

Pantheon Report

Generated at 2018-01-31 09:33:15 (UTC).

Data path: AWS Korea Ethernet (*local*) → China ppp0 (*remote*).

Repeated the test of 17 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

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

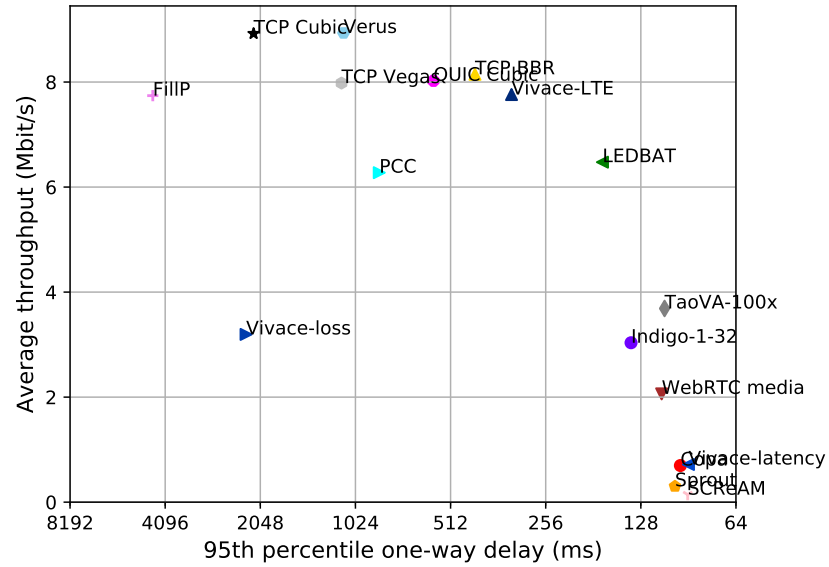
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

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

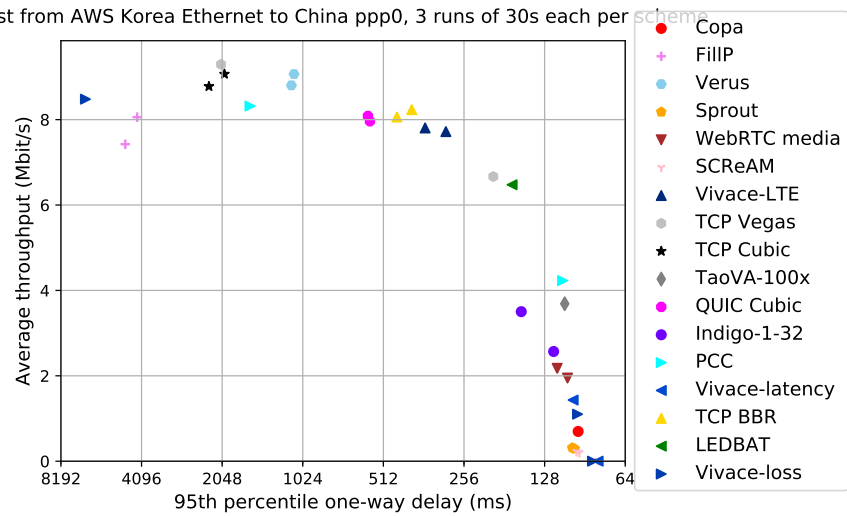
Git summary:

```
branch: master @ 70217998b3c9a7166a95460a70c0854d1326e100
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ fb9c9ab842e5614ad52911a76fb9bd1c1b0dca86
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

test from AWS Korea Ethernet to China ppp0, 3 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS Korea Ethernet to China ppp0, 3 runs of 30s each per



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	2	8.14	428.56	0.51
TCP Cubic	2	8.93	2150.89	4.72
LEDBAT	1	6.47	169.33	0.29
PCC	2	6.28	860.78	0.46
QUIC Cubic	2	8.03	579.81	1.99
SCReAM	3	0.14	90.98	0.00
WebRTC media	2	2.06	110.00	0.03
Sprout	2	0.30	99.82	0.06
TaoVA-100x	1	3.69	107.67	0.02
TCP Vegas	2	7.98	1133.32	0.74
Verus	2	8.94	1116.64	3.23
Copa	1	0.70	95.95	0.06
FillP	2	7.74	4482.72	32.50
Indigo-1-32	2	3.04	137.47	0.15
Vivace-latency	2	0.71	90.50	0.03
Vivace-loss	3	3.19	2271.58	25.67
Vivace-LTE	2	7.76	328.39	1.17

Run 1: Statistics of TCP BBR

Start at: 2018-01-31 08:09:07

End at: 2018-01-31 08:09:37

Local clock offset: -0.435 ms

Remote clock offset: 5.291 ms

Below is generated by plot.py at 2018-01-31 09:32:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.23 Mbit/s

95th percentile per-packet one-way delay: 401.256 ms

Loss rate: 0.58%

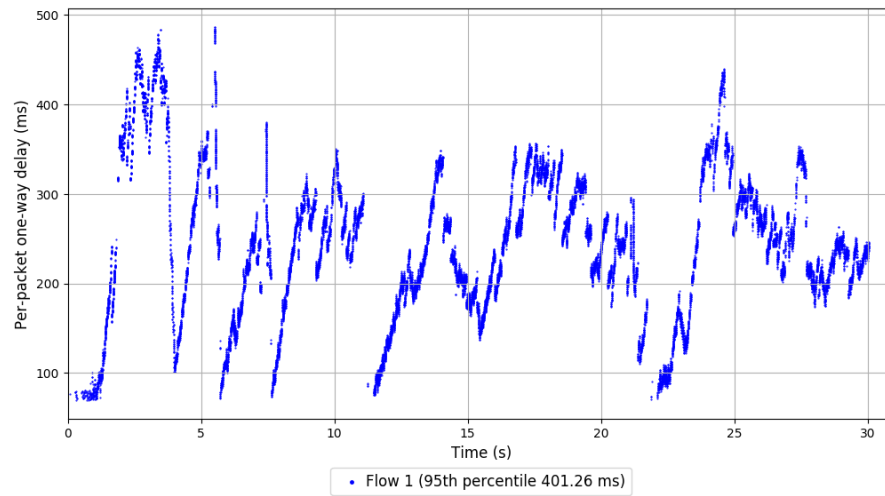
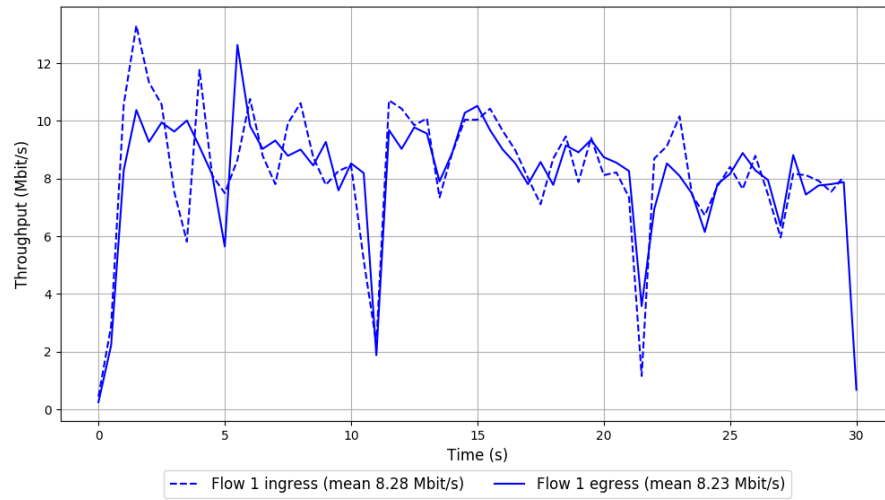
-- Flow 1:

Average throughput: 8.23 Mbit/s

95th percentile per-packet one-way delay: 401.256 ms

Loss rate: 0.58%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/bbr_stats_run2.1

Run 2: Report of TCP BBR — Data Link

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Run 3: Statistics of TCP BBR

Start at: 2018-01-31 09:09:39

End at: 2018-01-31 09:10:09

Local clock offset: -0.601 ms

Remote clock offset: 5.848 ms

Below is generated by plot.py at 2018-01-31 09:32:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.06 Mbit/s

95th percentile per-packet one-way delay: 455.864 ms

Loss rate: 0.44%

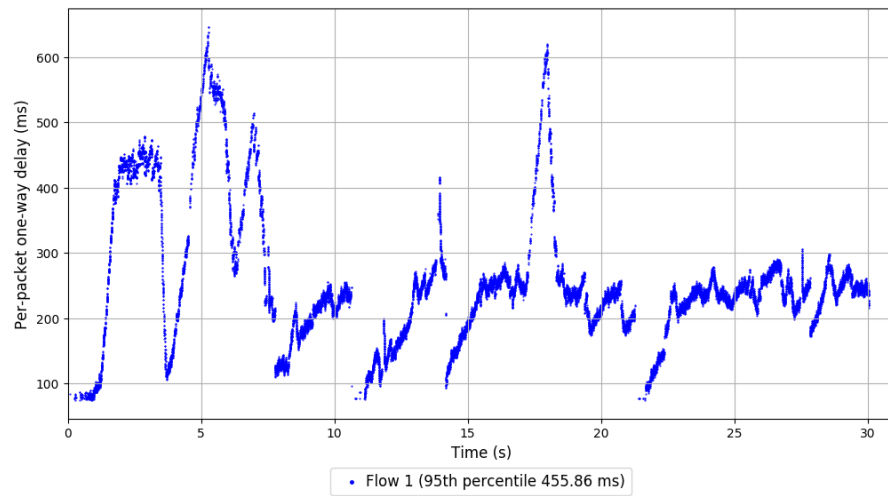
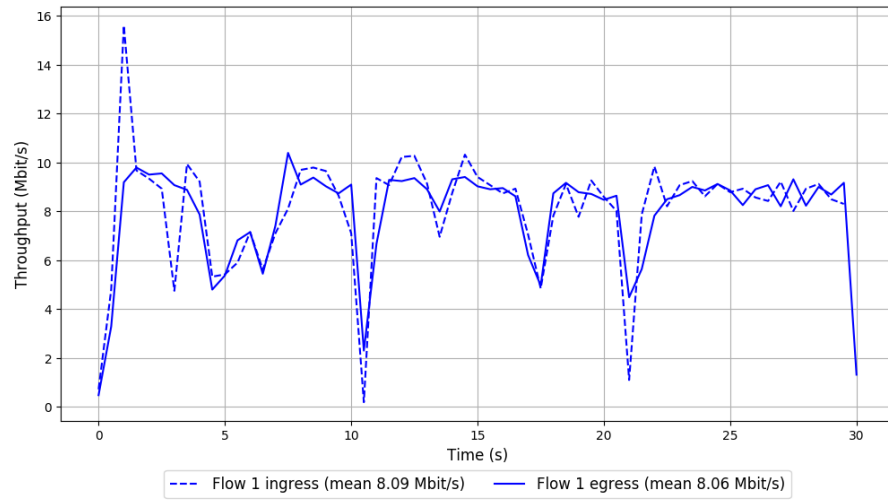
-- Flow 1:

Average throughput: 8.06 Mbit/s

95th percentile per-packet one-way delay: 455.864 ms

Loss rate: 0.44%

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-31 08:06:19

End at: 2018-01-31 08:06:49

Local clock offset: -0.375 ms

