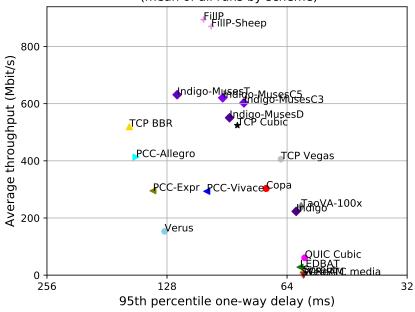
# Pantheon Report

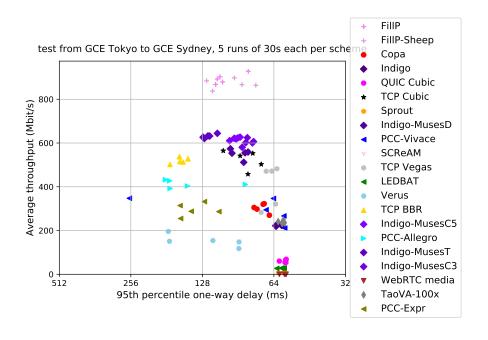
Generated at 2019-03-19 19:36:59 (UTC).

```
Data path: GCE Tokyo on ens4 (remote) \rightarrow GCE Sydney on ens4 (local).
   Repeated the test of 21 congestion control schemes 5 times.
  Each test lasted for 30 seconds running 1 flow.
   NTP offsets were measured against time.google.com and have been applied
to correct the timestamps in logs.
System info:
Linux 4.15.0-1028-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
Git summary:
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 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 @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
```

third\_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from GCE Tokyo to GCE Sydney, 5 runs of 30s each per scheme (mean of all runs by scheme)





		mean avg tput (Mbit/s)	mean 95th-%ile delay (ms)	mean loss rate (%)
scheme	# runs	flow 1	flow 1	flow 1
TCP BBR	5	519.23	159.07	1.20
Copa	5	303.18	72.22	0.40
TCP Cubic	5	523.92	85.27	0.42
FillP	5	893.89	103.67	0.76
FillP-Sheep	5	870.04	99.20	0.71
Indigo	5	223.20	60.72	0.40
Indigo-MusesC3	5	602.73	82.09	0.41
Indigo-MusesC5	5	620.33	92.80	0.50
Indigo-MusesD	5	550.61	89.21	0.41
Indigo-MusesT	5	631.13	120.72	0.56
LEDBAT	5	27.97	59.41	0.76
PCC-Allegro	5	413.09	153.07	2.76
PCC-Expr	5	295.09	138.85	1.05
QUIC Cubic	5	60.69	57.80	0.67
SCReAM	5	0.22	58.78	0.39
Sprout	5	7.63	58.38	0.35
TaoVA-100x	5	239.62	59.01	0.41
TCP Vegas	5	405.79	66.33	0.36
Verus	5	153.11	129.83	1.10
PCC-Vivace	5	293.22	101.76	0.92
WebRTC media	4	0.05	58.15	0.00

### Run 1: Statistics of TCP BBR

Start at: 2019-03-19 14:56:23 End at: 2019-03-19 14:56:53 Local clock offset: -0.348 ms Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2019-03-19 18:00:59

# Datalink statistics
-- Total of 1 flow:

Average throughput: 515.08 Mbit/s

95th percentile per-packet one-way delay: 159.069 ms

Loss rate: 0.98%

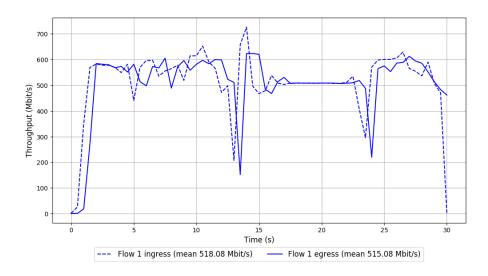
-- Flow 1:

