (95th percentile 137.52 ms)

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```
Run 4: Statistics of QUIC Cubic

Start at: 2017-09-21 22:14:25
End at: 2017-09-21 22:14:55

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 135.696 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 135.696 ms
Loss rate: 0.00%
```
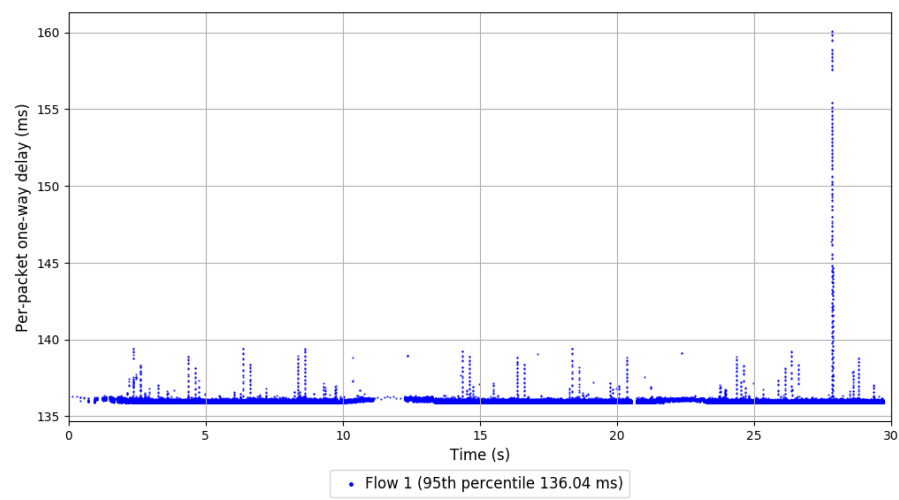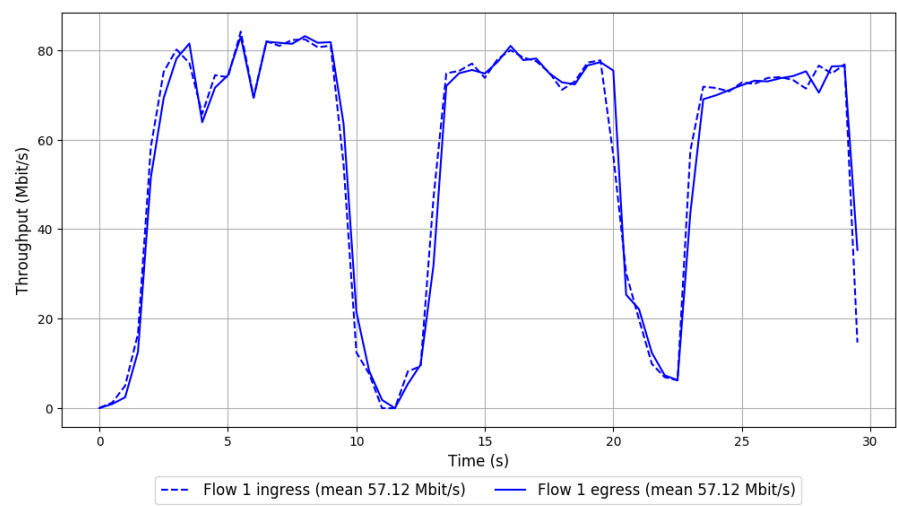
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 56.85 Mbit/s) ----- Flow 1 egress (mean 56.85 Mbit/s)

• Flow 1 (95th percentile 135.70 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2017-09-21 22:25:16
End at: 2017-09-21 22:25:46


# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 136.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 136.856 ms
Loss rate: 0.00%
```
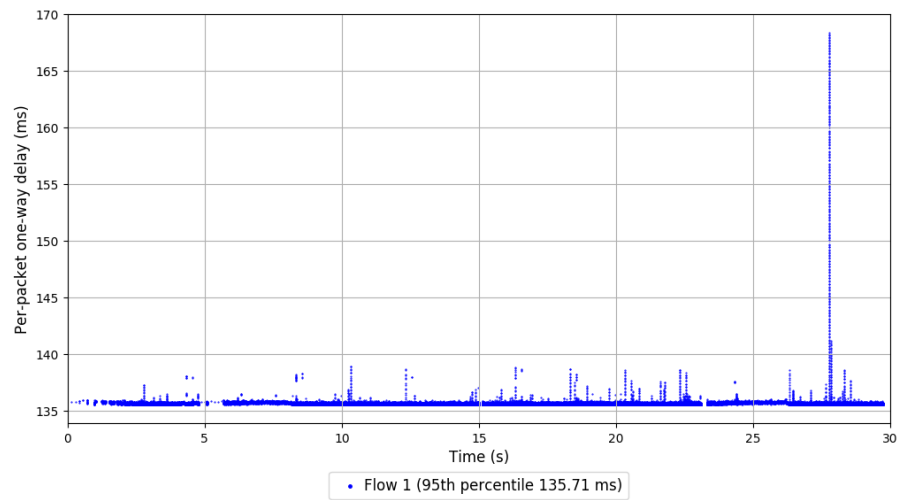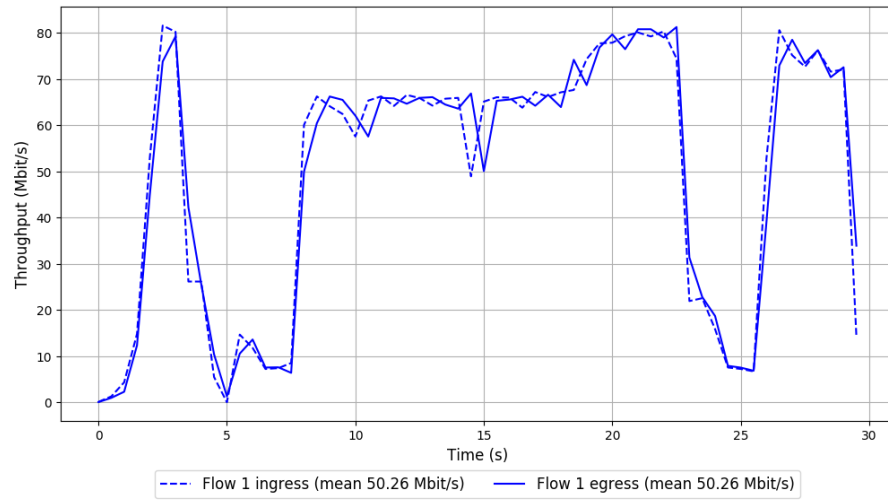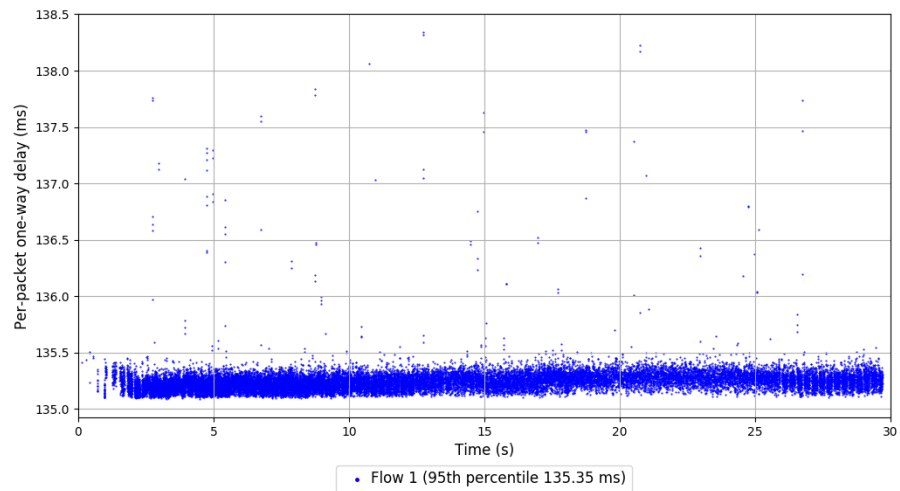
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 57.87 Mbit/s) ----- Flow 1 egress (mean 57.87 Mbit/s) —————

Flow 1 (95th percentile 136.86 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2017-09-21 22:36:20
End at: 2017-09-21 22:36:50

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.12 Mbit/s
95th percentile per-packet one-way delay: 136.043 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.12 Mbit/s
95th percentile per-packet one-way delay: 136.043 ms
Loss rate: 0.00%
```
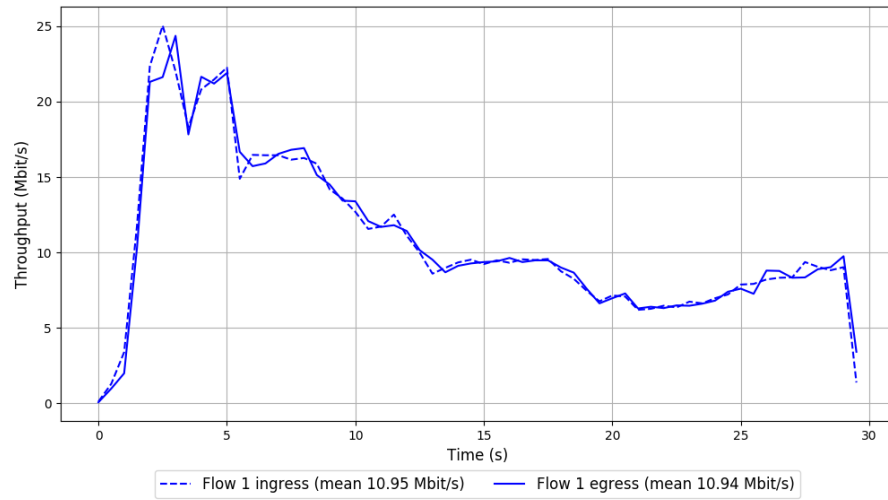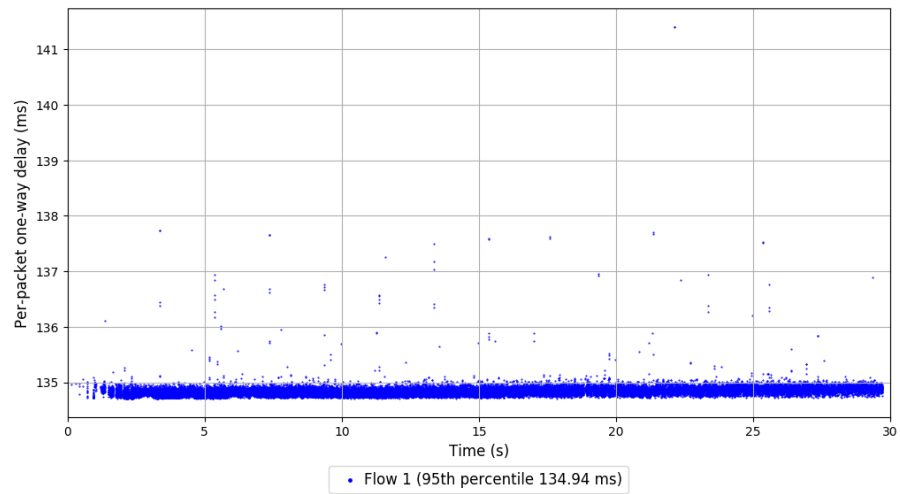
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 57.12 Mbit/s) --- Flow 1 egress (mean 57.12 Mbit/s)

• Flow 1 (95th percentile 136.04 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2017-09-21 22:47:42
End at: 2017-09-21 22:48:12

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 135.709 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 135.709 ms
Loss rate: 0.00%
```
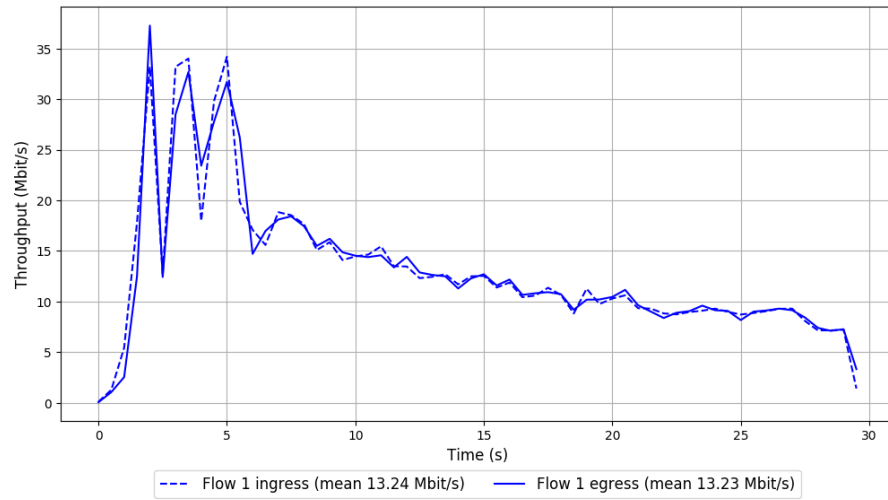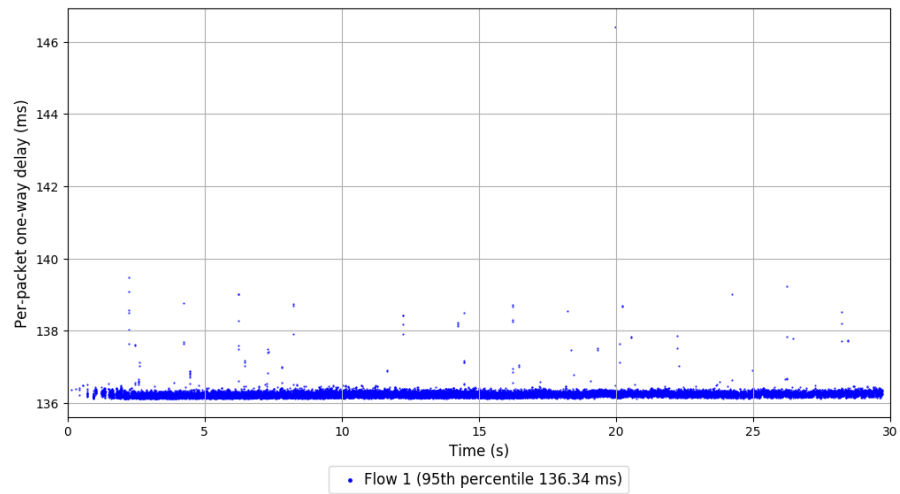
Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2017-09-21 22:59:08
End at: 2017-09-21 22:59:38

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 135.352 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 135.352 ms
Loss rate: 0.09%
```
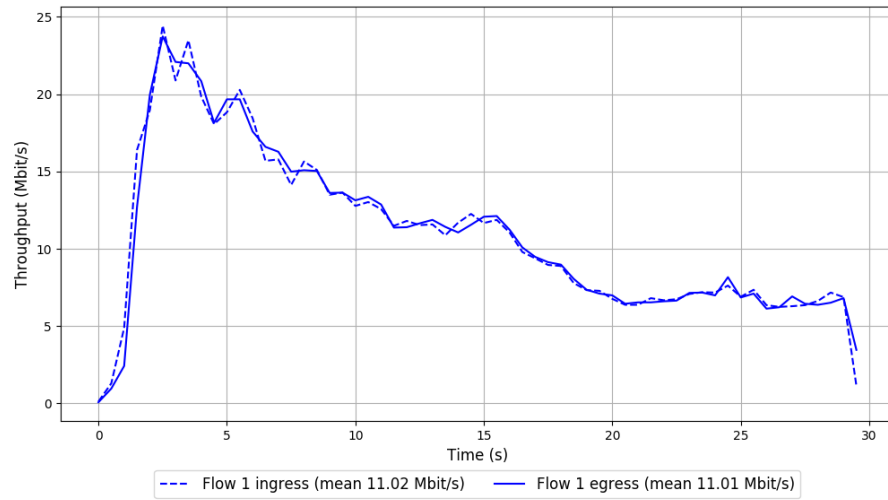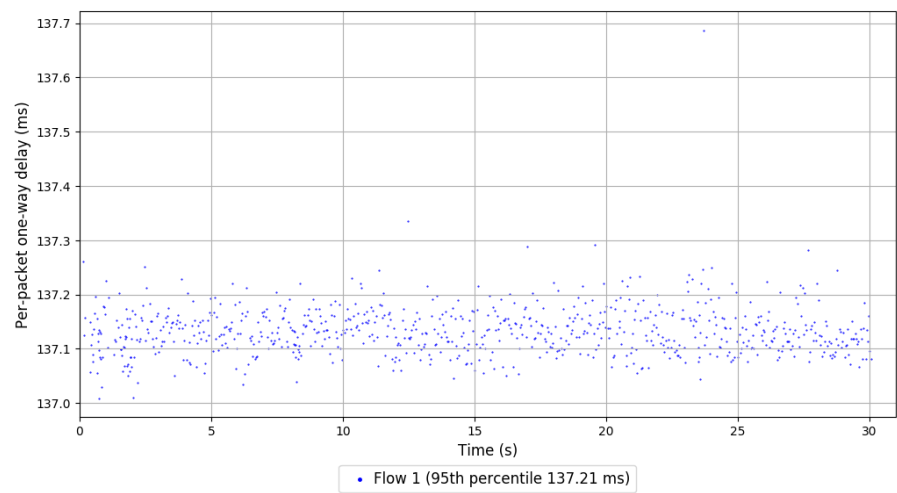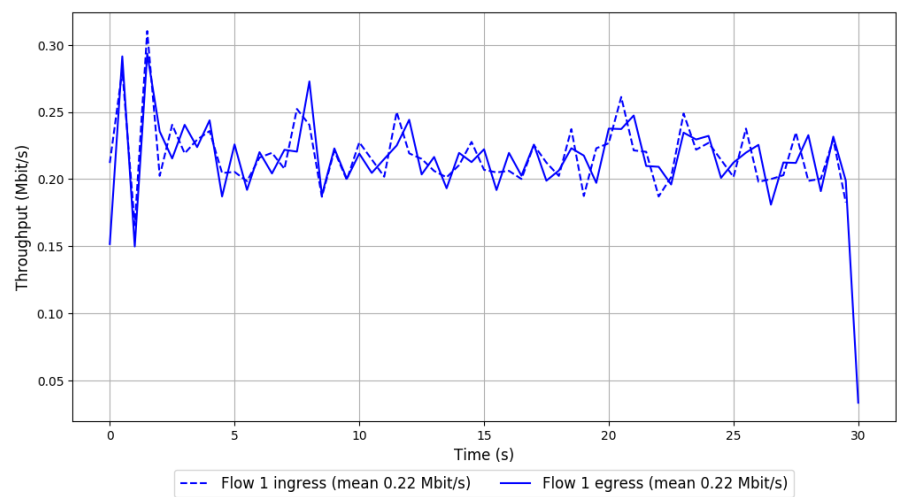
Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 10.95 Mbit/s) --- Flow 1 egress (mean 10.94 Mbit/s)
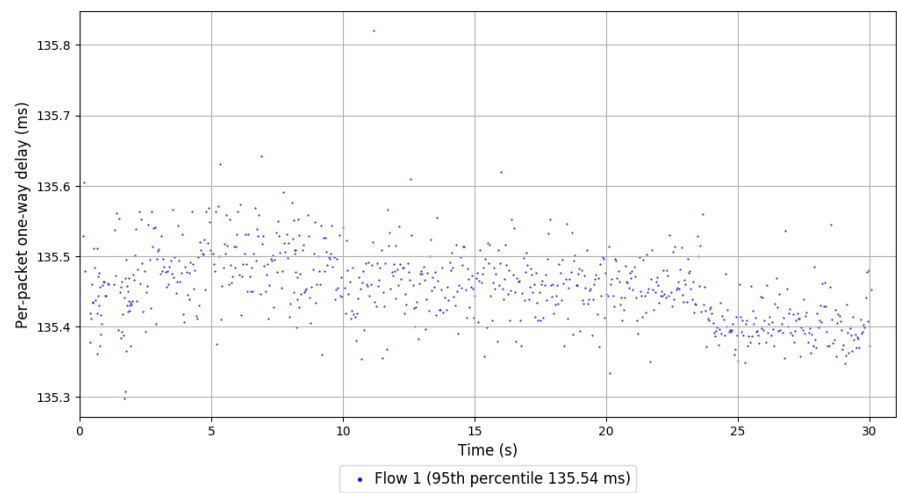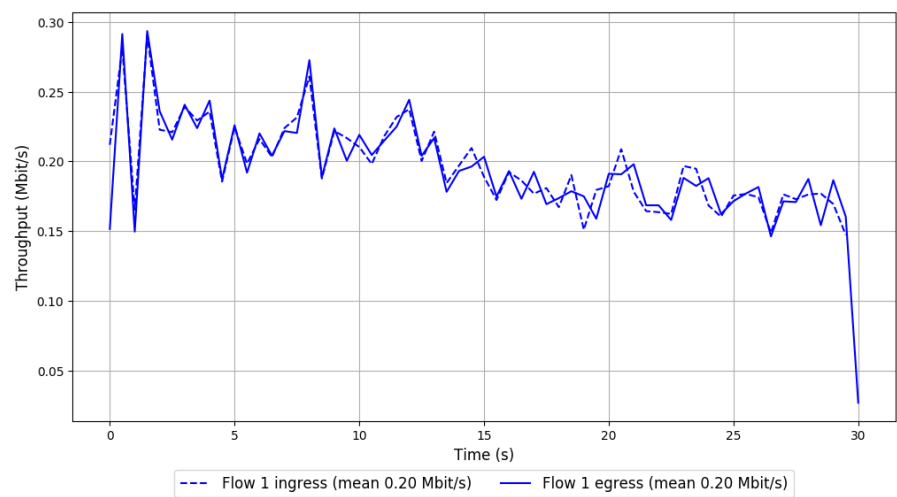

Flow 1 (95th percentile 135.35 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2017-09-21 23:09:41
End at: 2017-09-21 23:10:11

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 134.941 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 134.941 ms
Loss rate: 0.09%
```

Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 13.24 Mbit/s) —— Flow 1 egress (mean 13.23 Mbit/s)

• Flow 1 (95th percentile 134.94 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-21 23:20:20
End at: 2017-09-21 23:20:50

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.01 Mbit/s
95th percentile per-packet one-way delay: 136.339 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 11.01 Mbit/s
95th percentile per-packet one-way delay: 136.339 ms
Loss rate: 0.10%
```
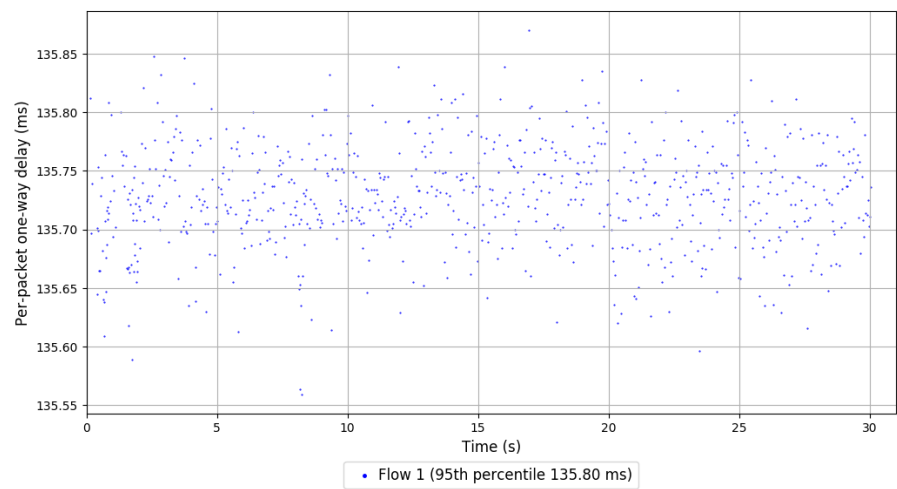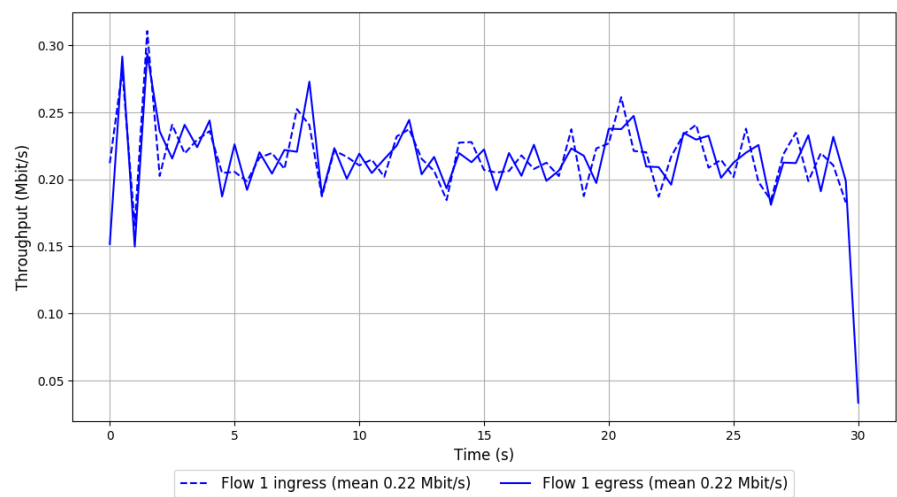
Run 10: Report of QUIC Cubic — Data Link

Throughput (Mbit/s) vs Time (s)

--- Flow 1 ingress (mean 11.02 Mbit/s) —— Flow 1 egress (mean 11.01 Mbit/s)

Per-packet one-way delay (ms) vs Time (s)

• Flow 1 (95th percentile 136.34 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-09-21 21:35:38
End at: 2017-09-21 21:36:08

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.207 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.207 ms
Loss rate: 0.00%
```
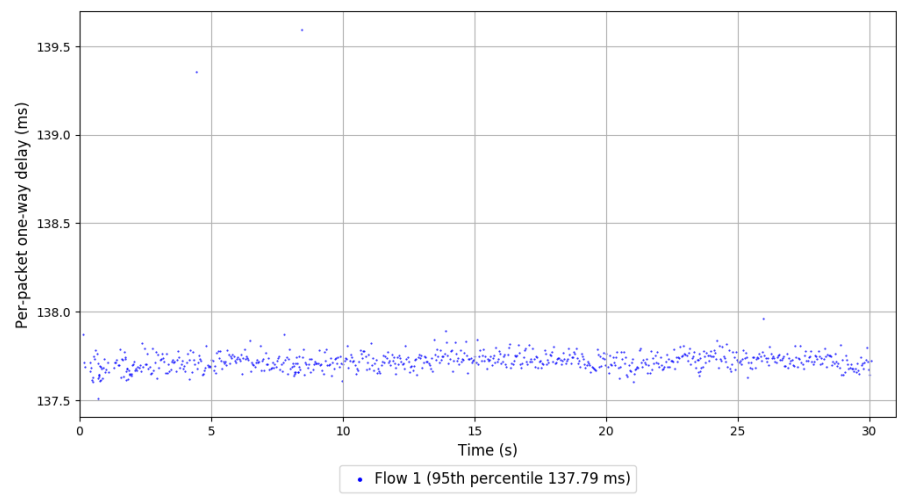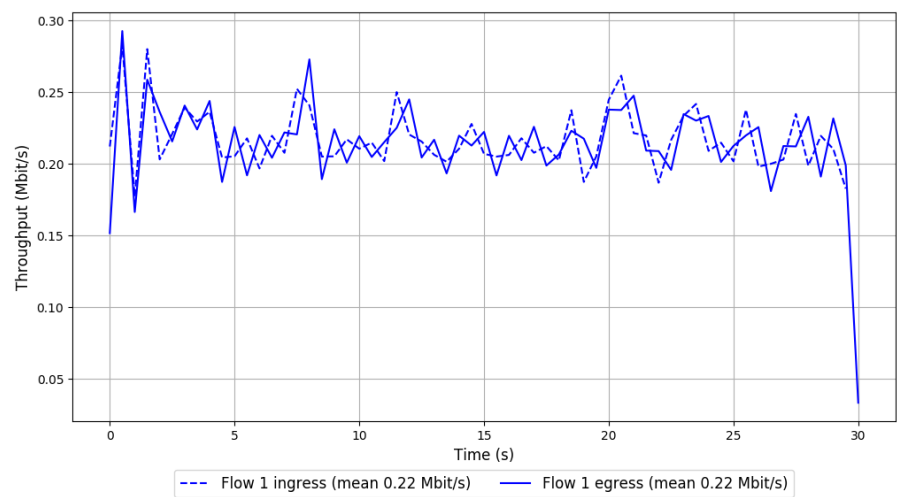
Run 1: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 137.21 ms)

```
Run 2: Statistics of SCReAM

Start at: 2017-09-21 21:46:31
End at: 2017-09-21 21:47:01

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 135.545 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 135.545 ms
Loss rate: 0.13%
```
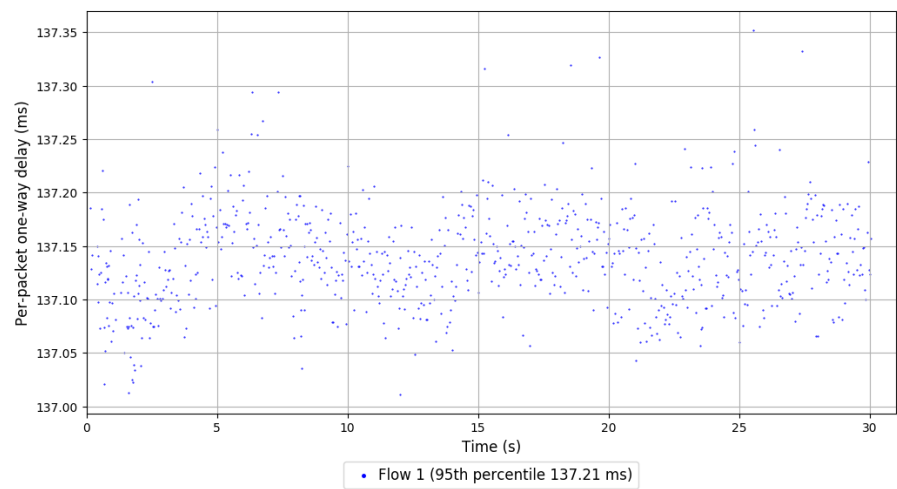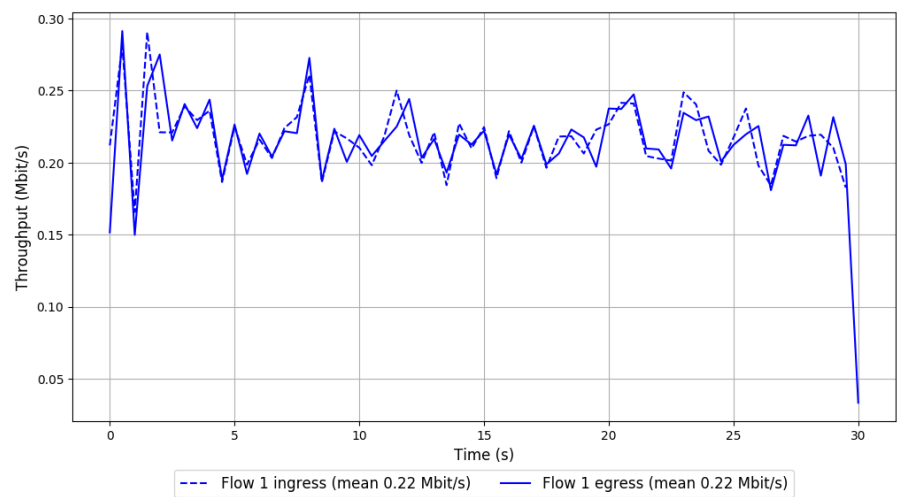
Run 2: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.20 Mbit/s)   Flow 1 egress (mean 0.20 Mbit/s)

Flow 1 (95th percentile 135.54 ms)

```
Run 3: Statistics of SCReAM

Start at: 2017-09-21 21:57:48
End at: 2017-09-21 21:58:18

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.798 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.798 ms
Loss rate: 0.00%
```
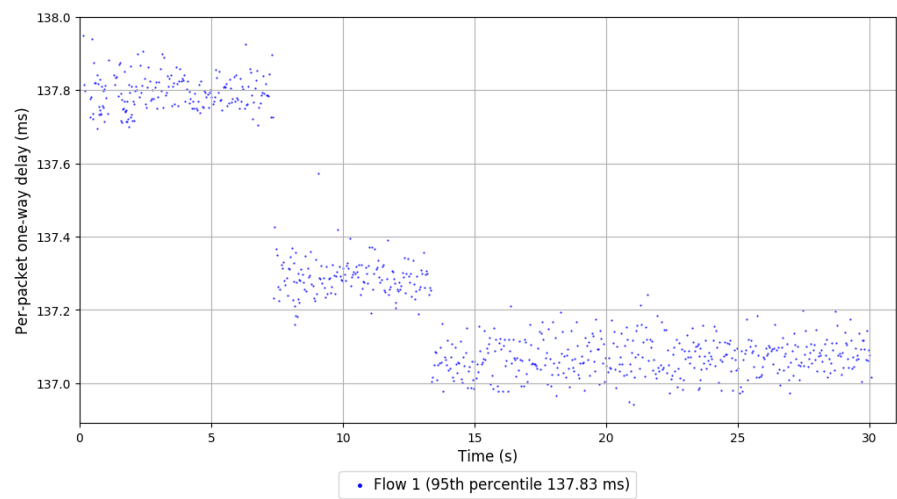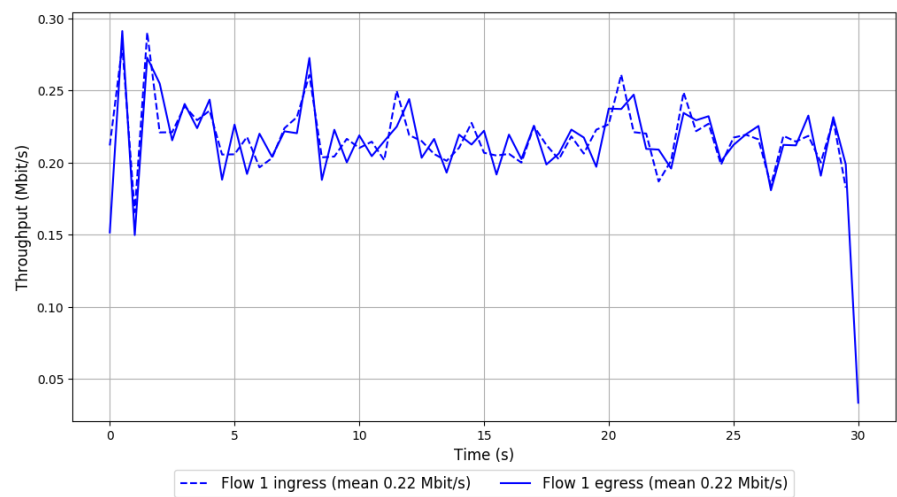
Run 3: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 135.80 ms)

```
Run 4: Statistics of SCReAM

Start at: 2017-09-21 22:09:01
End at: 2017-09-21 22:09:31

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.793 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.793 ms
Loss rate: 0.00%
```
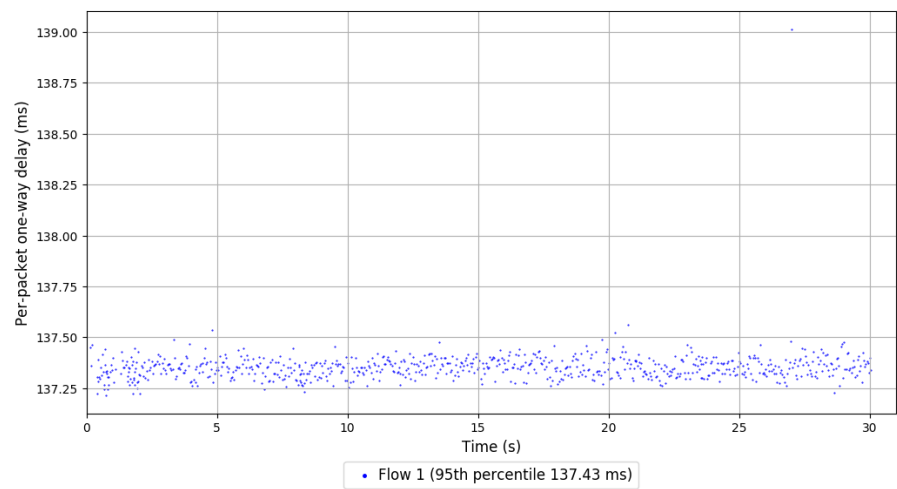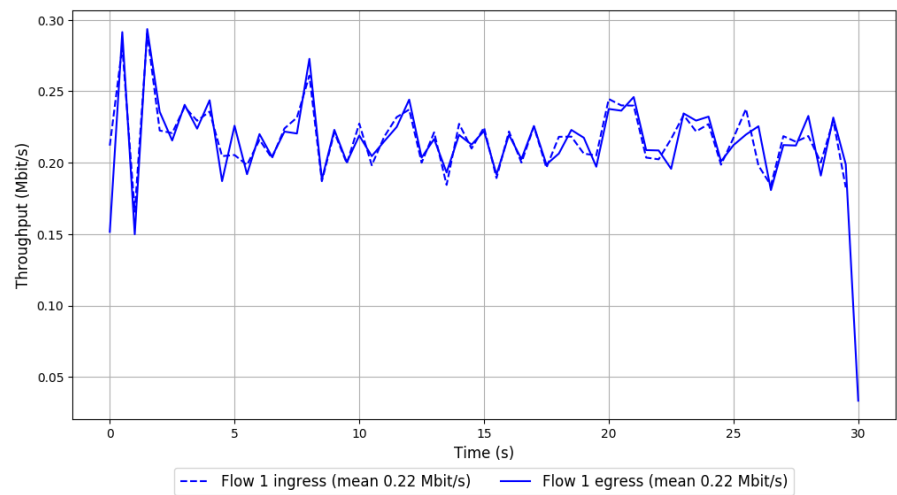
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2017-09-21 22:20:39
End at: 2017-09-21 22:21:09