Remote clock offset: 4.869 ms

Below is generated by plot.py at 2018-01-31 09:32:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.78 Mbit/s

95th percentile per-packet one-way delay: 2294.050 ms

Loss rate: 4.16%

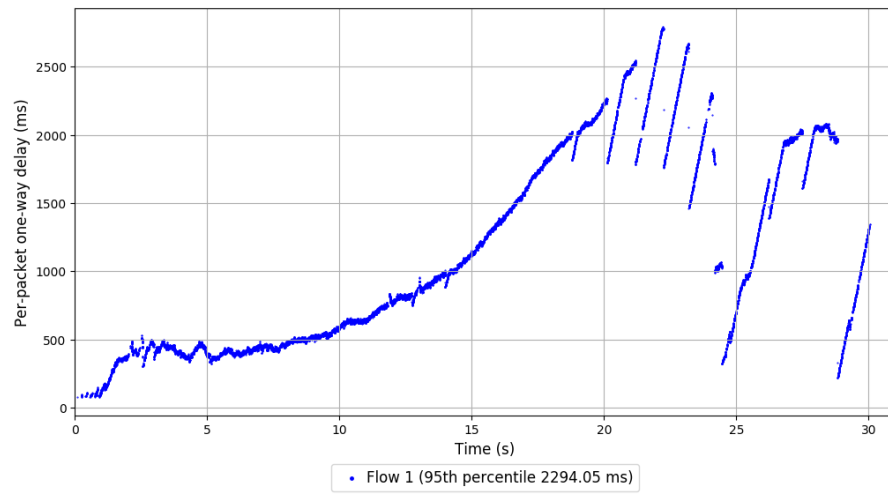
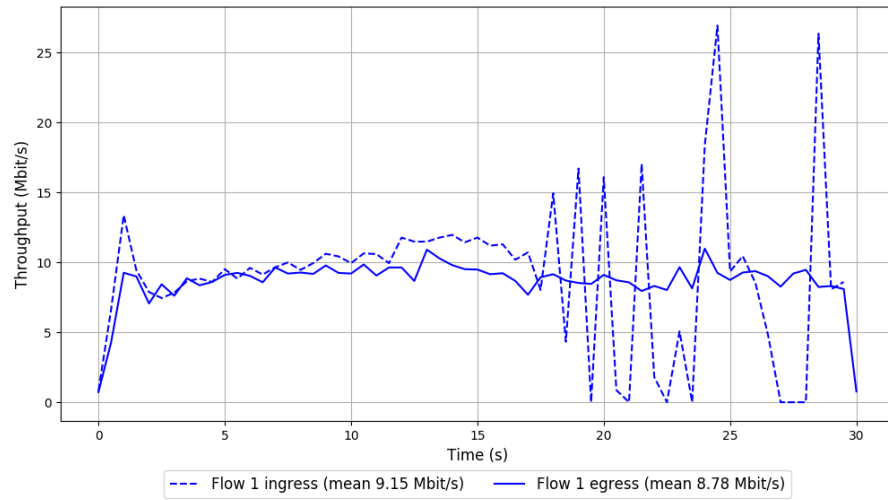
-- Flow 1:

Average throughput: 8.78 Mbit/s

95th percentile per-packet one-way delay: 2294.050 ms

Loss rate: 4.16%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/default_tcp_stats

Run 2: Report of TCP Cubic — Data Link

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Run 3: Statistics of TCP Cubic

Start at: 2018-01-31 09:06:45

End at: 2018-01-31 09:07:15

Local clock offset: -0.57 ms

Remote clock offset: 6.191 ms

Below is generated by plot.py at 2018-01-31 09:32:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.07 Mbit/s

95th percentile per-packet one-way delay: 2007.725 ms

Loss rate: 5.28%

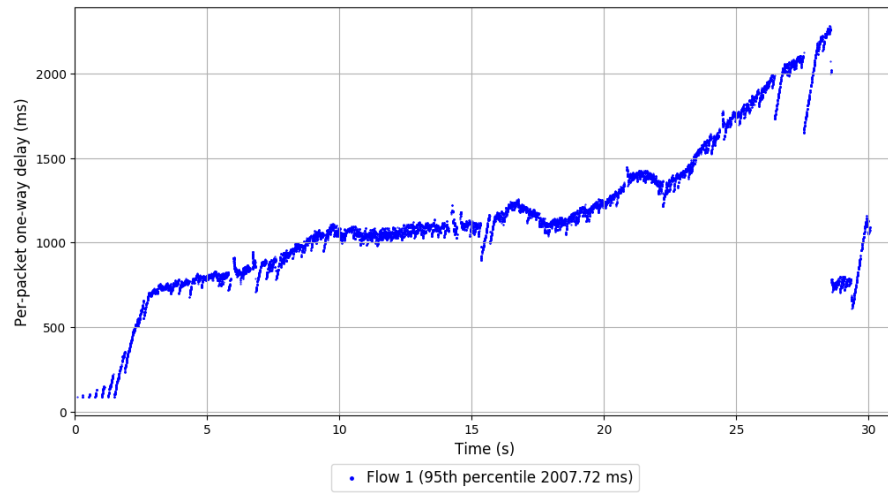
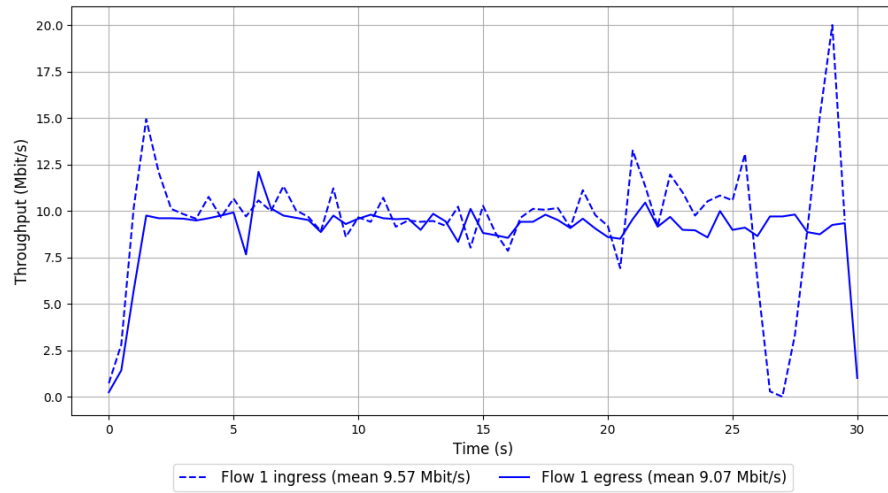
-- Flow 1:

Average throughput: 9.07 Mbit/s

95th percentile per-packet one-way delay: 2007.725 ms

Loss rate: 5.28%

Run 3: Report of TCP Cubic — Data Link



Run 1: Statistics of LEDBAT

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/ledbat_stats_run1

Run 1: Report of LEDBAT — Data Link

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Run 2: Statistics of LEDBAT

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/ledbat_stats_run2

Run 2: Report of LEDBAT — Data Link

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Run 3: Statistics of LEDBAT

Start at: 2018-01-31 09:21:08

End at: 2018-01-31 09:21:38

Local clock offset: -1.342 ms

Remote clock offset: 5.008 ms

Below is generated by plot.py at 2018-01-31 09:32:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.47 Mbit/s

95th percentile per-packet one-way delay: 169.330 ms

Loss rate: 0.29%

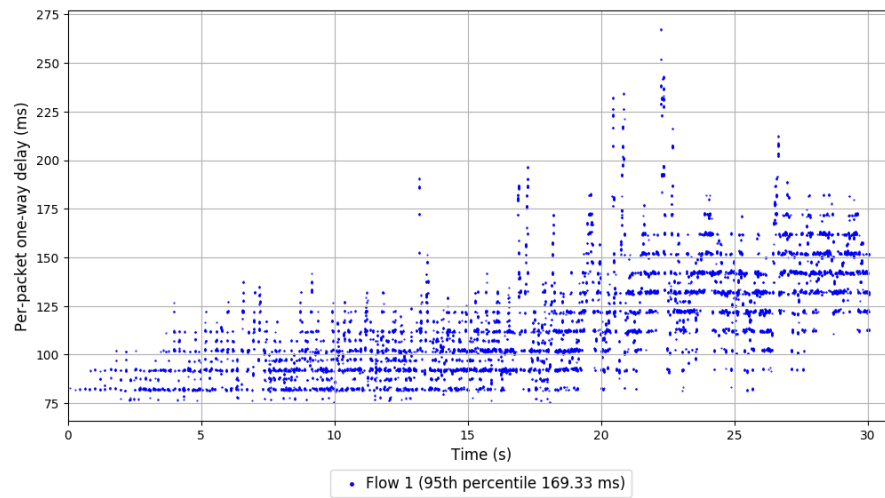
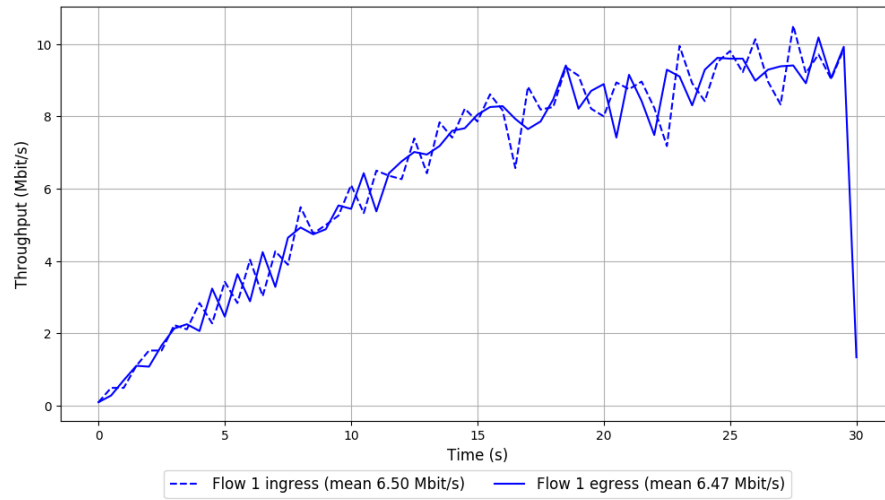
-- Flow 1:

Average throughput: 6.47 Mbit/s

95th percentile per-packet one-way delay: 169.330 ms

Loss rate: 0.29%

Run 3: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2018-01-31 08:20:33

End at: 2018-01-31 08:21:03

Local clock offset: -0.314 ms

Remote clock offset: 6.704 ms

Below is generated by plot.py at 2018-01-31 09:32:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.32 Mbit/s

95th percentile per-packet one-way delay: 1611.957 ms

Loss rate: 0.81%

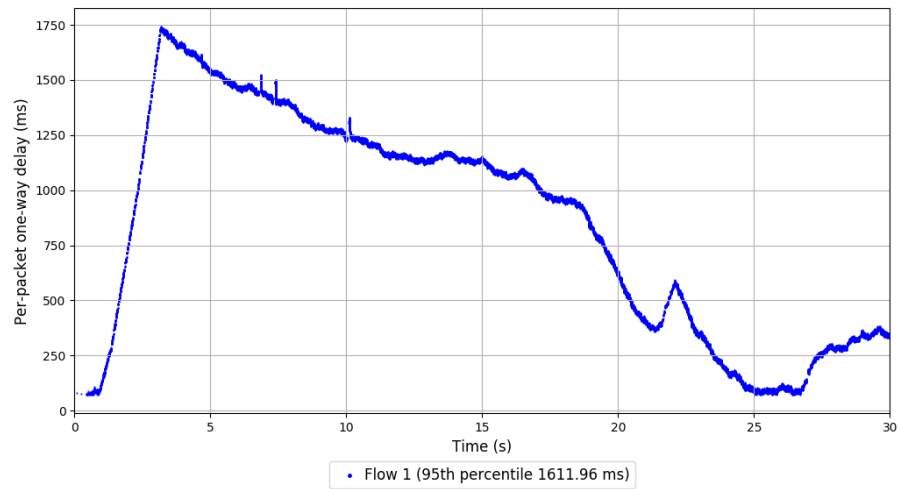
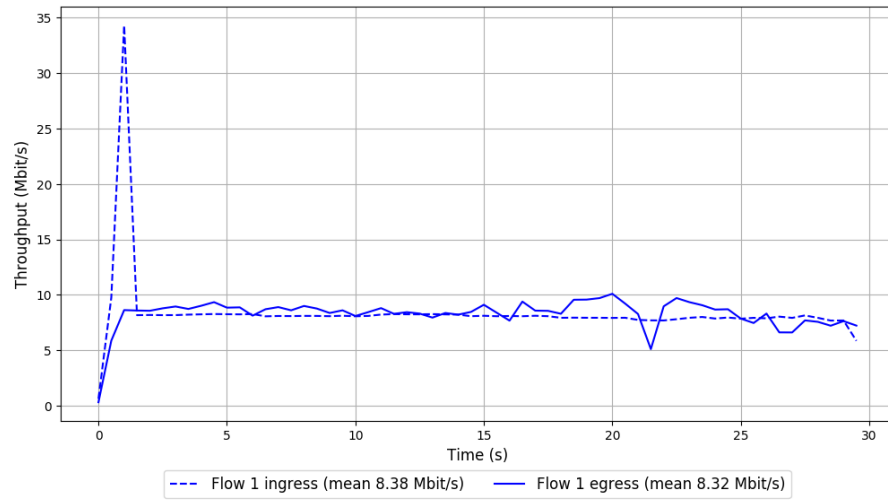
-- Flow 1:

Average throughput: 8.32 Mbit/s

95th percentile per-packet one-way delay: 1611.957 ms

Loss rate: 0.81%

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/pcc_stats_run2.1

Run 2: Report of PCC — Data Link