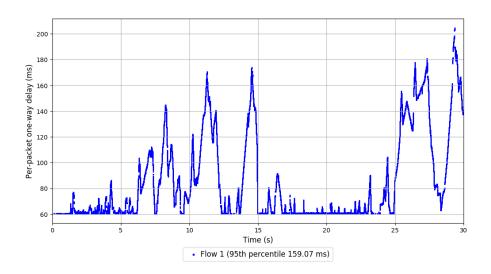
Average throughput: 515.08 Mbit/s

95th percentile per-packet one-way delay: 159.069 ms

Loss rate: 0.98%

Run 1: Report of TCP BBR — Data Link





### Run 2: Statistics of TCP BBR

Start at: 2019-03-19 15:31:08 End at: 2019-03-19 15:31:38 Local clock offset: -0.284 ms Remote clock offset: 0.035 ms

# Below is generated by plot.py at 2019-03-19 18:00:59

# Datalink statistics
-- Total of 1 flow:

Average throughput: 513.28 Mbit/s

95th percentile per-packet one-way delay: 154.392 ms

Loss rate: 1.05%

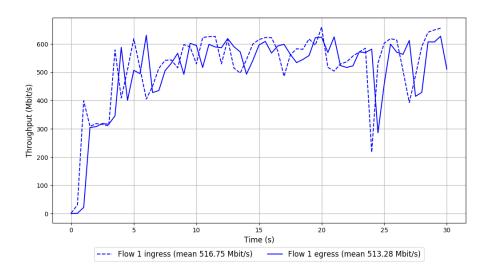
-- Flow 1:

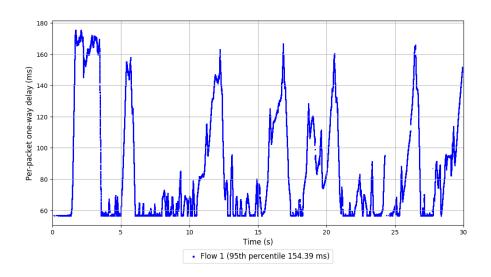
Average throughput: 513.28 Mbit/s

95th percentile per-packet one-way delay: 154.392 ms

Loss rate: 1.05%

Run 2: Report of TCP BBR — Data Link





### Run 3: Statistics of TCP BBR

Start at: 2019-03-19 16:04:58 End at: 2019-03-19 16:05:28 Local clock offset: -0.504 ms Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2019-03-19 18:01:07

# Datalink statistics
-- Total of 1 flow:

Average throughput: 527.85 Mbit/s

95th percentile per-packet one-way delay: 146.985 ms

Loss rate: 0.57%

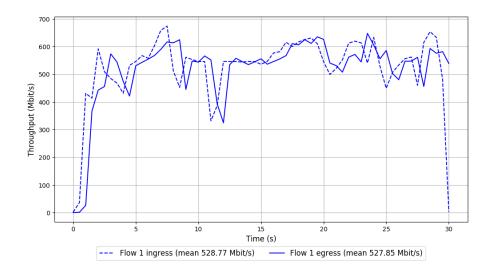
-- Flow 1:

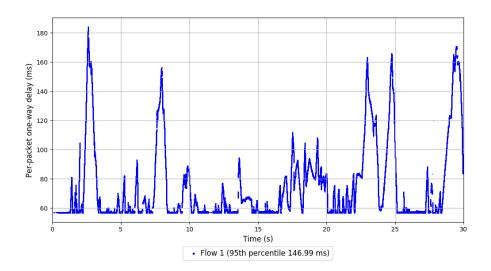
Average throughput: 527.85 Mbit/s

95th percentile per-packet one-way delay: 146.985 ms

Loss rate: 0.57%

Run 3: Report of TCP BBR — Data Link





### Run 4: Statistics of TCP BBR

Start at: 2019-03-19 16:40:10 End at: 2019-03-19 16:40:40 Local clock offset: -0.012 ms Remote clock offset: 0.242 ms

# Below is generated by plot.py at 2019-03-19 18:01:17

# Datalink statistics
-- Total of 1 flow:

Average throughput: 537.71 Mbit/s

95th percentile per-packet one-way delay: 159.836 ms

Loss rate: 1.26%

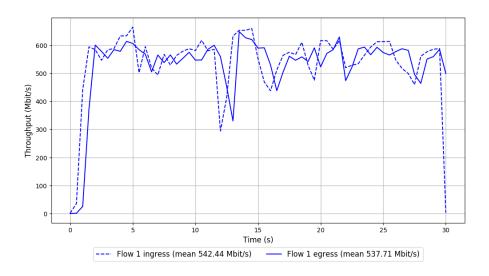
-- Flow 1:

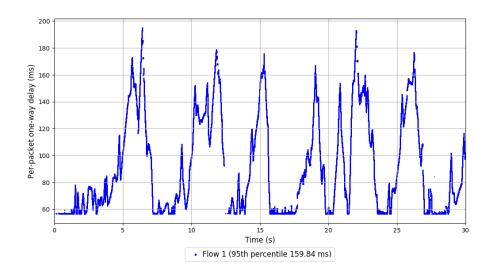
Average throughput: 537.71 Mbit/s

95th percentile per-packet one-way delay: 159.836 ms

Loss rate: 1.26%

Run 4: Report of TCP BBR — Data Link





### Run 5: Statistics of TCP BBR

Start at: 2019-03-19 17:15:24 End at: 2019-03-19 17:15:54 Local clock offset: 0.004 ms Remote clock offset: -0.573 ms

# Below is generated by plot.py at 2019-03-19 18:01:17

# Datalink statistics
-- Total of 1 flow:

Average throughput: 502.21 Mbit/s

95th percentile per-packet one-way delay: 175.064 ms

Loss rate: 2.12%

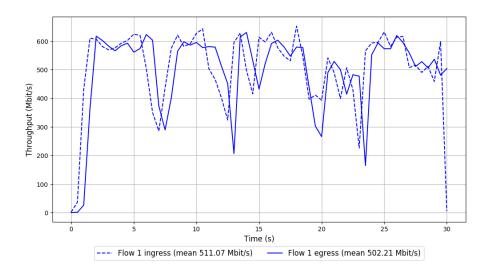
-- Flow 1:

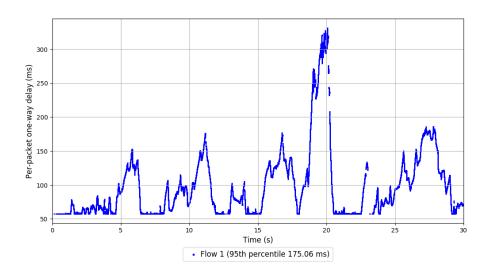
Average throughput: 502.21 Mbit/s

95th percentile per-packet one-way delay: 175.064 ms

Loss rate: 2.12%

Run 5: Report of TCP BBR — Data Link





## Run 1: Statistics of Copa

Start at: 2019-03-19 15:08:25 End at: 2019-03-19 15:08:55 Local clock offset: -0.104 ms Remote clock offset: -0.796 ms

# Below is generated by plot.py at 2019-03-19 18:02:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 320.11 Mbit/s

95th percentile per-packet one-way delay:  $71.015~\mathrm{ms}$ 

Loss rate: 0.40%

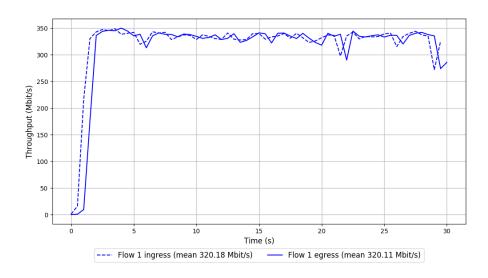
-- Flow 1:

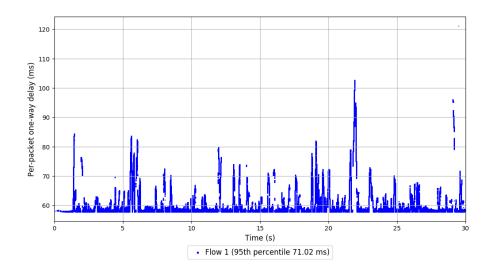
Average throughput: 320.11 Mbit/s

95th percentile per-packet one-way delay: 71.015 ms

Loss rate: 0.40%

Run 1: Report of Copa — Data Link





## Run 2: Statistics of Copa

Start at: 2019-03-19 15:42:48 End at: 2019-03-19 15:43:18 Local clock offset: 0.105 ms Remote clock offset: -0.212 ms