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.207 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.207 ms
Loss rate: 0.00%
```
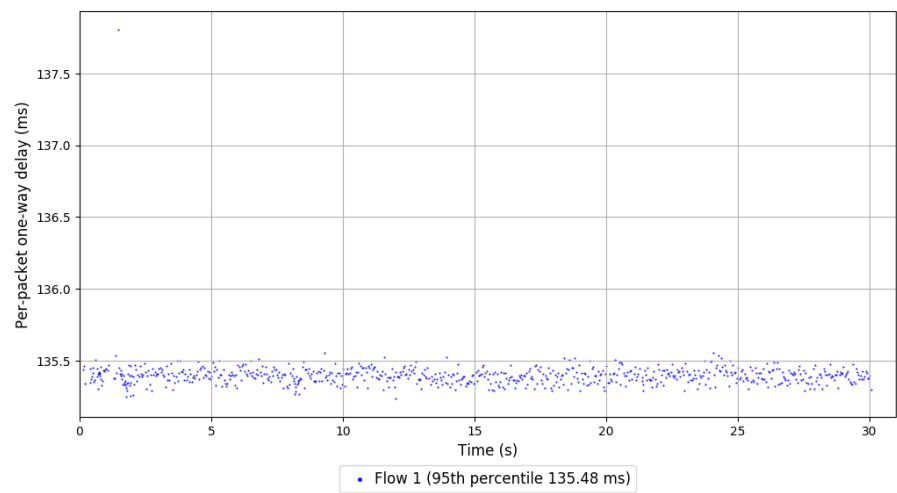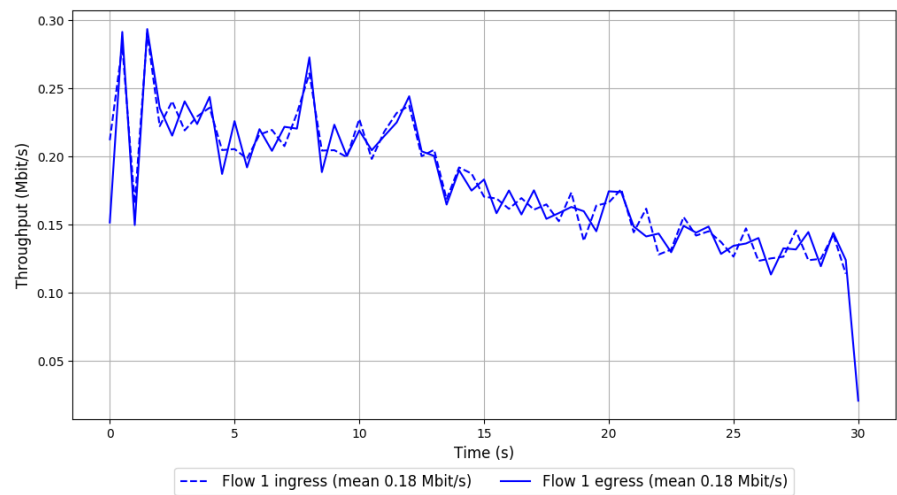
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2017-09-21 22:31:29
End at: 2017-09-21 22:31:59

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.831 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.831 ms
Loss rate: 0.00%
```
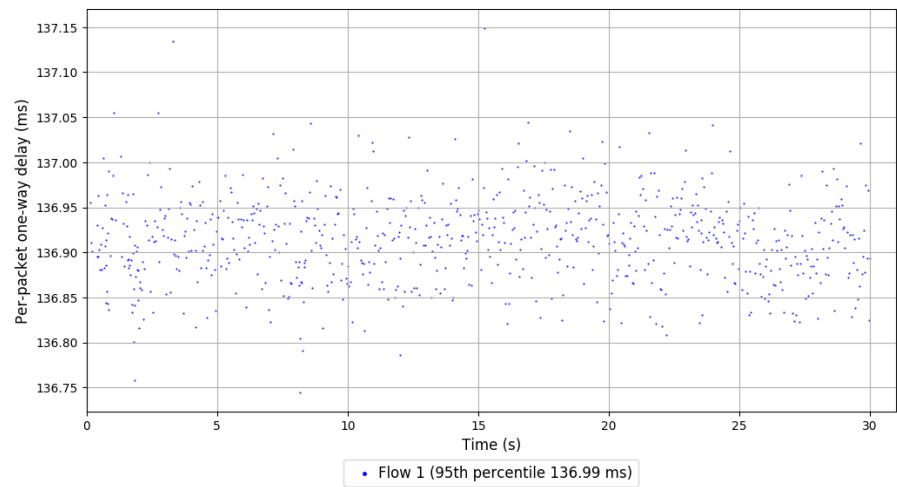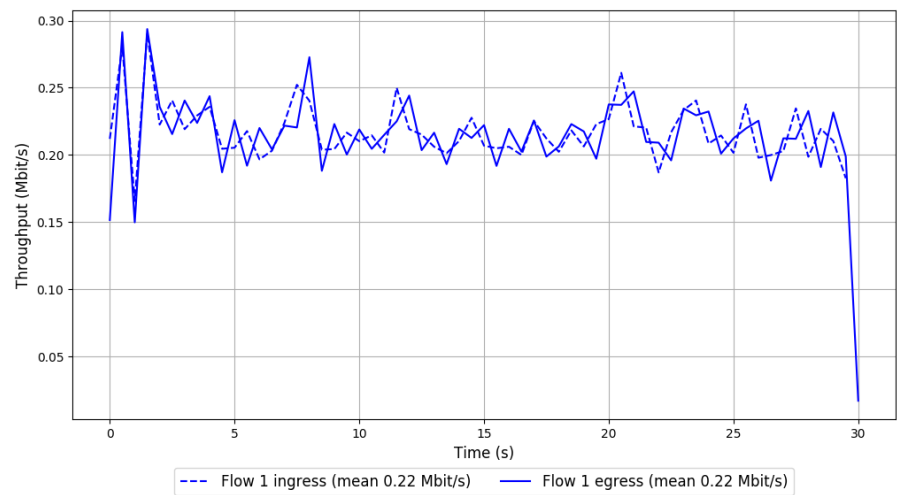
Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 137.83 ms)

```
Run 7: Statistics of SCReAM

Start at: 2017-09-21 22:42:33
End at: 2017-09-21 22:43:03

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.430 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.430 ms
Loss rate: 0.00%
```
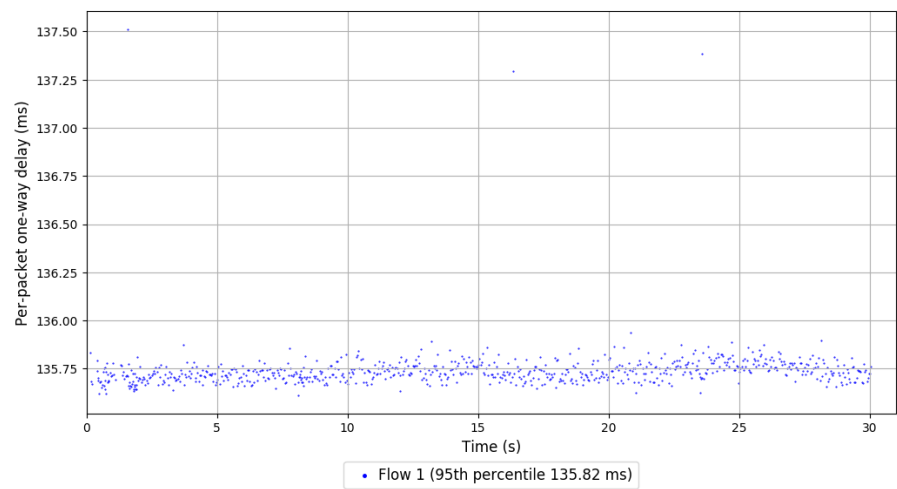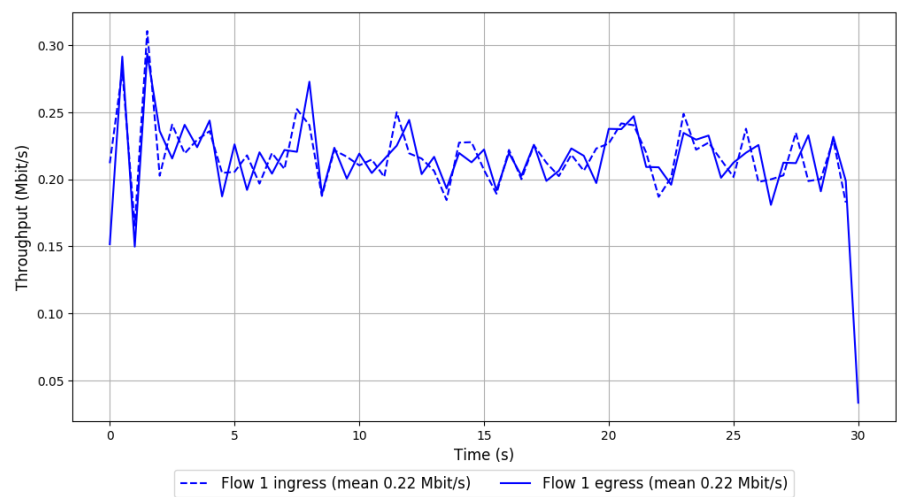
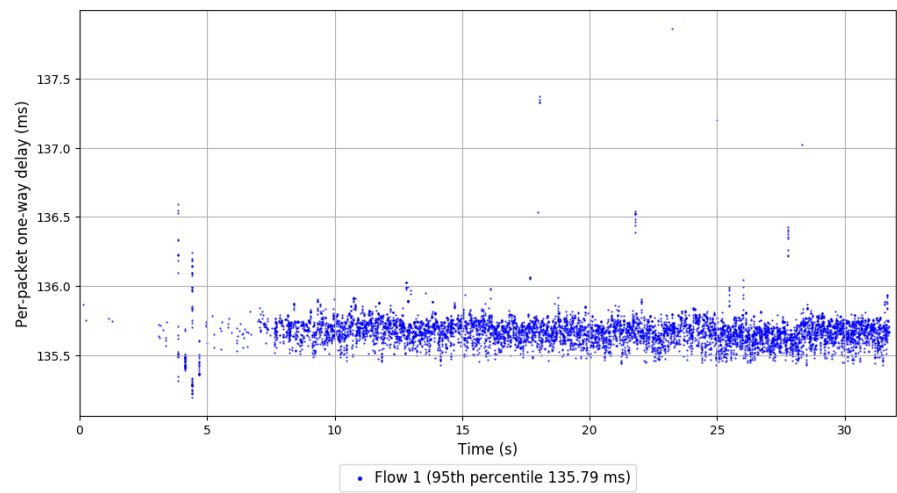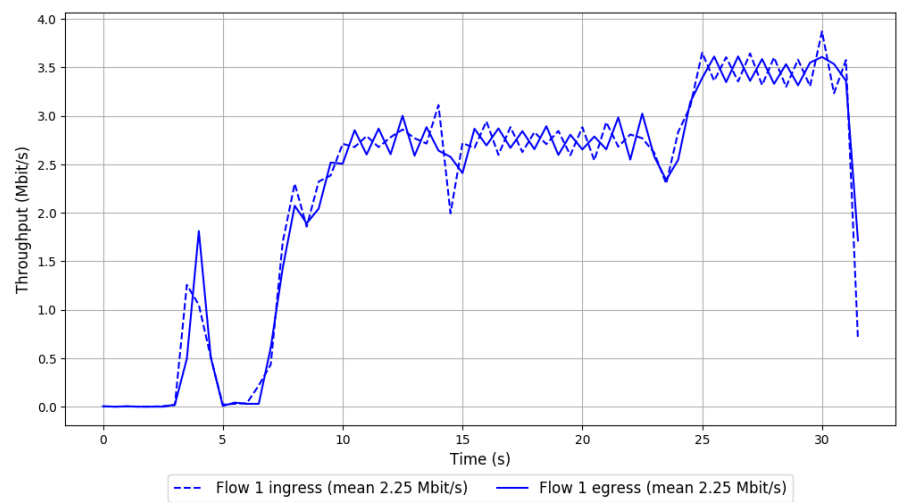Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2017-09-21 22:54:00
End at: 2017-09-21 22:54:30


# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 135.478 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 135.478 ms
Loss rate: 0.29%
```

Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2017-09-21 23:05:18
End at: 2017-09-21 23:05:48

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.990 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.990 ms
Loss rate: 0.13%
```
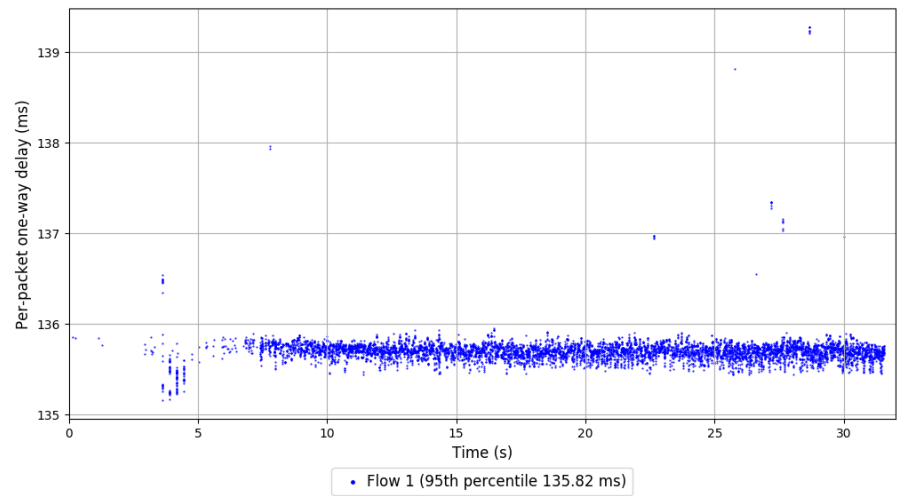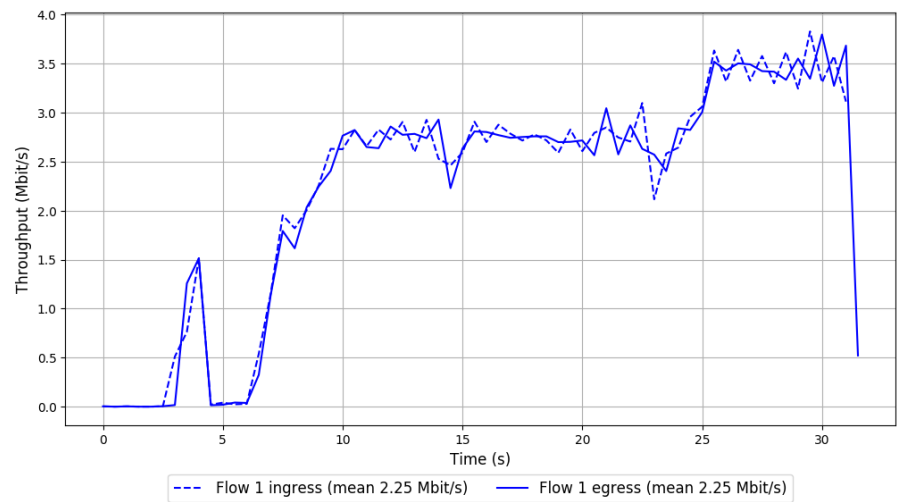
Run 9: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 136.99 ms)

```
Run 10: Statistics of SCReAM

Start at: 2017-09-21 23:15:52
End at: 2017-09-21 23:16:22

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 0.00%
```
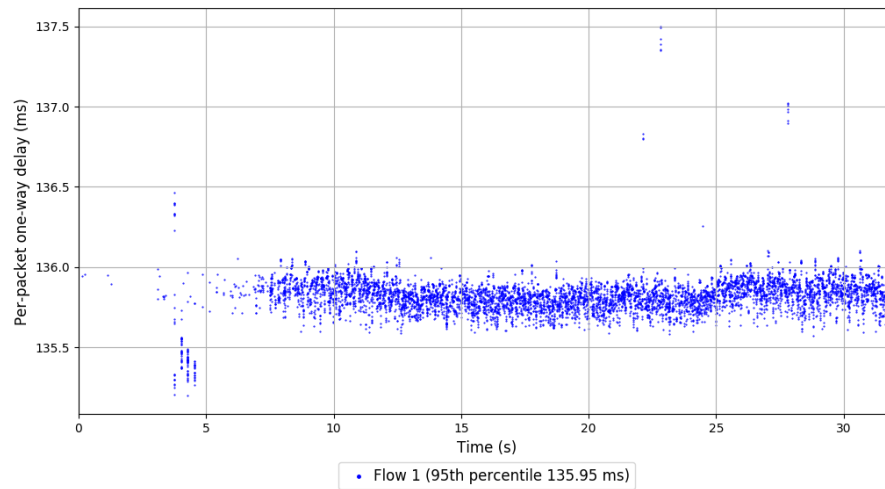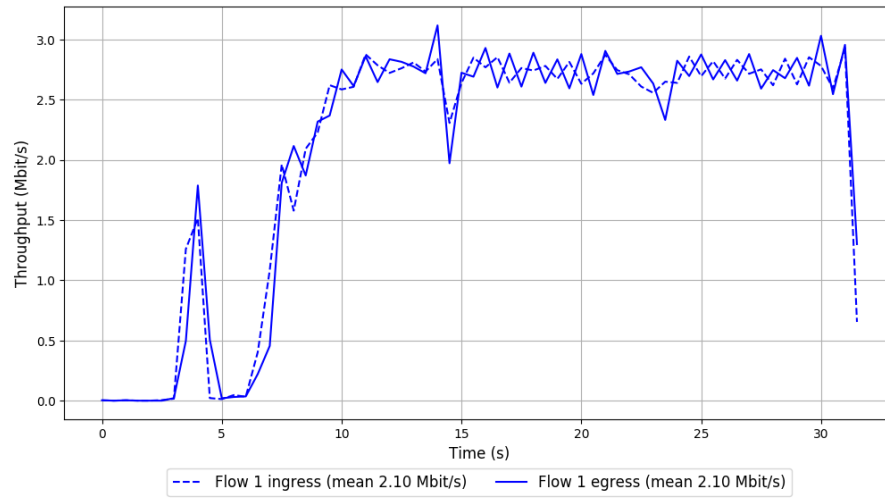
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2017-09-21 21:38:47
End at: 2017-09-21 21:39:17

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 135.794 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 135.794 ms
Loss rate: 0.11%
```
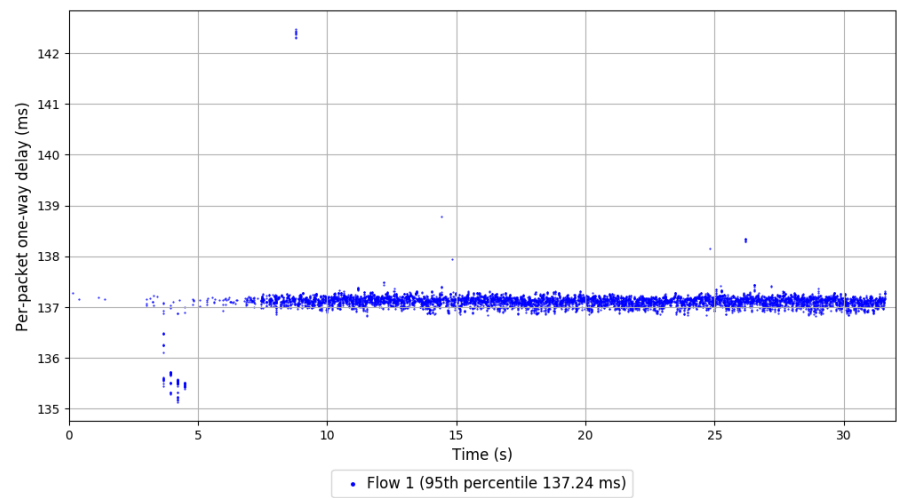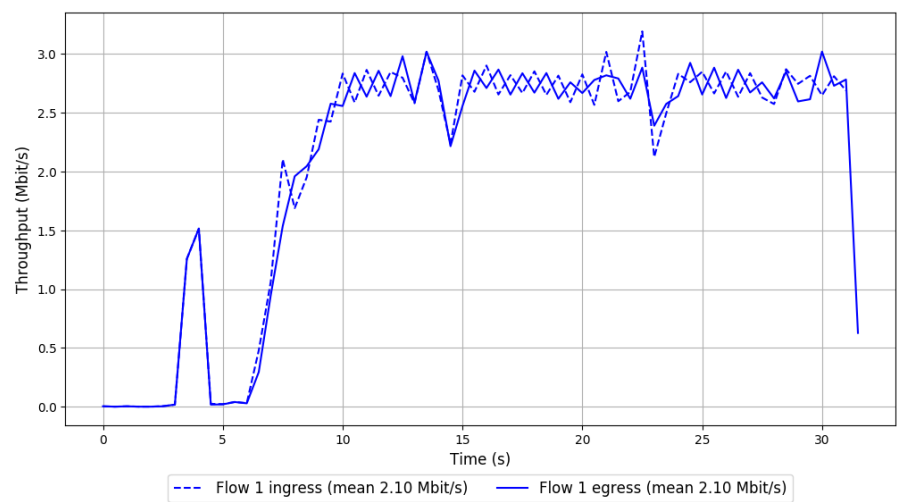
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2017-09-21 21:50:05
End at: 2017-09-21 21:50:35

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 135.818 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 135.818 ms
Loss rate: 0.04%
```
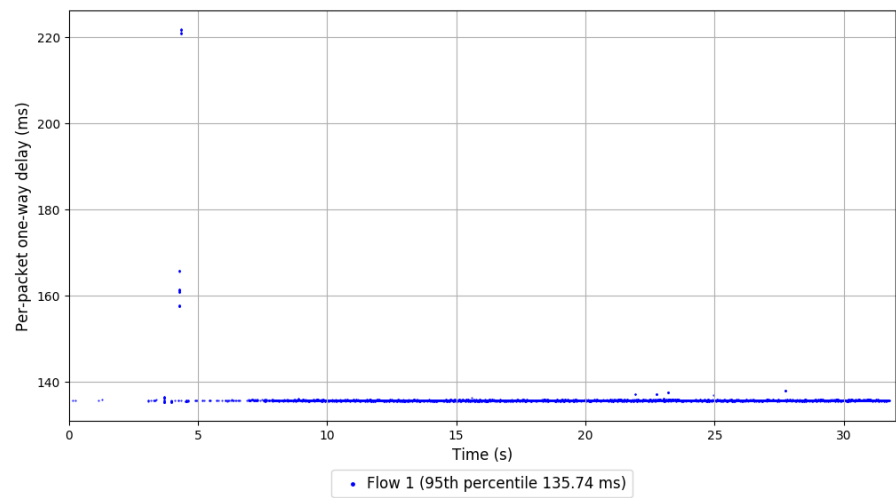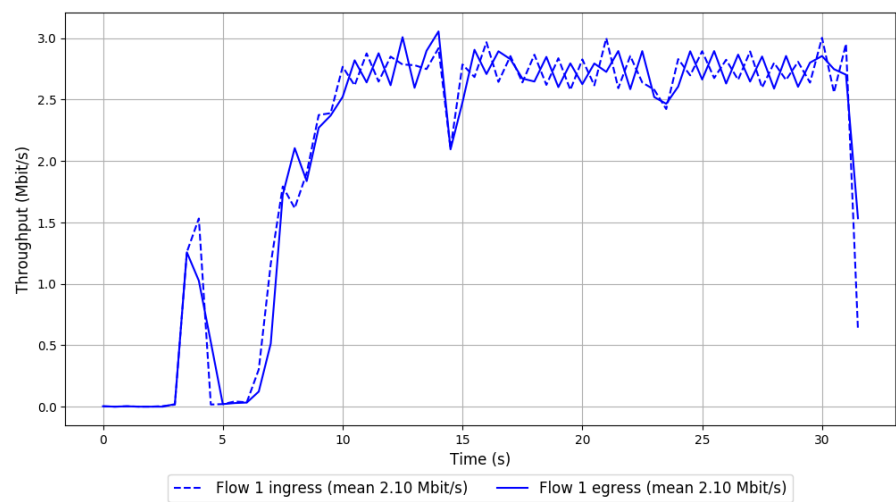
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2017-09-21 22:01:17
End at: 2017-09-21 22:01:47

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 135.953 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 135.953 ms
Loss rate: 0.00%
```
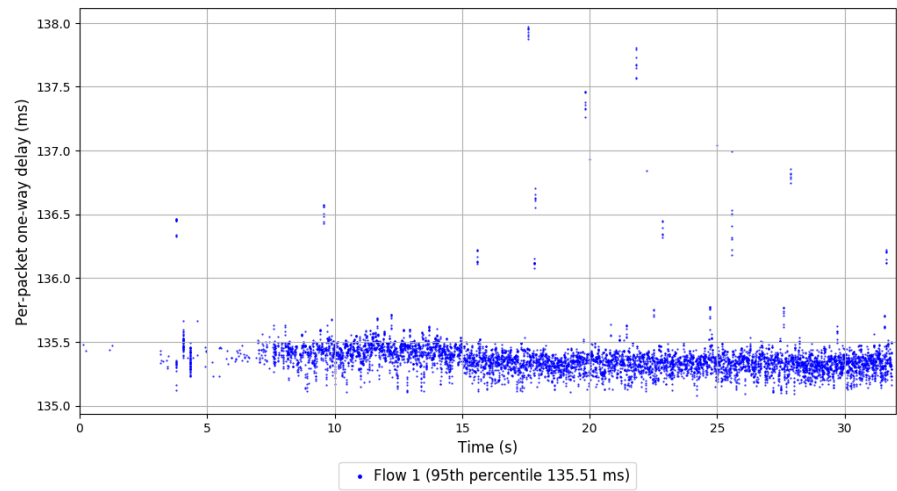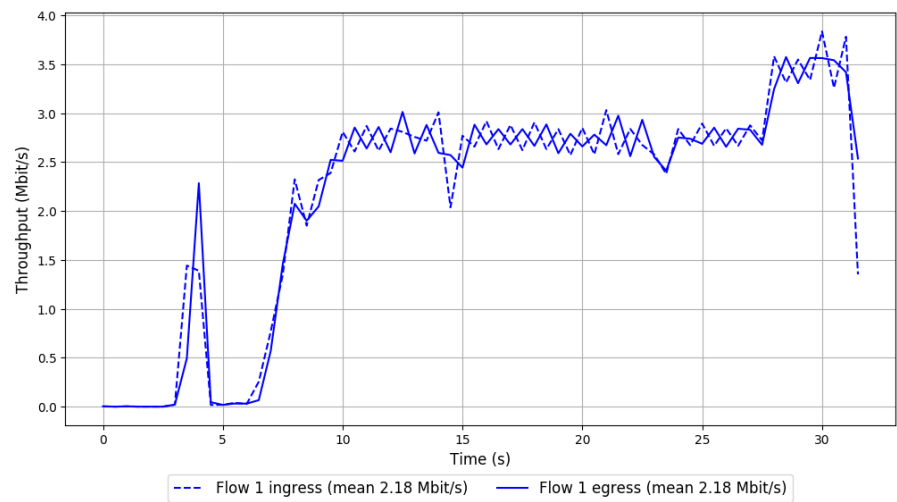
Run 3: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.10 Mbit/s)   Flow 1 egress (mean 2.10 Mbit/s)

Flow 1 (95th percentile 135.95 ms)

```
Run 4: Statistics of WebRTC media

Start at: 2017-09-21 22:12:34
End at: 2017-09-21 22:13:04

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 137.240 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 137.240 ms
Loss rate: 0.00%
```
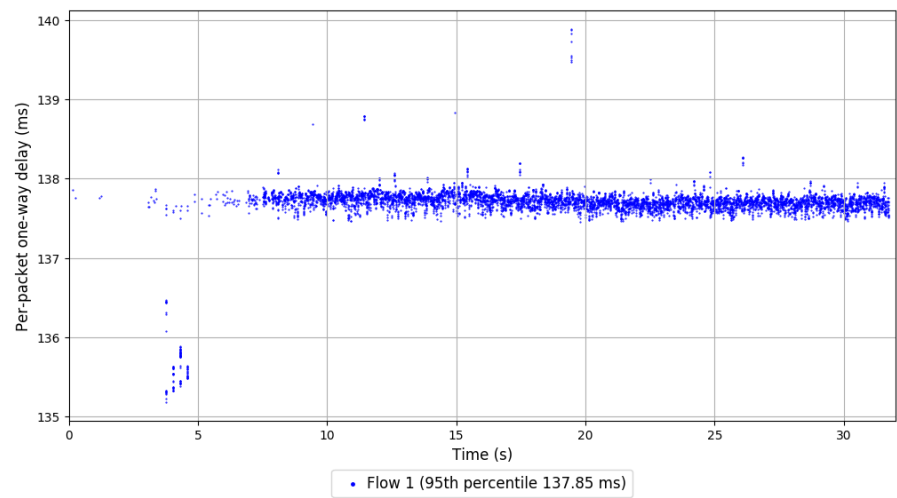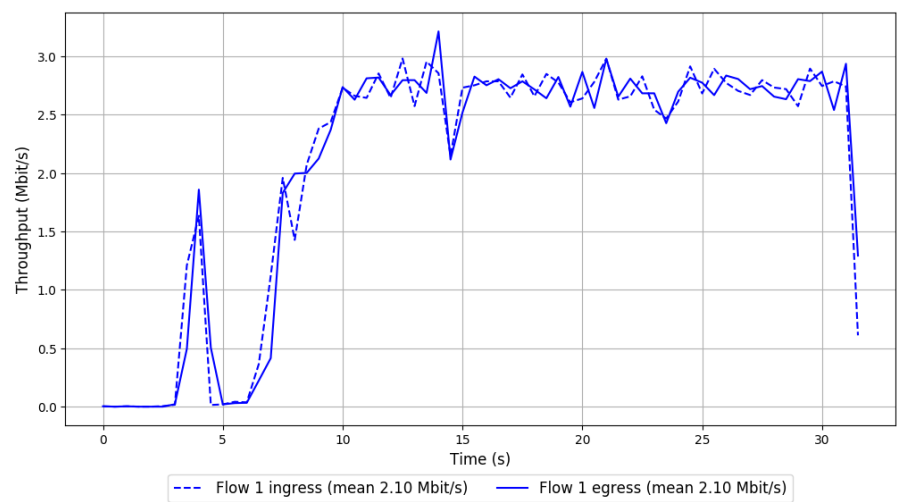
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2017-09-21 22:23:29
End at: 2017-09-21 22:23:59

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 135.739 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 135.739 ms
Loss rate: 0.06%
```
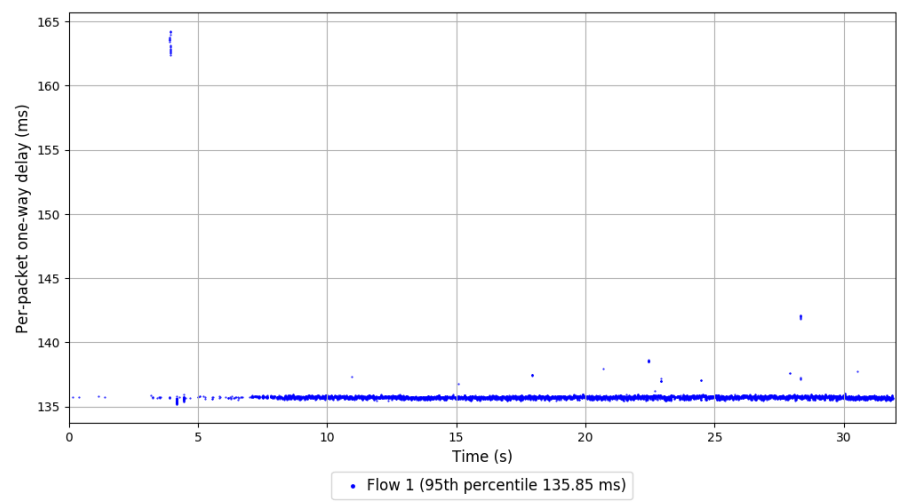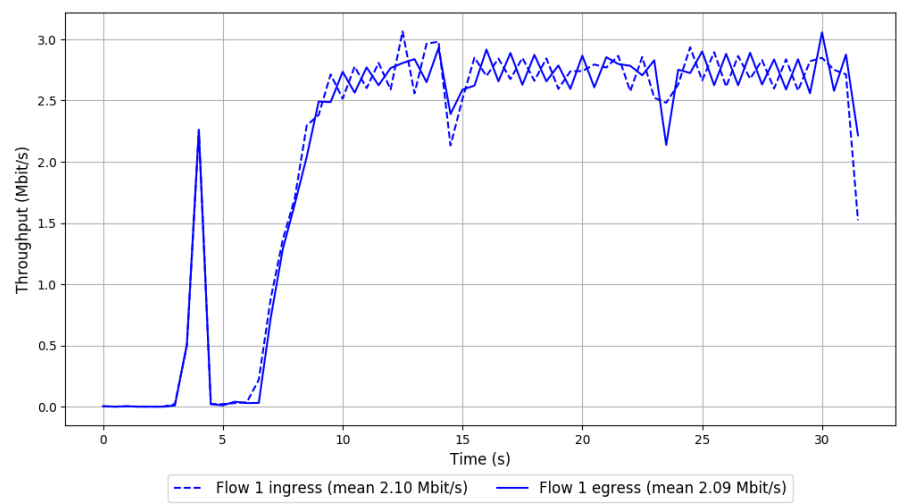
Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2017-09-21 22:34:51
End at: 2017-09-21 22:35:21


# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 135.510 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 135.510 ms
Loss rate: 0.09%
```
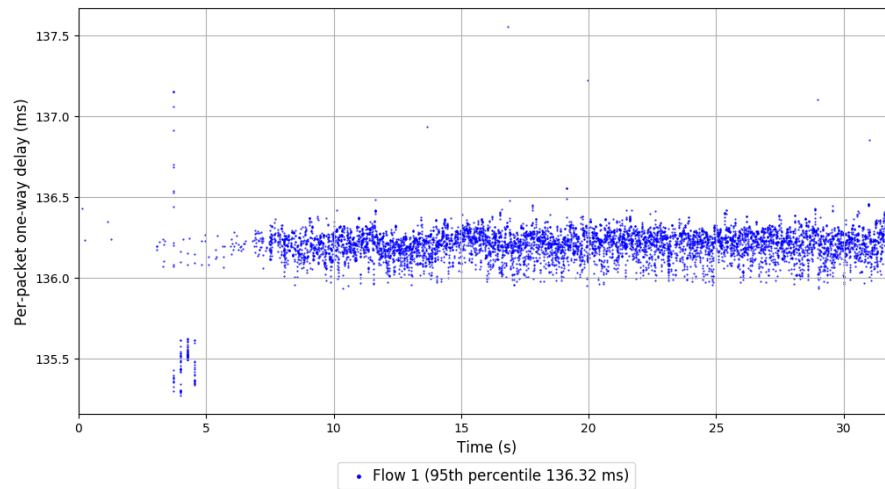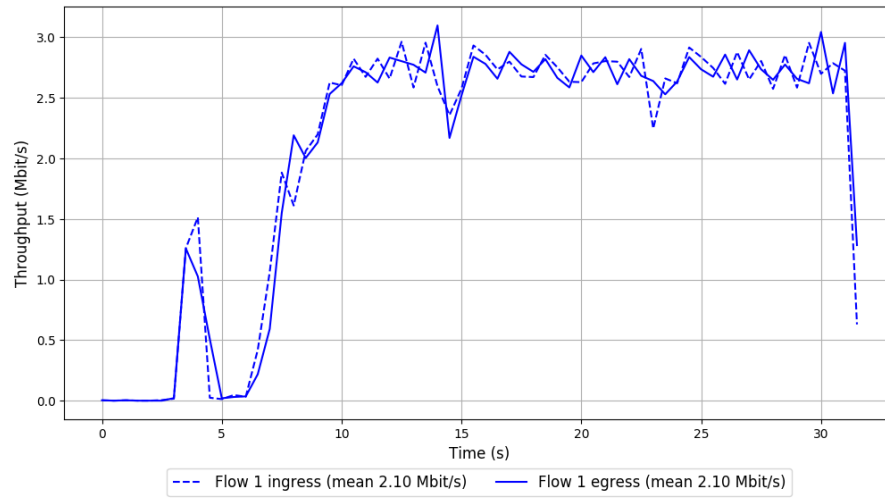
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2017-09-21 22:46:12
End at: 2017-09-21 22:46:42

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 137.846 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 137.846 ms
Loss rate: 0.00%
```
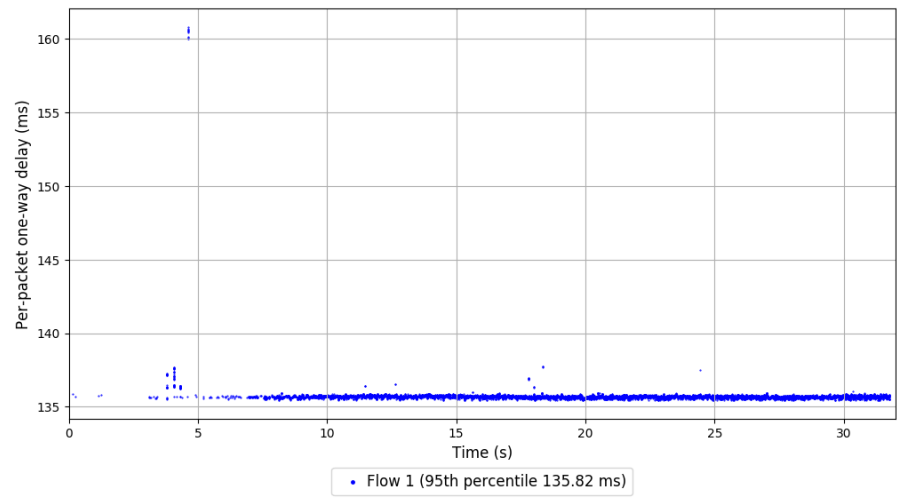
Run 7: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.10 Mbit/s)   Flow 1 egress (mean 2.10 Mbit/s)