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Run 3: Statistics of PCC

Start at: 2018-01-31 09:19:45

End at: 2018-01-31 09:20:15

Local clock offset: -1.01 ms

Remote clock offset: 4.977 ms

Below is generated by plot.py at 2018-01-31 09:32:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 109.604 ms

Loss rate: 0.10%

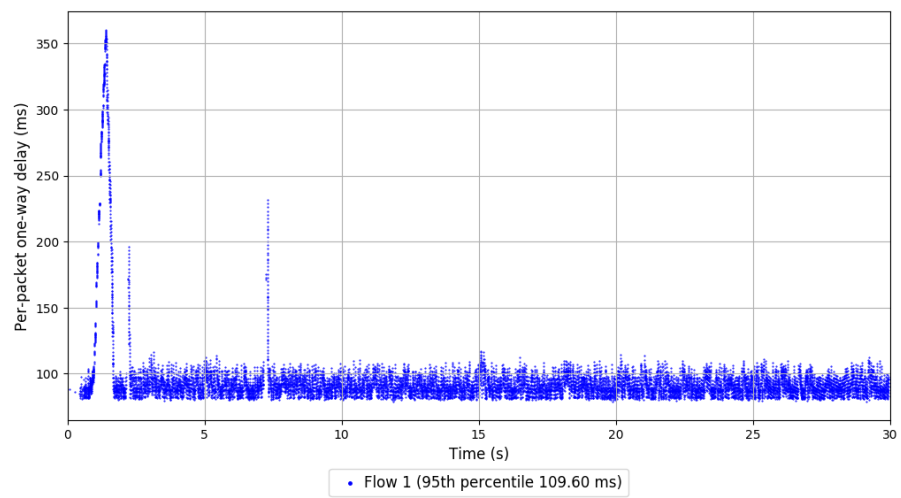
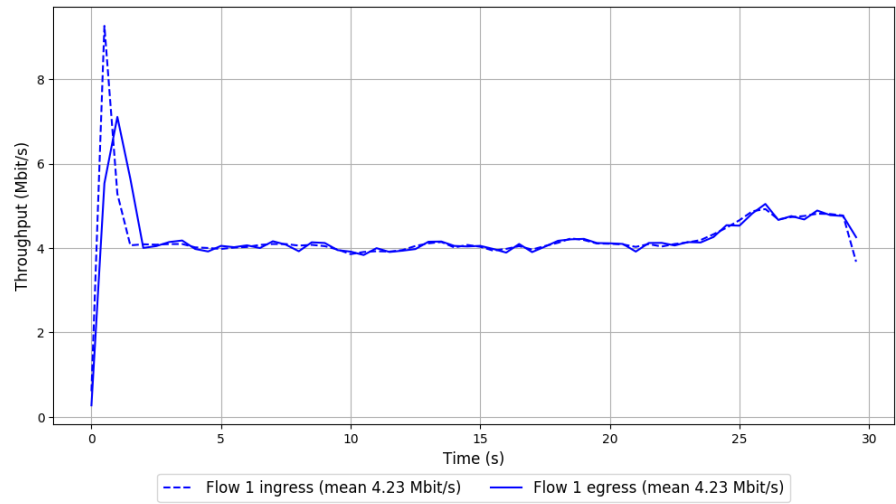
-- Flow 1:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 109.604 ms

Loss rate: 0.10%

Run 3: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/quic_stats_run1.1

Run 1: Report of QUIC Cubic — Data Link

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Run 2: Statistics of QUIC Cubic

Start at: 2018-01-31 09:05:22

End at: 2018-01-31 09:05:52

Local clock offset: -0.9 ms

Remote clock offset: 6.505 ms

Below is generated by plot.py at 2018-01-31 09:32:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 574.822 ms

Loss rate: 2.10%

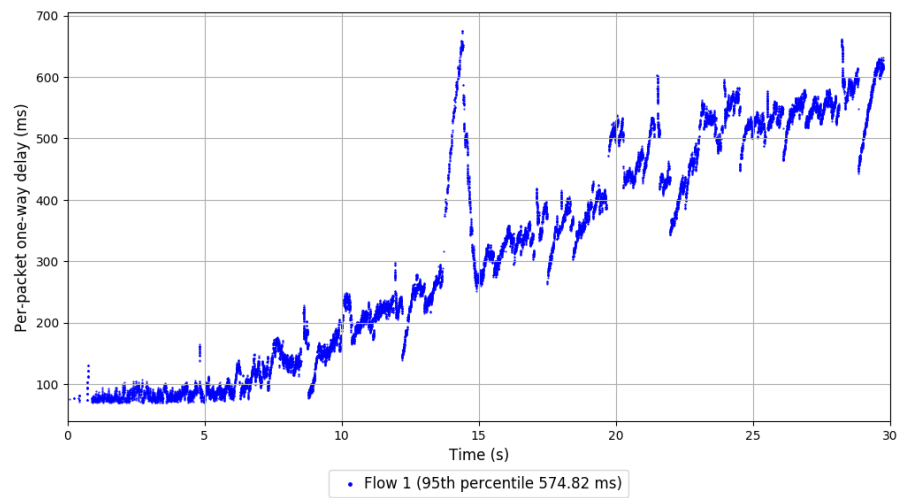
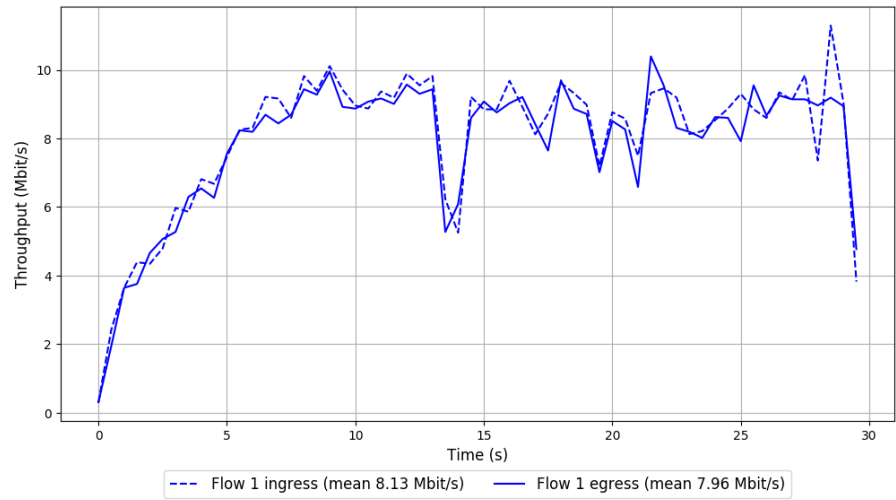
-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 574.822 ms

Loss rate: 2.10%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-31 09:30:57

End at: 2018-01-31 09:31:27

Local clock offset: -0.988 ms

Remote clock offset: 4.977 ms

Below is generated by plot.py at 2018-01-31 09:32:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.09 Mbit/s

95th percentile per-packet one-way delay: 584.797 ms

Loss rate: 1.88%

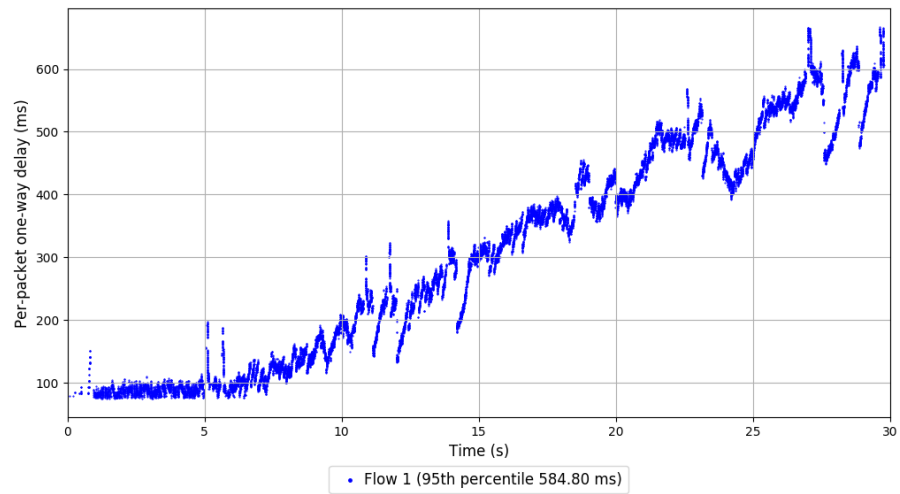
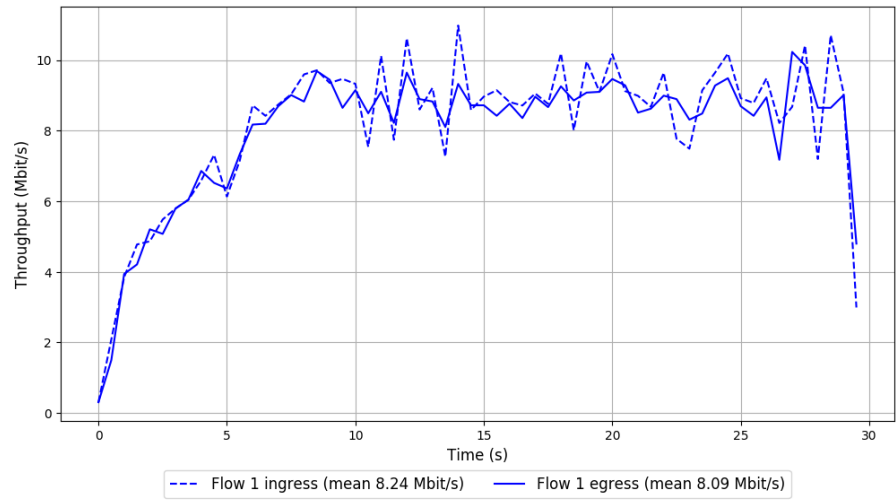
-- Flow 1:

Average throughput: 8.09 Mbit/s

95th percentile per-packet one-way delay: 584.797 ms

Loss rate: 1.88%

Run 3: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2018-01-31 08:29:38

End at: 2018-01-31 08:30:08

Local clock offset: -0.104 ms

Remote clock offset: 6.825 ms

Below is generated by plot.py at 2018-01-31 09:32:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 80.856 ms

Loss rate: 0.00%

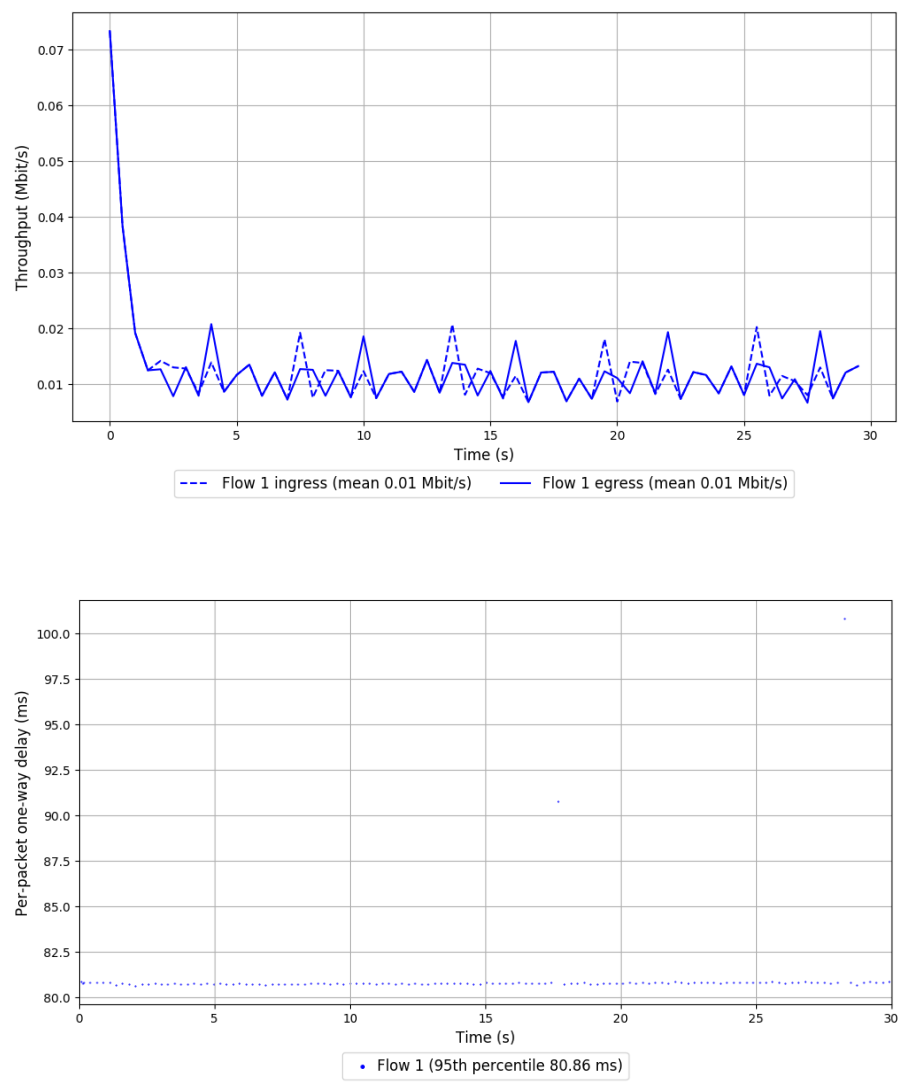
-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 80.856 ms

Loss rate: 0.00%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-01-31 09:01:11

End at: 2018-01-31 09:01:41

Local clock offset: -0.766 ms

Remote clock offset: 6.997 ms

Below is generated by plot.py at 2018-01-31 09:32:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 94.820 ms

Loss rate: 0.00%

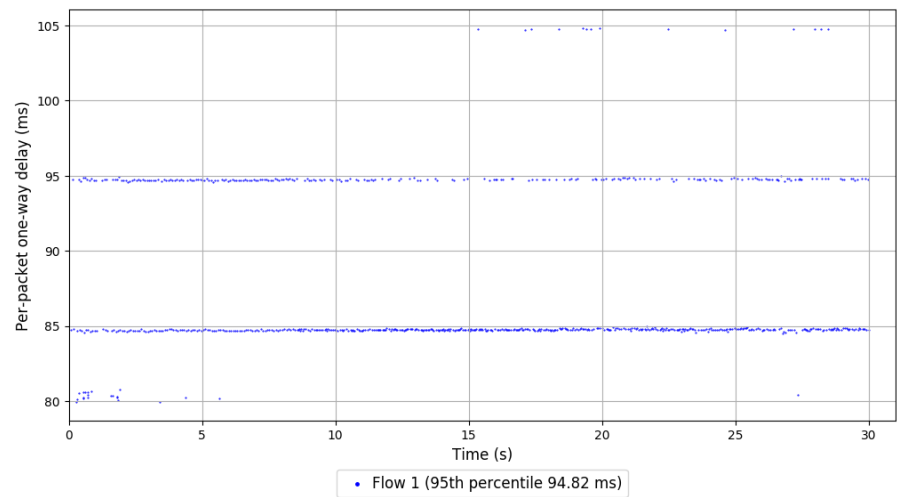
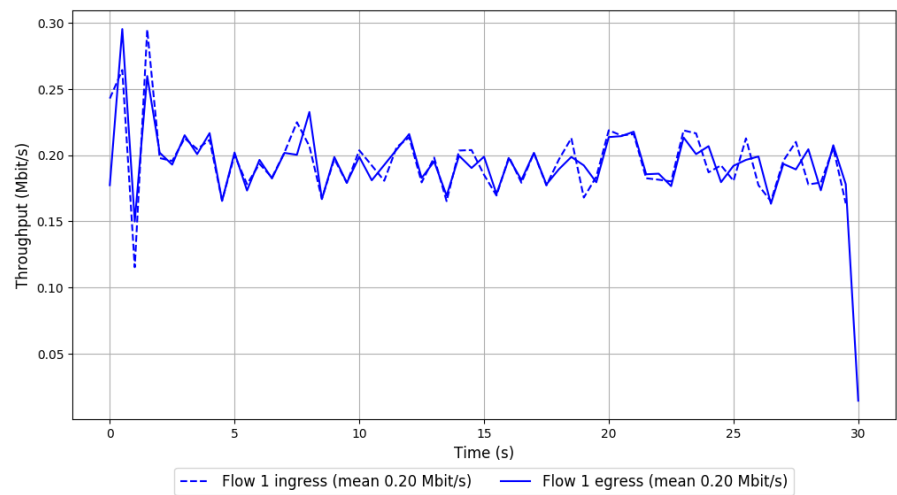
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 94.820 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-01-31 09:26:54

End at: 2018-01-31 09:27:24

Local clock offset: -1.136 ms

Remote clock offset: 4.964 ms