# Below is generated by plot.py at 2019-03-19 18:02:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 305.23 Mbit/s

95th percentile per-packet one-way delay:  $77.546~\mathrm{ms}$ 

Loss rate: 0.42%

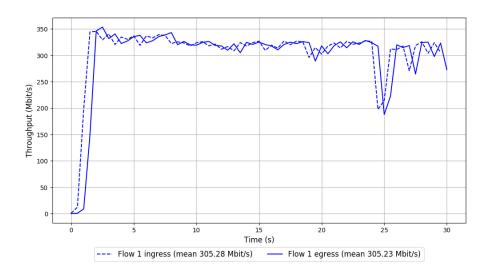
-- Flow 1:

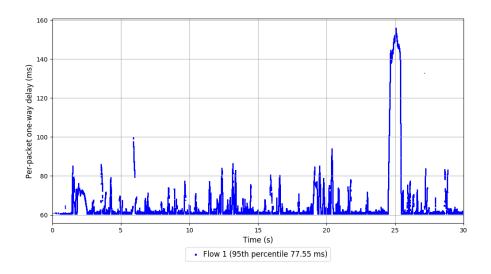
Average throughput: 305.23 Mbit/s

95th percentile per-packet one-way delay: 77.546 ms

Loss rate: 0.42%

Run 2: Report of Copa — Data Link





## Run 3: Statistics of Copa

Start at: 2019-03-19 16:16:51 End at: 2019-03-19 16:17:21 Local clock offset: -0.11 ms Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2019-03-19 18:02:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 269.96 Mbit/s

95th percentile per-packet one-way delay: 66.853 ms

Loss rate: 0.38%

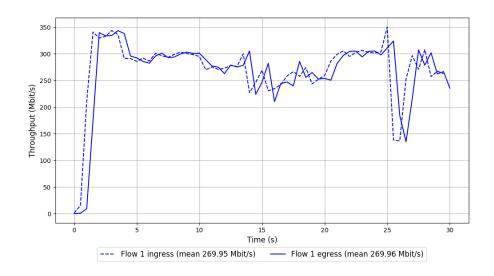
-- Flow 1:

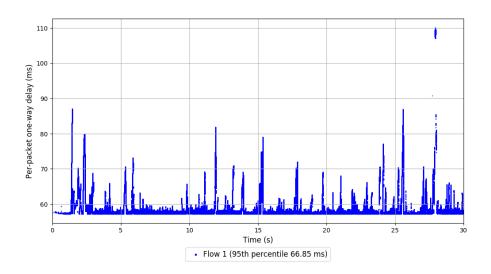
Average throughput: 269.96 Mbit/s

95th percentile per-packet one-way delay: 66.853 ms

Loss rate: 0.38%

Run 3: Report of Copa — Data Link





## Run 4: Statistics of Copa

Start at: 2019-03-19 16:52:29 End at: 2019-03-19 16:52:59 Local clock offset: 0.444 ms Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2019-03-19 18:10:52

# Datalink statistics
-- Total of 1 flow:

Average throughput: 322.66 Mbit/s

95th percentile per-packet one-way delay:  $70.300~\mathrm{ms}$ 

Loss rate: 0.39%

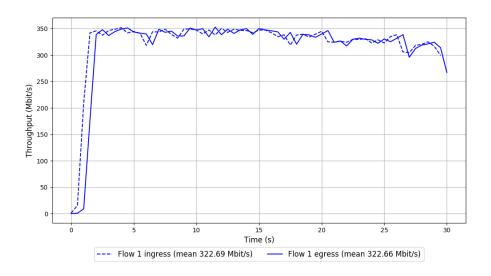
-- Flow 1:

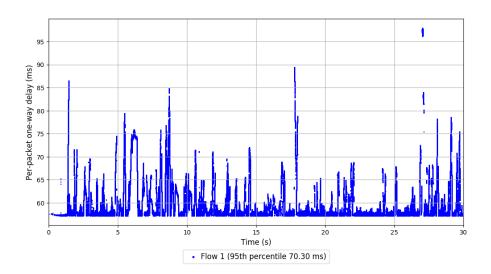
Average throughput: 322.66 Mbit/s

95th percentile per-packet one-way delay: 70.300 ms

Loss rate: 0.39%

Run 4: Report of Copa — Data Link





## Run 5: Statistics of Copa

Start at: 2019-03-19 17:27:38 End at: 2019-03-19 17:28:08 Local clock offset: 0.416 ms Remote clock offset: -0.249 ms