Flow 1 (95th percentile 137.85 ms)

```
Run 8: Statistics of WebRTC media

Start at: 2017-09-21 22:57:38
End at: 2017-09-21 22:58:08

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 135.848 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 135.848 ms
Loss rate: 0.04%
```
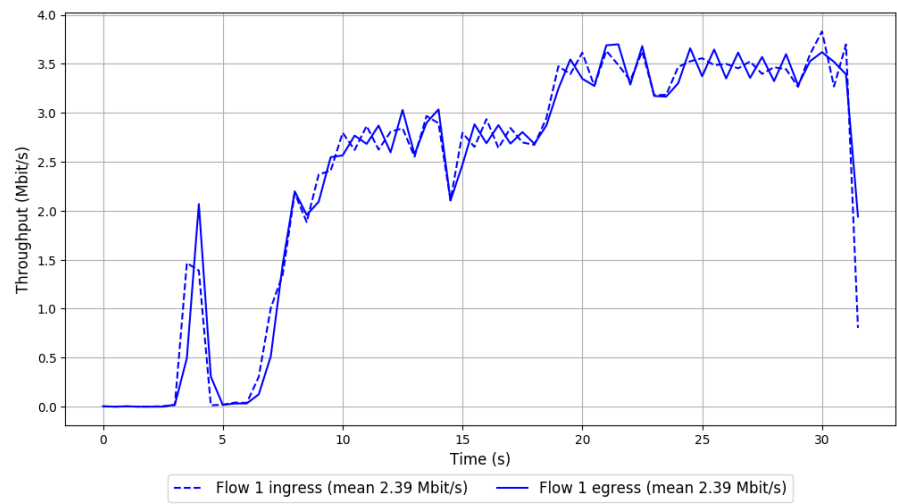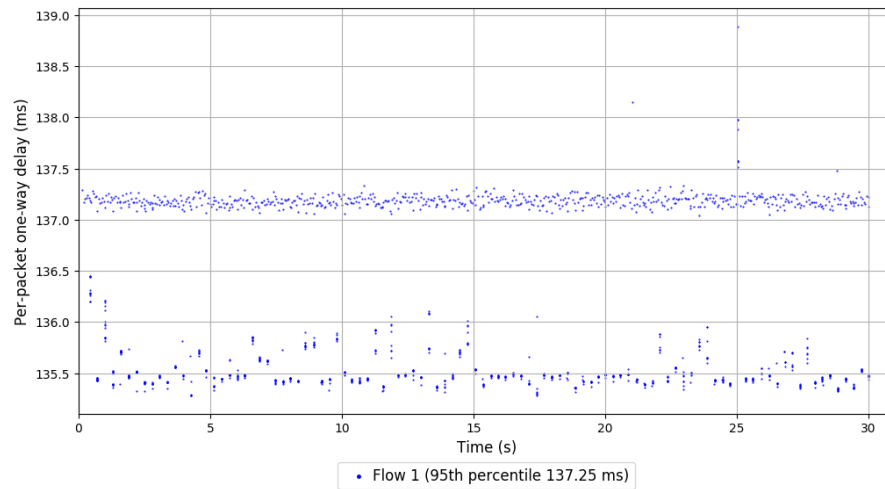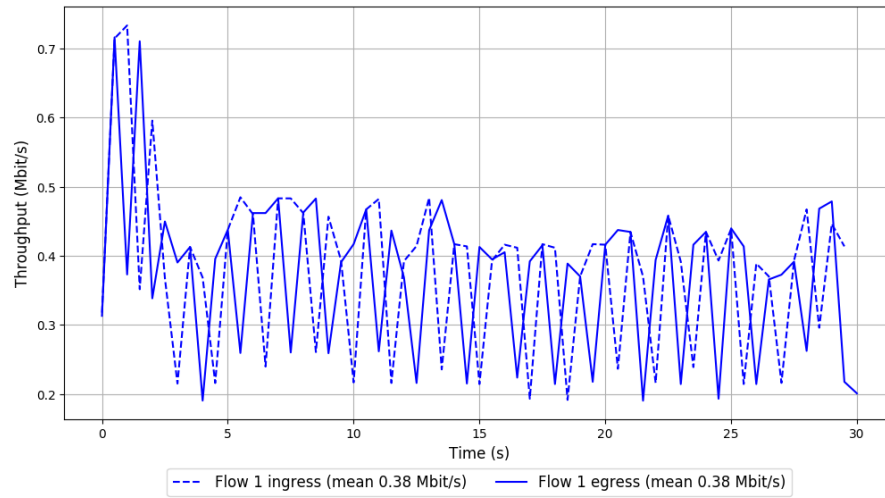
Run 8: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.10 Mbit/s) --- Flow 1 egress (mean 2.09 Mbit/s)

Flow 1 (95th percentile 135.85 ms)

```
Run 9: Statistics of WebRTC media

Start at: 2017-09-21 23:08:09
End at: 2017-09-21 23:08:39

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 136.324 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 136.324 ms
Loss rate: 0.00%
```
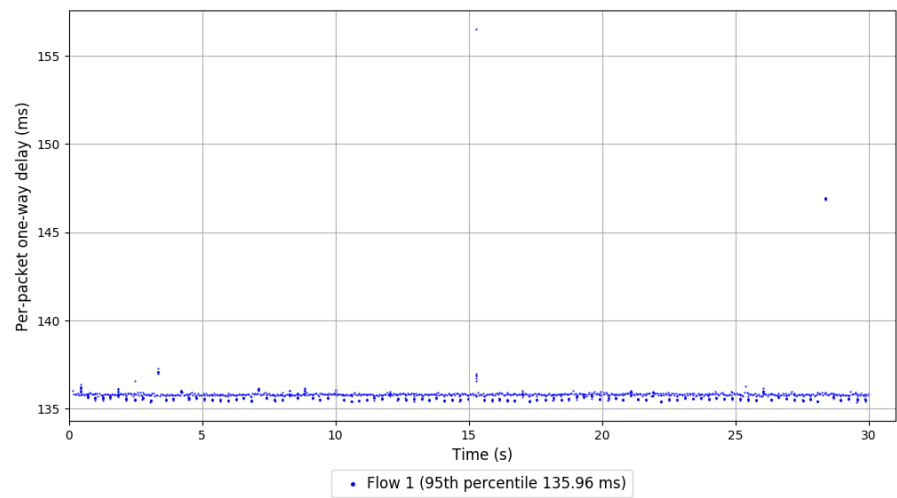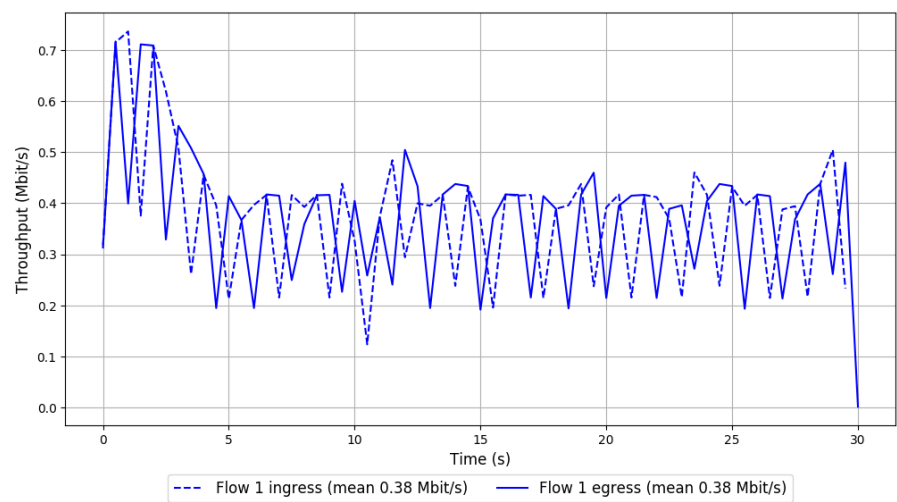
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2017-09-21 23:18:44
End at: 2017-09-21 23:19:14

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 0.07%
```
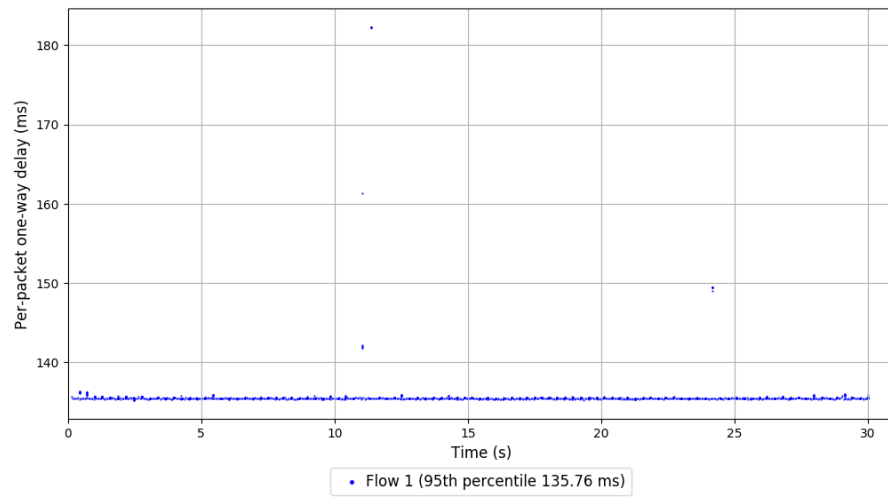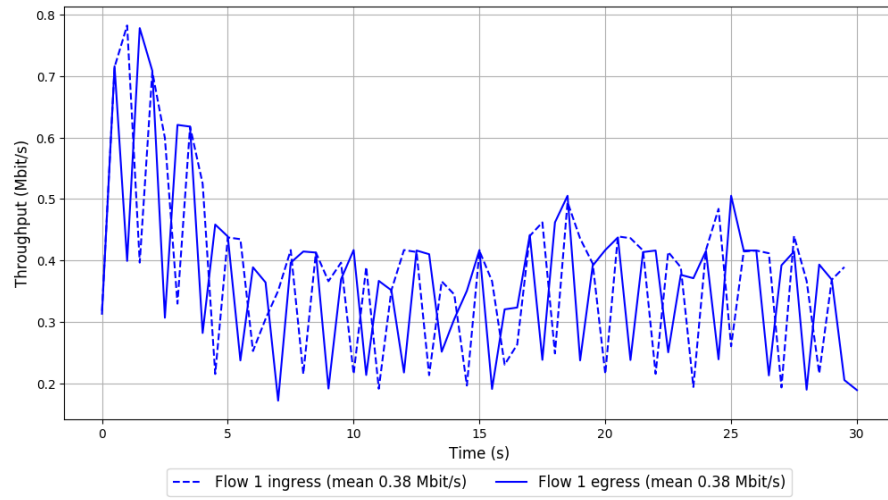
Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2017-09-21 21:41:06
End at: 2017-09-21 21:41:36

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 137.252 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 137.252 ms
Loss rate: 0.21%
```
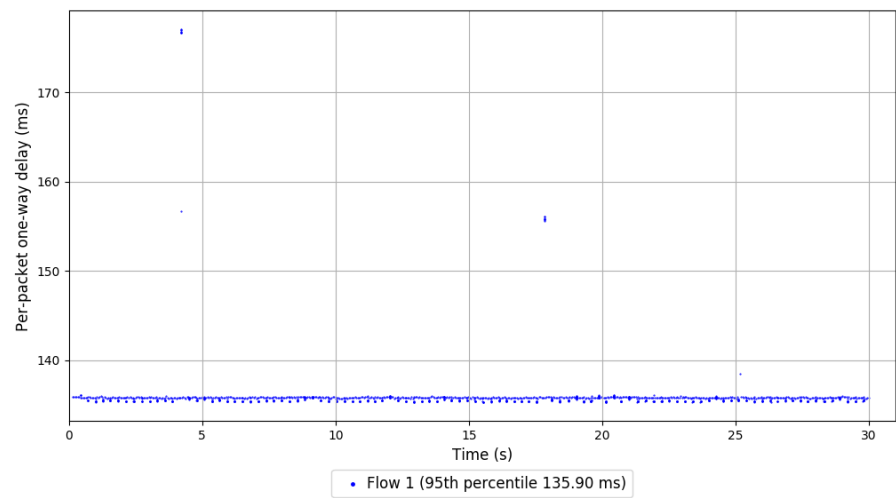
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2017-09-21 21:52:24
End at: 2017-09-21 21:52:54

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 135.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 135.961 ms
Loss rate: 0.00%
```
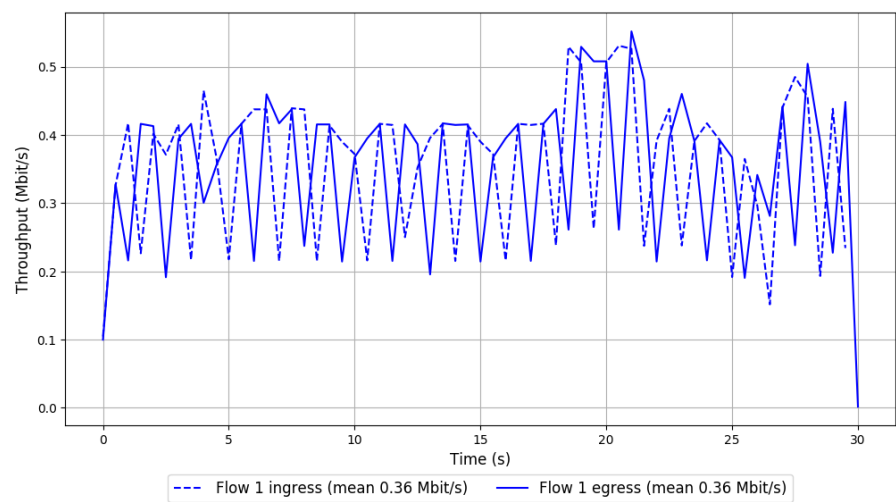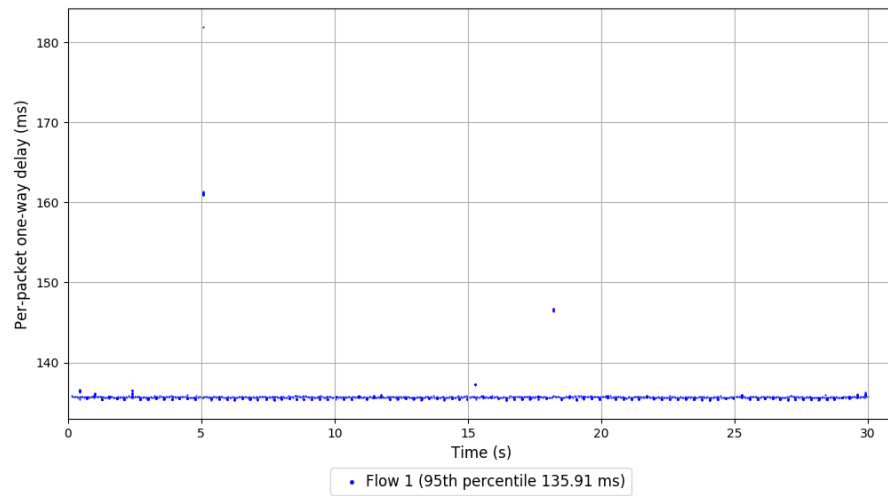
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2017-09-21 22:03:34
End at: 2017-09-21 22:04:04

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 135.757 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 135.757 ms
Loss rate: 0.21%
```
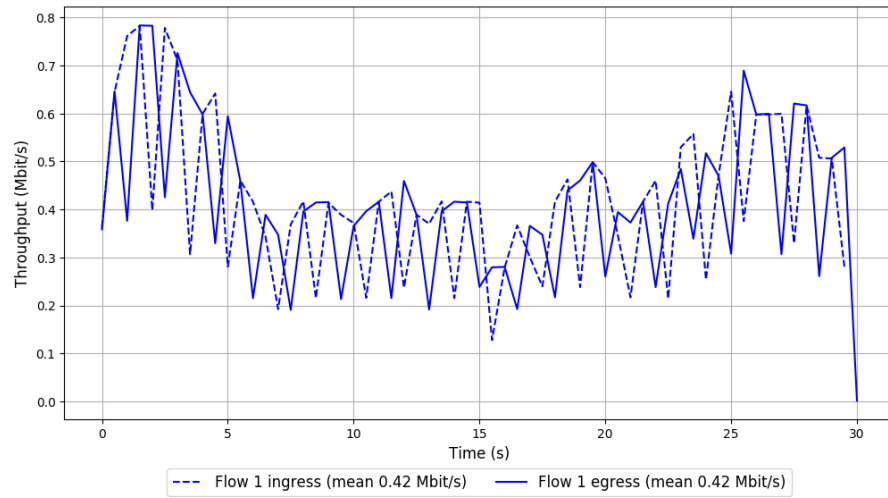
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2017-09-21 22:15:12
End at: 2017-09-21 22:15:42

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 135.901 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 135.901 ms
Loss rate: 0.11%
```
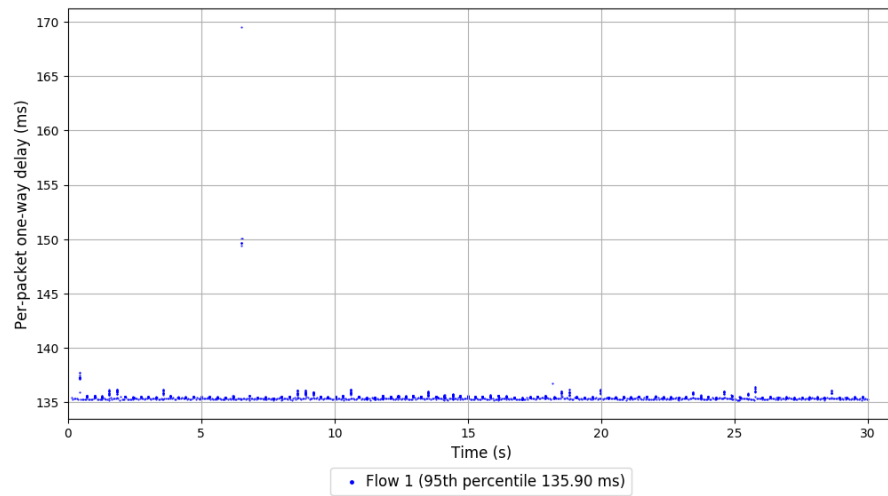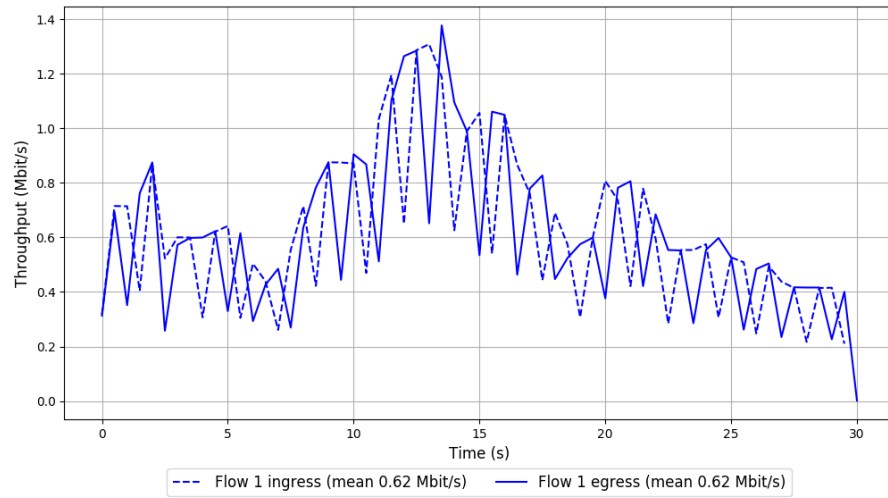
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2017-09-21 22:26:03
End at: 2017-09-21 22:26:33

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 135.910 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 135.910 ms
Loss rate: 0.28%
```
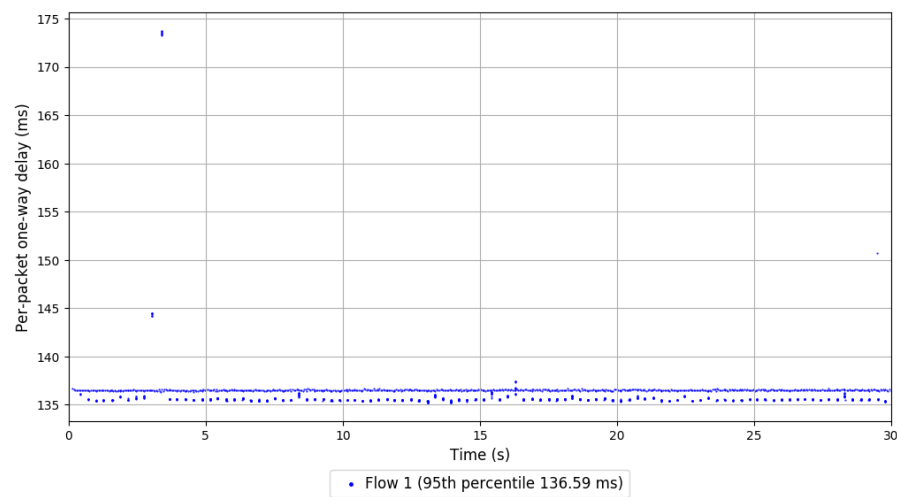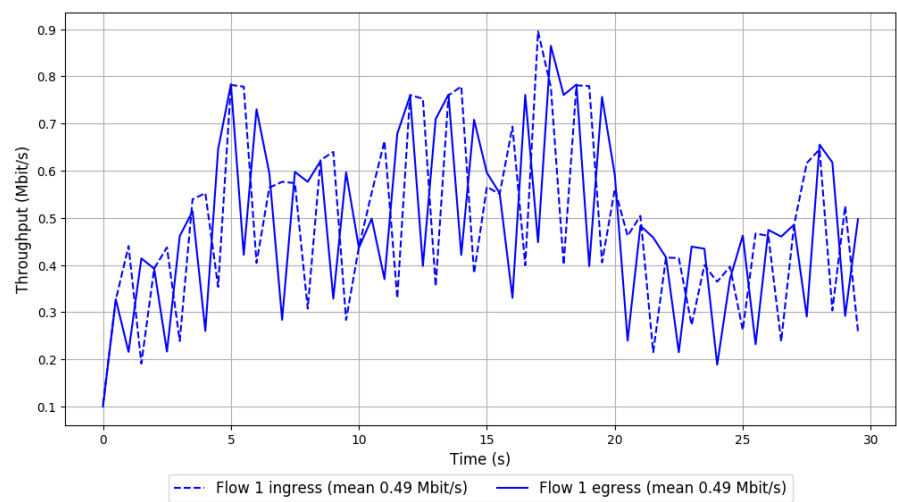
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

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


# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 135.900 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 135.900 ms
Loss rate: 0.13%
```
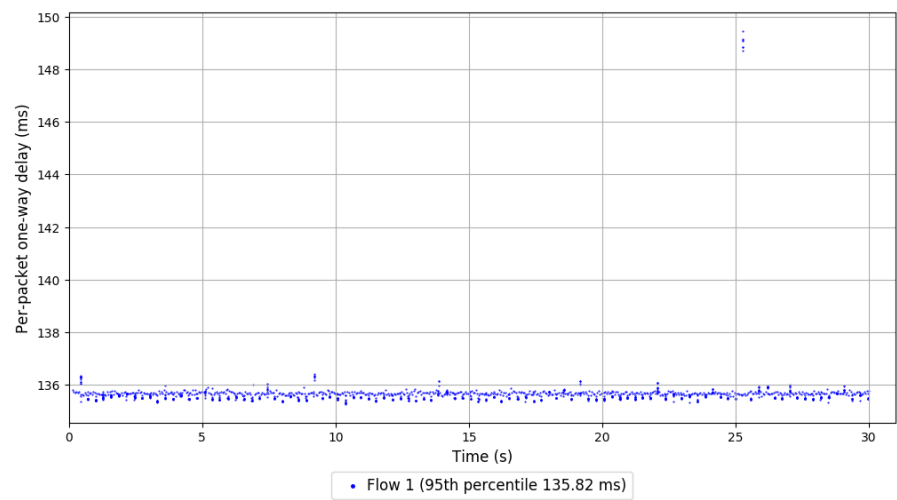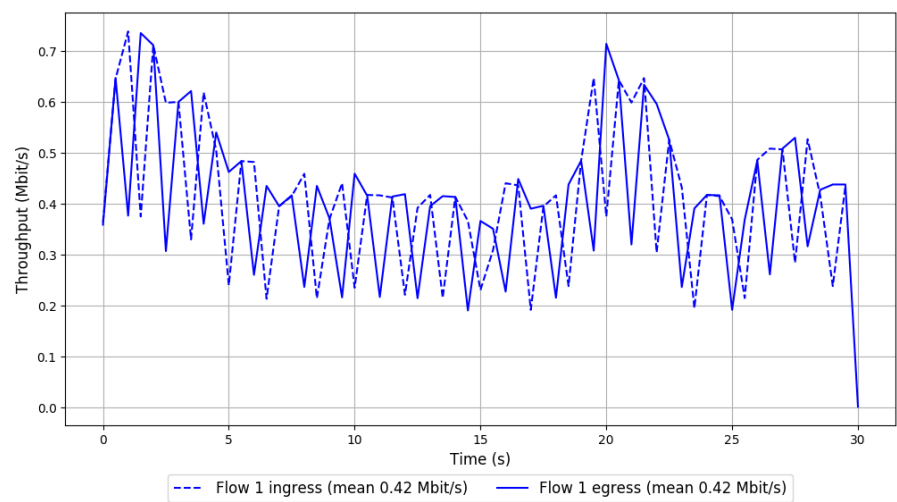
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2017-09-21 22:48:30
End at: 2017-09-21 22:49:00

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 136.591 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 136.591 ms
Loss rate: 0.08%
```
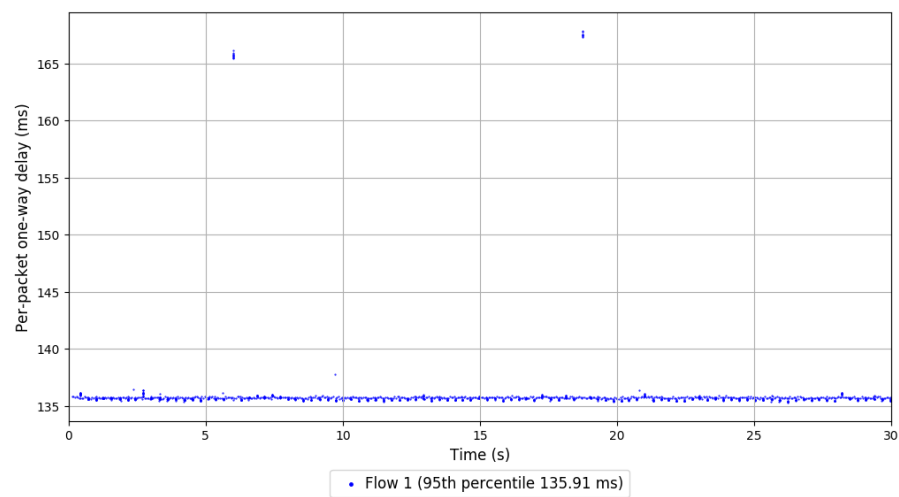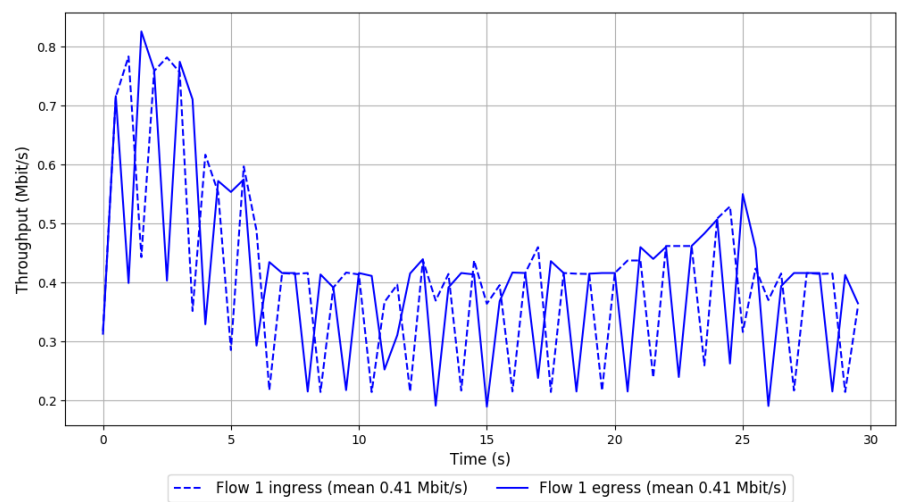
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2017-09-21 22:59:52
End at: 2017-09-21 23:00:22

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 135.823 ms
Loss rate: 0.09%
```
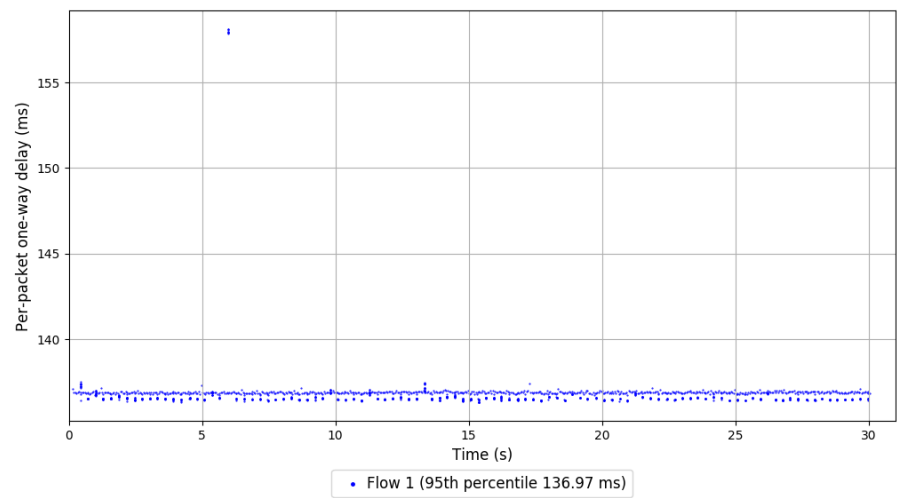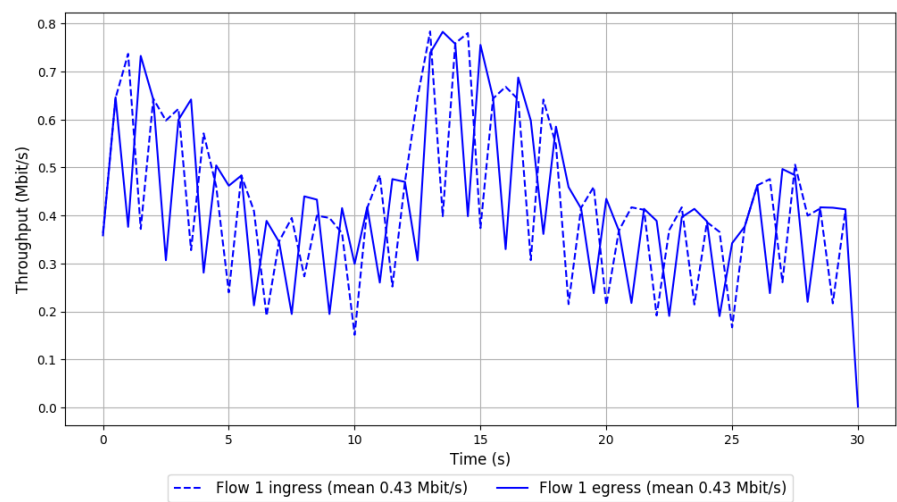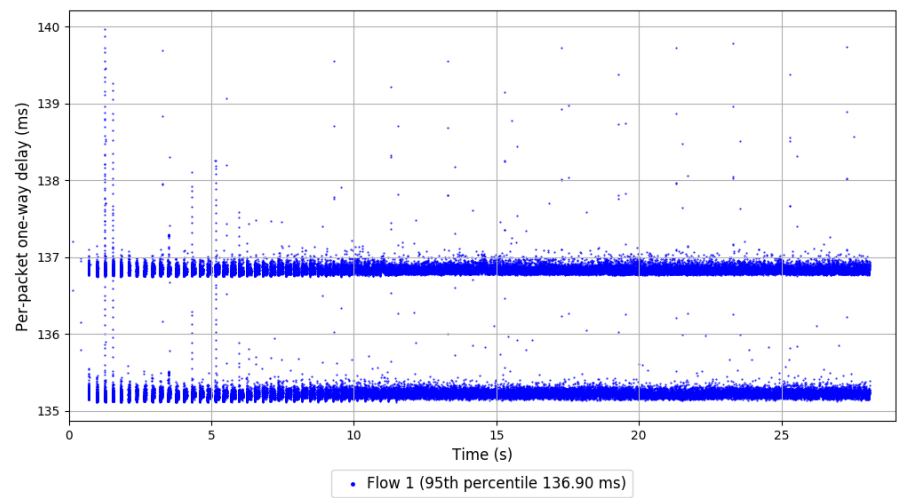
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2017-09-21 23:10:25
End at: 2017-09-21 23:10:55

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 135.905 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 135.905 ms
Loss rate: 0.10%
```

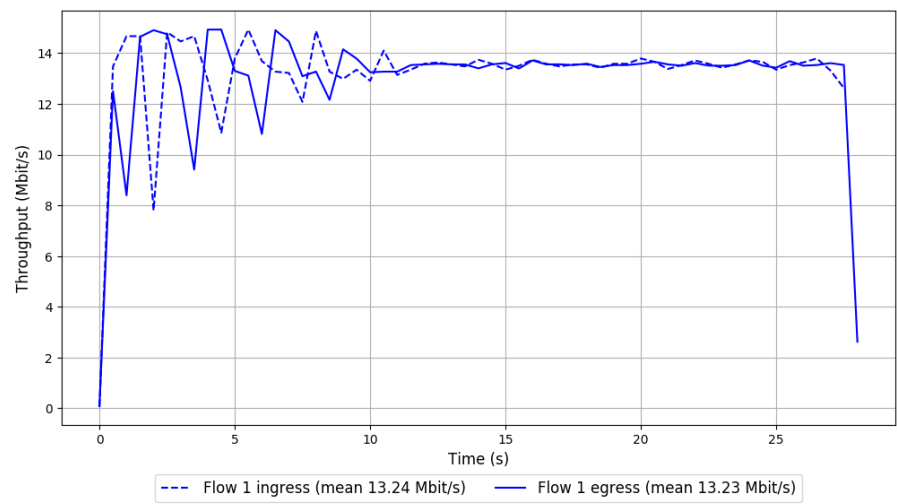Run 9: Report of Sprout — Data Link

Flow 1 ingress (mean 0.41 Mbit/s)   Flow 1 egress (mean 0.41 Mbit/s)