Below is generated by plot.py at 2018-01-31 09:32:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 97.252 ms

Loss rate: 0.00%

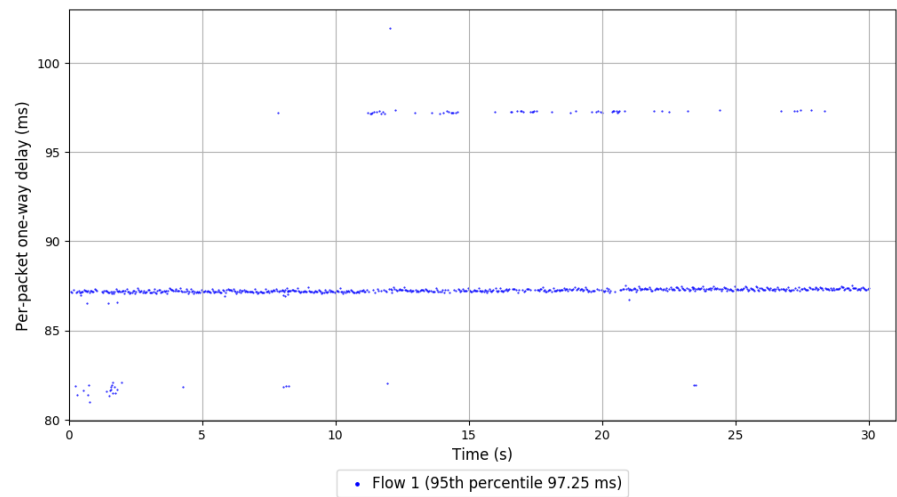
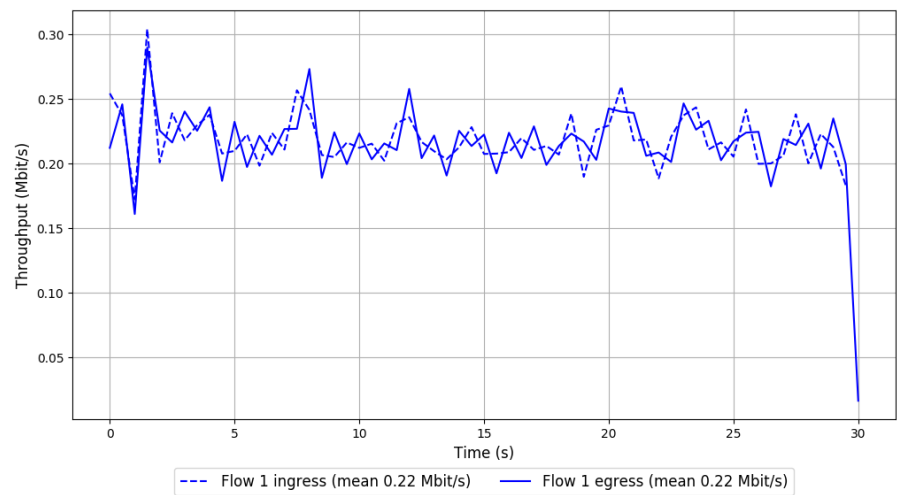
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 97.252 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-01-31 08:15:26

End at: 2018-01-31 08:15:56

Local clock offset: -1.067 ms

Remote clock offset: 6.206 ms

Below is generated by plot.py at 2018-01-31 09:32:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 114.876 ms

Loss rate: 0.05%

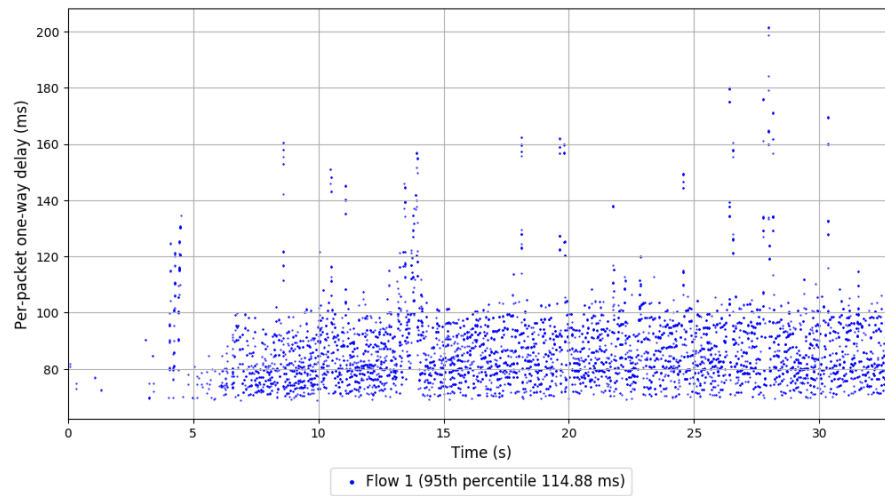
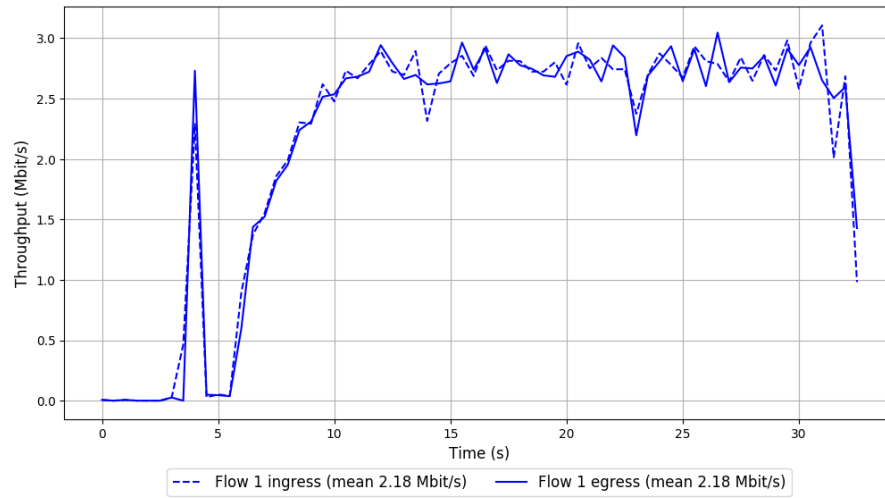
-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 114.876 ms

Loss rate: 0.05%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/webrtc_stats_run2

Run 2: Report of WebRTC media — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of WebRTC media

Start at: 2018-01-31 09:15:31

End at: 2018-01-31 09:16:01

Local clock offset: -0.77 ms

Remote clock offset: 5.212 ms

Below is generated by plot.py at 2018-01-31 09:32:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 105.117 ms

Loss rate: 0.00%

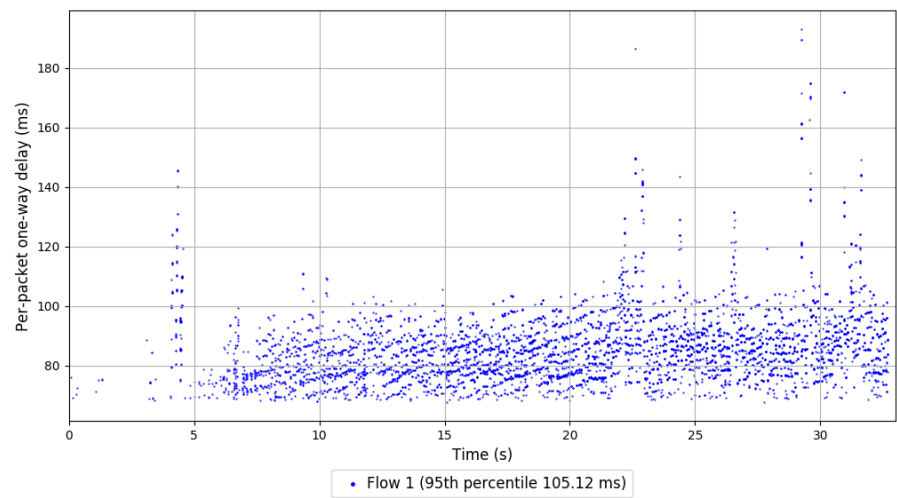
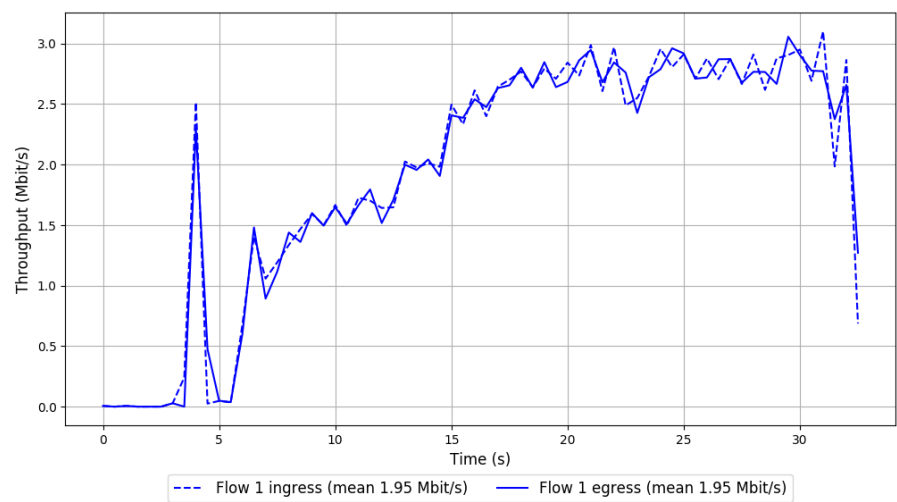
-- Flow 1:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 105.117 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-31 08:07:46

End at: 2018-01-31 08:08:16

Local clock offset: -0.519 ms

Remote clock offset: 5.072 ms

Below is generated by plot.py at 2018-01-31 09:32:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 98.724 ms

Loss rate: 0.11%

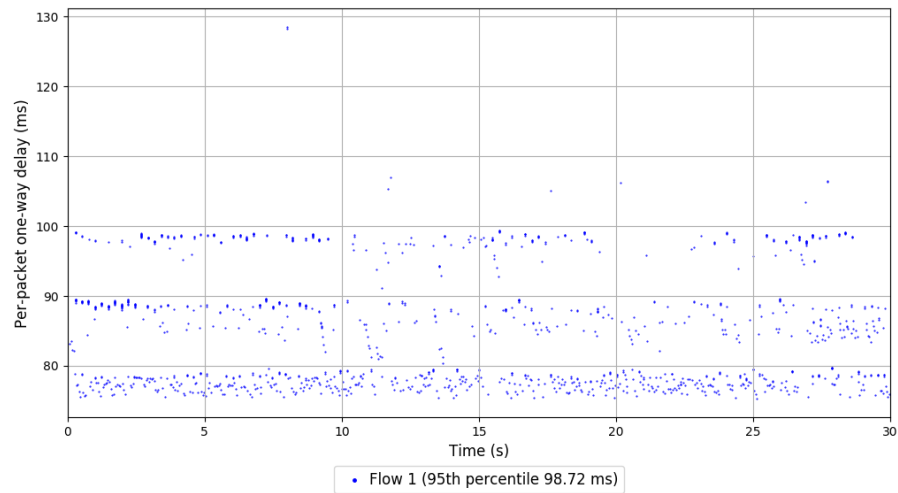
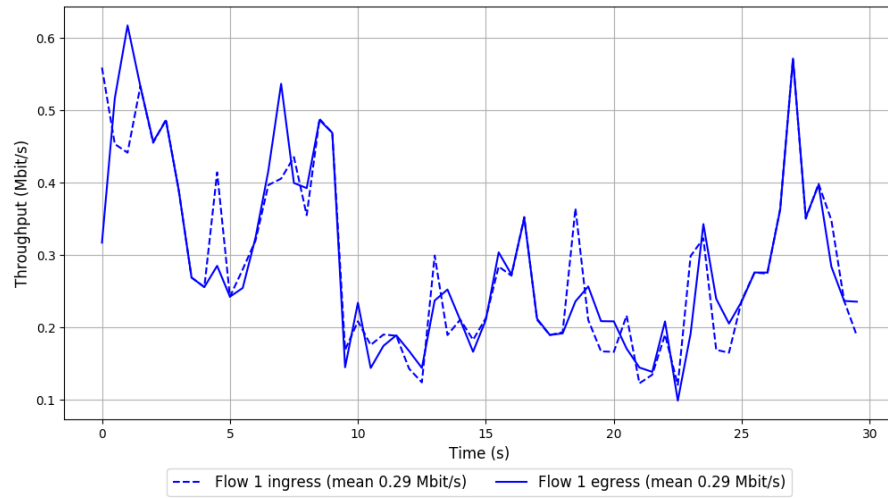
-- Flow 1:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 98.724 ms

Loss rate: 0.11%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/sprout_stats_run2

Run 2: Report of Sprout — Data Link

Figure is missing

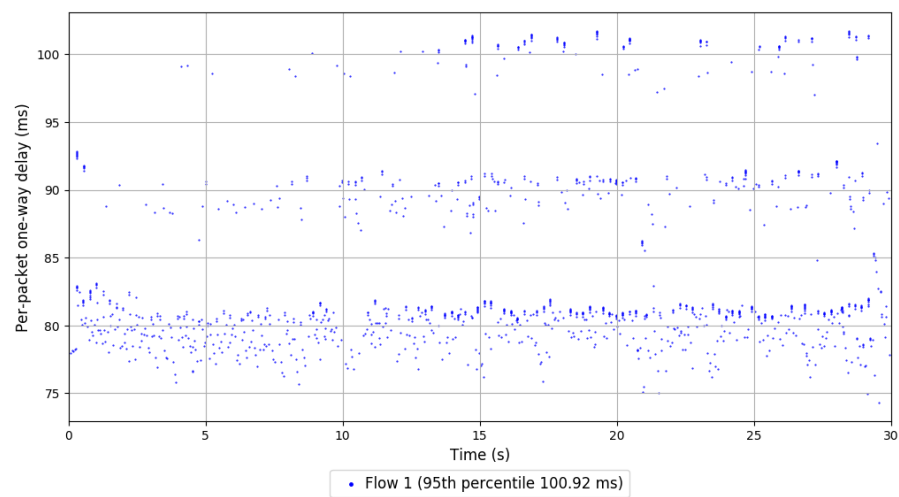
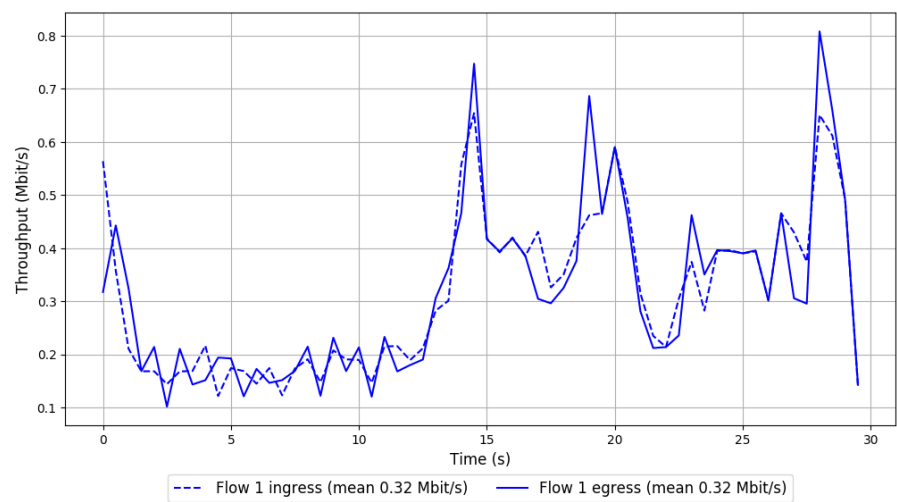
Figure is missing

Run 3: Statistics of Sprout

Start at: 2018-01-31 09:08:18
End at: 2018-01-31 09:08:48
Local clock offset: -0.681 ms
Remote clock offset: 5.934 ms

Below is generated by plot.py at 2018-01-31 09:32:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 100.921 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 100.921 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

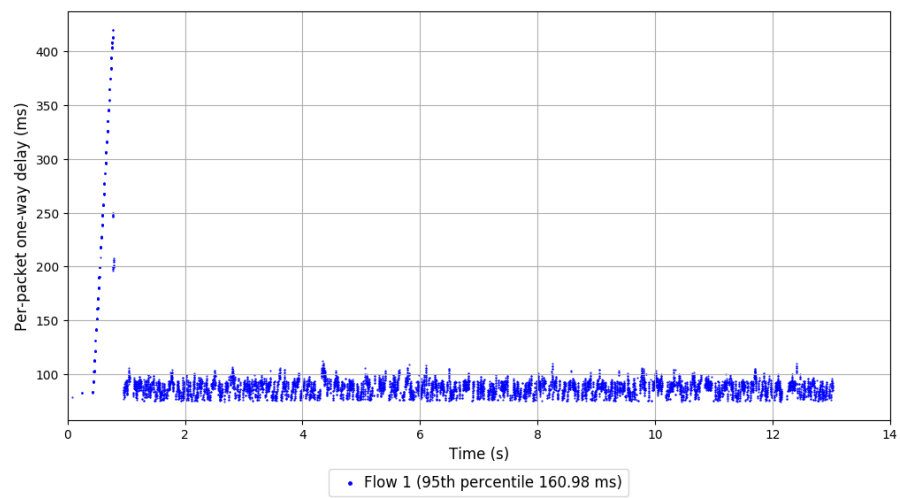
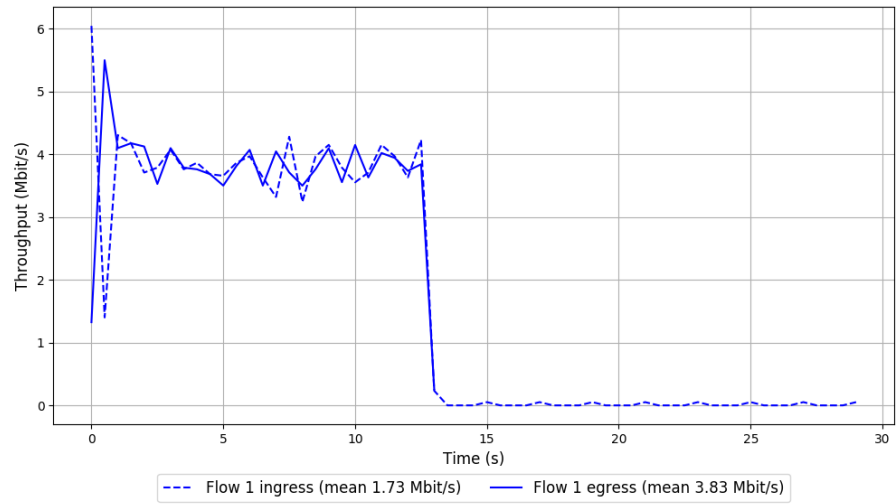
Start at: 2018-01-31 08:25:33

End at: 2018-01-31 08:26:03

Local clock offset: -0.394 ms

Remote clock offset: 6.738 ms

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



Run 2: Statistics of TaoVA-100x

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/taova_stats_run2.

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

Figure is missing

Figure is missing

Run 3: Statistics of TaoVA-100x

Start at: 2018-01-31 09:23:57

End at: 2018-01-31 09:24:27

Local clock offset: -1.276 ms

Remote clock offset: 4.931 ms

Below is generated by plot.py at 2018-01-31 09:32:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 107.673 ms

Loss rate: 0.02%

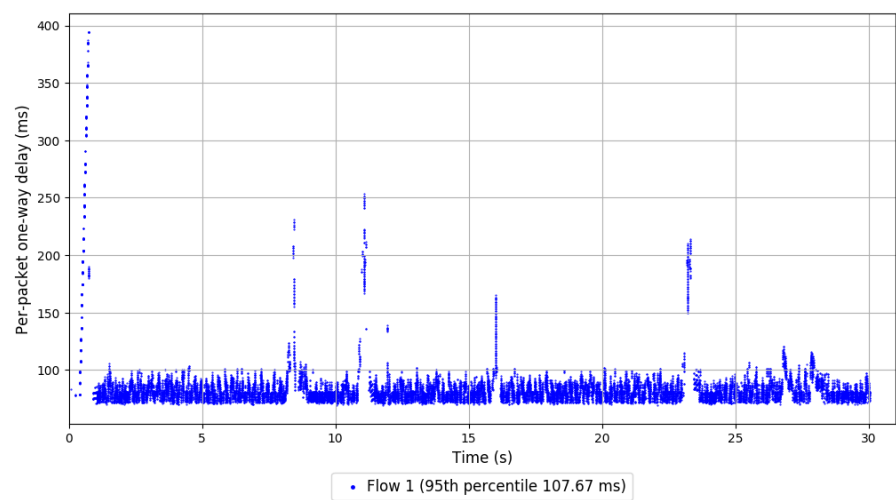
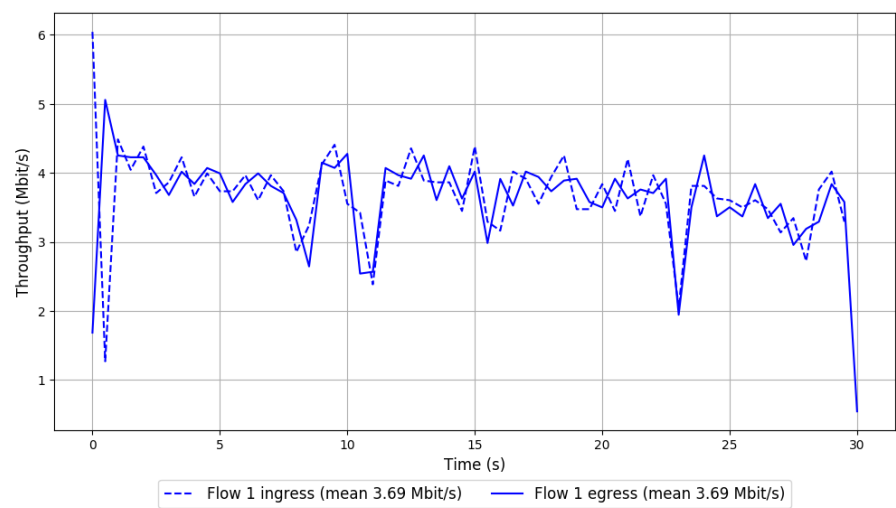
-- Flow 1:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 107.673 ms

Loss rate: 0.02%

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



Run 1: Statistics of TCP Vegas

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/vegas_stats_run1

Run 1: Report of TCP Vegas — Data Link

Figure is missing

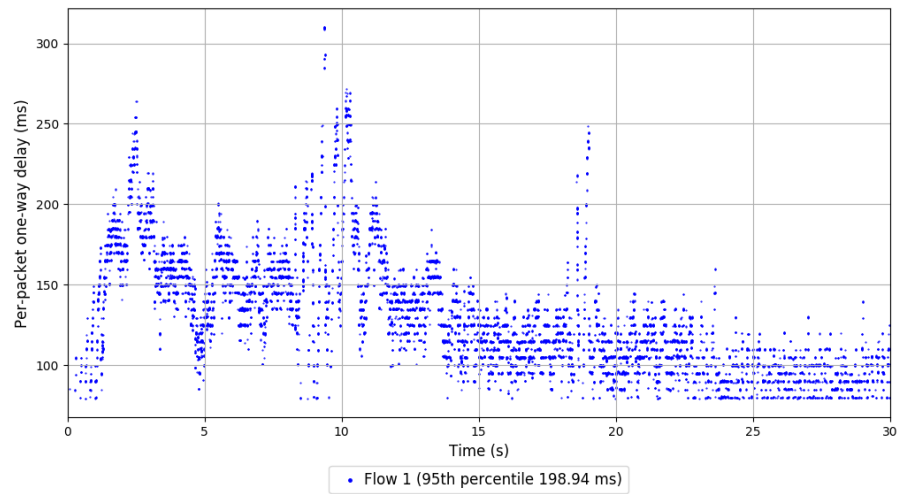
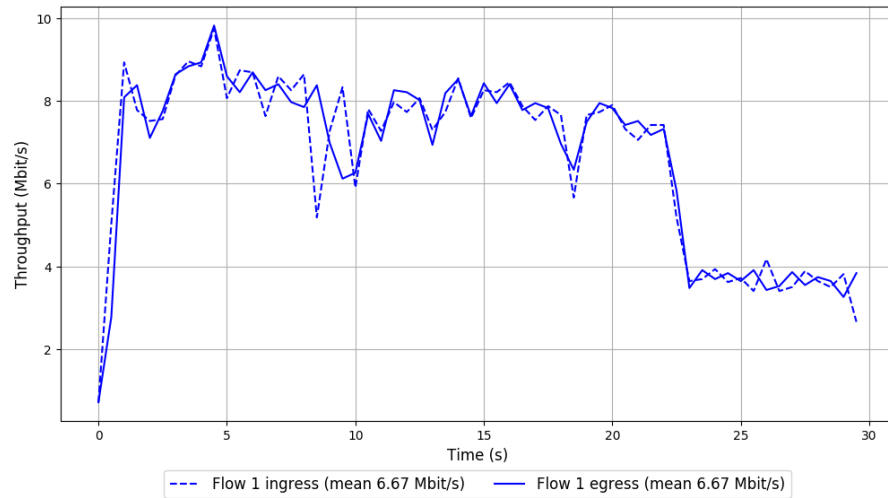
Figure is missing

Run 2: Statistics of TCP Vegas

Start at: 2018-01-31 08:59:42
End at: 2018-01-31 09:00:12
Local clock offset: -0.301 ms
Remote clock offset: 6.912 ms

Below is generated by plot.py at 2018-01-31 09:32:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.67 Mbit/s
95th percentile per-packet one-way delay: 198.945 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 6.67 Mbit/s
95th percentile per-packet one-way delay: 198.945 ms
Loss rate: 0.02%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-31 09:25:21

End at: 2018-01-31 09:25:51

Local clock offset: -1.082 ms

Remote clock offset: 4.967 ms

Below is generated by plot.py at 2018-01-31 09:33:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.29 Mbit/s

95th percentile per-packet one-way delay: 2067.692 ms

Loss rate: 1.47%

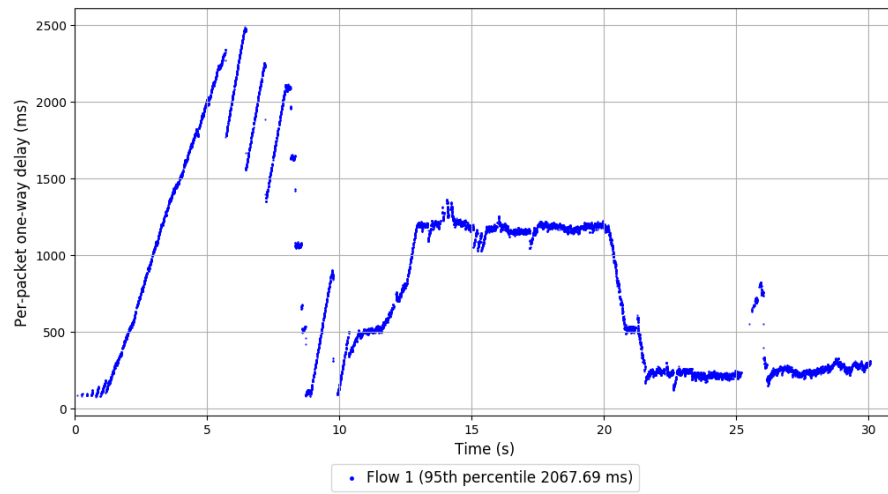
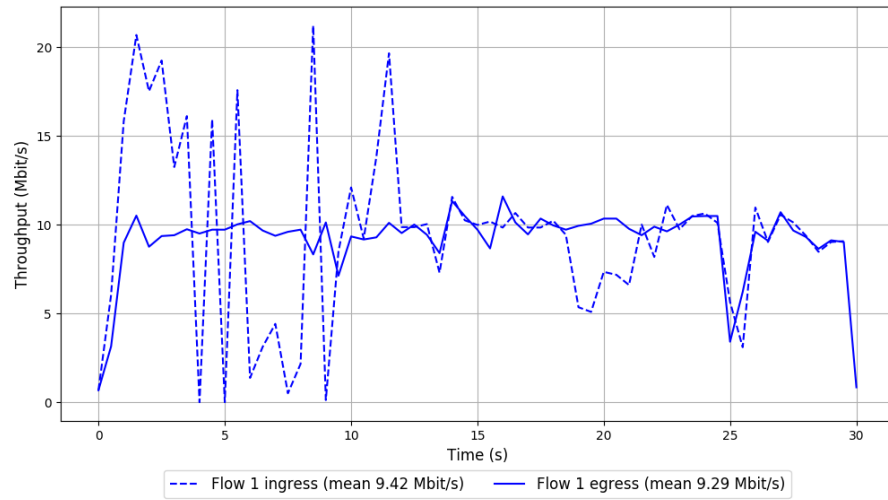
-- Flow 1:

Average throughput: 9.29 Mbit/s

95th percentile per-packet one-way delay: 2067.692 ms

Loss rate: 1.47%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-31 08:13:54

End at: 2018-01-31 08:14:24

Local clock offset: -0.577 ms

Remote clock offset: 5.978 ms

Below is generated by plot.py at 2018-01-31 09:33:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.07 Mbit/s

95th percentile per-packet one-way delay: 1104.046 ms

Loss rate: 2.64%

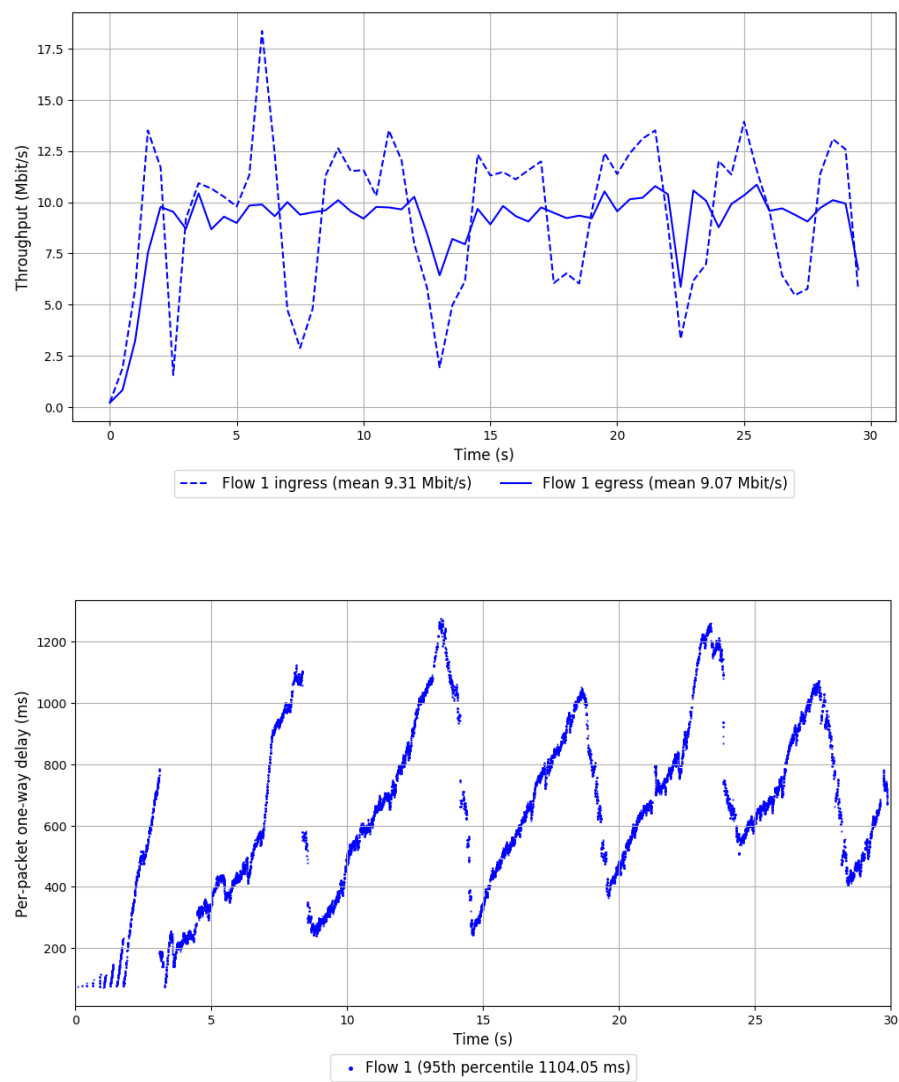
-- Flow 1:

Average throughput: 9.07 Mbit/s

95th percentile per-packet one-way delay: 1104.046 ms

Loss rate: 2.64%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/verus_stats_run2.