• Flow 1 (95th percentile 135.91 ms)

```
Run 10: Statistics of Sprout

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


# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.975 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.975 ms
Loss rate: 0.09%
```
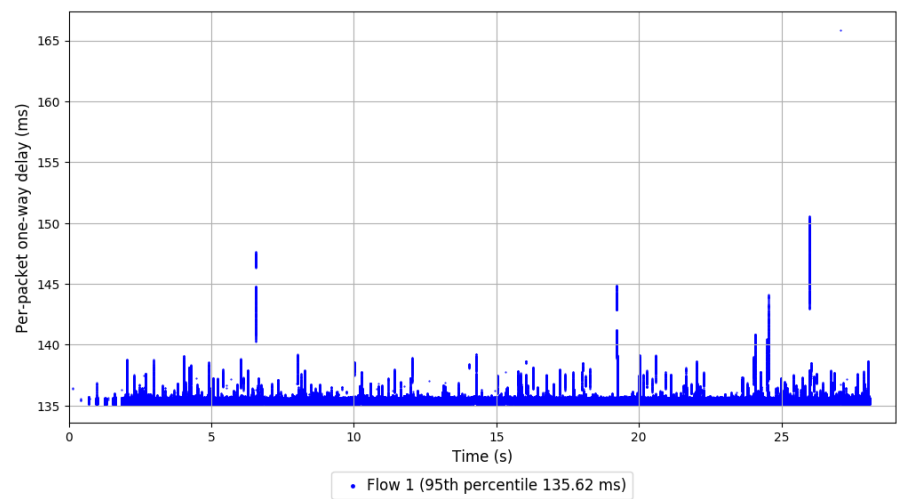
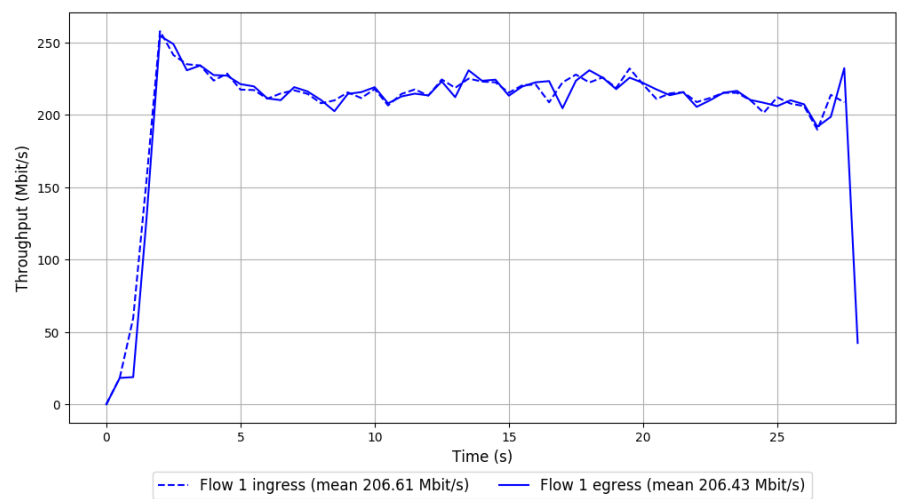Run 10: Report of Sprout — Data Link

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

Start at: 2017-09-21 21:36:20
End at: 2017-09-21 21:36:50

# Below is generated by plot.py at 2017-09-22 00:04:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 136.904 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 136.904 ms
Loss rate: 0.10%
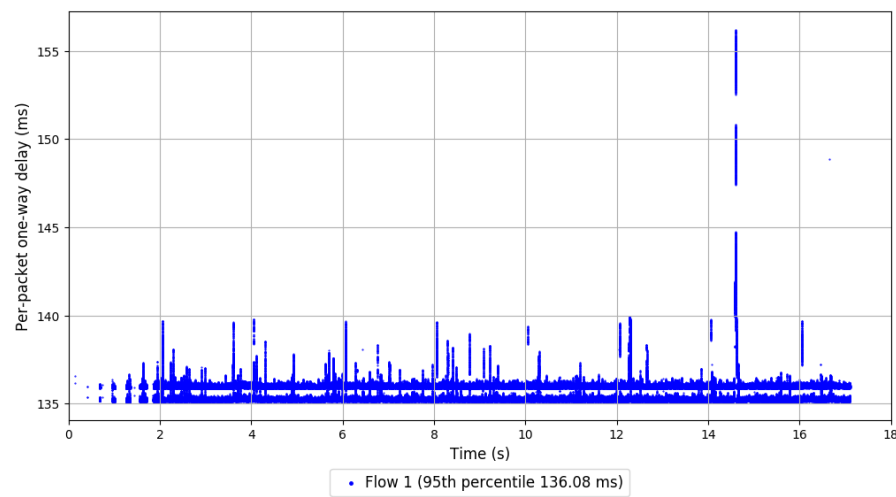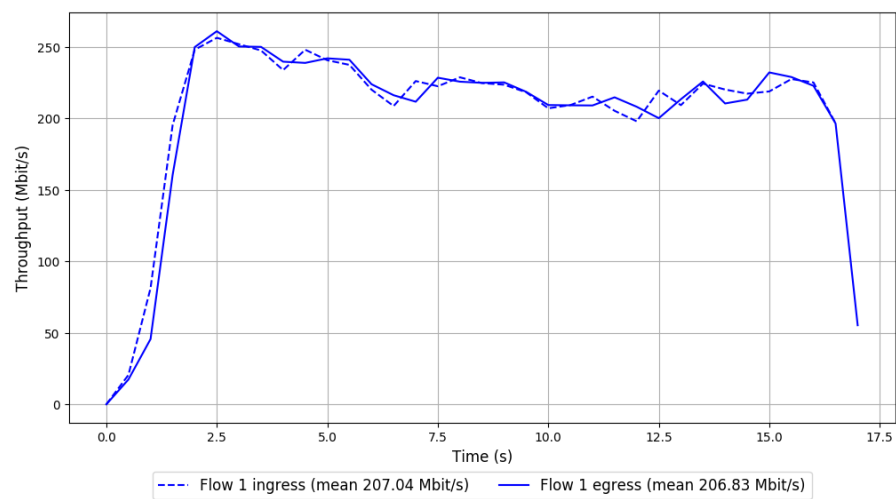```

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

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

Start at: 2017-09-21 21:47:13
End at: 2017-09-21 21:47:43

Below is generated by plot.py at 2017-09-22 00:08:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 206.43 Mbit/s
95th percentile per-packet one-way delay: 135.619 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 206.43 Mbit/s
95th percentile per-packet one-way delay: 135.619 ms
Loss rate: 0.09%
```
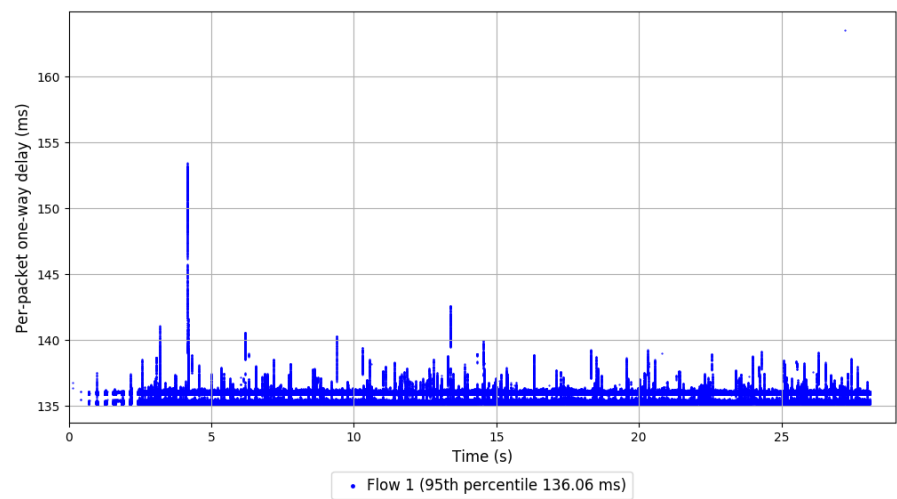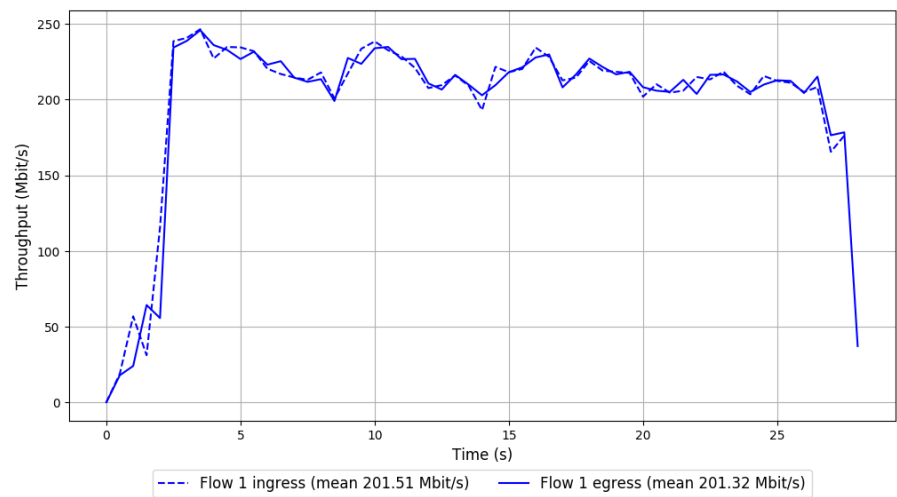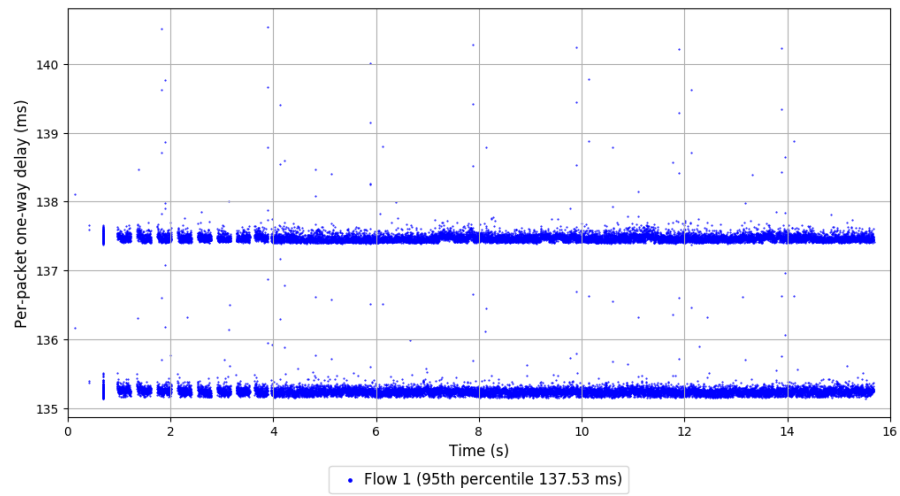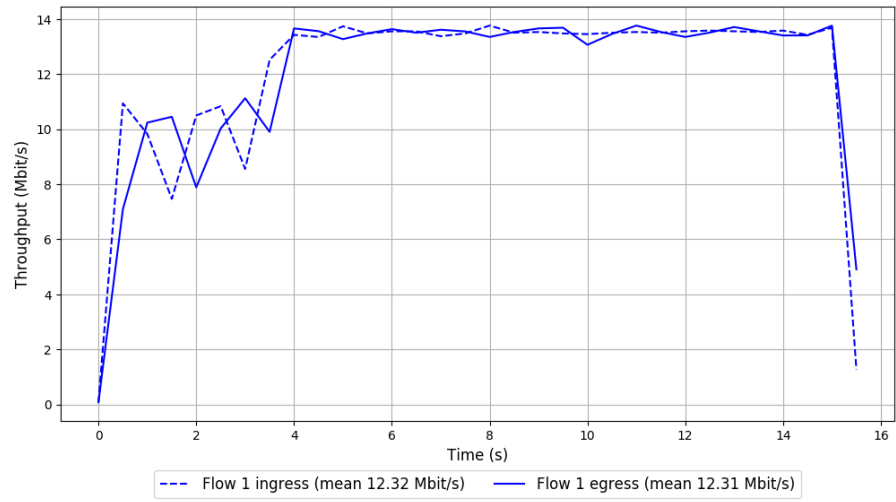
Run 2: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 206.61 Mbit/s) — Flow 1 egress (mean 206.43 Mbit/s)


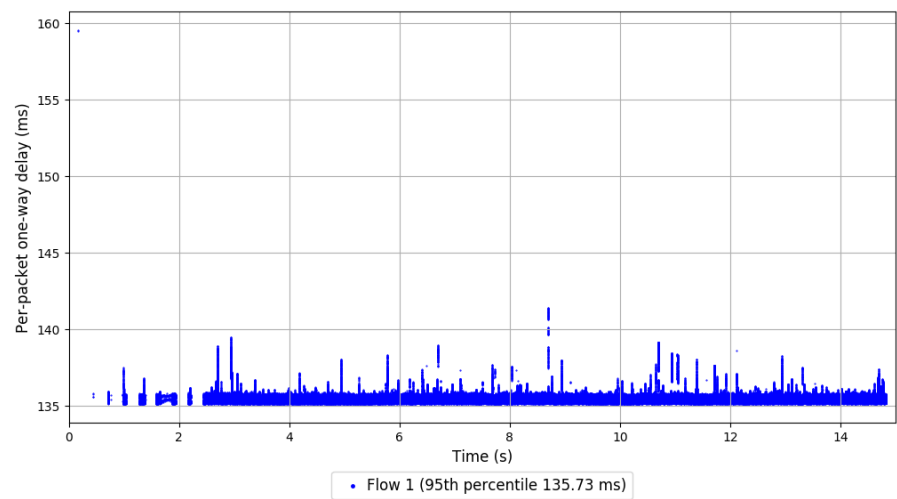
Flow 1 (95th percentile 135.62 ms)

Run 3: Statistics of TaoVA-100x

Start at: 2017-09-21 21:58:30
End at: 2017-09-21 21:59:00

Run 3: Report of TaoVA-100x — Data Link



Flow 1 ingress (mean 207.04 Mbit/s)    Flow 1 egress (mean 206.83 Mbit/s)
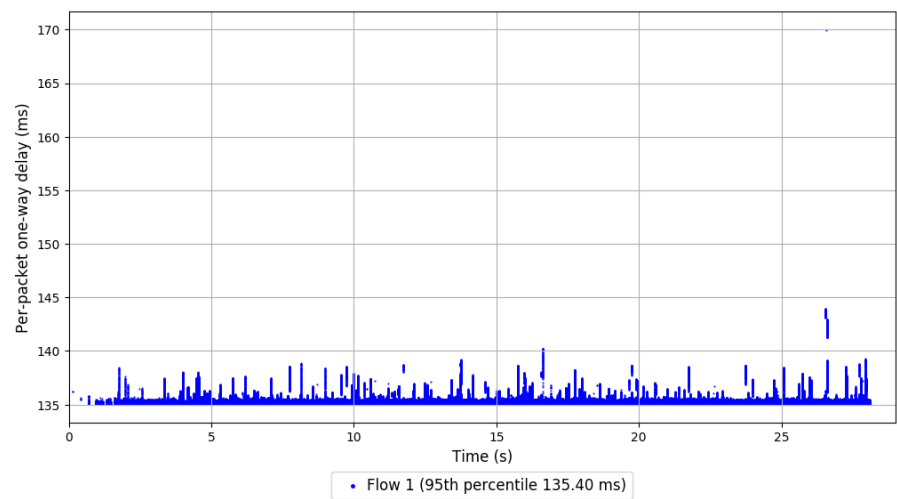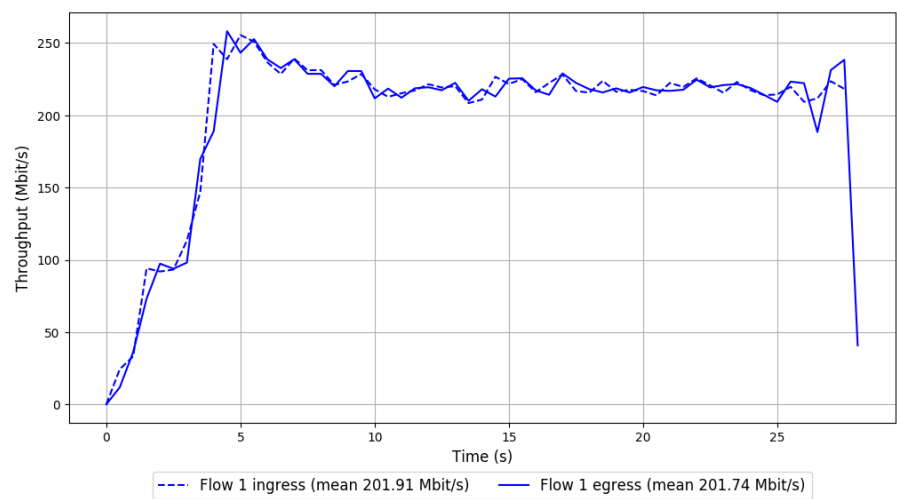


Flow 1 (95th percentile 136.08 ms)

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

Start at: 2017-09-21 22:09:43
End at: 2017-09-21 22:10:13

# Below is generated by plot.py at 2017-09-22 00:08:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.32 Mbit/s
95th percentile per-packet one-way delay: 136.057 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 201.32 Mbit/s
95th percentile per-packet one-way delay: 136.057 ms
Loss rate: 0.10%
```

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

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Run 5: Statistics of TaoVA-100x

Start at: 2017-09-21 22:21:21
End at: 2017-09-21 22:21:51

Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 12.32 Mbit/s)   Flow 1 egress (mean 12.31 Mbit/s)

Flow 1 (95th percentile 137.53 ms)

Run 6: Statistics of TaoVA-100x

Start at: 2017-09-21 22:32:11
End at: 2017-09-21 22:32:41

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

Flow 1 ingress (mean 192.71 Mbit/s)   Flow 1 egress (mean 192.84 Mbit/s)

Flow 1 (95th percentile 135.73 ms)

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

Start at: 2017-09-21 22:43:15
End at: 2017-09-21 22:43:45

# Below is generated by plot.py at 2017-09-22 00:09:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.74 Mbit/s
95th percentile per-packet one-way delay: 135.396 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 201.74 Mbit/s
95th percentile per-packet one-way delay: 135.396 ms
Loss rate: 0.09%
```
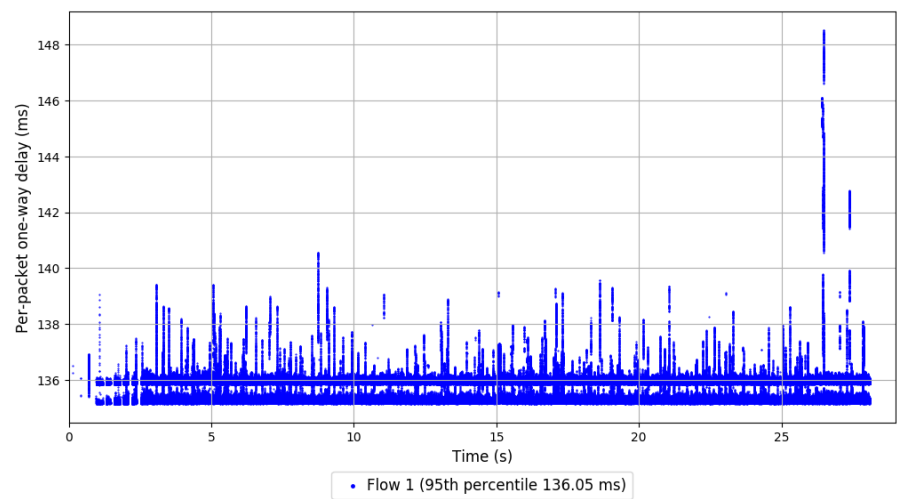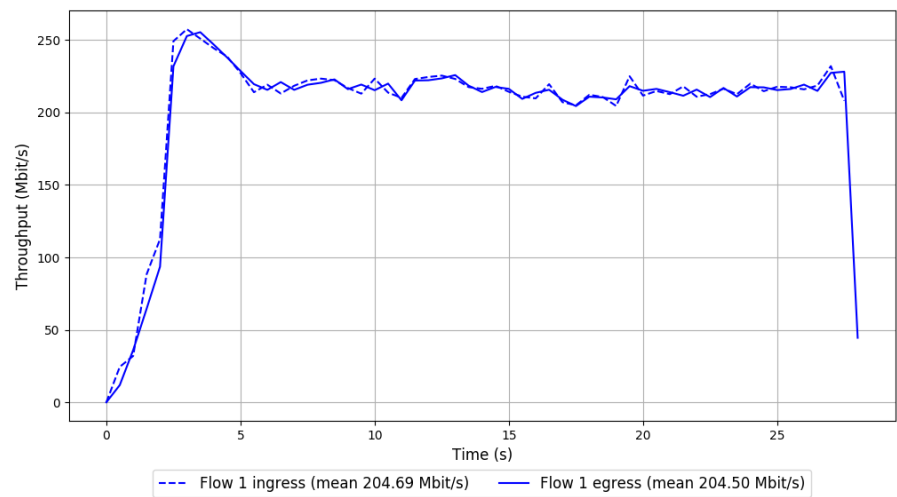
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 201.91 Mbit/s)   Flow 1 egress (mean 201.74 Mbit/s)

Flow 1 (95th percentile 135.40 ms)

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

Start at: 2017-09-21 22:54:42
End at: 2017-09-21 22:55:12


# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.50 Mbit/s
95th percentile per-packet one-way delay: 136.054 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 204.50 Mbit/s
95th percentile per-packet one-way delay: 136.054 ms
Loss rate: 0.10%
```
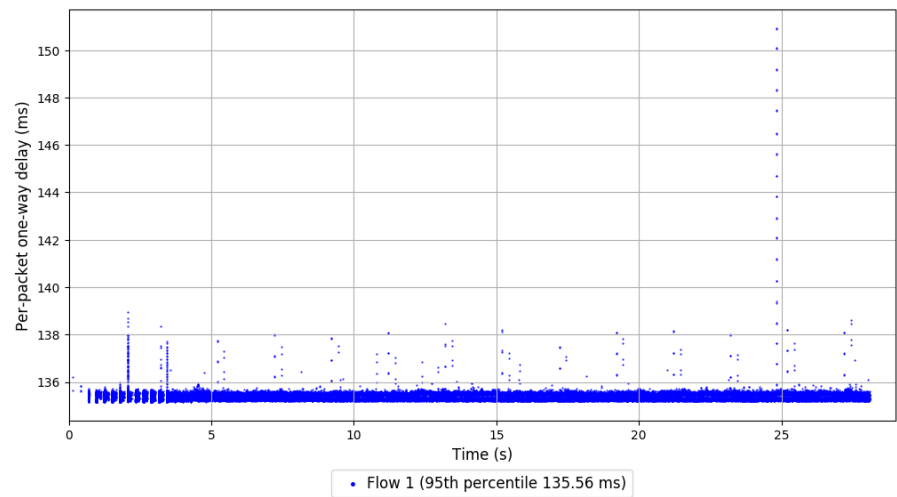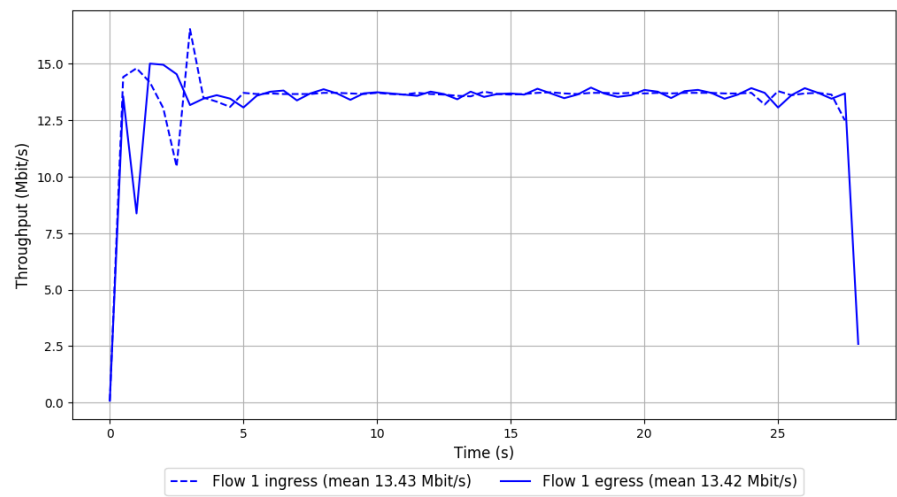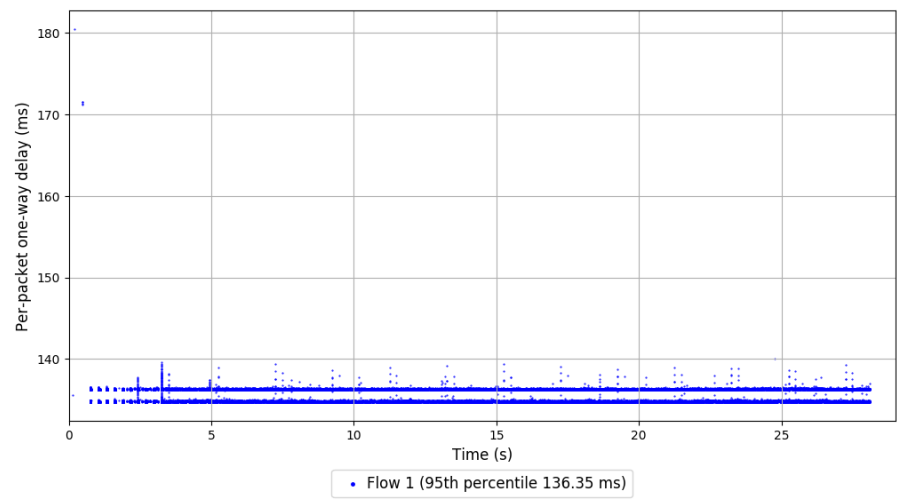
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 204.69 Mbit/s) — — — Flow 1 egress (mean 204.50 Mbit/s)
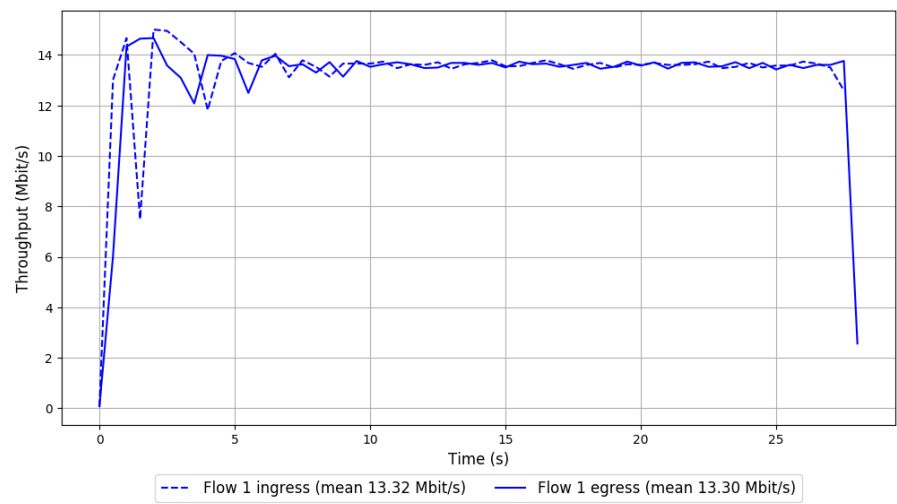

• Flow 1 (95th percentile 136.05 ms)

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

Start at: 2017-09-21 23:06:00
End at: 2017-09-21 23:06:30


# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 135.565 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 135.565 ms
Loss rate: 0.07%
```
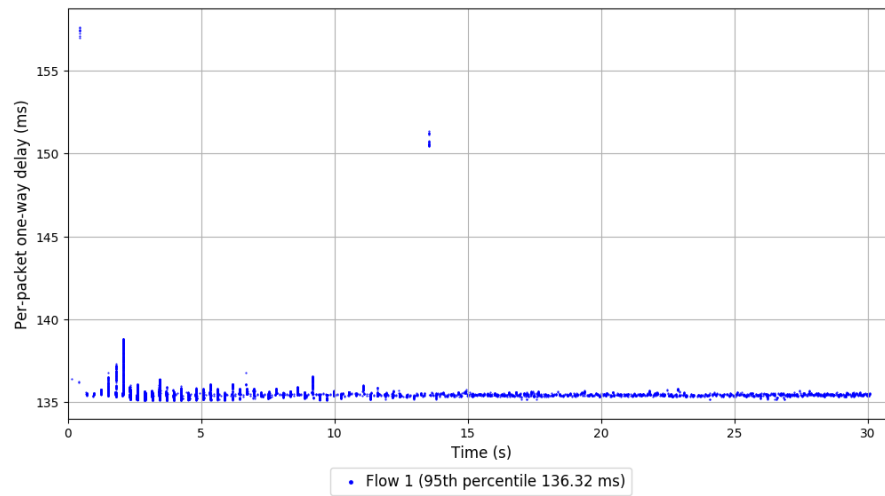
Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2017-09-21 23:16:34
End at: 2017-09-21 23:17:04

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 136.352 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 136.352 ms
Loss rate: 0.10%
```
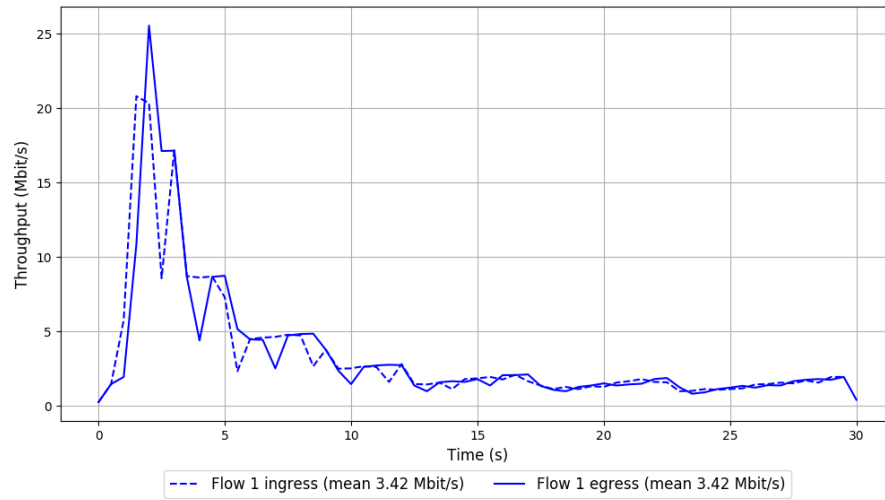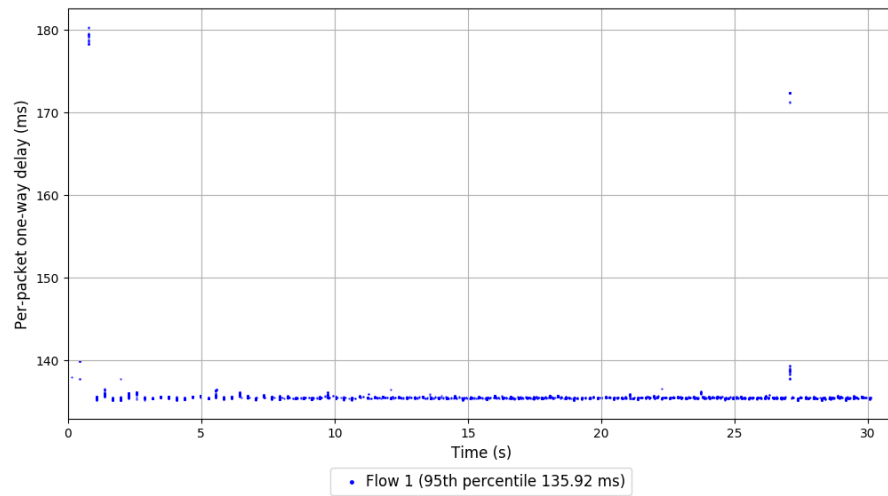
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 13.32 Mbit/s)　　Flow 1 egress (mean 13.30 Mbit/s)

Flow 1 (95th percentile 136.35 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2017-09-21 21:33:29
End at: 2017-09-21 21:33:59

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 136.322 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 136.322 ms
Loss rate: 0.09%
```
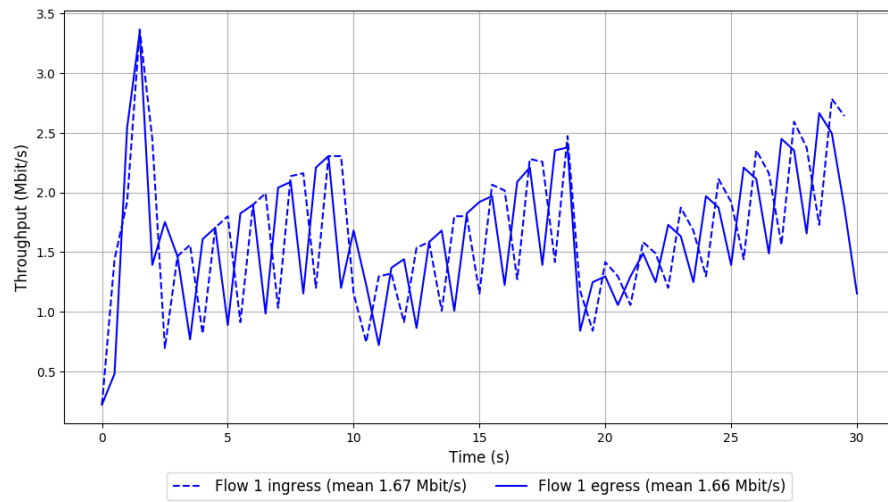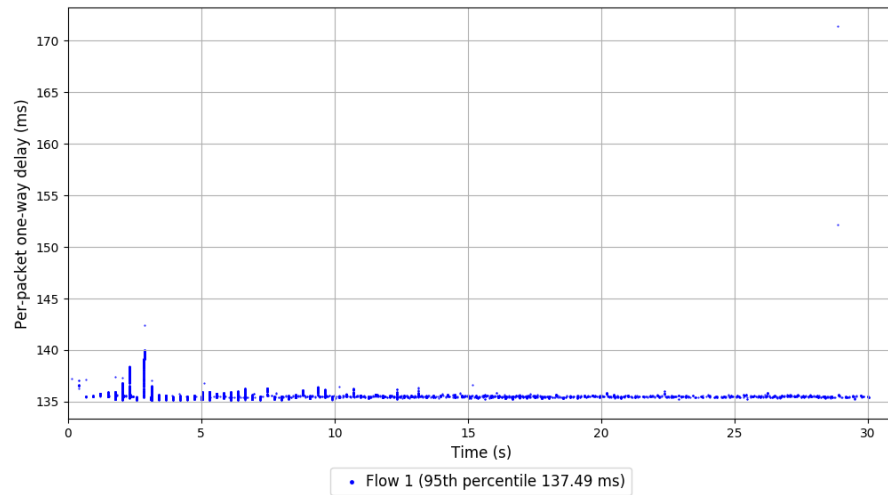
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2017-09-21 21:44:23
End at: 2017-09-21 21:44:53

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 135.923 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 135.923 ms
Loss rate: 0.48%
```
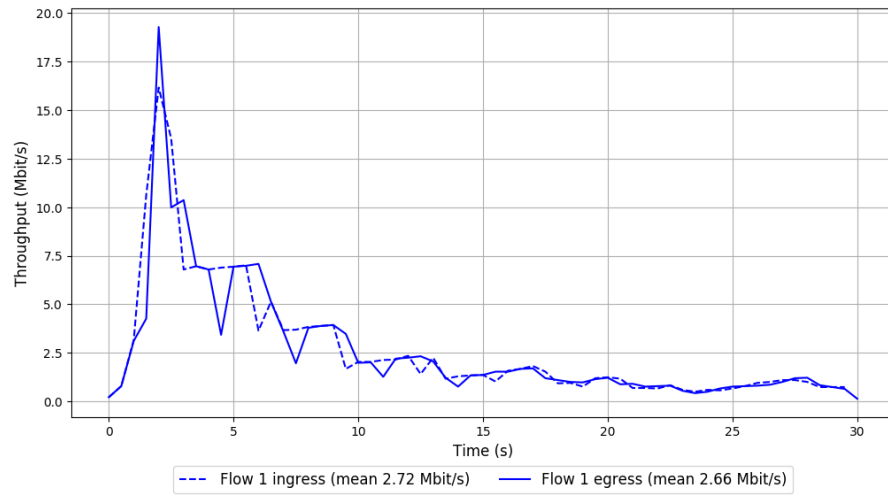
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2017-09-21 21:55:39
End at: 2017-09-21 21:56:09