Run 2: Report of Verus — Data Link

Figure is missing

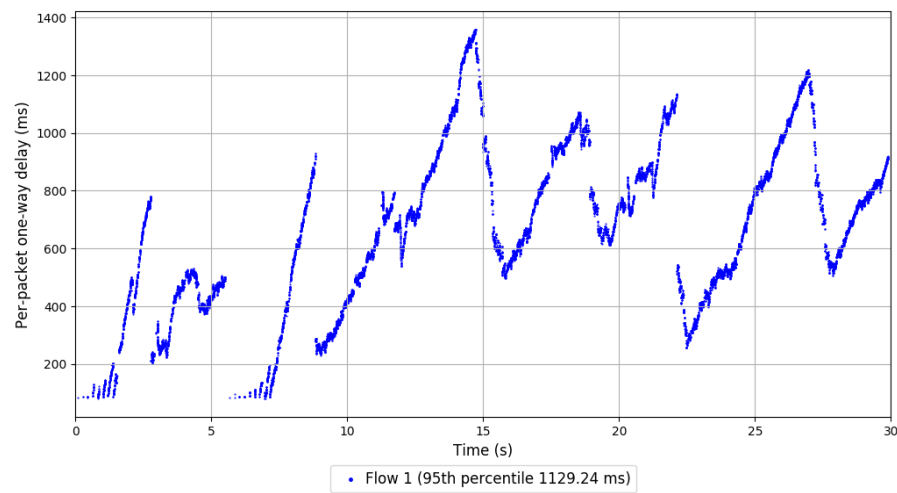
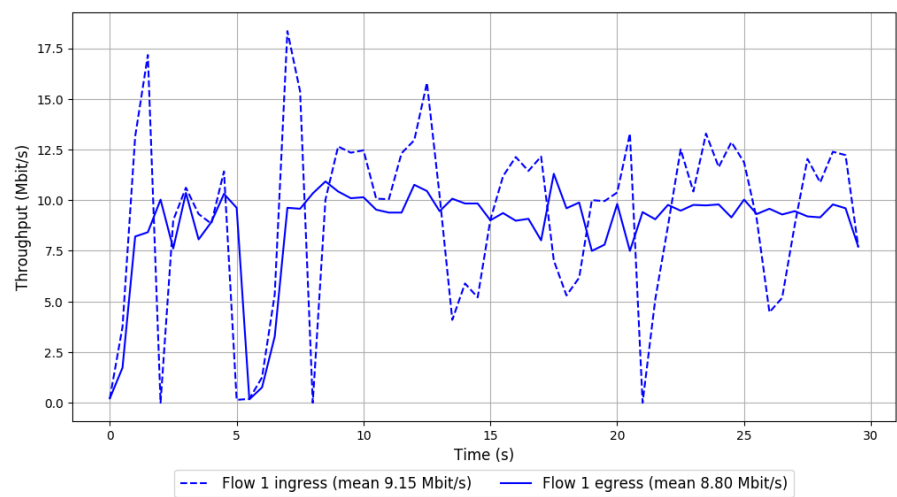
Figure is missing

Run 3: Statistics of Verus

Start at: 2018-01-31 09:14:00
End at: 2018-01-31 09:14:30
Local clock offset: -0.955 ms
Remote clock offset: 5.39 ms

Below is generated by plot.py at 2018-01-31 09:33:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 1129.242 ms
Loss rate: 3.81%
-- Flow 1:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 1129.242 ms
Loss rate: 3.81%

Run 3: Report of Verus — Data Link



Run 1: Statistics of Copa

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/copa_stats_run1.1

Run 1: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Copa

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/copa_stats_run2.1

Run 2: Report of Copa — Data Link

Figure is missing

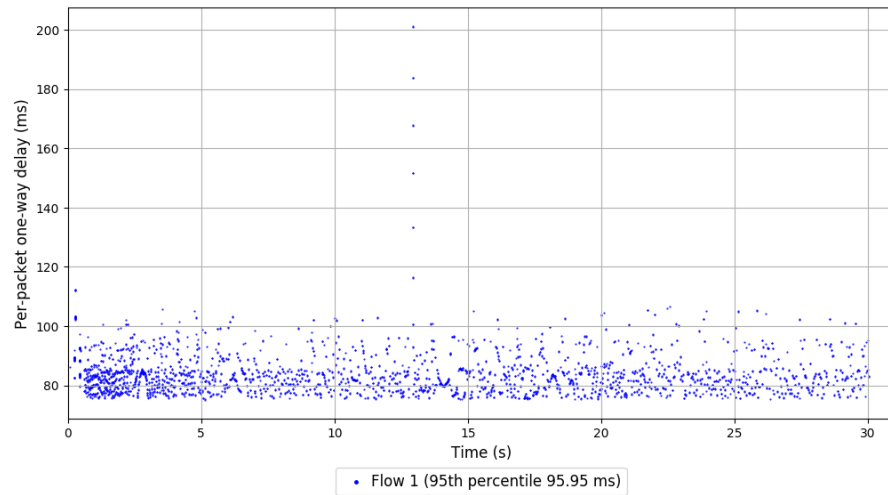
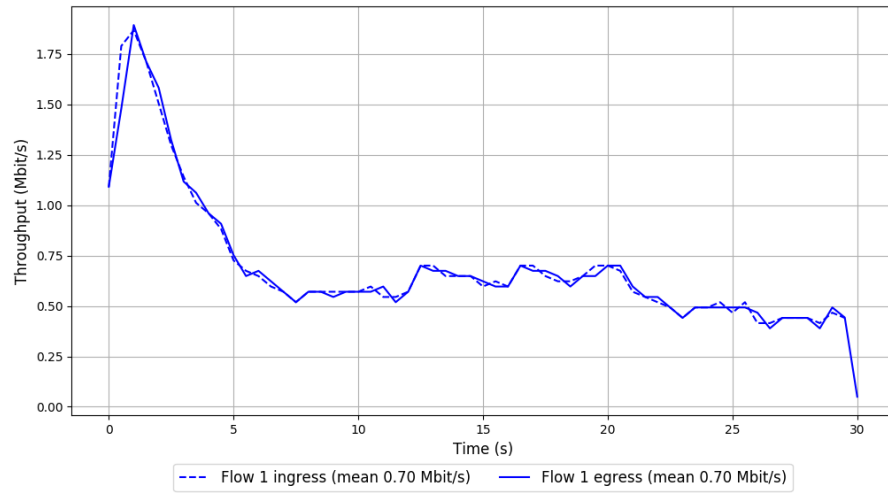
Figure is missing

Run 3: Statistics of Copa

Start at: 2018-01-31 09:22:36
End at: 2018-01-31 09:23:06
Local clock offset: -1.175 ms
Remote clock offset: 4.929 ms

Below is generated by plot.py at 2018-01-31 09:33:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 95.948 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 95.948 ms
Loss rate: 0.06%

Run 3: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2018-01-31 08:16:48

End at: 2018-01-31 08:17:18

Local clock offset: -0.426 ms

Remote clock offset: 6.353 ms

Below is generated by plot.py at 2018-01-31 09:33:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.06 Mbit/s

95th percentile per-packet one-way delay: 4253.669 ms

Loss rate: 25.86%

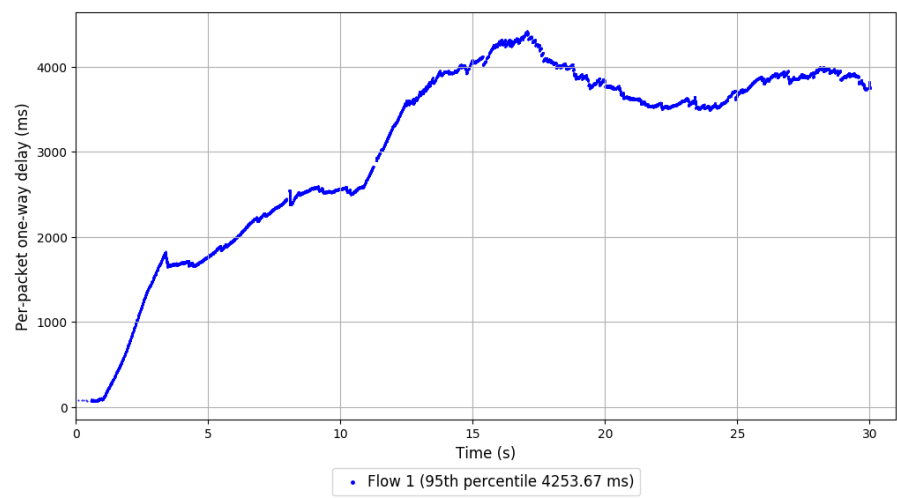
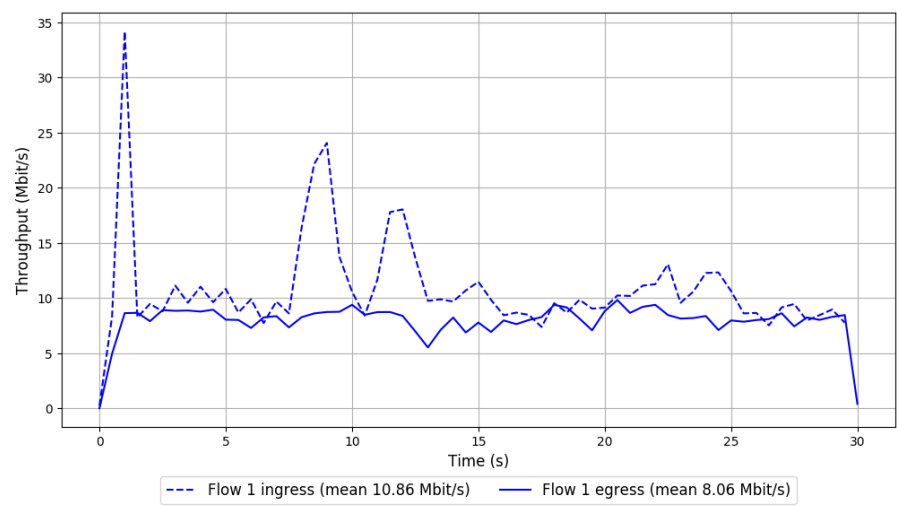
-- Flow 1:

Average throughput: 8.06 Mbit/s

95th percentile per-packet one-way delay: 4253.669 ms

Loss rate: 25.86%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/fillp_stats_run2.

Run 2: Report of FillP — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of FillP

Start at: 2018-01-31 09:16:53

End at: 2018-01-31 09:17:23

Local clock offset: -0.866 ms

Remote clock offset: 5.08 ms

Below is generated by plot.py at 2018-01-31 09:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 4711.775 ms

Loss rate: 39.13%

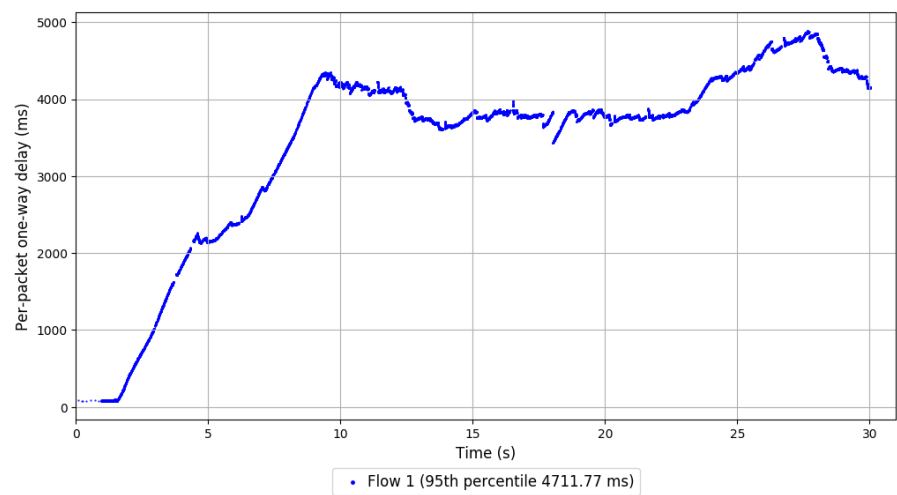
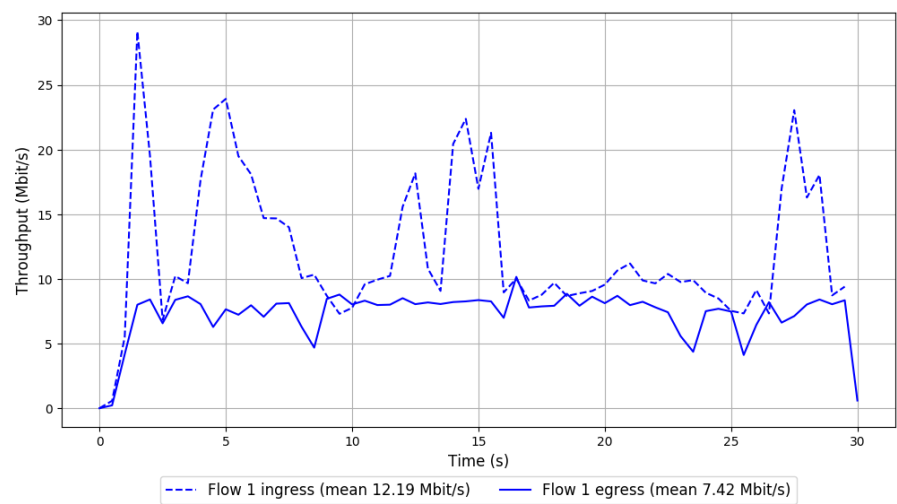
-- Flow 1:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 4711.775 ms

Loss rate: 39.13%

Run 3: Report of FillP — Data Link



Run 1: Statistics of Indigo-1-32

/home/ubuntu/pantheon_data/2018-01-31T08-05-AWS-Korea-to-China-ppp0-3-runs/indigo_1_32_stats

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

Figure is missing

Figure is missing

Run 2: Statistics of Indigo-1-32

Start at: 2018-01-31 09:02:31

End at: 2018-01-31 09:03:01

Local clock offset: -0.377 ms

Remote clock offset: 6.996 ms

Below is generated by plot.py at 2018-01-31 09:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.57 Mbit/s

95th percentile per-packet one-way delay: 118.439 ms

Loss rate: 0.00%

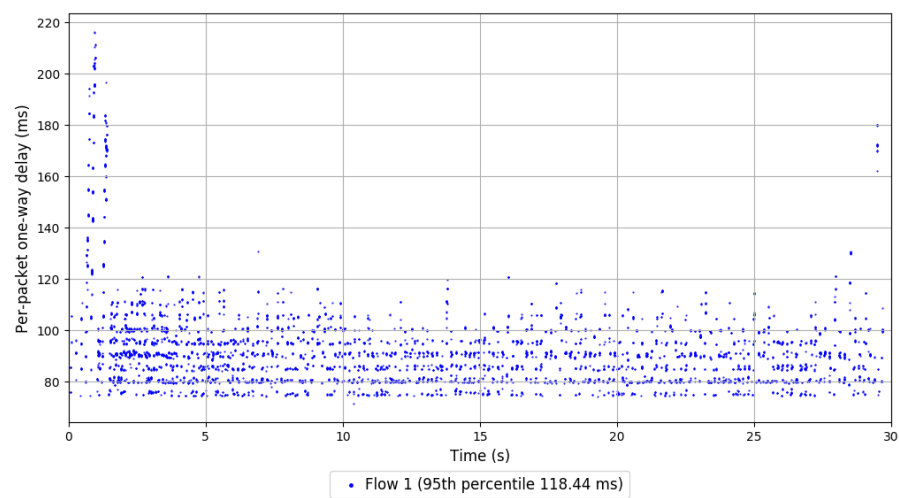
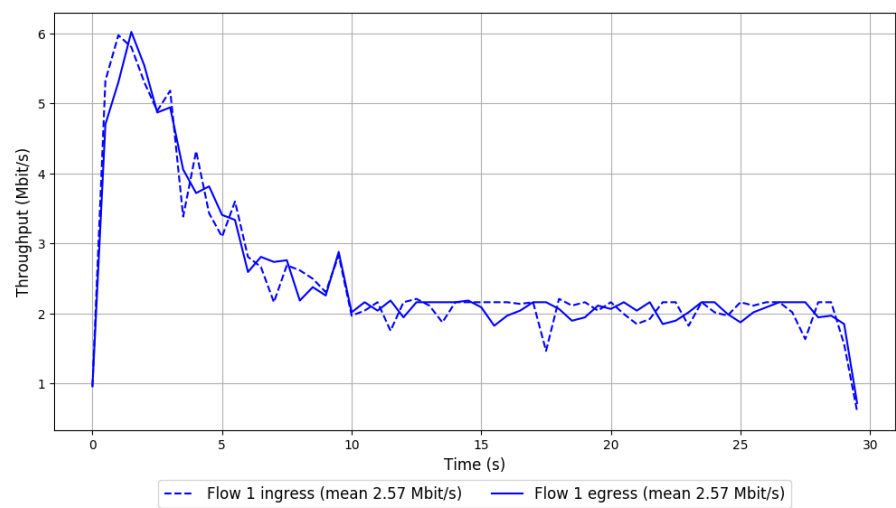
-- Flow 1:

Average throughput: 2.57 Mbit/s

95th percentile per-packet one-way delay: 118.439 ms

Loss rate: 0.00%

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-01-31 09:28:14

End at: 2018-01-31 09:28:44

Local clock offset: -0.939 ms

Remote clock offset: 4.94 ms

Below is generated by plot.py at 2018-01-31 09:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.50 Mbit/s

95th percentile per-packet one-way delay: 156.500 ms

Loss rate: 0.31%

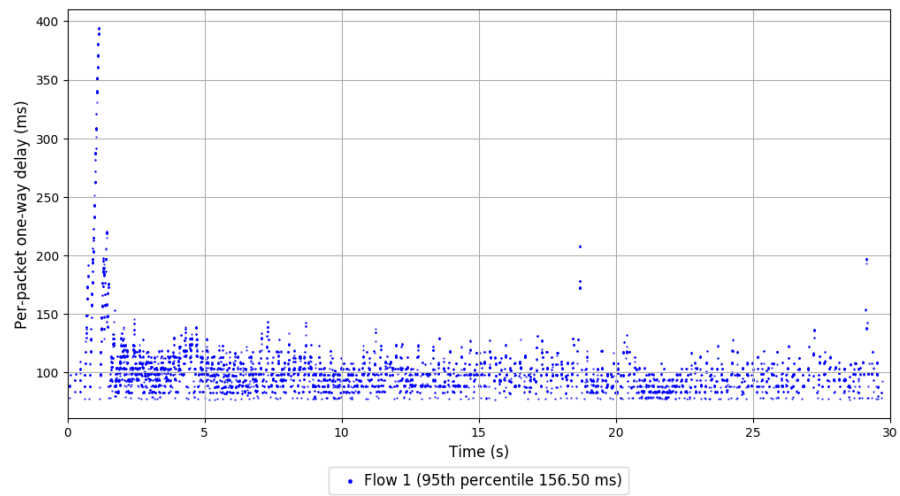
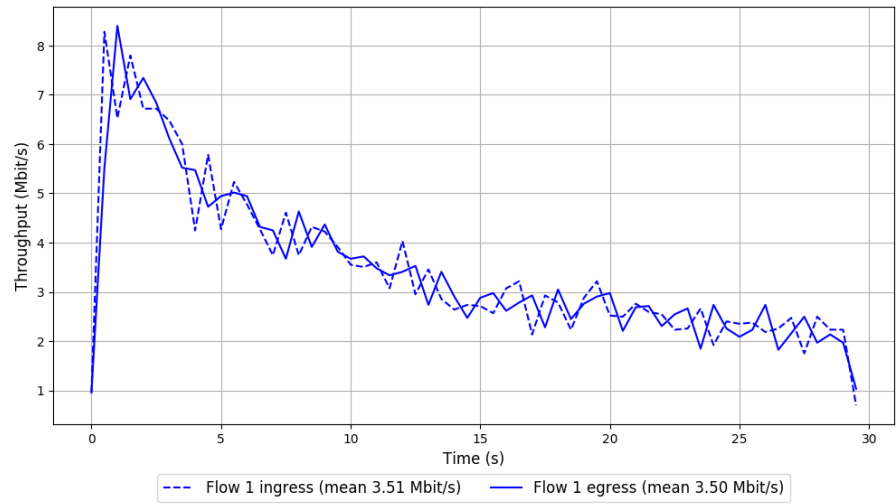
-- Flow 1:

Average throughput: 3.50 Mbit/s

95th percentile per-packet one-way delay: 156.500 ms

Loss rate: 0.31%

Run 3: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-01-31 08:19:03

End at: 2018-01-31 08:19:33

Local clock offset: -0.287 ms

Remote clock offset: 6.63 ms

Below is generated by plot.py at 2018-01-31 09:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 80.809 ms

Loss rate: 0.00%

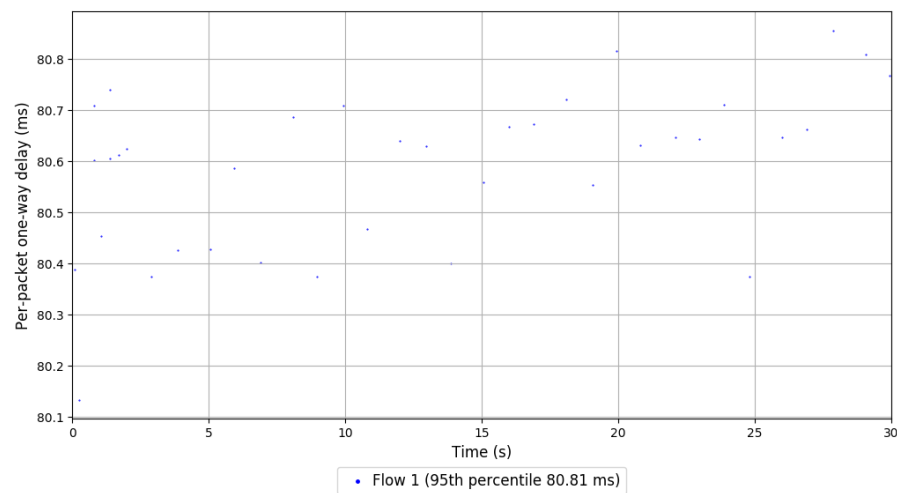
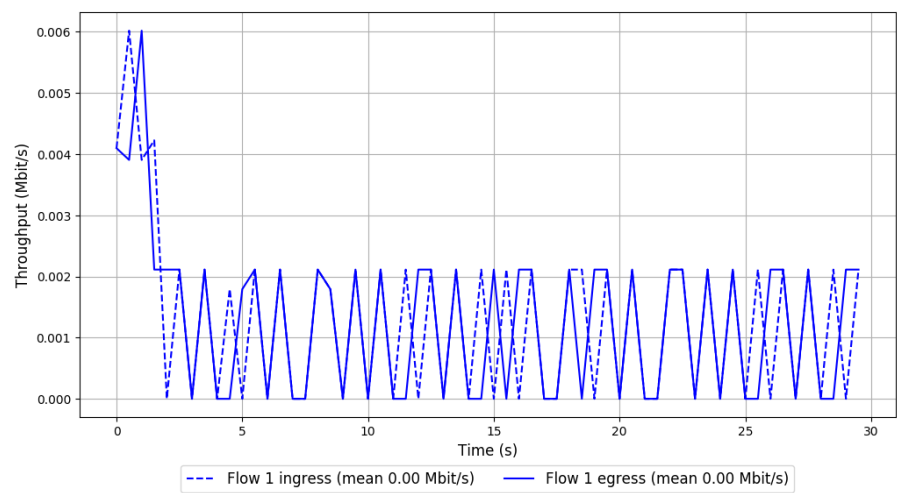
-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 80.809 ms

Loss rate: 0.00%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

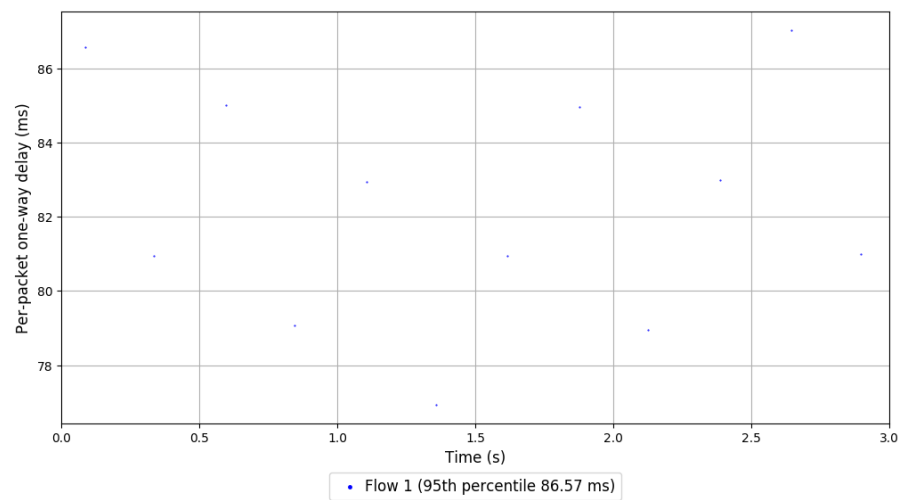
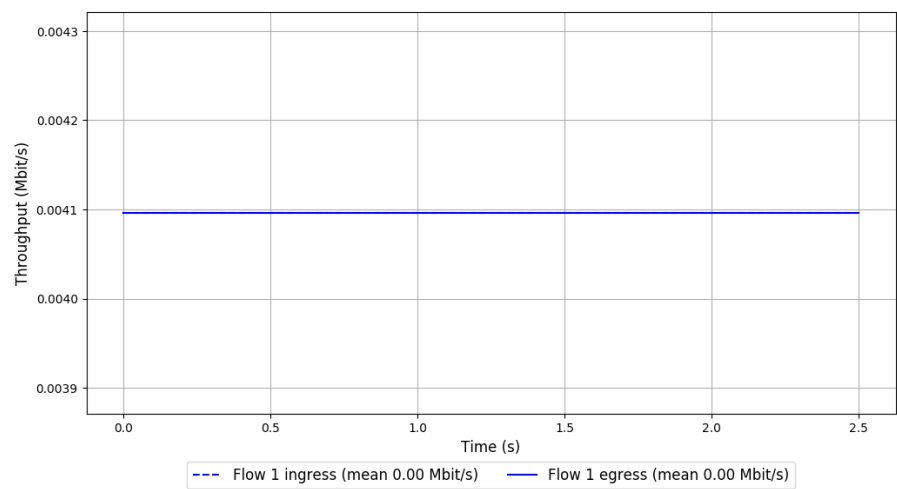
Start at: 2018-01-31 08:50:40

End at: 2018-01-31 08:51:10

Local clock offset: -0.264 ms

Remote clock offset: 6.809 ms

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-31 09:18:22

End at: 2018-01-31 09:18:52

Local clock offset: -0.817 ms

Remote clock offset: 5.064 ms

Below is generated by plot.py at 2018-01-31 09:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 100.185 ms

Loss rate: 0.06%

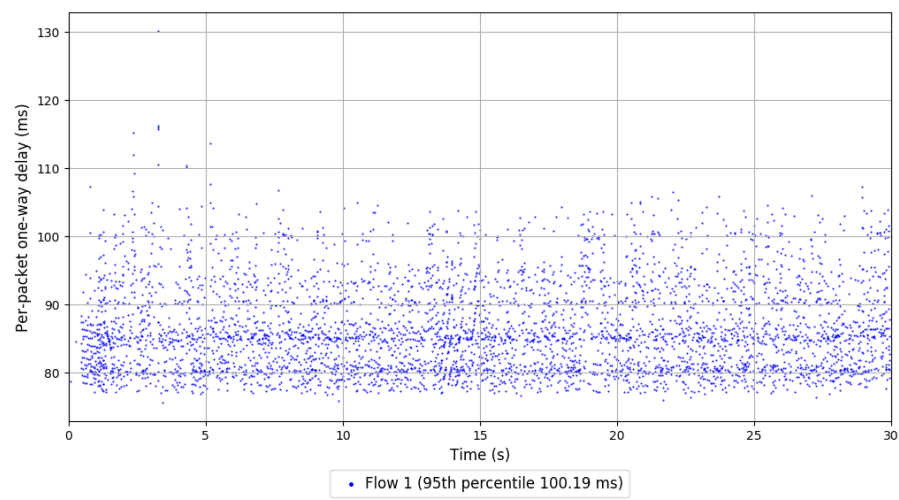
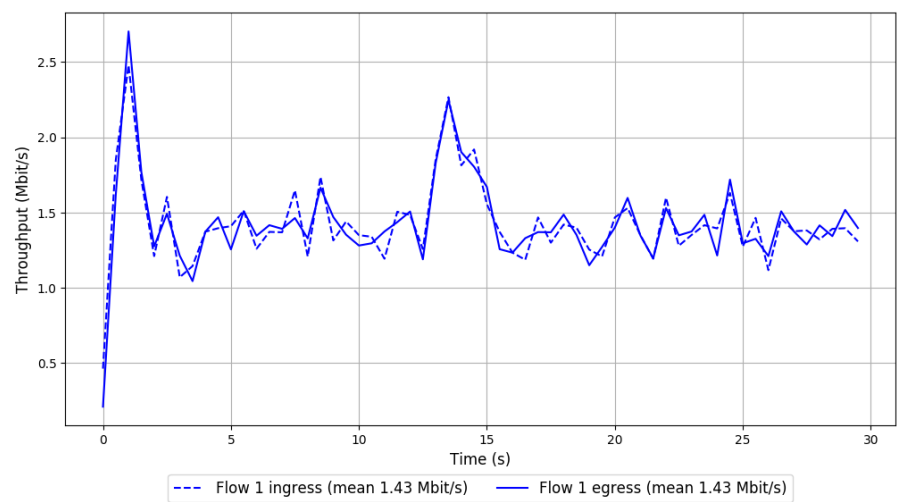
-- Flow 1:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 100.185 ms

Loss rate: 0.06%

Run 3: Report of Vivace-latency — Data Link