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 137.493 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 137.493 ms
Loss rate: 2.21%
```
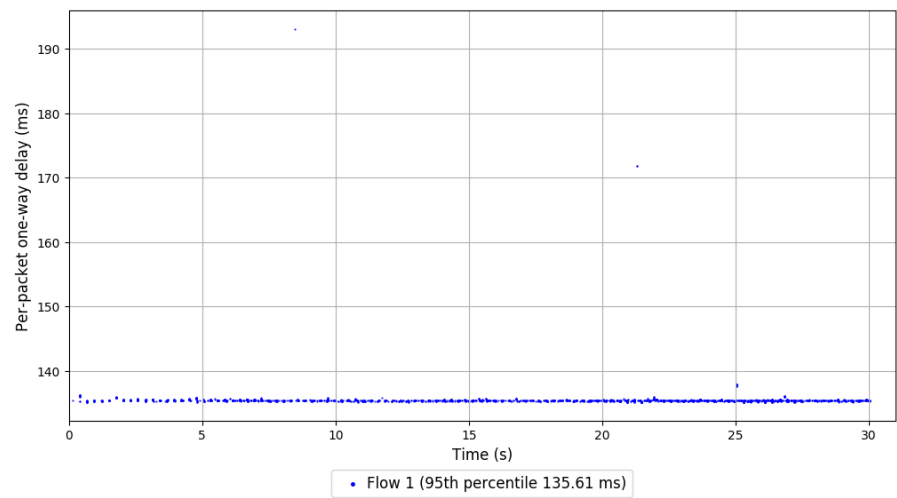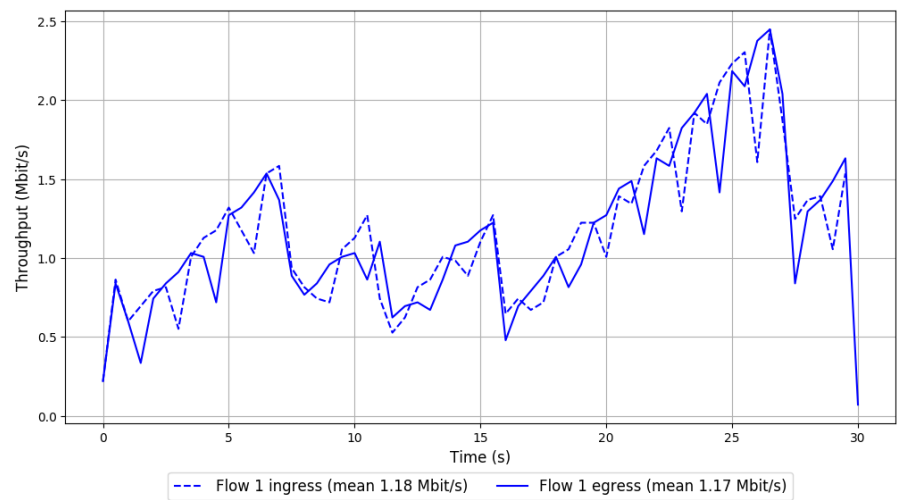
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 2.72 Mbit/s) --- Flow 1 egress (mean 2.66 Mbit/s)

Flow 1 (95th percentile 137.49 ms)

Run 4: Statistics of TCP Vegas

Start at: 2017-09-21 22:06:52
End at: 2017-09-21 22:07:22

Below is generated by plot.py at 2017-09-22 00:10:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.17 Mbit/s
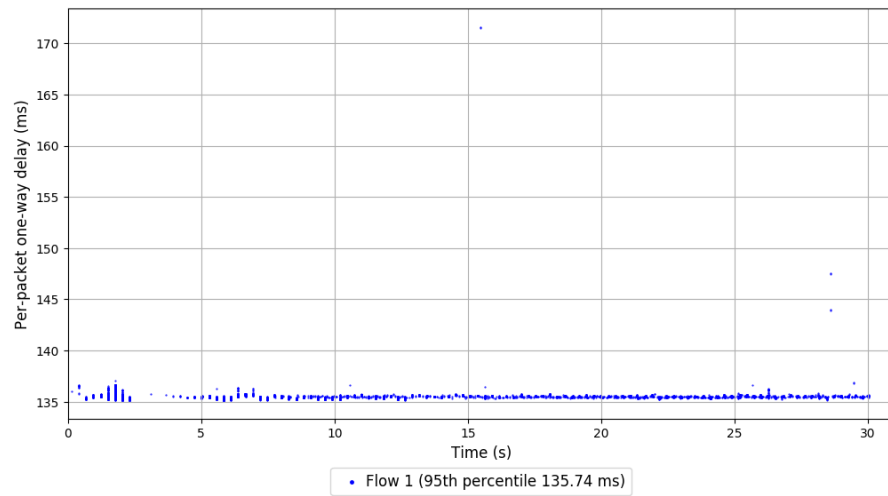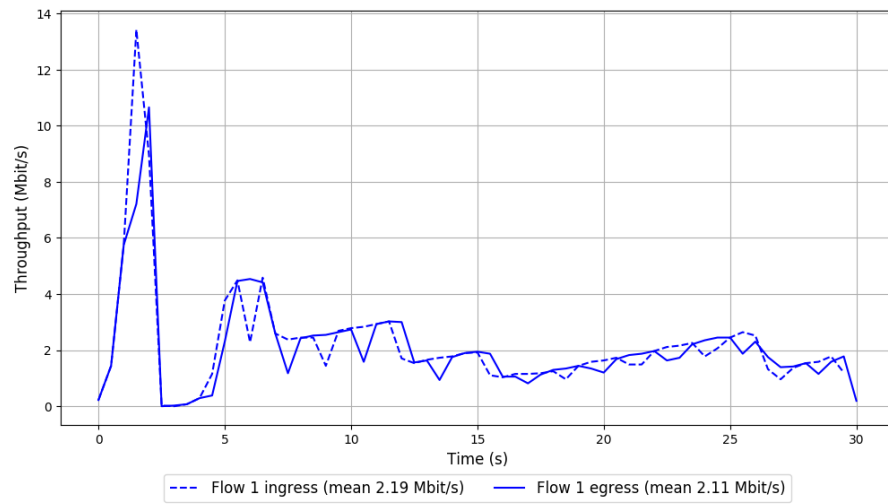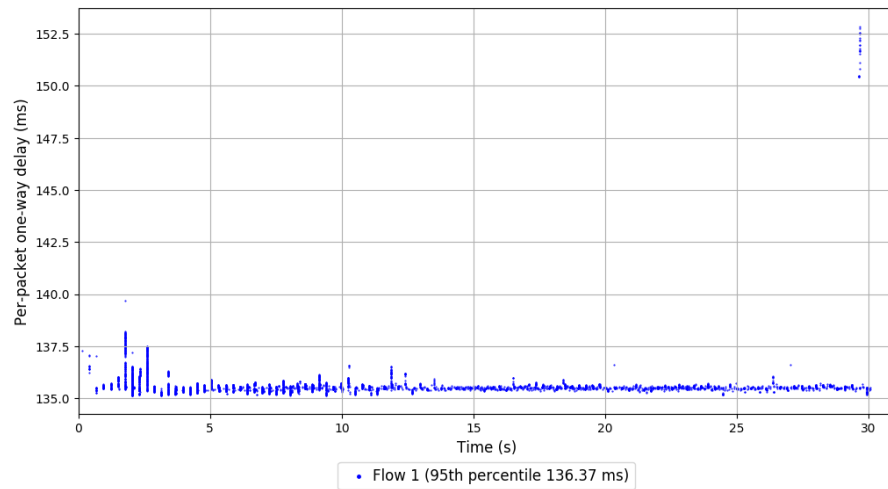95th percentile per-packet one-way delay: 135.612 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 135.612 ms
Loss rate: 0.17%

Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 1.18 Mbit/s)   Flow 1 egress (mean 1.17 Mbit/s)

Flow 1 (95th percentile 135.61 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2017-09-21 22:18:30
End at: 2017-09-21 22:19:00

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 135.741 ms
Loss rate: 3.62%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 135.741 ms
Loss rate: 3.62%
```
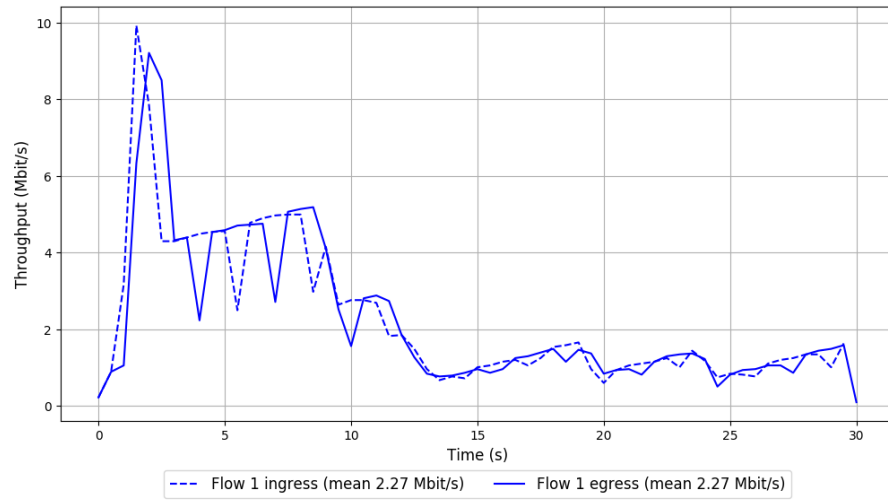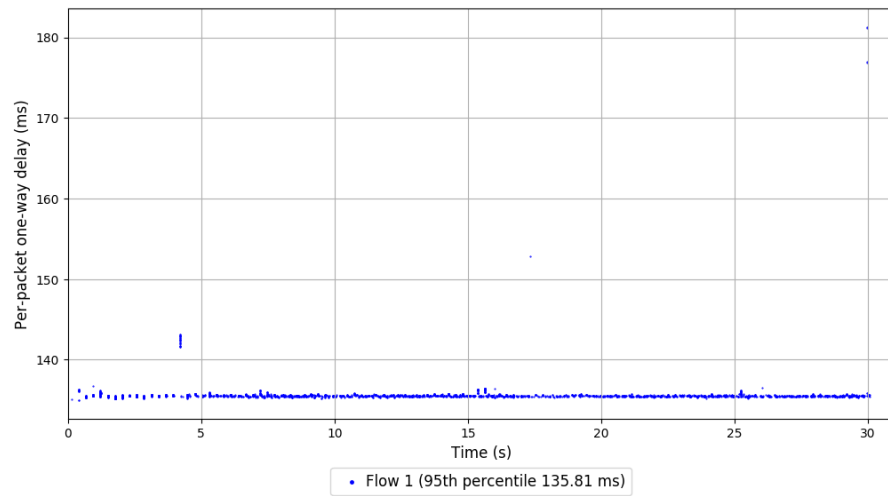
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 2.19 Mbit/s)   Flow 1 egress (mean 2.11 Mbit/s)

Flow 1 (95th percentile 135.74 ms)

```
Run 6: Statistics of TCP Vegas

Start at: 2017-09-21 22:29:20
End at: 2017-09-21 22:29:50

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 136.371 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 136.371 ms
Loss rate: 0.30%
```
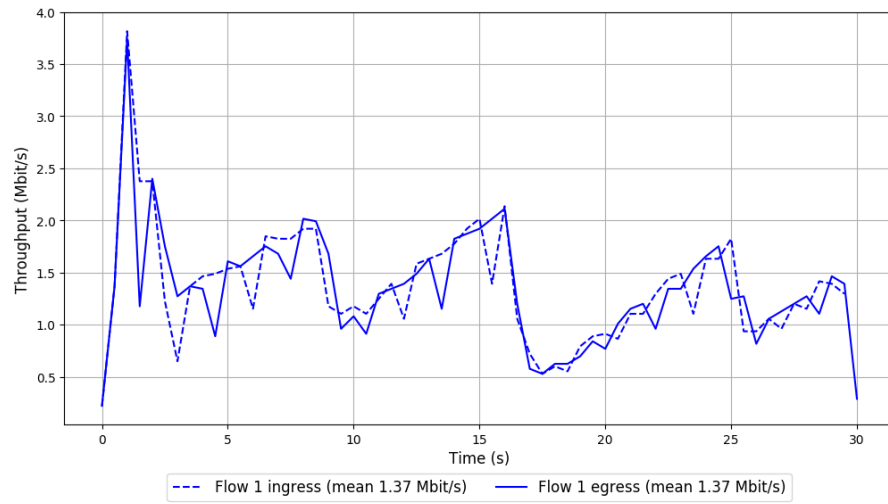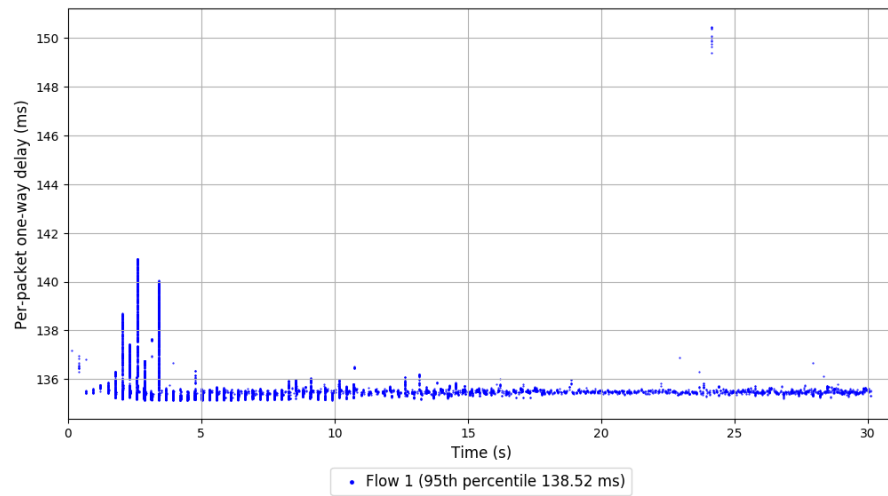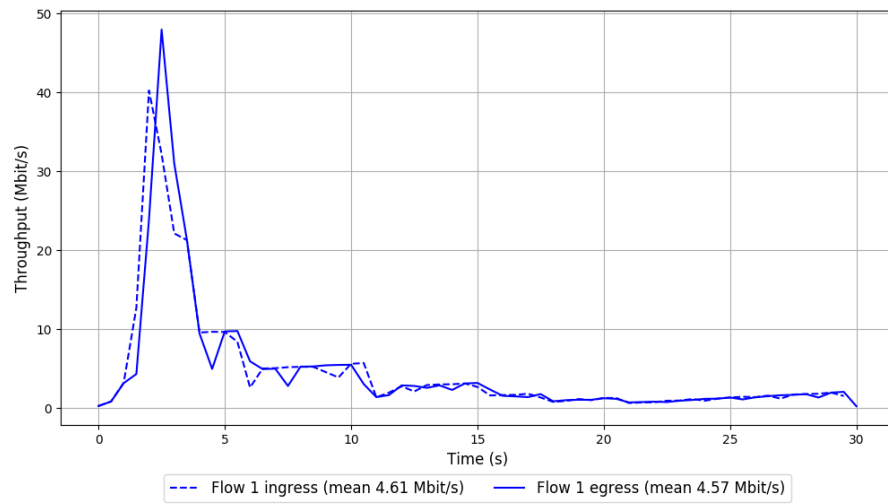
Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 2.27 Mbit/s) --- Flow 1 egress (mean 2.27 Mbit/s)

Flow 1 (95th percentile 136.37 ms)

```
Run 7: Statistics of TCP Vegas

Start at: 2017-09-21 22:40:25
End at: 2017-09-21 22:40:55

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 135.806 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 135.806 ms
Loss rate: 0.29%
```
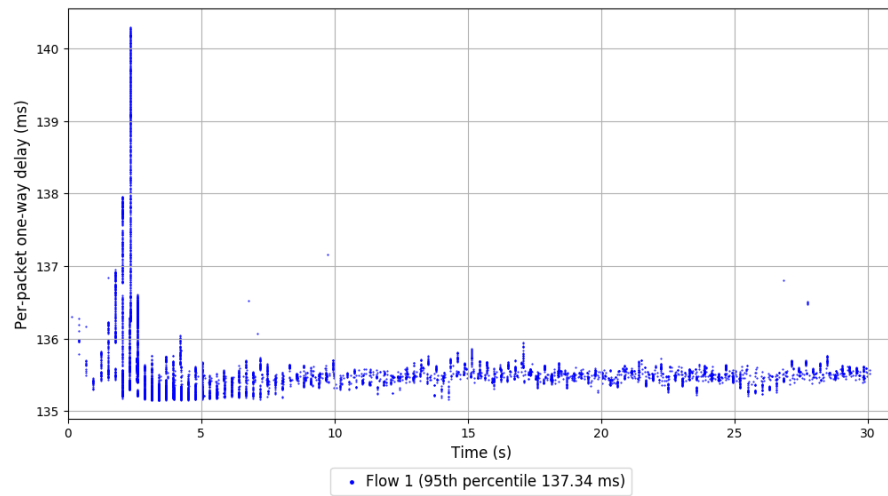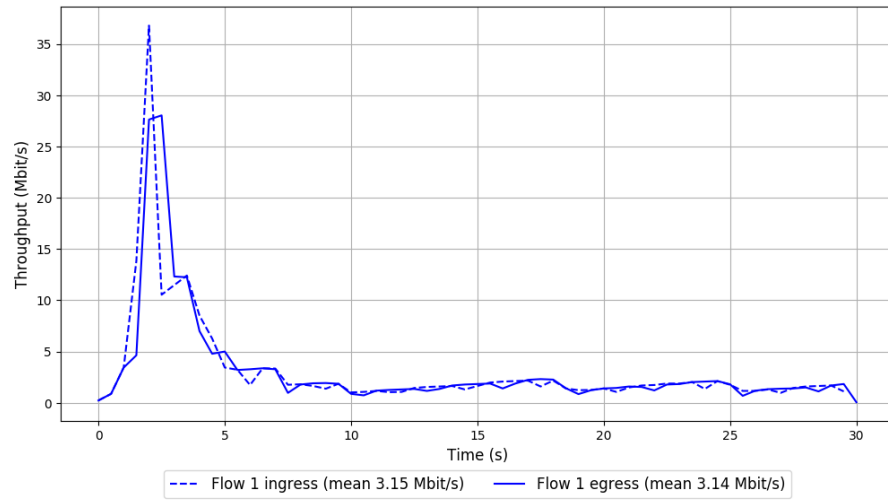
Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 1.37 Mbit/s) --- Flow 1 egress (mean 1.37 Mbit/s)

Flow 1 (95th percentile 135.81 ms)

```
Run 8: Statistics of TCP Vegas

Start at: 2017-09-21 22:51:50
End at: 2017-09-21 22:52:20

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 138.524 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 138.524 ms
Loss rate: 0.85%
```
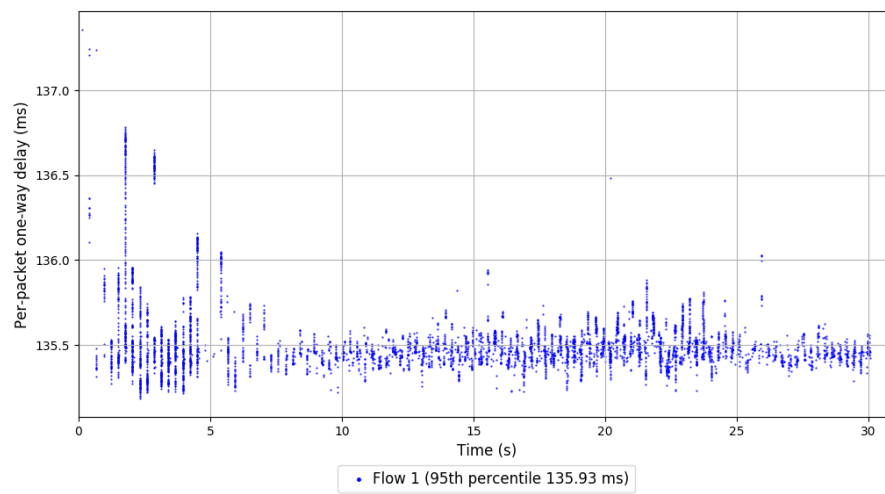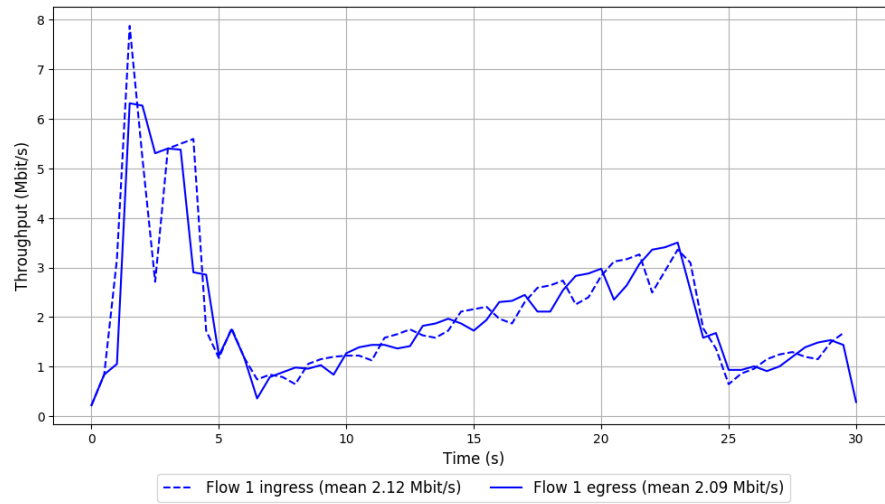
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 4.61 Mbit/s) --- Flow 1 egress (mean 4.57 Mbit/s)
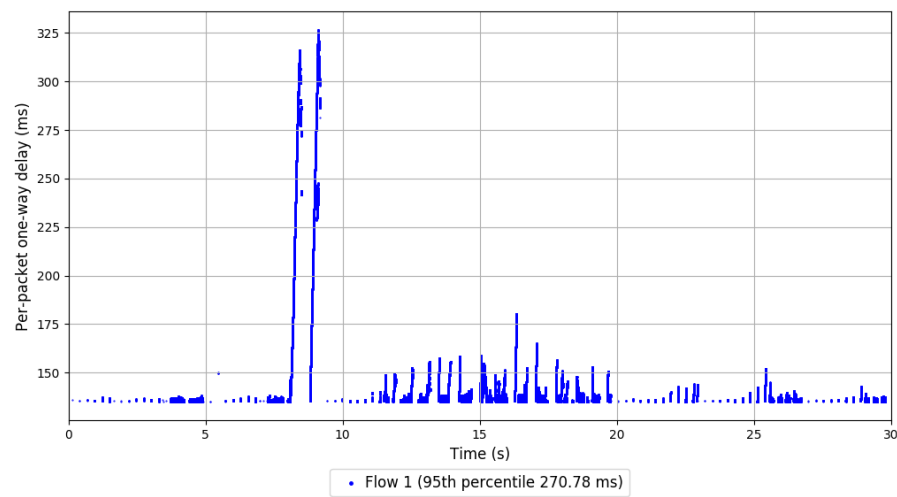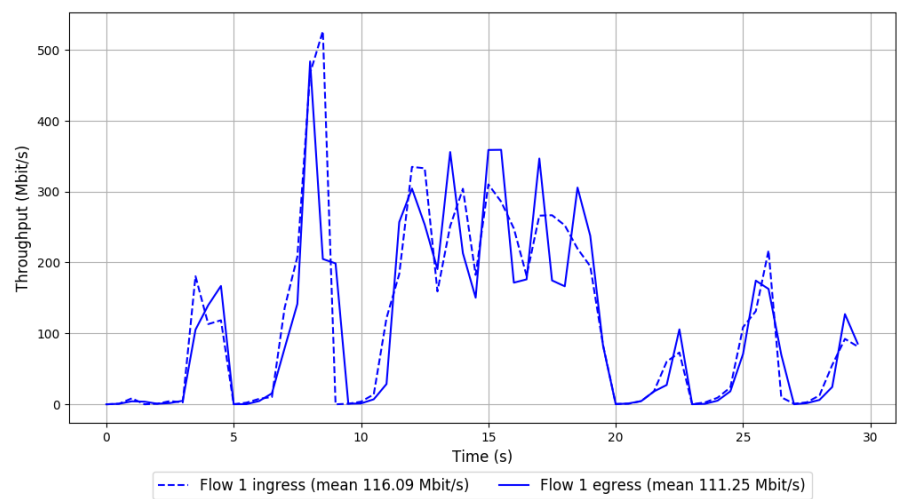

Flow 1 (95th percentile 138.52 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2017-09-21 23:03:09
End at: 2017-09-21 23:03:39

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 137.337 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 137.337 ms
Loss rate: 0.11%
```

Run 9: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 3.15 Mbit/s) --- Flow 1 egress (mean 3.14 Mbit/s)

Flow 1 (95th percentile 137.34 ms)

```
Run 10: Statistics of TCP Vegas

Start at: 2017-09-21 23:13:43
End at: 2017-09-21 23:14:13

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 135.928 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 135.928 ms
Loss rate: 1.38%
```
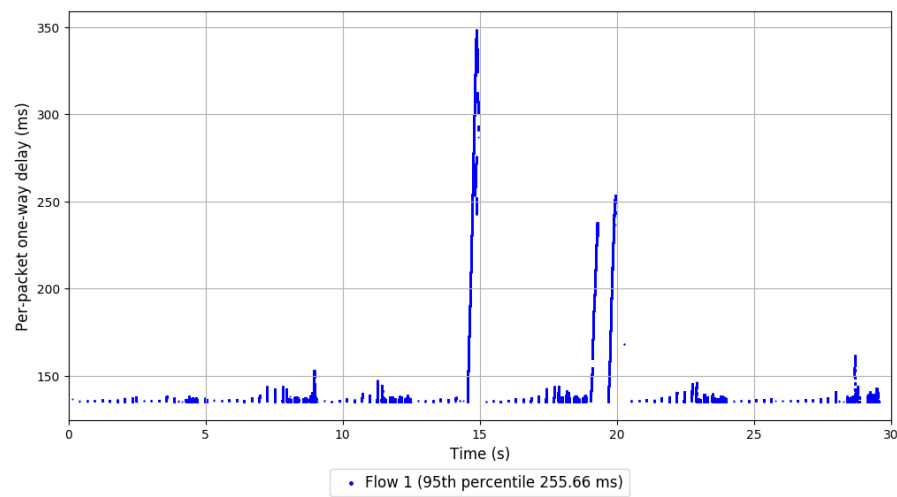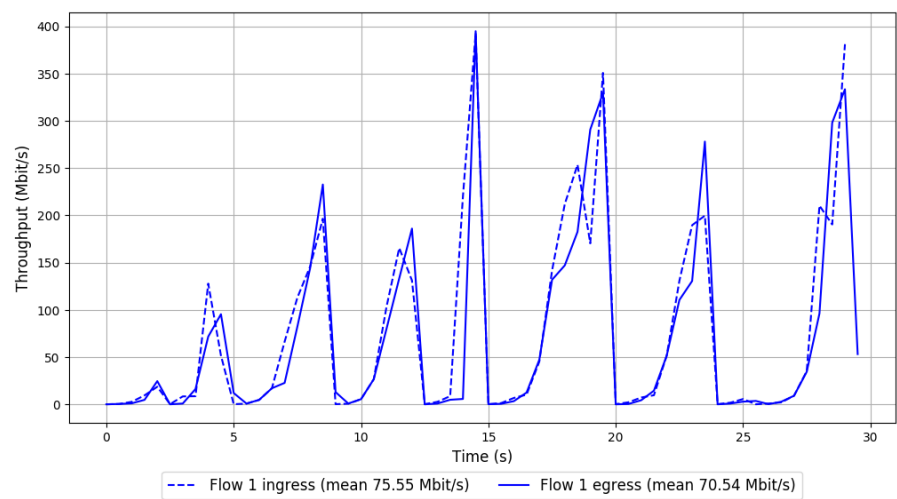
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2017-09-21 21:39:30
End at: 2017-09-21 21:40:00

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 111.25 Mbit/s
95th percentile per-packet one-way delay: 270.777 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 111.25 Mbit/s
95th percentile per-packet one-way delay: 270.777 ms
Loss rate: 4.16%
```
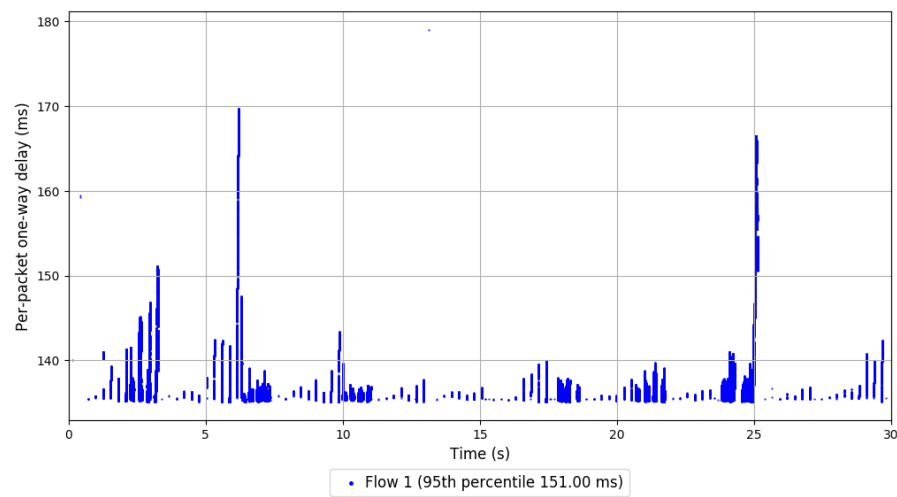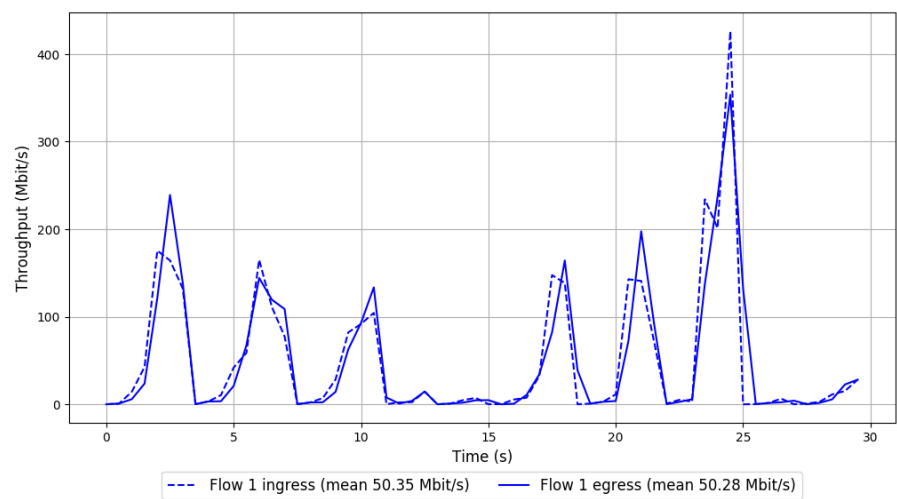
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2017-09-21 21:50:48
End at: 2017-09-21 21:51:18

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.54 Mbit/s
95th percentile per-packet one-way delay: 255.660 ms
Loss rate: 6.64%
-- Flow 1:
Average throughput: 70.54 Mbit/s
95th percentile per-packet one-way delay: 255.660 ms
Loss rate: 6.64%
```
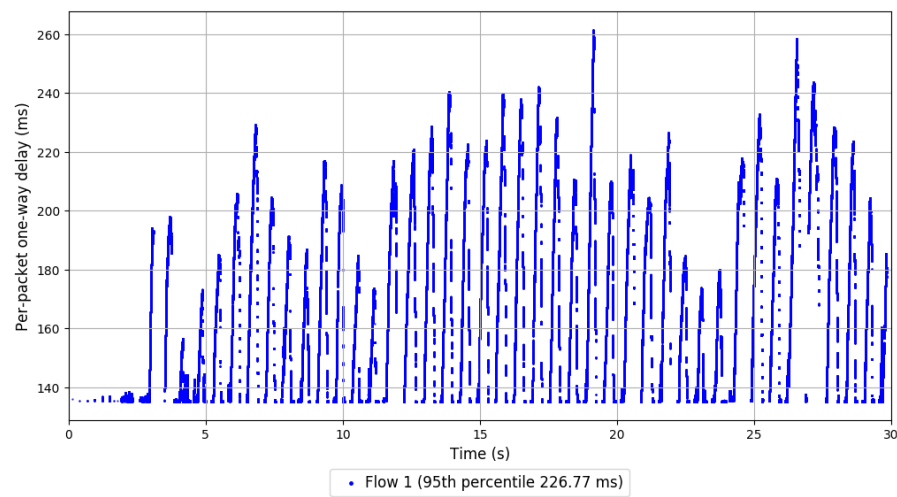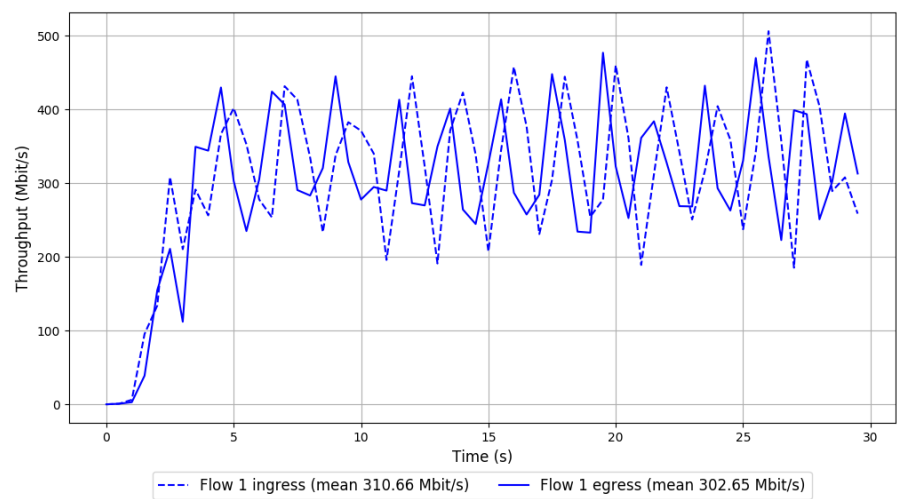
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2017-09-21 22:01:59
End at: 2017-09-21 22:02:30

# Below is generated by plot.py at 2017-09-22 00:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 150.997 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 150.997 ms
Loss rate: 0.16%
```
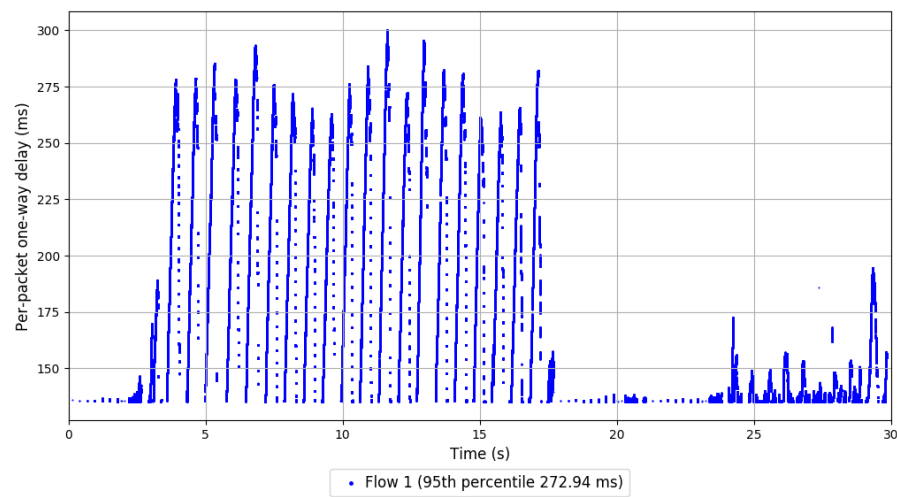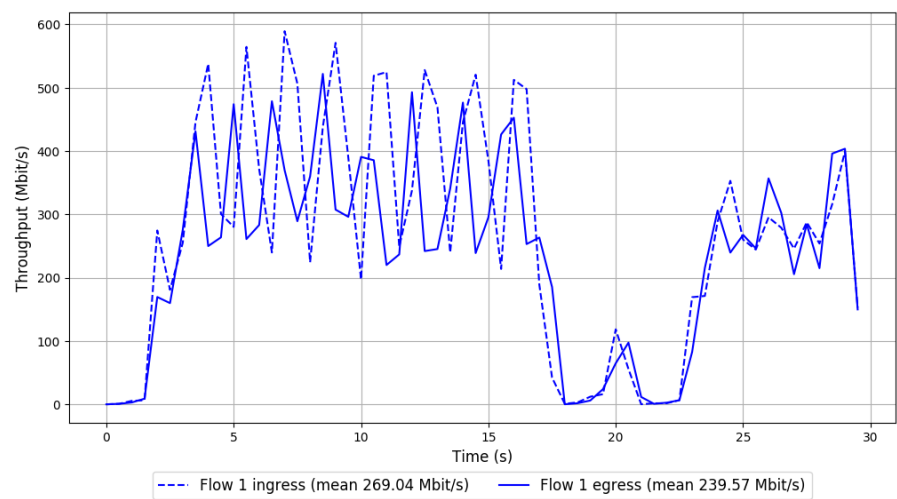
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2017-09-21 22:13:17
End at: 2017-09-21 22:13:47

# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 302.65 Mbit/s
95th percentile per-packet one-way delay: 226.767 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 302.65 Mbit/s
95th percentile per-packet one-way delay: 226.767 ms
Loss rate: 2.57%
```
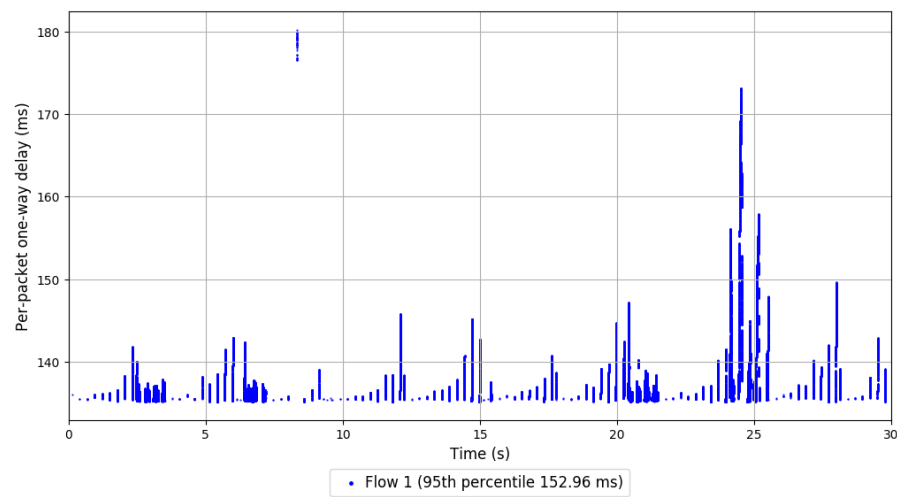
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2017-09-21 22:24:12
End at: 2017-09-21 22:24:42

# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 239.57 Mbit/s
95th percentile per-packet one-way delay: 272.945 ms
Loss rate: 10.94%
-- Flow 1:
Average throughput: 239.57 Mbit/s
95th percentile per-packet one-way delay: 272.945 ms
Loss rate: 10.94%
```
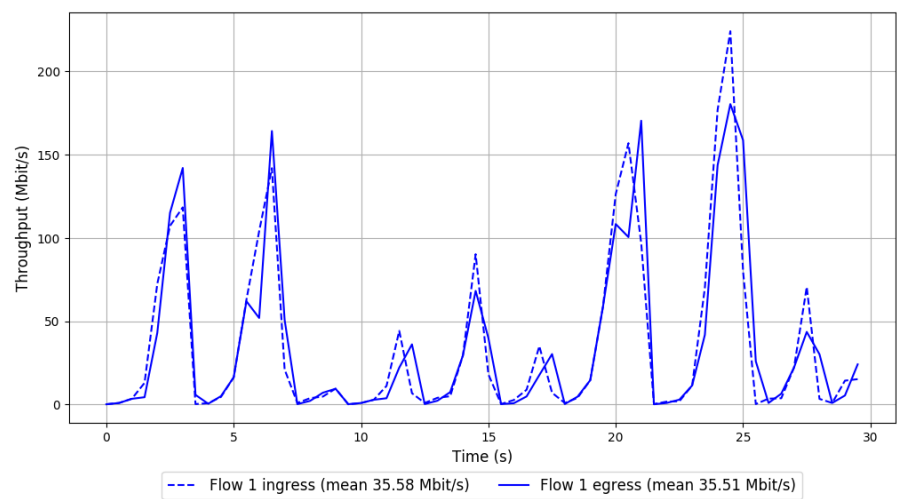
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2017-09-21 22:35:34
End at: 2017-09-21 22:36:04

# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 152.964 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 152.964 ms
Loss rate: 0.18%
```
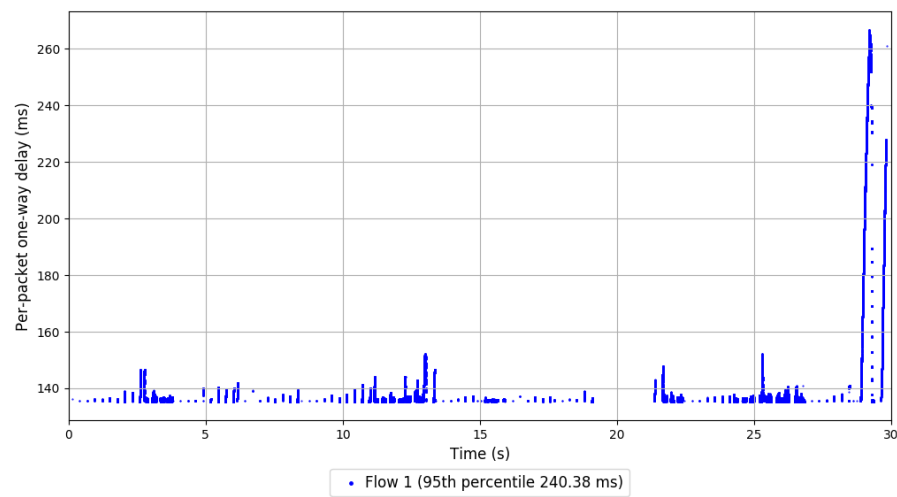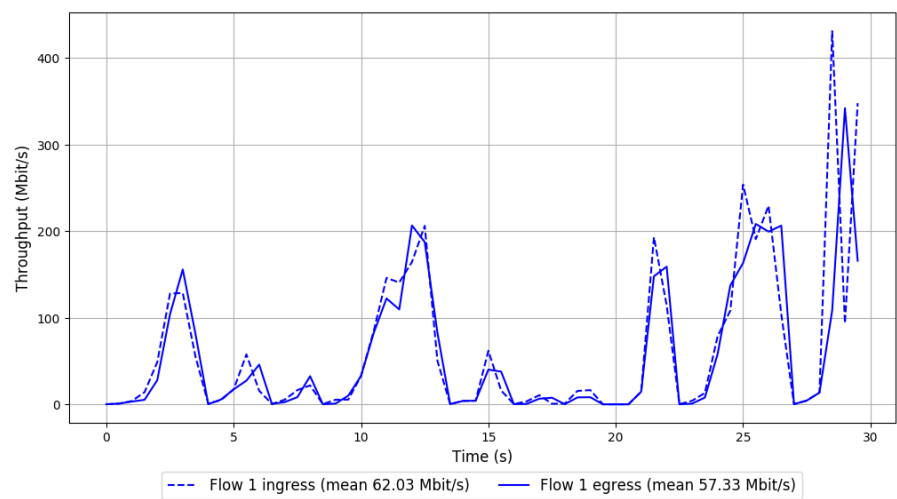
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2017-09-21 22:46:54
End at: 2017-09-21 22:47:24


# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 240.382 ms
Loss rate: 7.50%
-- Flow 1:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 240.382 ms
Loss rate: 7.50%
```
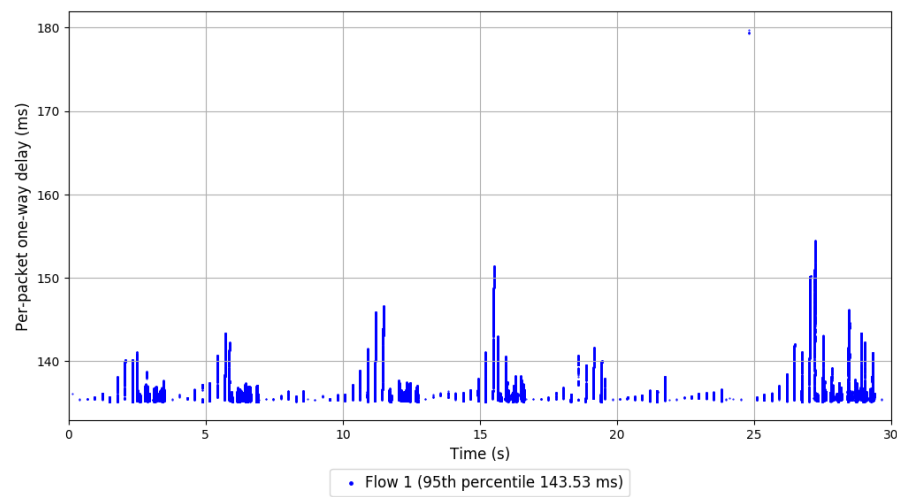
Run 7: Report of Verus — Data Link

Flow 1 ingress (mean 62.03 Mbit/s) —— Flow 1 egress (mean 57.33 Mbit/s)

• Flow 1 (95th percentile 240.38 ms)

```
Run 8: Statistics of Verus

Start at: 2017-09-21 22:58:21
End at: 2017-09-21 22:58:51


# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.05 Mbit/s
95th percentile per-packet one-way delay: 143.527 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 37.05 Mbit/s
95th percentile per-packet one-way delay: 143.527 ms
Loss rate: 3.08%
```
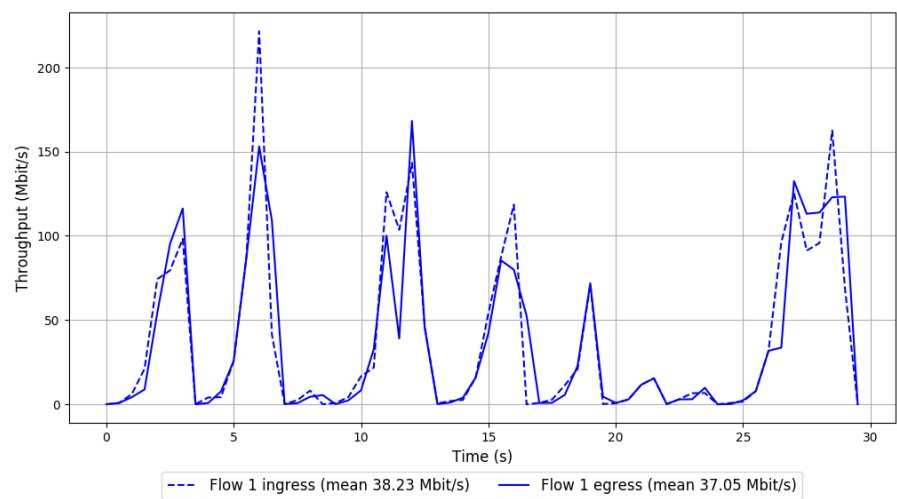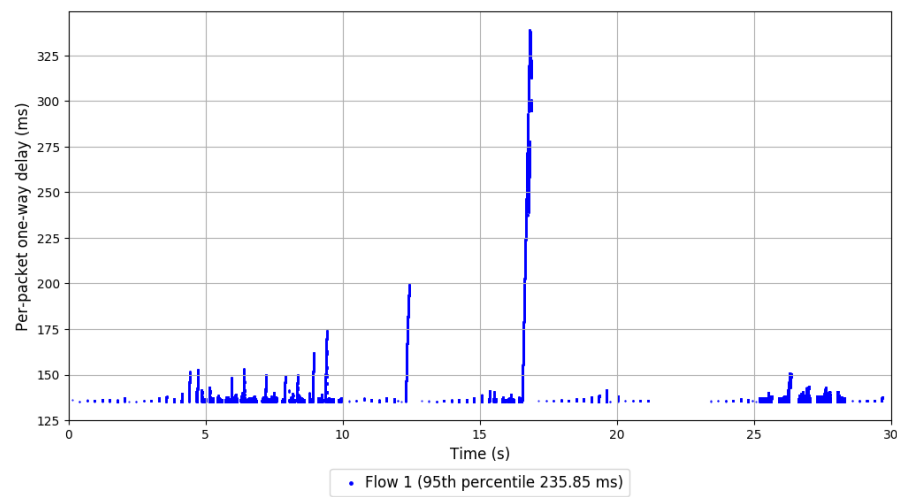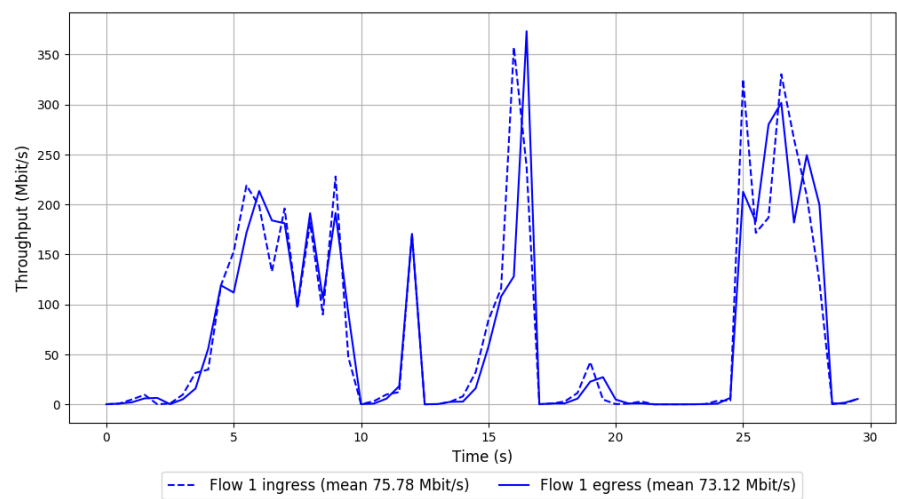
Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2017-09-21 23:08:52
End at: 2017-09-21 23:09:22

# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.12 Mbit/s
95th percentile per-packet one-way delay: 235.848 ms
Loss rate: 3.51%
-- Flow 1:
Average throughput: 73.12 Mbit/s
95th percentile per-packet one-way delay: 235.848 ms
Loss rate: 3.51%
```
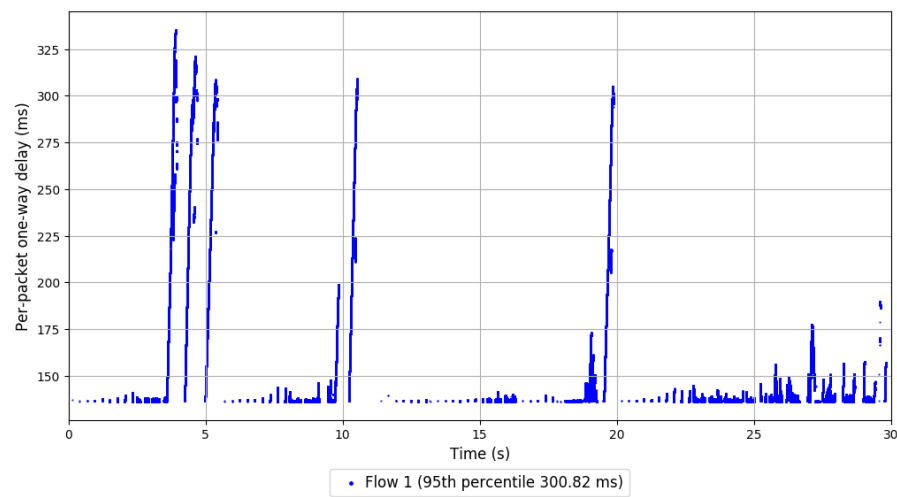
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2017-09-21 23:19:27
End at: 2017-09-21 23:19:57


# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 119.46 Mbit/s
95th percentile per-packet one-way delay: 300.819 ms
Loss rate: 6.10%
-- Flow 1:
Average throughput: 119.46 Mbit/s
95th percentile per-packet one-way delay: 300.819 ms
Loss rate: 6.10%
```
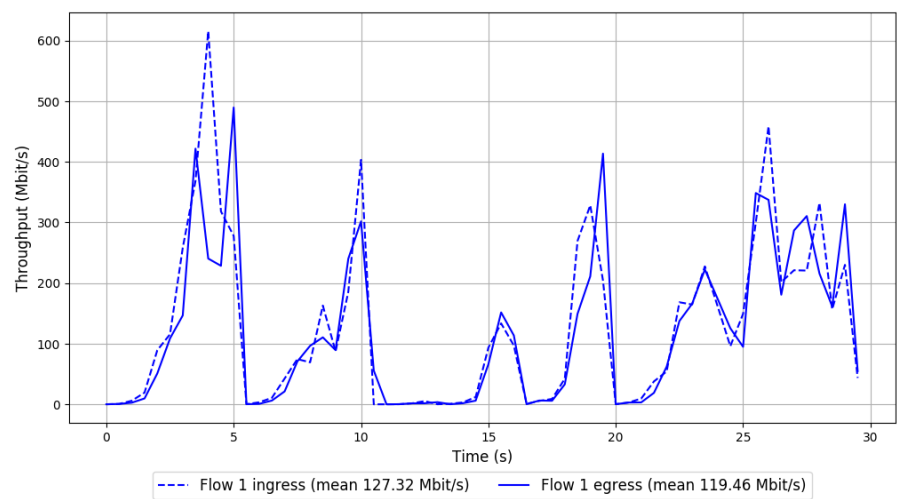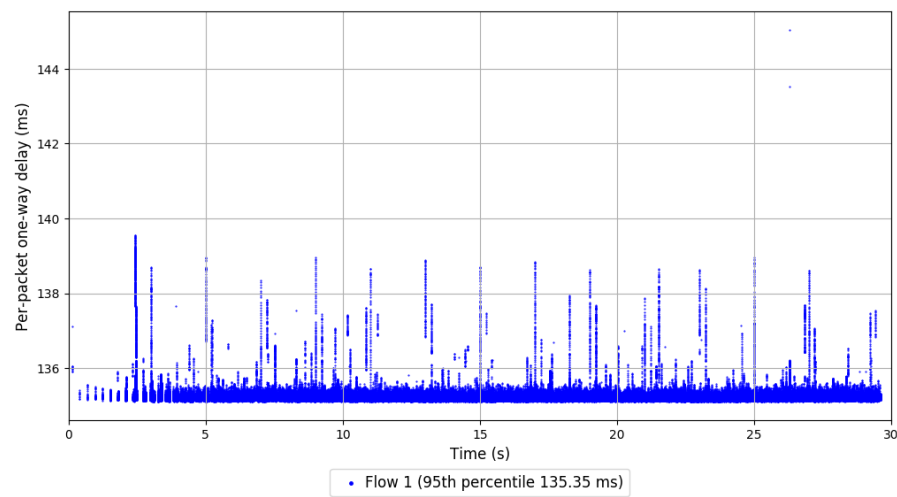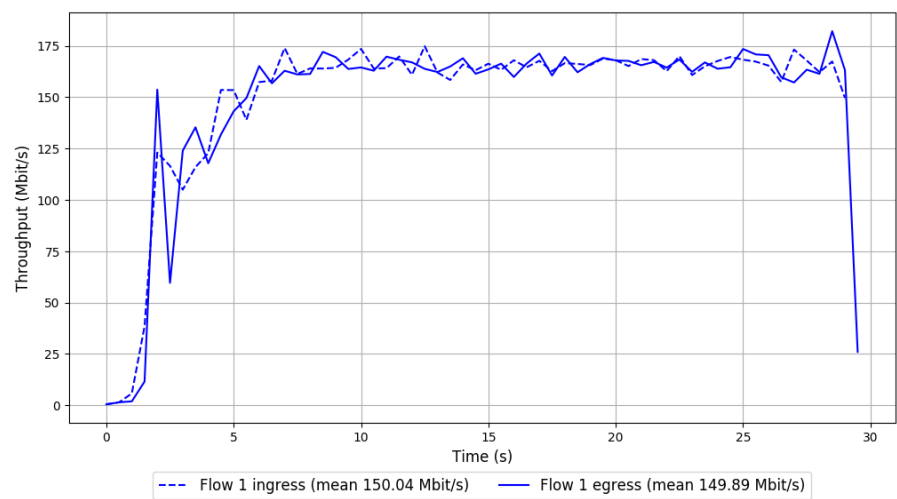
Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Indigo

Start at: 2017-09-21 21:32:34
End at: 2017-09-21 21:33:04

# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 149.89 Mbit/s
95th percentile per-packet one-way delay: 135.354 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 149.89 Mbit/s
95th percentile per-packet one-way delay: 135.354 ms
Loss rate: 0.10%
```
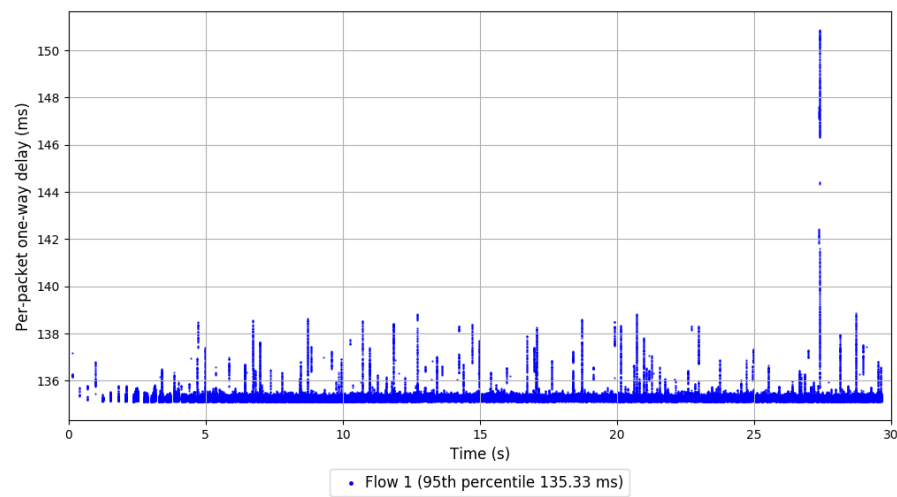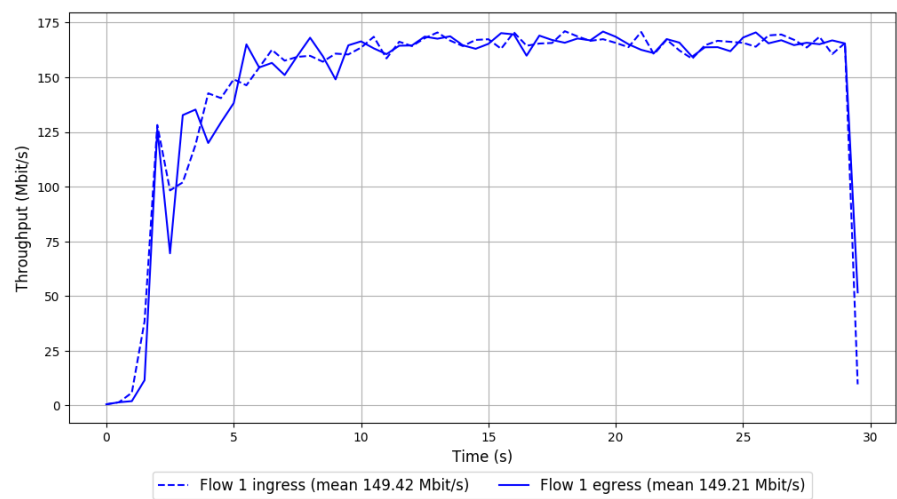
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2017-09-21 21:43:28
End at: 2017-09-21 21:43:58

# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 149.21 Mbit/s
95th percentile per-packet one-way delay: 135.327 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 149.21 Mbit/s
95th percentile per-packet one-way delay: 135.327 ms
Loss rate: 0.15%
```
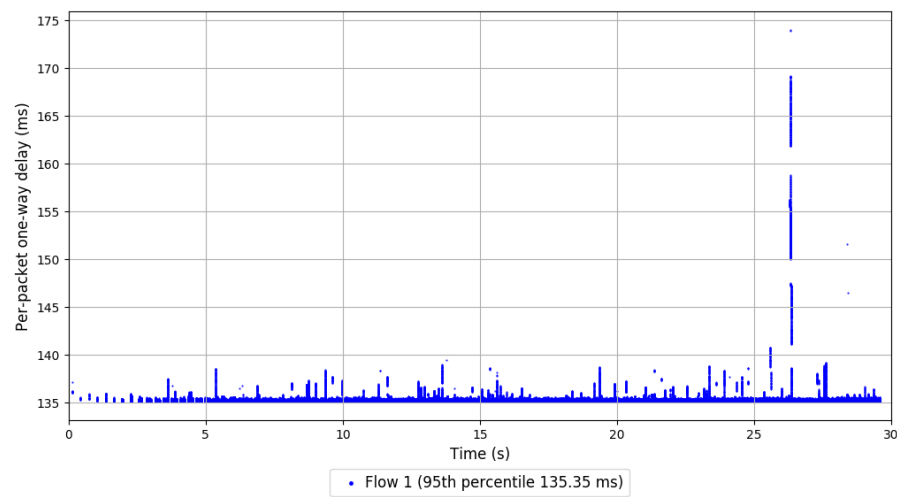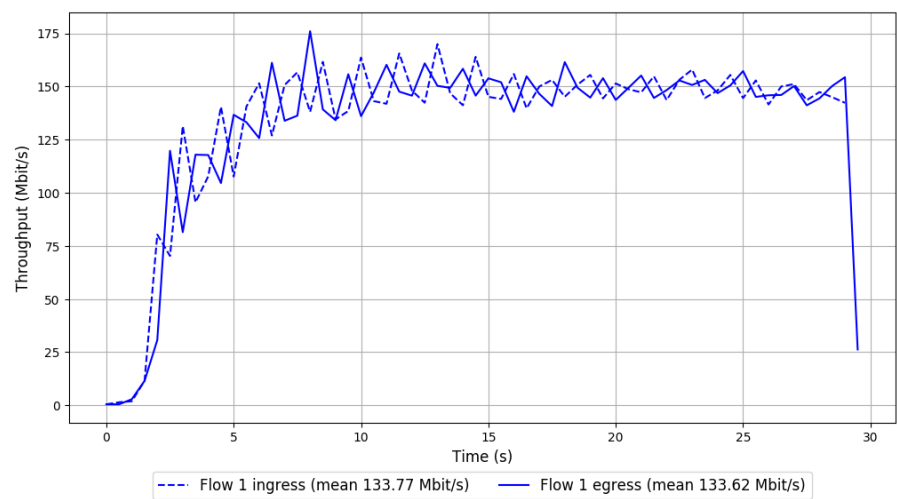
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2017-09-21 21:54:45
End at: 2017-09-21 21:55:15

# Below is generated by plot.py at 2017-09-22 00:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.62 Mbit/s
95th percentile per-packet one-way delay: 135.346 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 133.62 Mbit/s
95th percentile per-packet one-way delay: 135.346 ms
Loss rate: 0.11%
```

Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2017-09-21 22:05:57
End at: 2017-09-21 22:06:27

# Below is generated by plot.py at 2017-09-22 00:12:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 145.61 Mbit/s
95th percentile per-packet one-way delay: 135.352 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 145.61 Mbit/s
95th percentile per-packet one-way delay: 135.352 ms
Loss rate: 0.09%
```
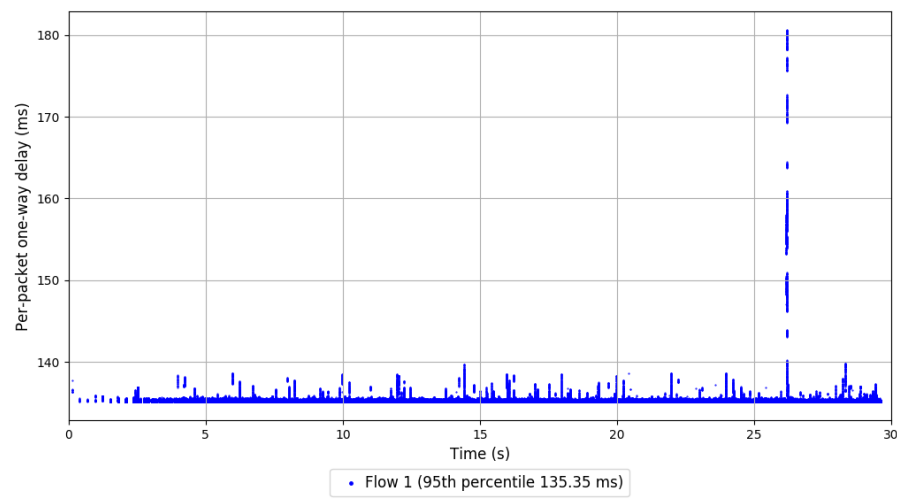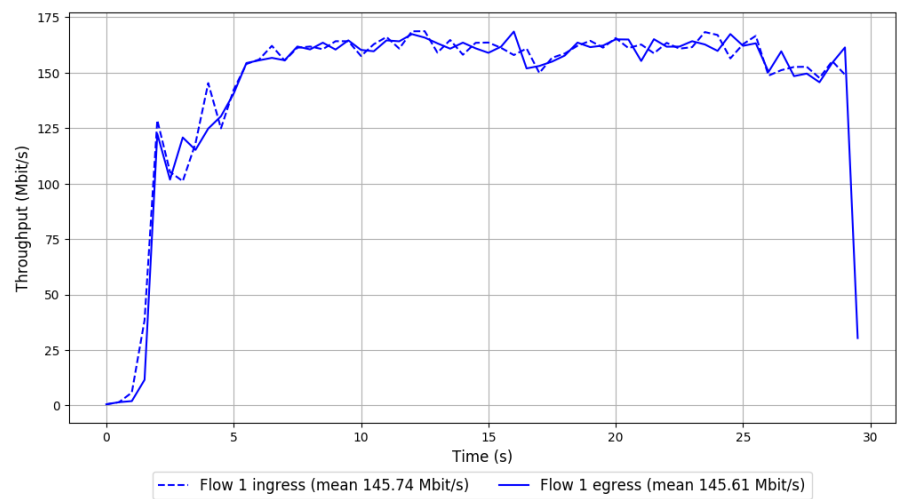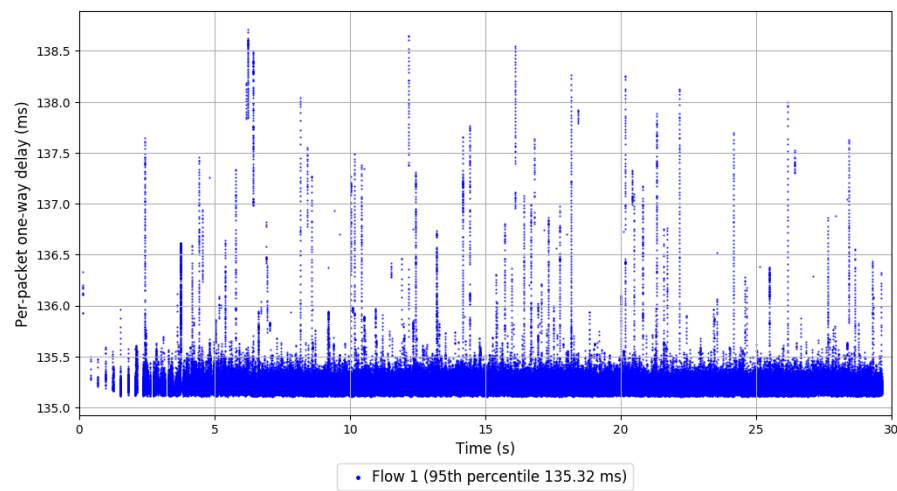
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2017-09-21 22:17:34
End at: 2017-09-21 22:18:04

# Below is generated by plot.py at 2017-09-22 00:12:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 152.65 Mbit/s
95th percentile per-packet one-way delay: 135.324 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 152.65 Mbit/s
95th percentile per-packet one-way delay: 135.324 ms
Loss rate: 0.10%
```
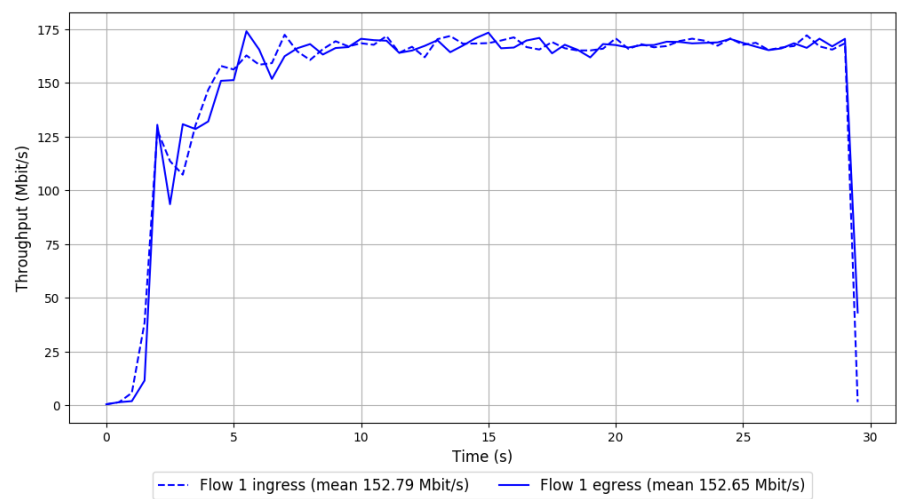
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2017-09-21 22:28:25
End at: 2017-09-21 22:28:55

# Below is generated by plot.py at 2017-09-22 00:13:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 147.60 Mbit/s
95th percentile per-packet one-way delay: 135.364 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 147.60 Mbit/s
95th percentile per-packet one-way delay: 135.364 ms
Loss rate: 0.24%
```
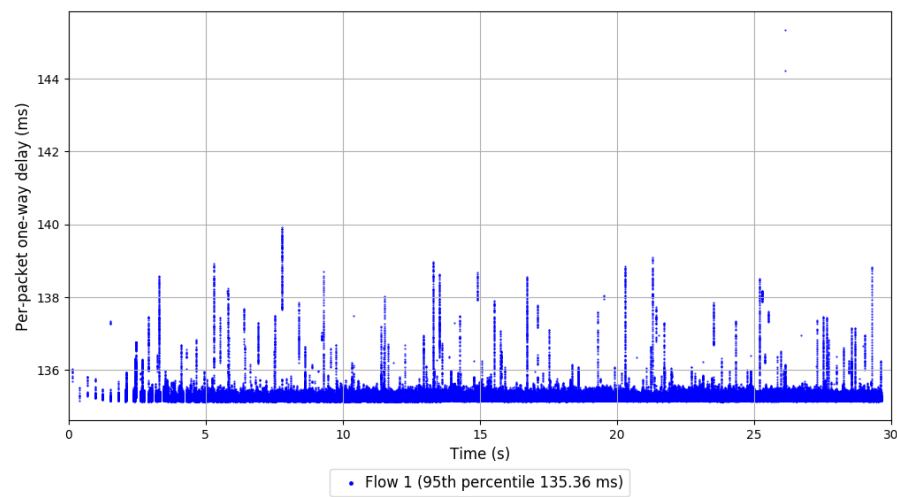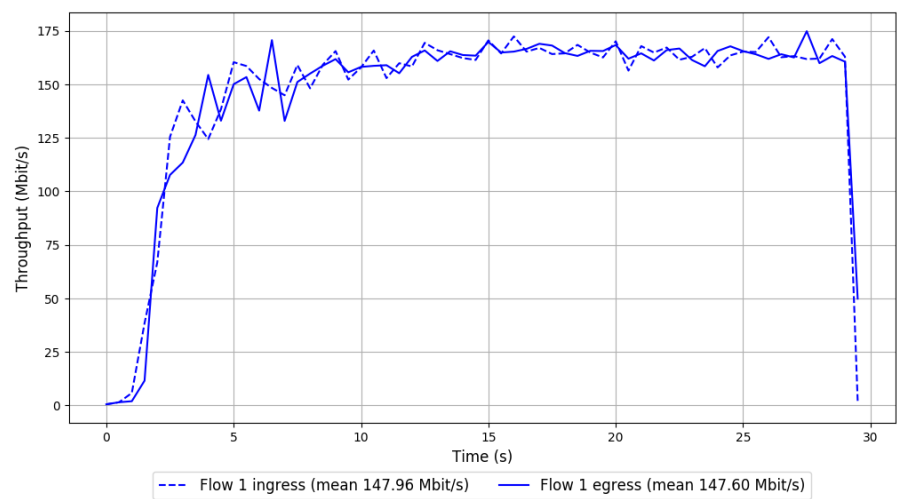
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2017-09-21 22:39:29
End at: 2017-09-21 22:39:59