Run 1: Statistics of Vivace-loss

Start at: 2018-01-31 08:32:43

End at: 2018-01-31 08:33:13

Local clock offset: -0.207 ms

Remote clock offset: 7.016 ms

Below is generated by plot.py at 2018-01-31 09:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 96.406 ms

Loss rate: 0.03%

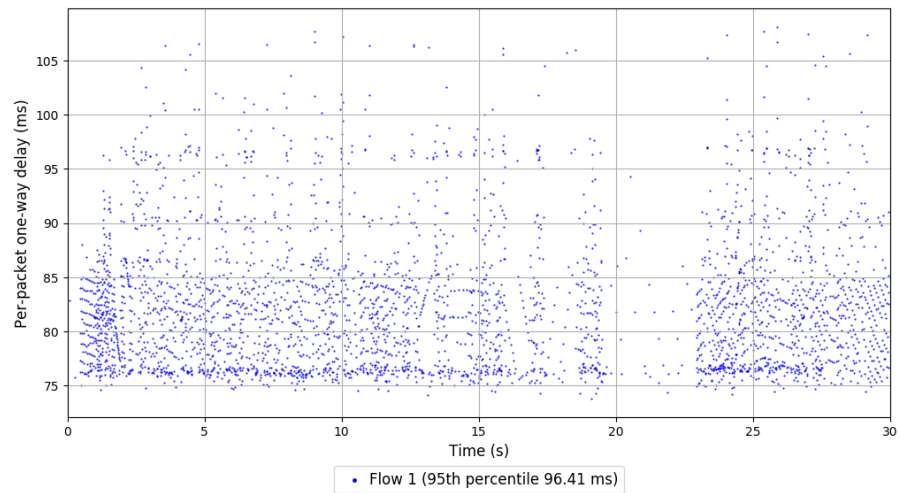
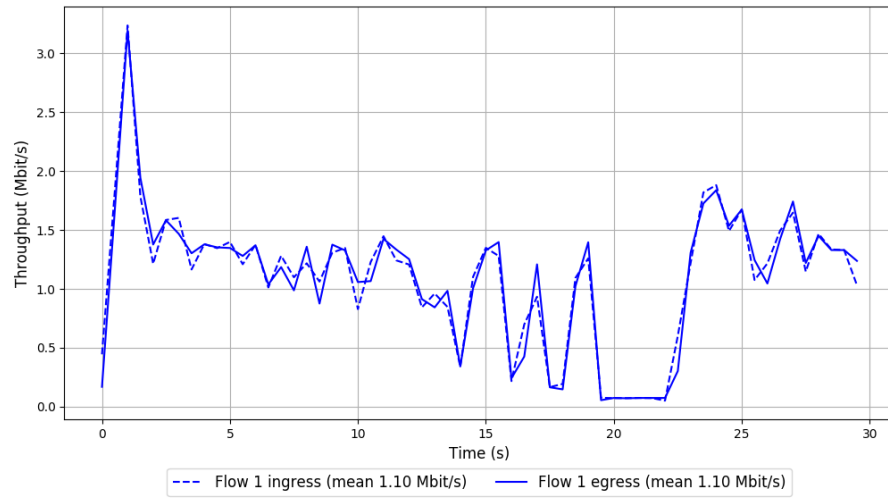
-- Flow 1:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 96.406 ms

Loss rate: 0.03%

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-01-31 09:03:55

End at: 2018-01-31 09:04:25

Local clock offset: -1.241 ms

Remote clock offset: 6.807 ms

Below is generated by plot.py at 2018-01-31 09:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.48 Mbit/s

95th percentile per-packet one-way delay: 6633.552 ms

Loss rate: 76.97%

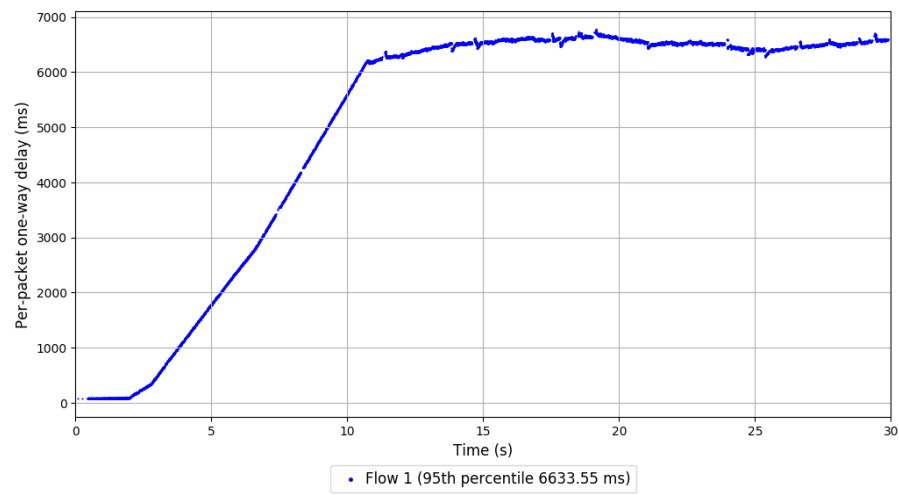
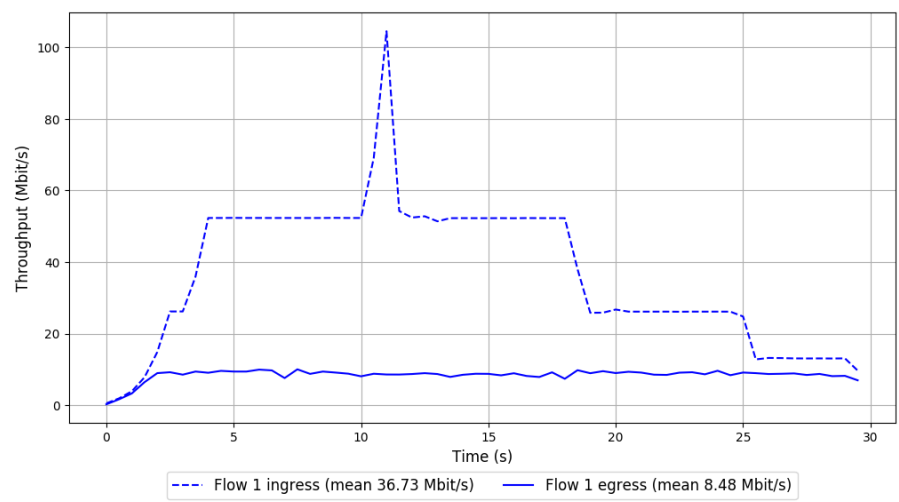
-- Flow 1:

Average throughput: 8.48 Mbit/s

95th percentile per-packet one-way delay: 6633.552 ms

Loss rate: 76.97%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-31 09:29:37

End at: 2018-01-31 09:30:07

Local clock offset: -1.615 ms

Remote clock offset: 5.0 ms

Below is generated by plot.py at 2018-01-31 09:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 84.775 ms

Loss rate: 0.00%

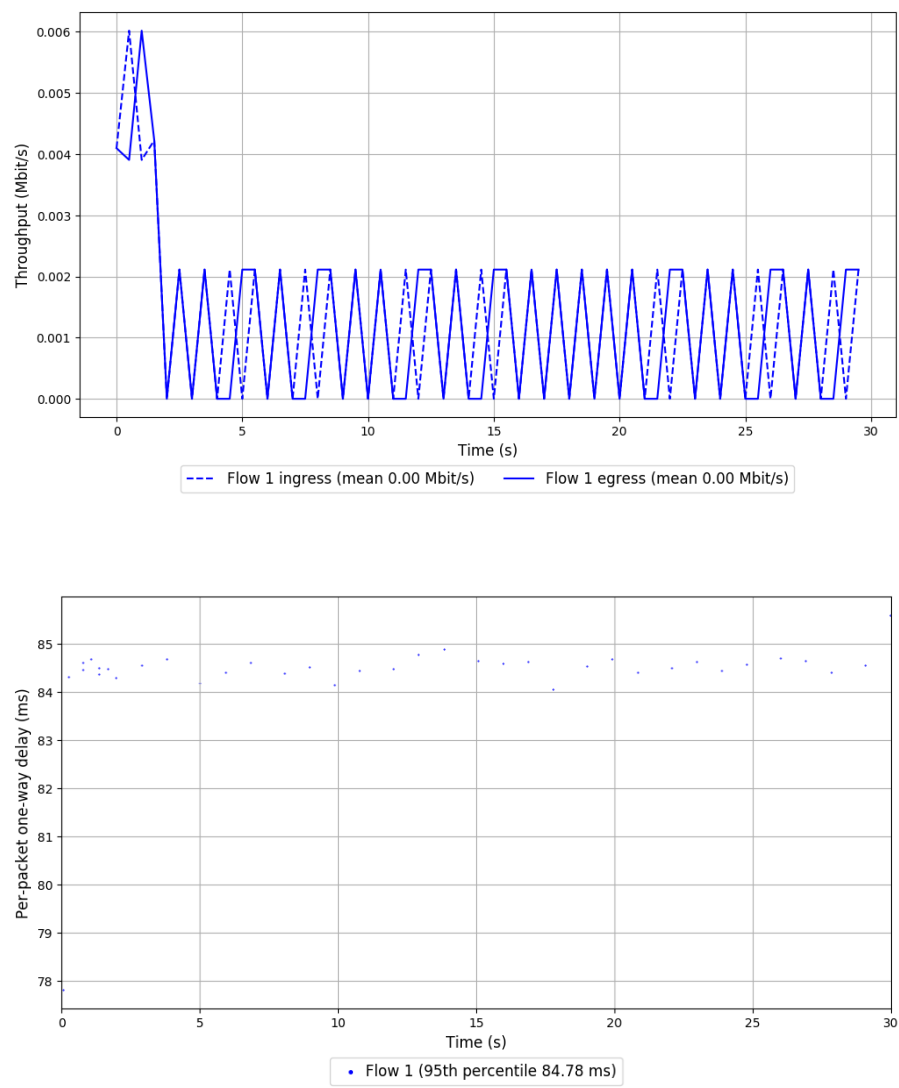
-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 84.775 ms

Loss rate: 0.00%

Run 3: Report of Vivace-loss — Data Link



Run 1: Statistics of Vivace-LTE

Start at: 2018-01-31 08:10:33

End at: 2018-01-31 08:11:03

Local clock offset: -0.191 ms

Remote clock offset: 5.46 ms

Below is generated by plot.py at 2018-01-31 09:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 299.154 ms

Loss rate: 0.60%

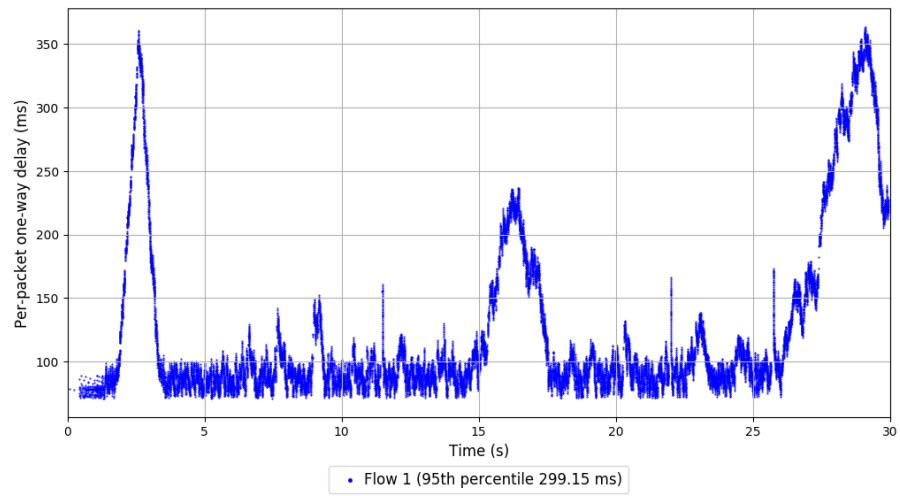
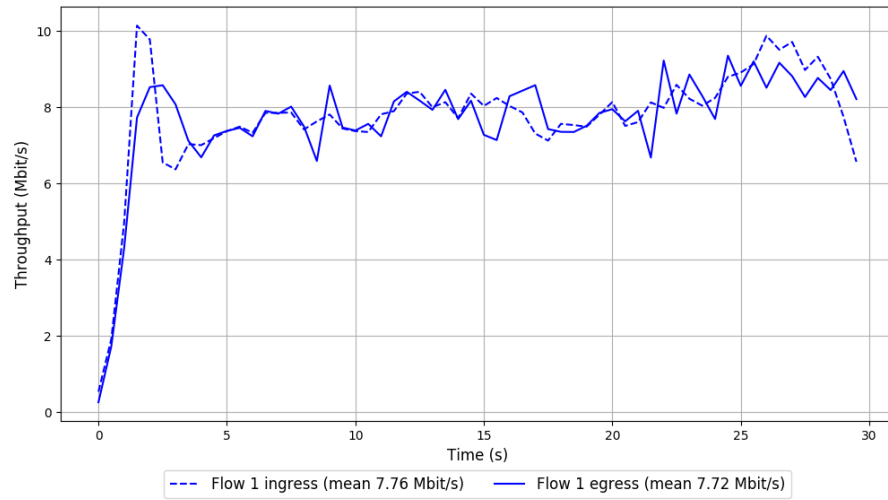
-- Flow 1:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 299.154 ms

Loss rate: 0.60%

Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

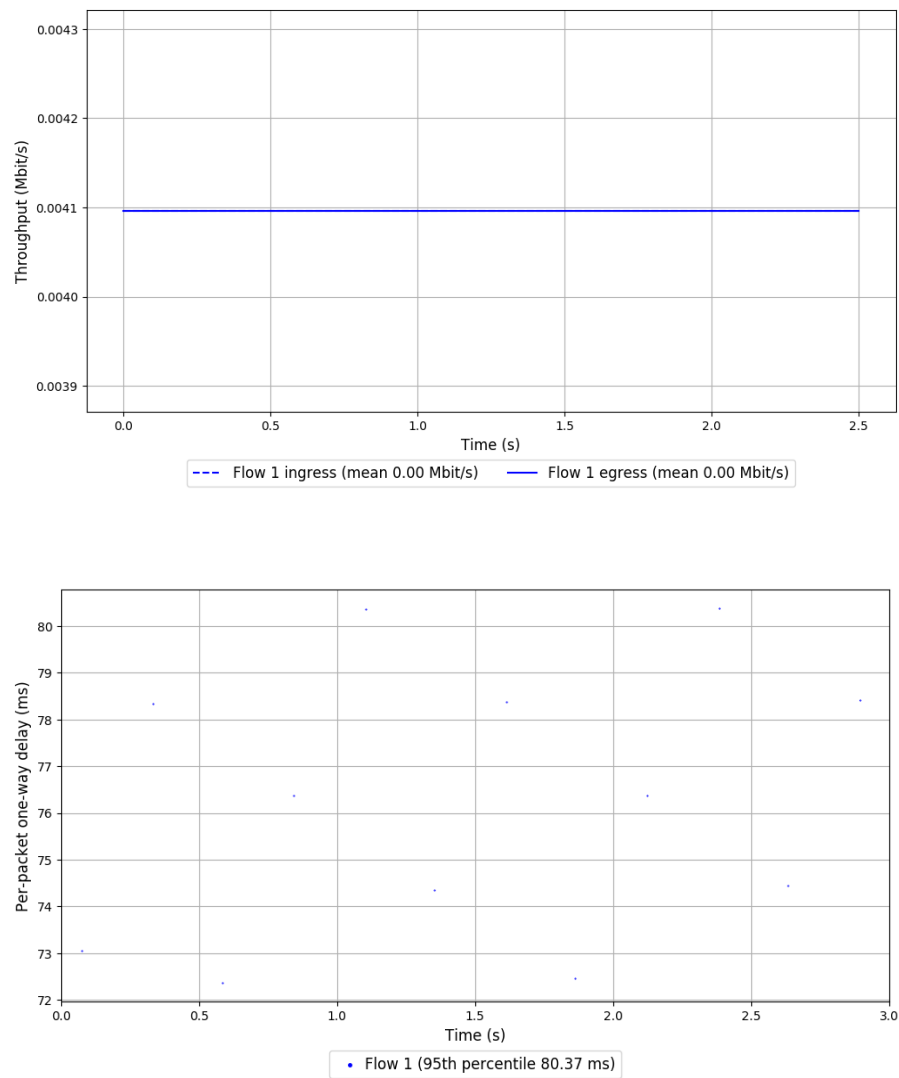
Start at: 2018-01-31 08:41:51

End at: 2018-01-31 08:42:21

Local clock offset: -0.436 ms

Remote clock offset: 6.947 ms

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-31 09:11:08

End at: 2018-01-31 09:11:38

Local clock offset: -0.743 ms

Remote clock offset: 5.6 ms

Below is generated by plot.py at 2018-01-31 09:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 357.630 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 357.630 ms

Loss rate: 1.74%

Run 3: Report of Vivace-LTE — Data Link