# Below is generated by plot.py at 2017-09-22 00:13:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 151.30 Mbit/s
95th percentile per-packet one-way delay: 135.337 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 151.30 Mbit/s
95th percentile per-packet one-way delay: 135.337 ms
Loss rate: 0.10%
```
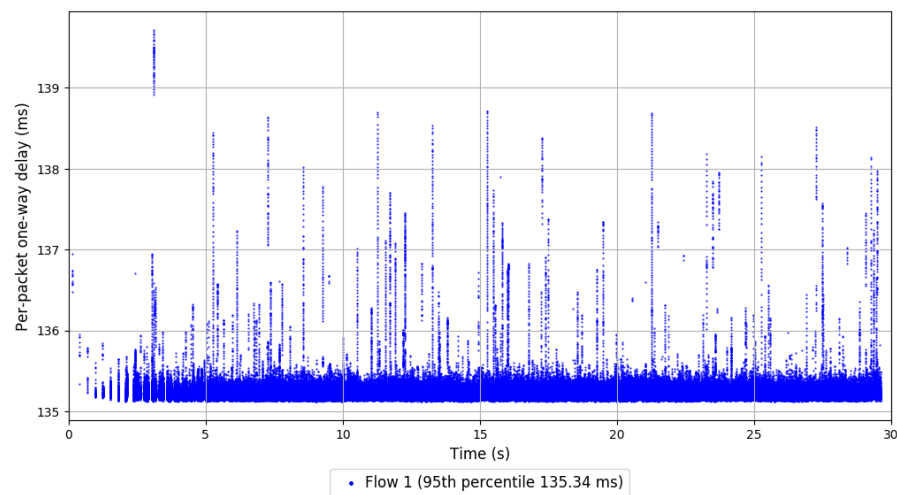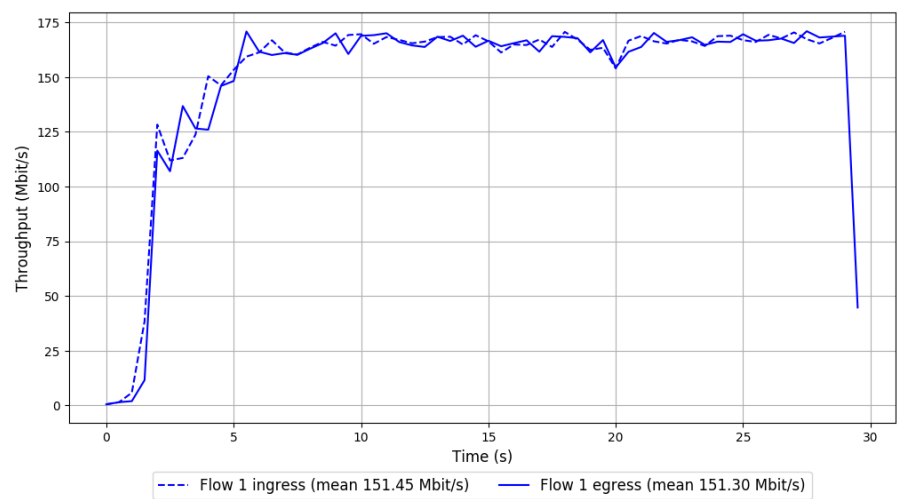
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2017-09-21 22:50:55
End at: 2017-09-21 22:51:25

# Below is generated by plot.py at 2017-09-22 00:13:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 128.79 Mbit/s
95th percentile per-packet one-way delay: 135.346 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 128.79 Mbit/s
95th percentile per-packet one-way delay: 135.346 ms
Loss rate: 0.10%
```
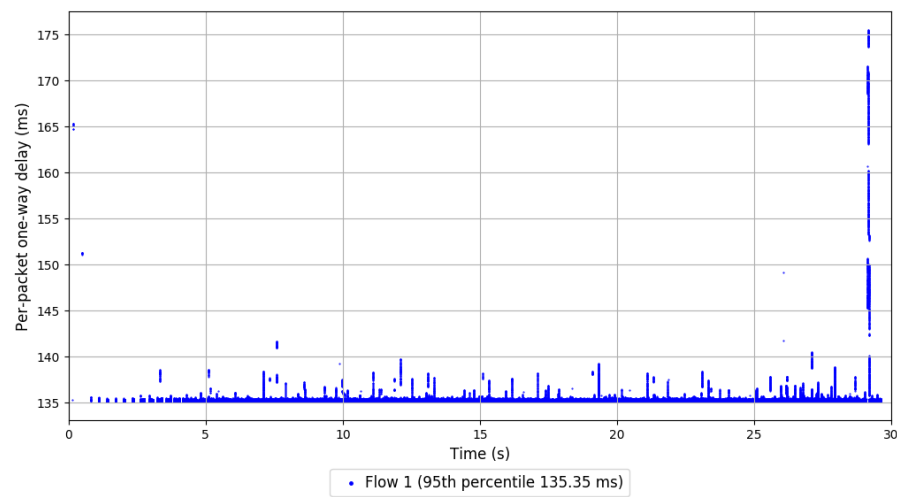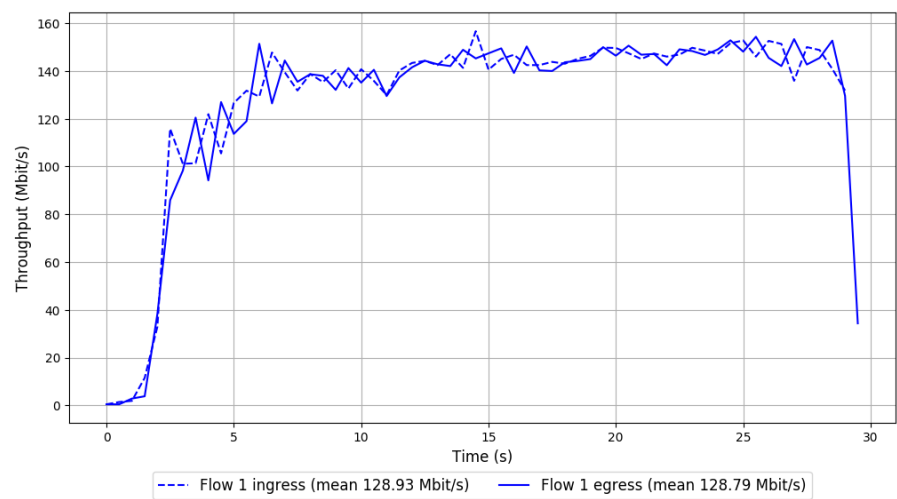
Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2017-09-21 23:02:14
End at: 2017-09-21 23:02:44

# Below is generated by plot.py at 2017-09-22 00:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.84 Mbit/s
95th percentile per-packet one-way delay: 135.359 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 146.84 Mbit/s
95th percentile per-packet one-way delay: 135.359 ms
Loss rate: 0.29%
```
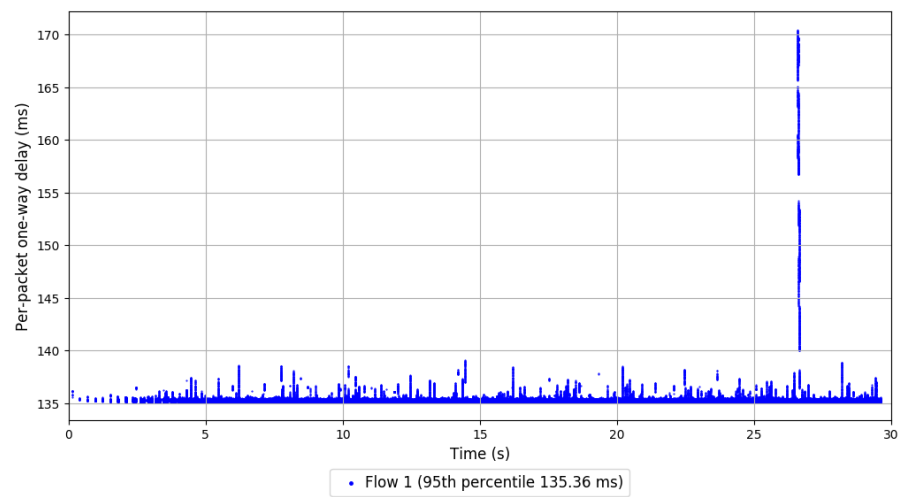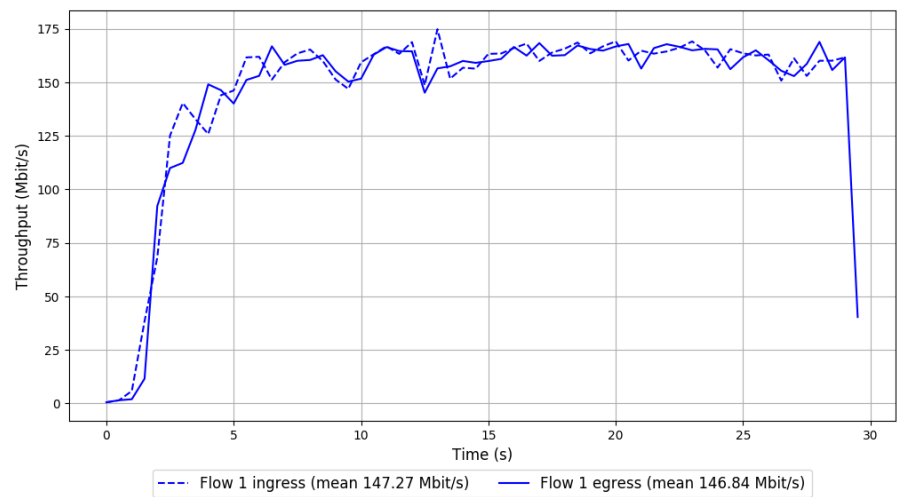
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2017-09-21 23:12:48
End at: 2017-09-21 23:13:18

# Below is generated by plot.py at 2017-09-22 00:14:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 149.48 Mbit/s
95th percentile per-packet one-way delay: 135.379 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 149.48 Mbit/s
95th percentile per-packet one-way delay: 135.379 ms
Loss rate: 0.10%
```
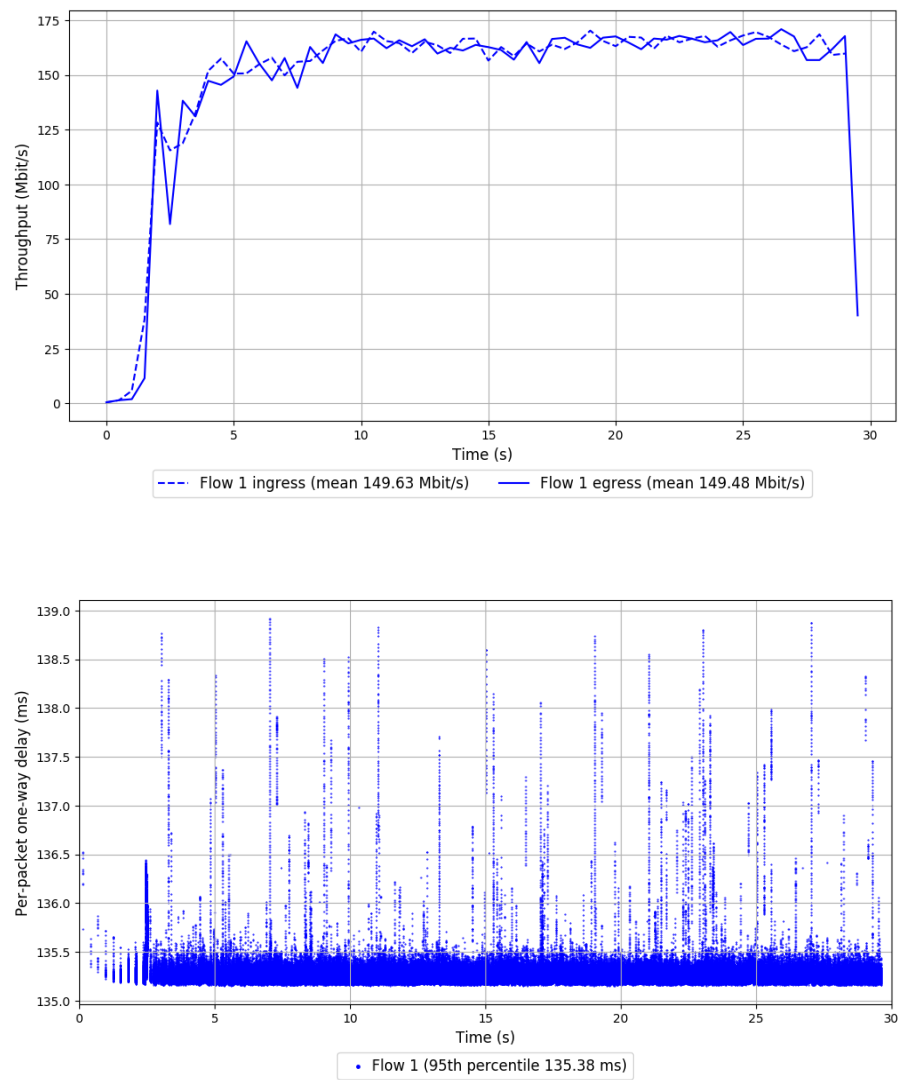
Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 149.63 Mbit/s)   Flow 1 egress (mean 149.48 Mbit/s)

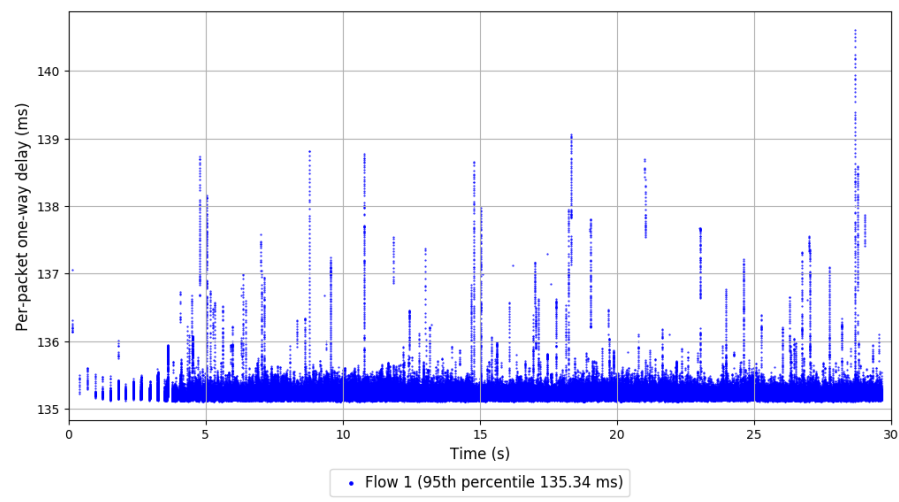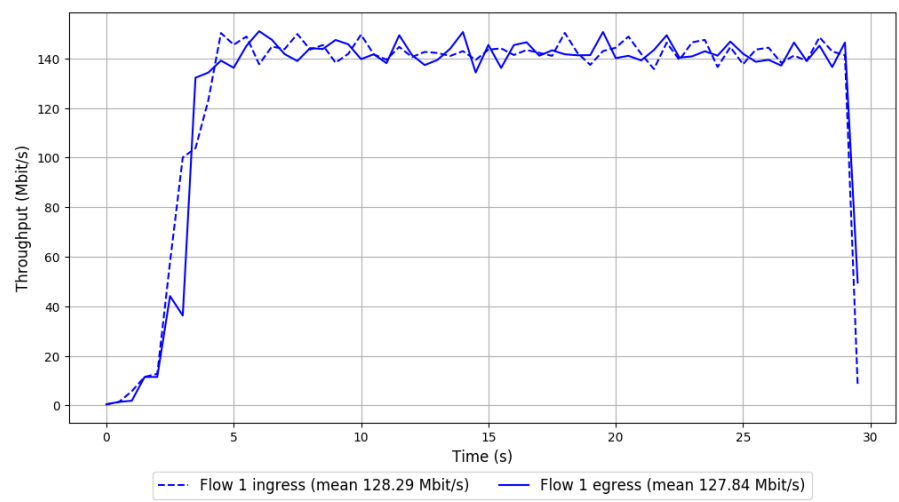

Flow 1 (95th percentile 135.38 ms)

```
Run 1: Statistics of Indigo-calib

Start at: 2017-09-21 21:42:34
End at: 2017-09-21 21:43:04

# Below is generated by plot.py at 2017-09-22 00:14:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 127.84 Mbit/s
95th percentile per-packet one-way delay: 135.342 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 127.84 Mbit/s
95th percentile per-packet one-way delay: 135.342 ms
Loss rate: 0.36%
```
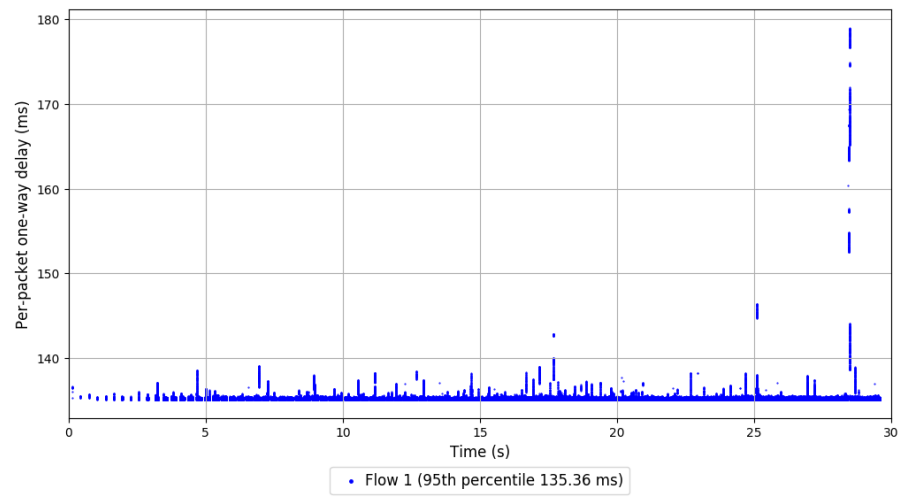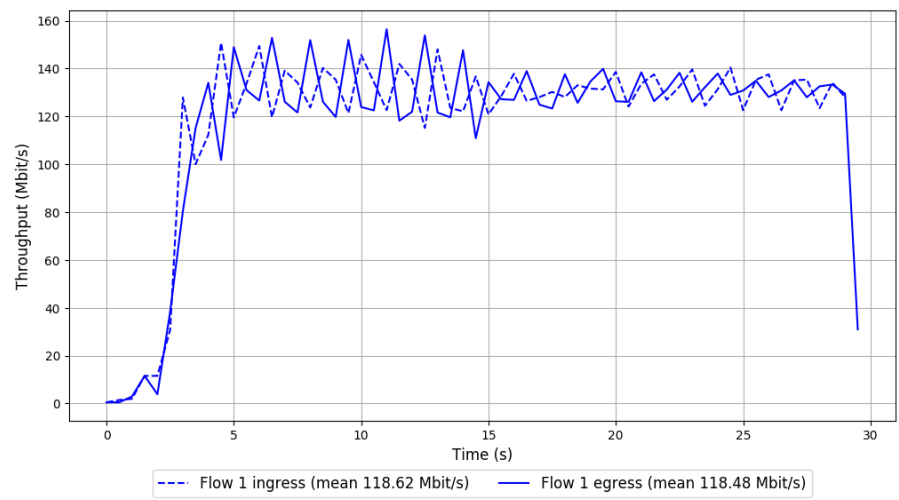
Run 1: Report of Indigo-calib — Data Link

```
Run 2: Statistics of Indigo-calib

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

# Below is generated by plot.py at 2017-09-22 00:14:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.48 Mbit/s
95th percentile per-packet one-way delay: 135.364 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 118.48 Mbit/s
95th percentile per-packet one-way delay: 135.364 ms
Loss rate: 0.12%
```
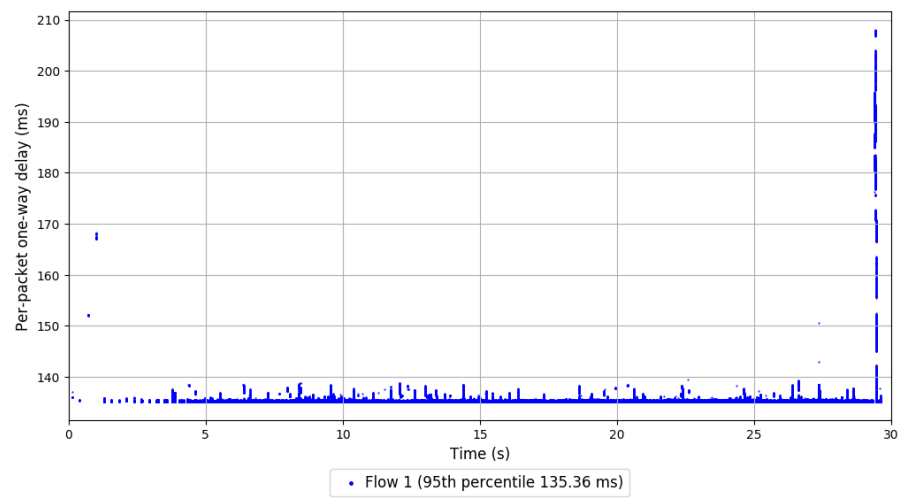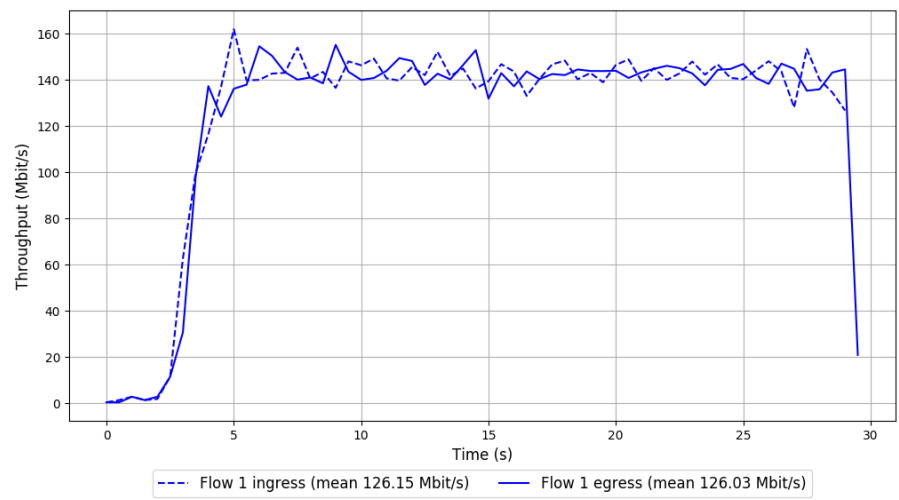
Run 2: Report of Indigo-calib — Data Link

```
Run 3: Statistics of Indigo-calib

Start at: 2017-09-21 22:05:02
End at: 2017-09-21 22:05:32

# Below is generated by plot.py at 2017-09-22 00:15:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 126.03 Mbit/s
95th percentile per-packet one-way delay: 135.357 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 126.03 Mbit/s
95th percentile per-packet one-way delay: 135.357 ms
Loss rate: 0.10%
```

Run 3: Report of Indigo-calib — Data Link

```
Run 4: Statistics of Indigo-calib

Start at: 2017-09-21 22:16:40
End at: 2017-09-21 22:17:10

# Below is generated by plot.py at 2017-09-22 00:15:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 129.44 Mbit/s
95th percentile per-packet one-way delay: 135.379 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 129.44 Mbit/s
95th percentile per-packet one-way delay: 135.379 ms
Loss rate: 0.11%
```
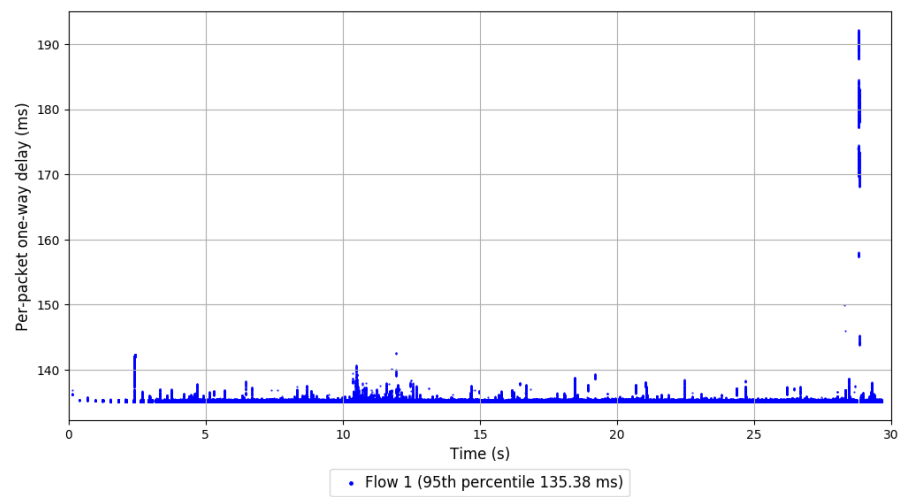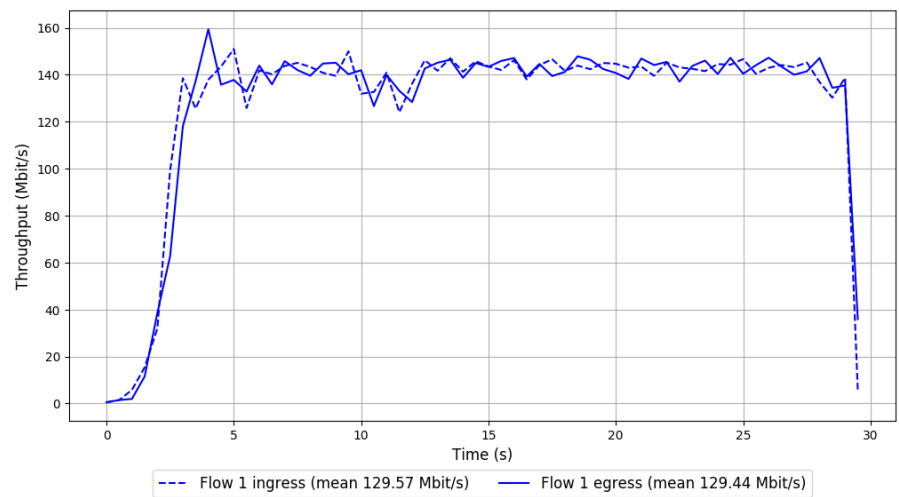
Run 4: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 129.57 Mbit/s)   Flow 1 egress (mean 129.44 Mbit/s)

Flow 1 (95th percentile 135.38 ms)

```
Run 5: Statistics of Indigo-calib

Start at: 2017-09-21 22:27:31
End at: 2017-09-21 22:28:01

# Below is generated by plot.py at 2017-09-22 00:16:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.59 Mbit/s
95th percentile per-packet one-way delay: 135.354 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 130.59 Mbit/s
95th percentile per-packet one-way delay: 135.354 ms
Loss rate: 0.26%
```
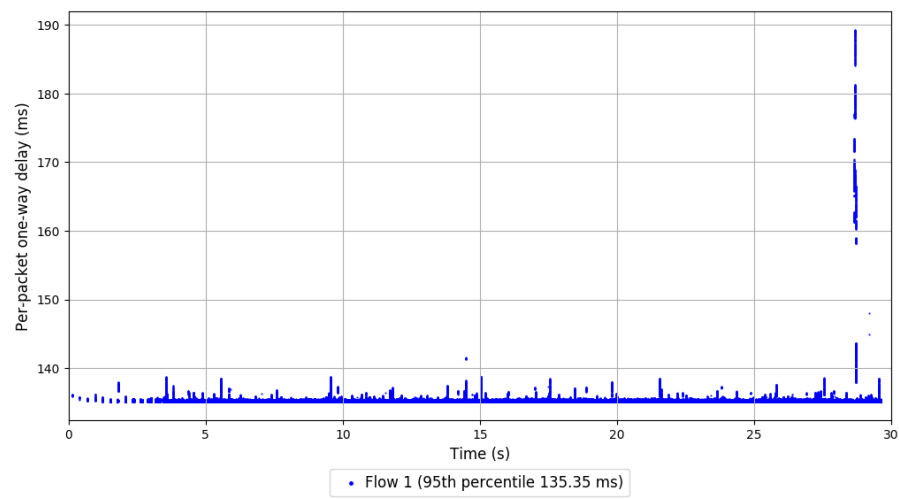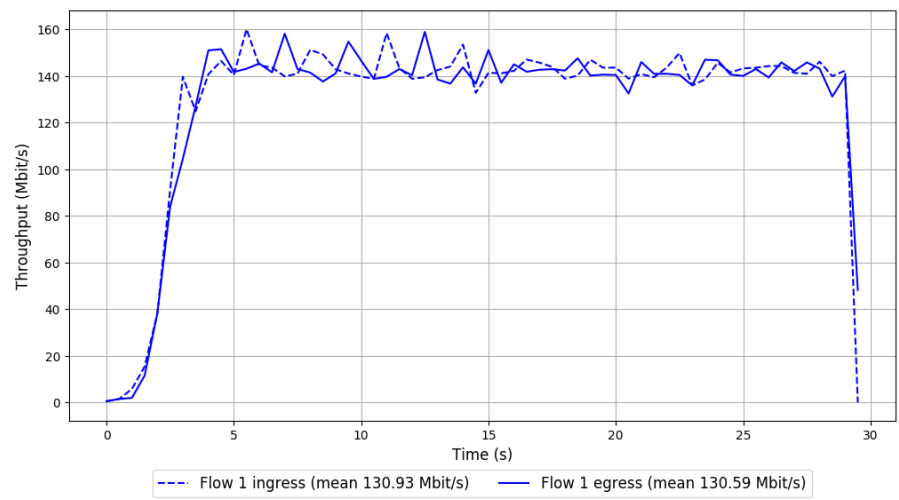
Run 5: Report of Indigo-calib — Data Link

```
Run 6: Statistics of Indigo-calib

Start at: 2017-09-21 22:38:35
End at: 2017-09-21 22:39:05

# Below is generated by plot.py at 2017-09-22 00:16:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 128.68 Mbit/s
95th percentile per-packet one-way delay: 135.354 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 128.68 Mbit/s
95th percentile per-packet one-way delay: 135.354 ms
Loss rate: 0.59%
```
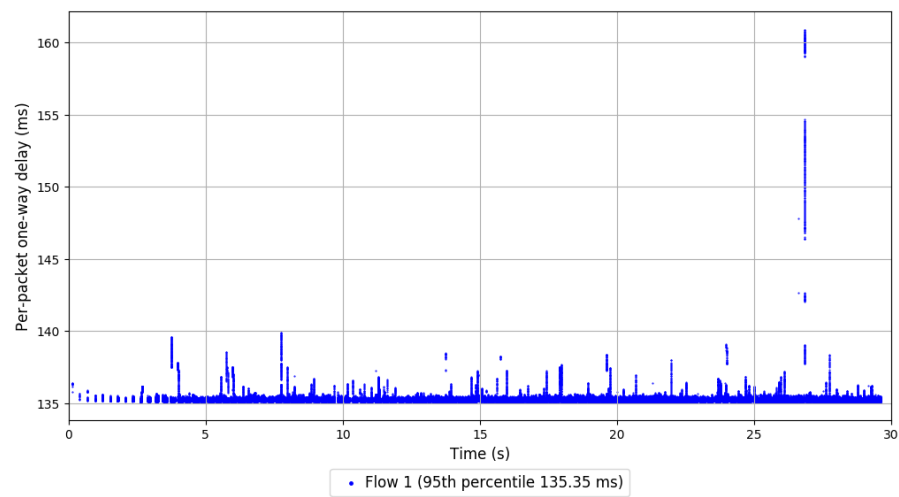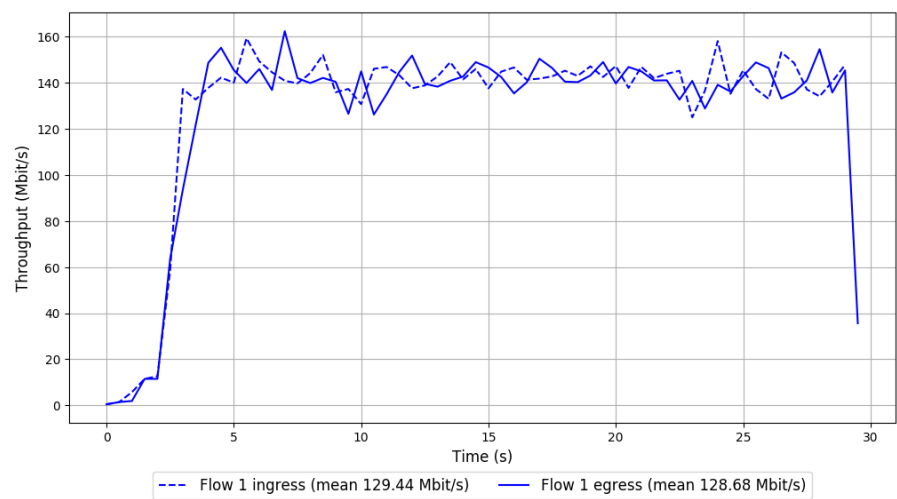
Run 6: Report of Indigo-calib — Data Link

```
Run 7: Statistics of Indigo-calib

Start at: 2017-09-21 22:50:00
End at: 2017-09-21 22:50:30

# Below is generated by plot.py at 2017-09-22 00:16:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 129.57 Mbit/s
95th percentile per-packet one-way delay: 135.371 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 129.57 Mbit/s
95th percentile per-packet one-way delay: 135.371 ms
Loss rate: 0.10%
```
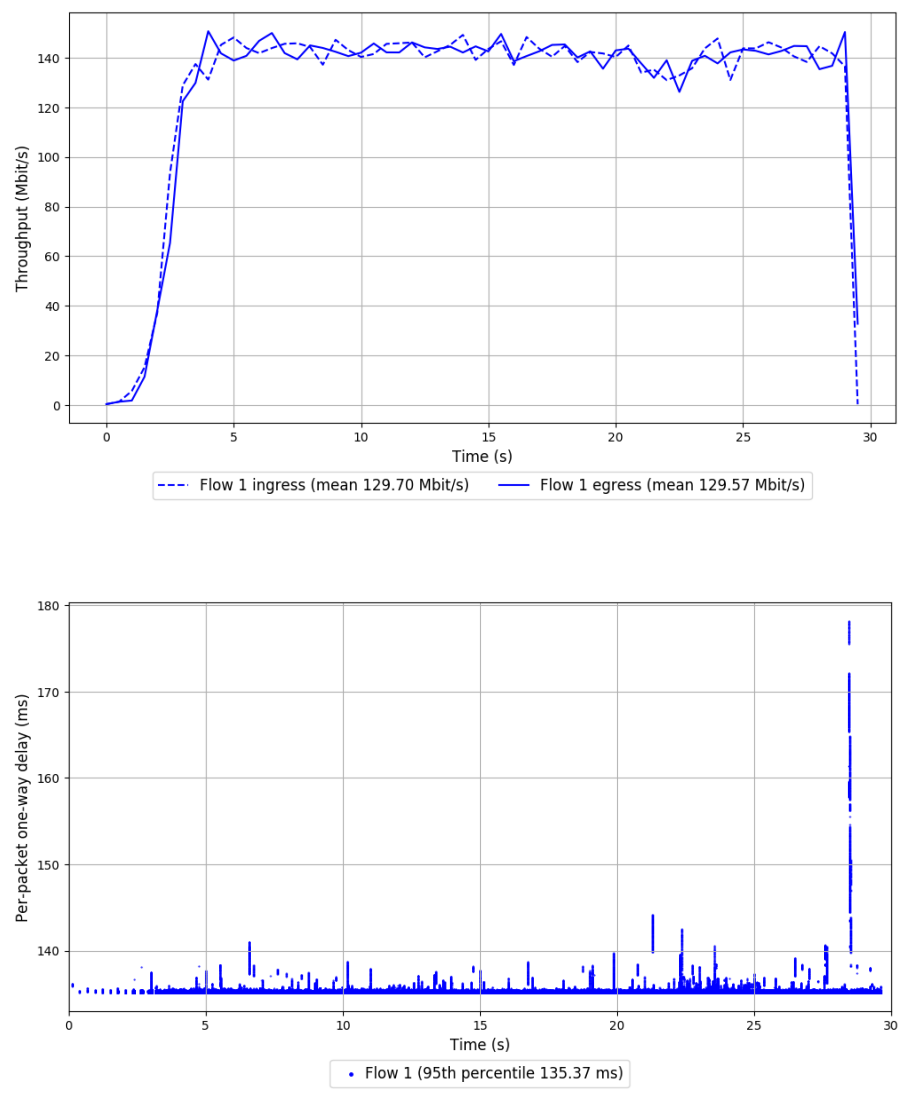
Run 7: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 129.70 Mbit/s) --- Flow 1 egress (mean 129.57 Mbit/s)

Flow 1 (95th percentile 135.37 ms)

```
Run 8: Statistics of Indigo-calib

Start at: 2017-09-21 23:01:20
End at: 2017-09-21 23:01:50

# Below is generated by plot.py at 2017-09-22 00:16:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.94 Mbit/s
95th percentile per-packet one-way delay: 135.370 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 124.94 Mbit/s
95th percentile per-packet one-way delay: 135.370 ms
Loss rate: 0.22%
```
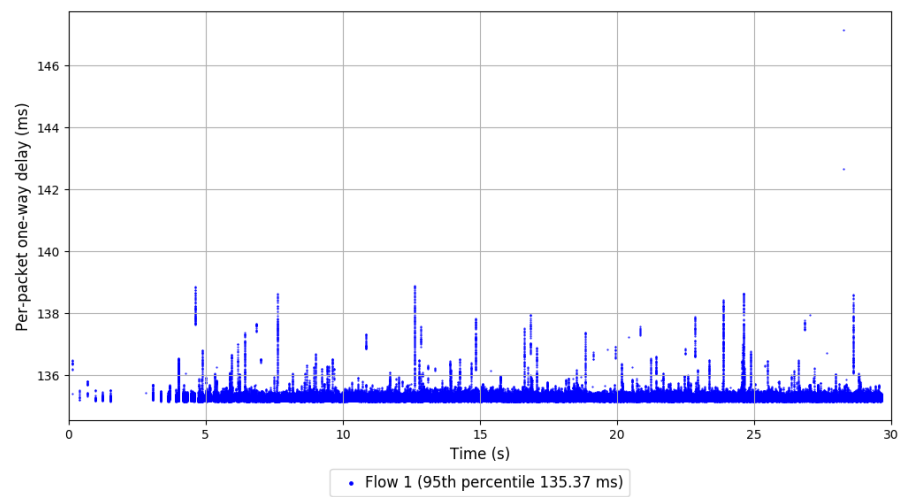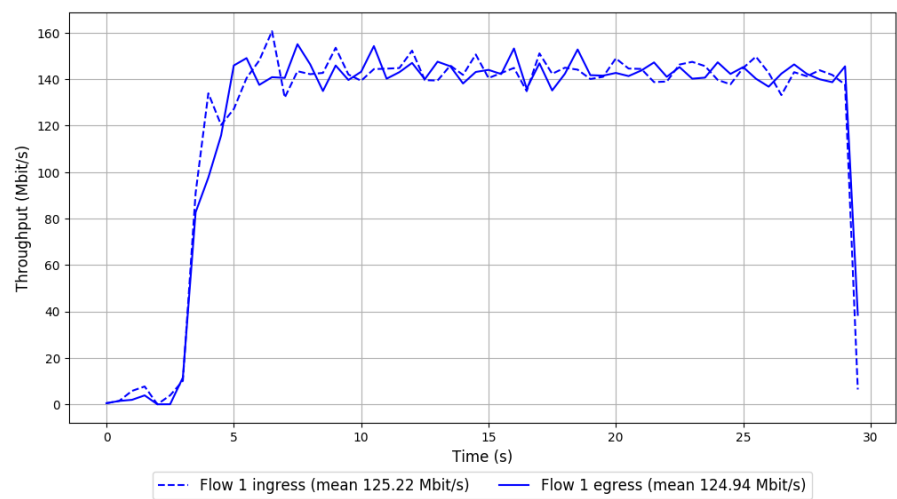
Run 8: Report of Indigo-calib — Data Link
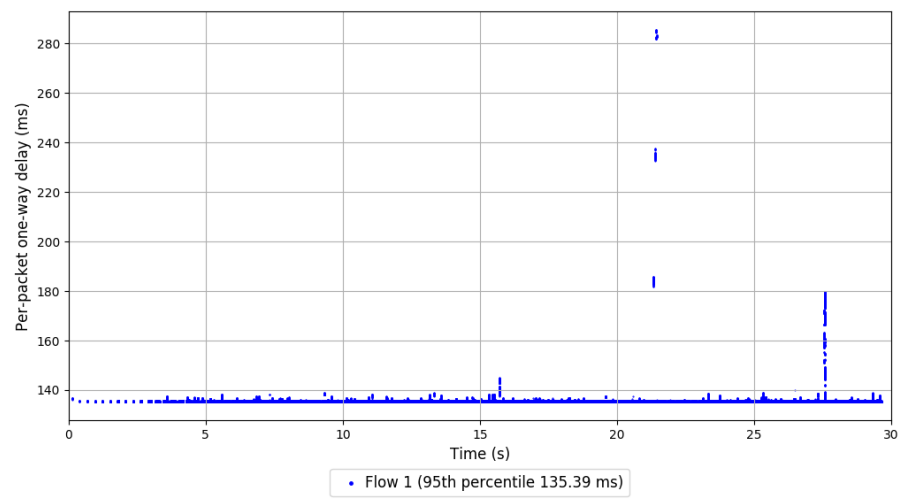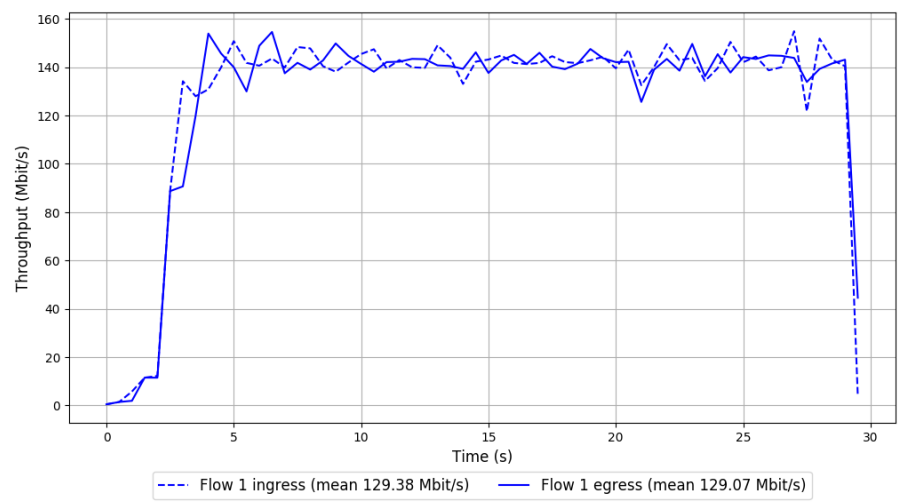

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```
Run 9: Statistics of Indigo-calib

Start at: 2017-09-21 23:11:53
End at: 2017-09-21 23:12:23

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 129.07 Mbit/s
95th percentile per-packet one-way delay: 135.389 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 129.07 Mbit/s
95th percentile per-packet one-way delay: 135.389 ms
Loss rate: 0.25%
```

Run 9: Report of Indigo-calib — Data Link

```
Run 10: Statistics of Indigo-calib

Start at: 2017-09-21 23:22:31
End at: 2017-09-21 23:23:01


# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.83 Mbit/s
95th percentile per-packet one-way delay: 136.389 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 130.83 Mbit/s
95th percentile per-packet one-way delay: 136.389 ms
Loss rate: 0.10%
```
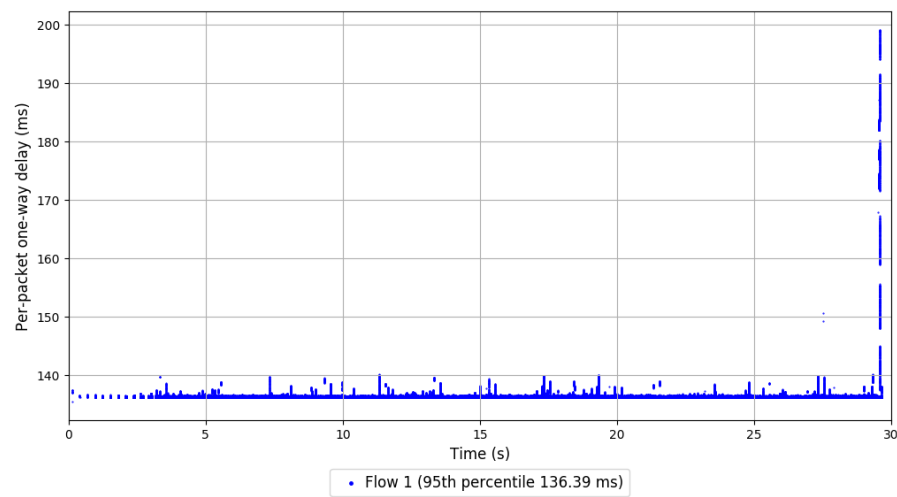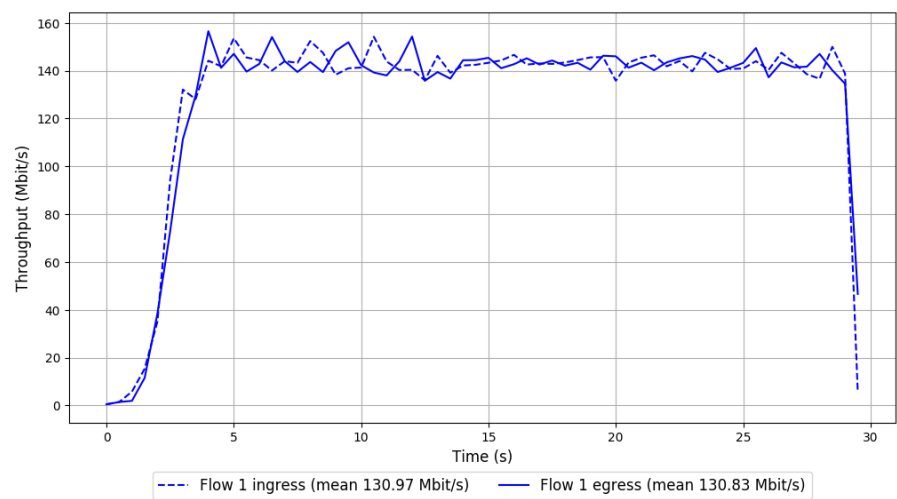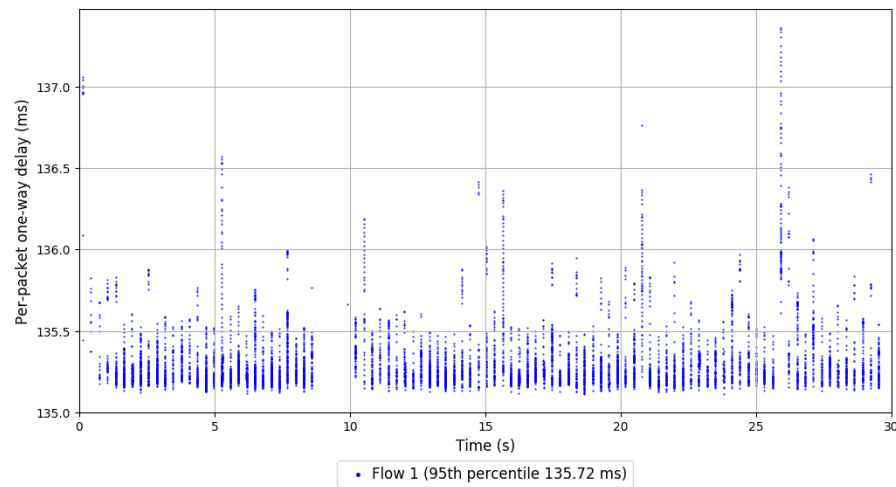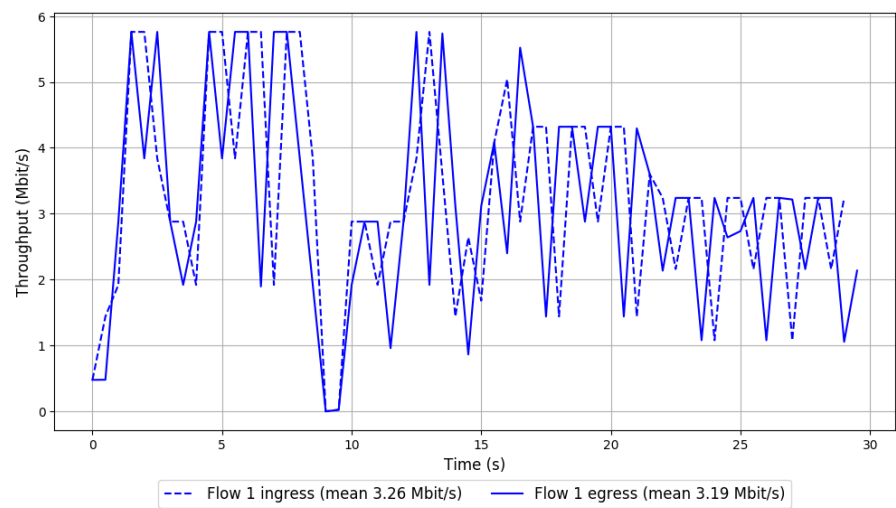
Run 10: Report of Indigo-calib — Data Link

```
Run 1: Statistics of Indigo-delay

Start at: 2017-09-21 21:34:12
End at: 2017-09-21 21:34:42

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 135.723 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 135.723 ms
Loss rate: 2.28%
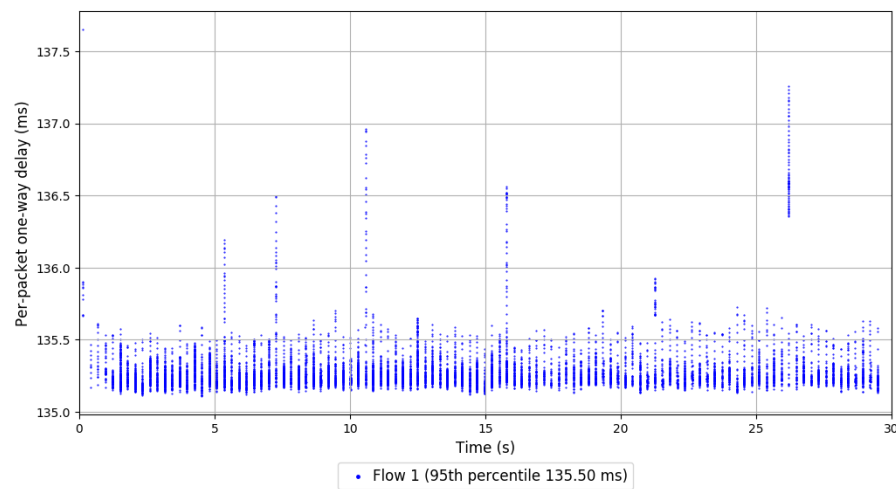```

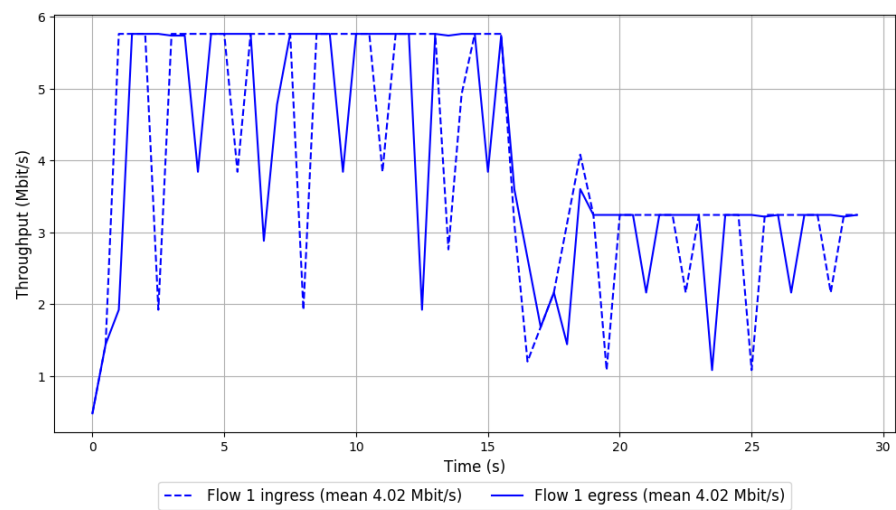Run 1: Report of Indigo-delay — Data Link

```
Run 2: Statistics of Indigo-delay

Start at: 2017-09-21 21:45:05
End at: 2017-09-21 21:45:35

Below is generated by plot.py at 2017-09-22 00:16:21
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 135.505 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 135.505 ms
Loss rate: 0.07%
```
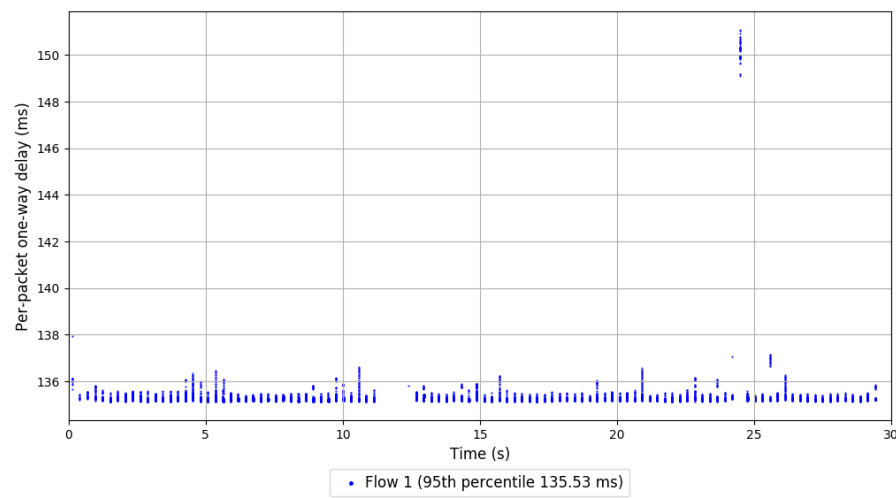
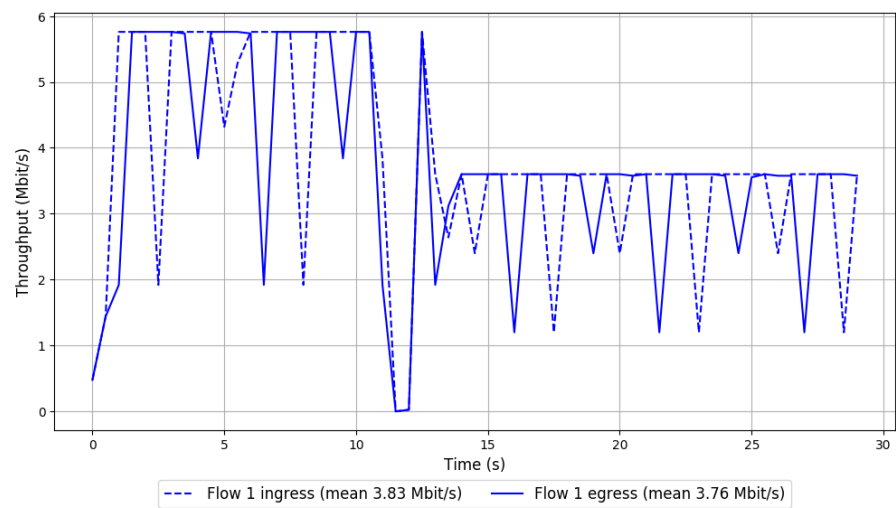Run 2: Report of Indigo-delay — Data Link

```
Run 3: Statistics of Indigo-delay

Start at: 2017-09-21 21:56:22
End at: 2017-09-21 21:56:52

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 135.533 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 135.533 ms
Loss rate: 1.82%
```

Run 3: Report of Indigo-delay — Data Link

Flow 1 ingress (mean 3.83 Mbit/s)   Flow 1 egress (mean 3.76 Mbit/s)

• Flow 1 (95th percentile 135.53 ms)

```
Run 4: Statistics of Indigo-delay

Start at: 2017-09-21 22:07:35
End at: 2017-09-21 22:08:05

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 135.459 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 135.459 ms
Loss rate: 1.80%
```
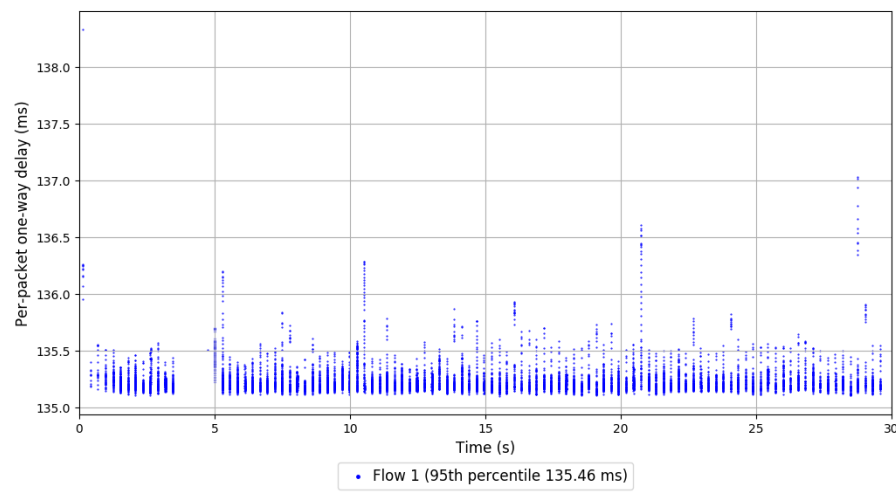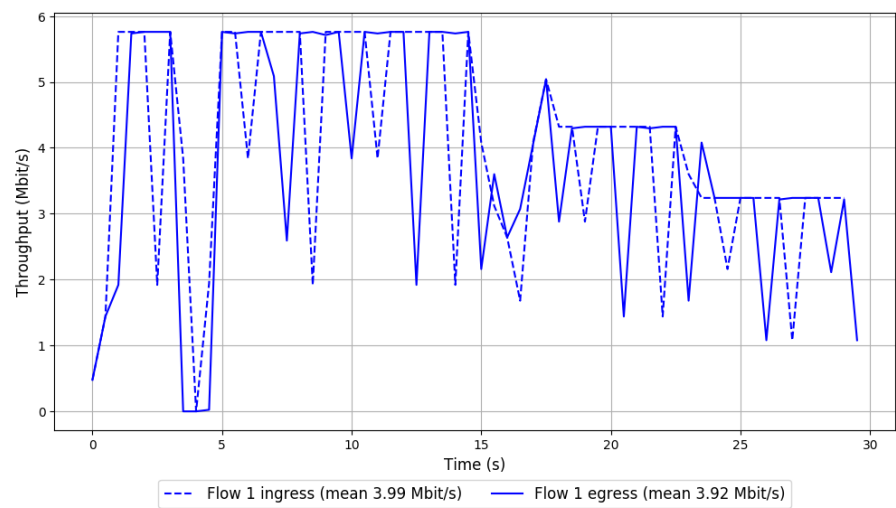
Run 4: Report of Indigo-delay — Data Link

Flow 1 ingress (mean 3.99 Mbit/s) --- Flow 1 egress (mean 3.92 Mbit/s)
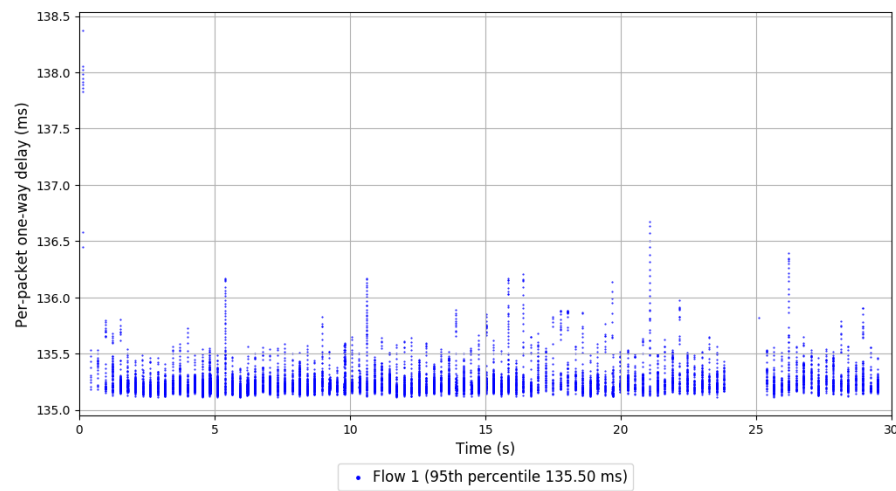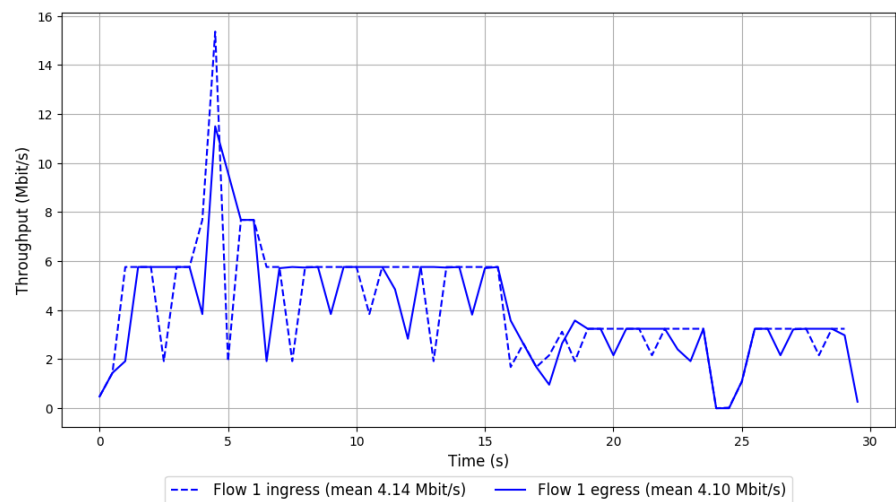

Flow 1 (95th percentile 135.46 ms)

```
Run 5: Statistics of Indigo-delay

Start at: 2017-09-21 22:19:12
End at: 2017-09-21 22:19:42

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 135.499 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 135.499 ms
Loss rate: 1.01%
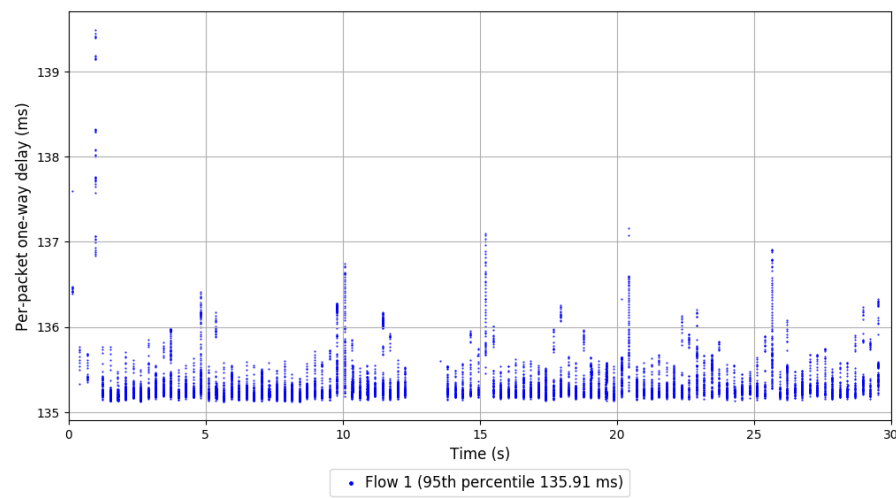```

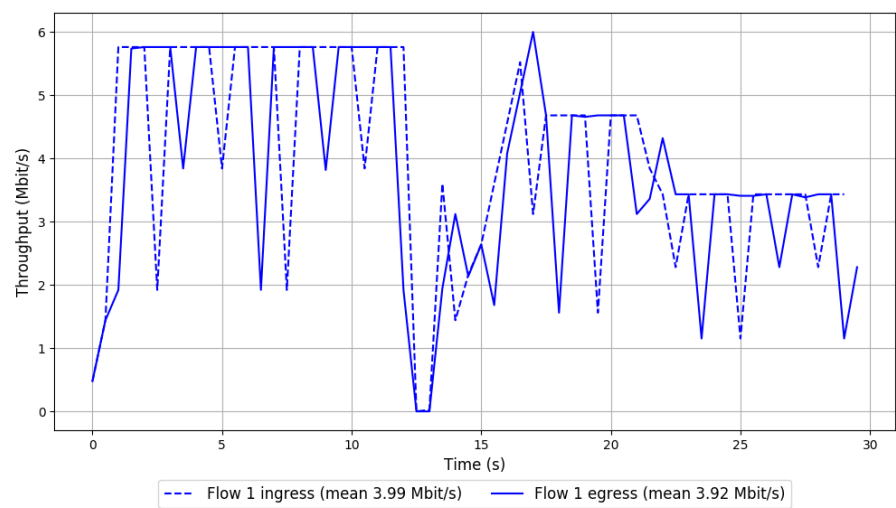## Run 5: Report of Indigo-delay — Data Link

```
Run 6: Statistics of Indigo-delay

Start at: 2017-09-21 22:30:03
End at: 2017-09-21 22:30:33

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 135.907 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 135.907 ms
Loss rate: 1.72%
```

Run 6: Report of Indigo-delay — Data Link

```
Run 7: Statistics of Indigo-delay

Start at: 2017-09-21 22:41:08
End at: 2017-09-21 22:41:38

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 135.631 ms
Loss rate: 2.80%
-- Flow 1:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 135.631 ms
Loss rate: 2.80%
```
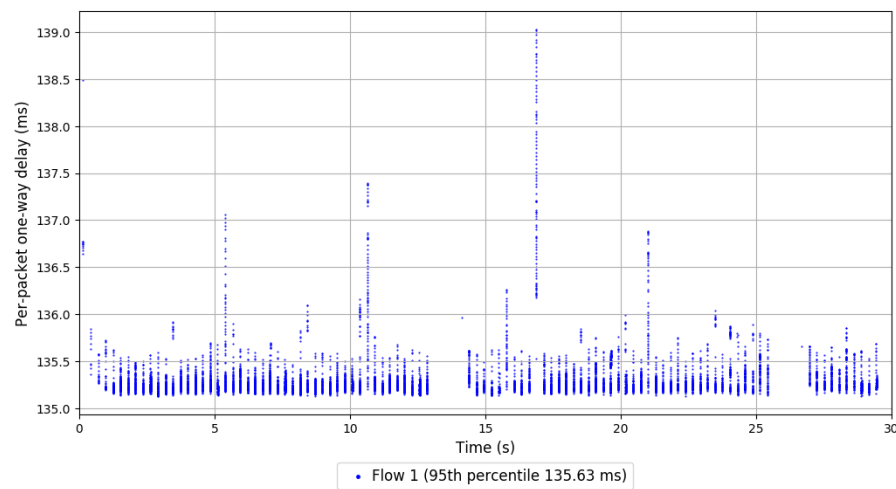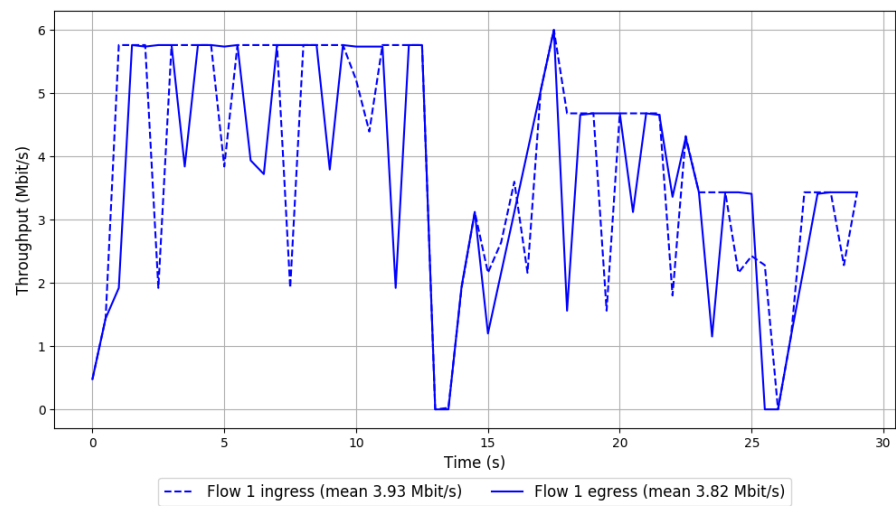
Run 7: Report of Indigo-delay — Data Link

```
Run 8: Statistics of Indigo-delay

Start at: 2017-09-21 22:52:34
End at: 2017-09-21 22:53:04


# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 135.526 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 135.526 ms
Loss rate: 1.93%
```
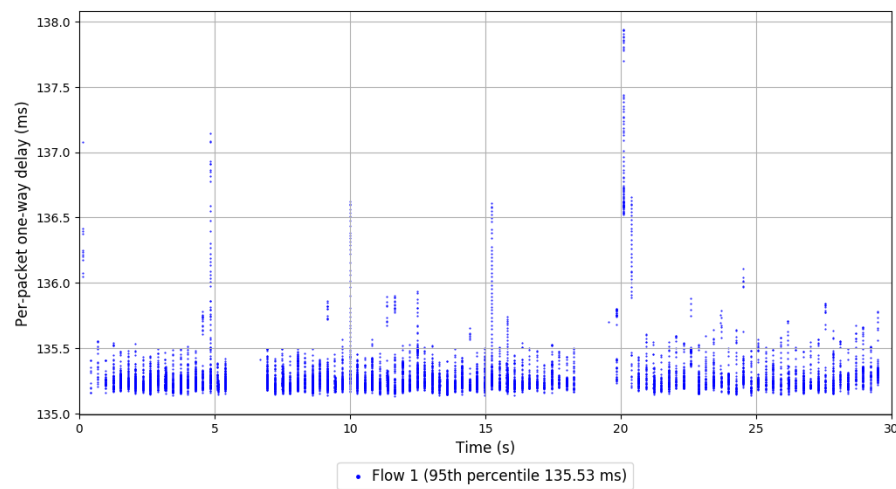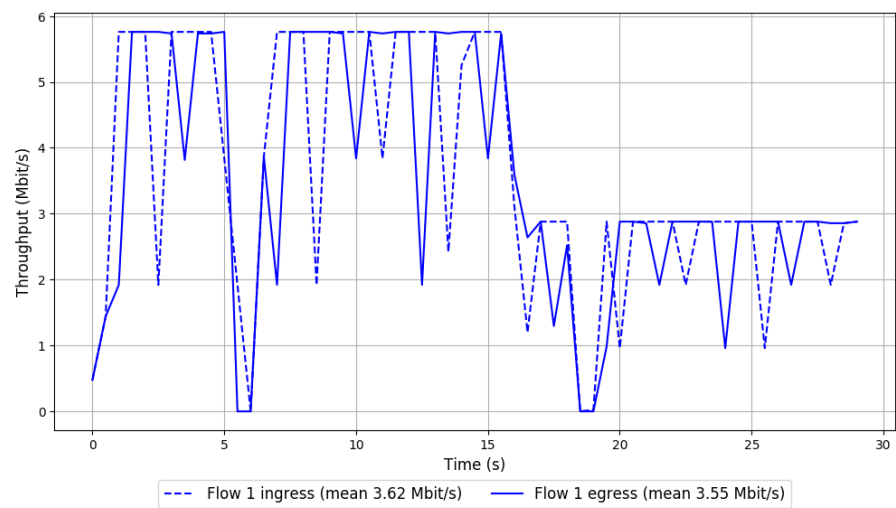
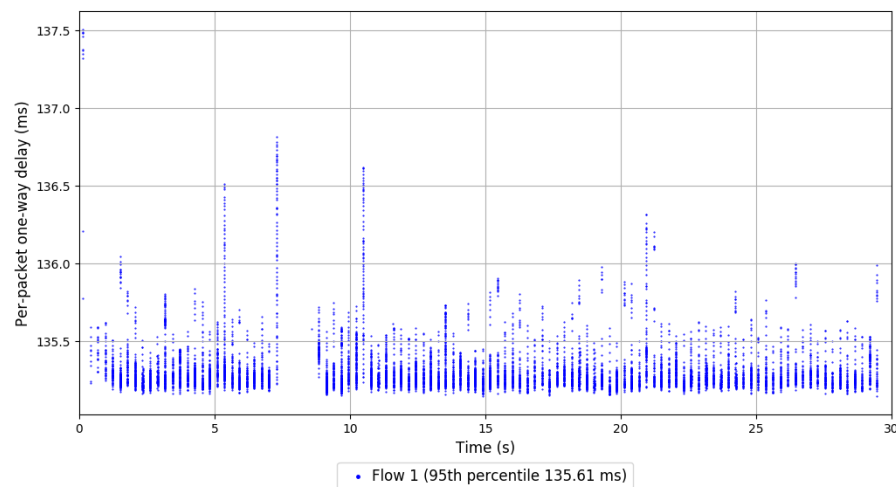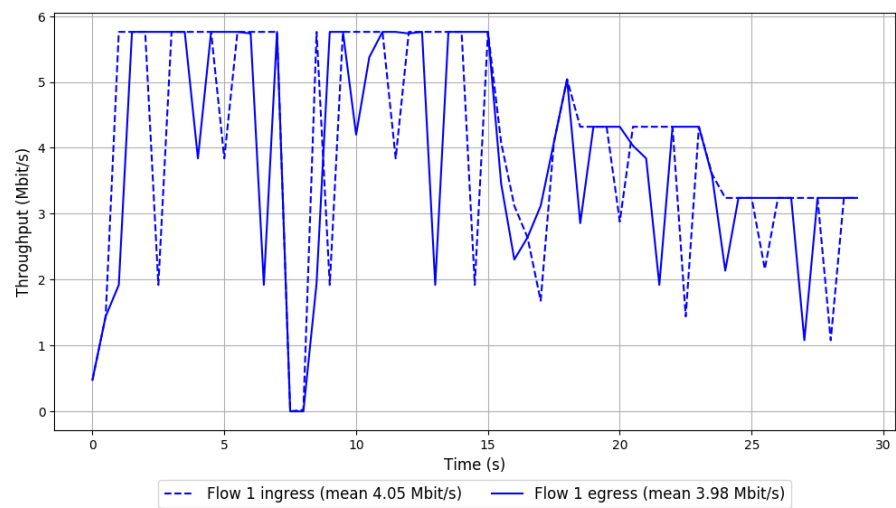Run 8: Report of Indigo-delay — Data Link

```
Run 9: Statistics of Indigo-delay

Start at: 2017-09-21 23:03:52
End at: 2017-09-21 23:04:22

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 135.611 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 135.611 ms
Loss rate: 1.80%
```

Run 9: Report of Indigo-delay — Data Link

```
Run 10: Statistics of Indigo-delay

Start at: 2017-09-21 23:14:26
End at: 2017-09-21 23:14:56

# Below is generated by plot.py at 2017-09-22 00:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 135.538 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 135.538 ms
Loss rate: 1.74%
```

Run 10: Report of Indigo-delay — Data Link