# Below is generated by plot.py at 2019-03-19 18:10:52

# Datalink statistics
-- Total of 1 flow:

Average throughput: 297.95 Mbit/s

95th percentile per-packet one-way delay: 75.378  $\ensuremath{\text{ms}}$ 

Loss rate: 0.43%

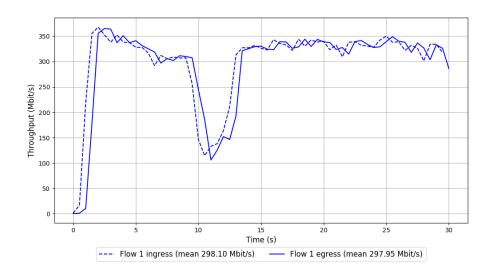
-- Flow 1:

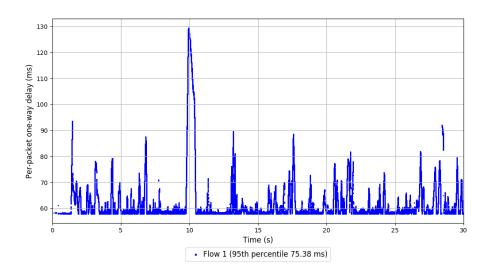
Average throughput: 297.95 Mbit/s

95th percentile per-packet one-way delay: 75.378 ms

Loss rate: 0.43%

Run 5: Report of Copa — Data Link





### Run 1: Statistics of TCP Cubic

Start at: 2019-03-19 14:58:26 End at: 2019-03-19 14:58:56 Local clock offset: -0.101 ms Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2019-03-19 18:10:52

# Datalink statistics
-- Total of 1 flow:

Average throughput: 564.63 Mbit/s

95th percentile per-packet one-way delay: 104.523 ms

Loss rate: 0.43%

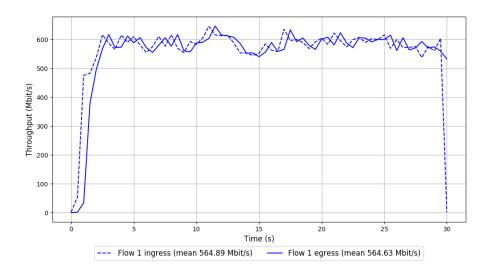
-- Flow 1:

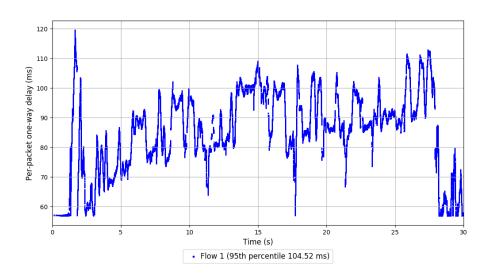
Average throughput: 564.63 Mbit/s

95th percentile per-packet one-way delay: 104.523 ms

Loss rate: 0.43%

Run 1: Report of TCP Cubic — Data Link





### Run 2: Statistics of TCP Cubic

Start at: 2019-03-19 15:32:58 End at: 2019-03-19 15:33:28 Local clock offset: -0.369 ms Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2019-03-19 18:10:52

# Datalink statistics
-- Total of 1 flow:

Average throughput: 502.95 Mbit/s

95th percentile per-packet one-way delay:  $72.325~\mathrm{ms}$ 

Loss rate: 0.46%

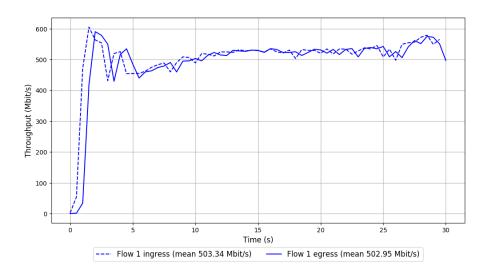
-- Flow 1:

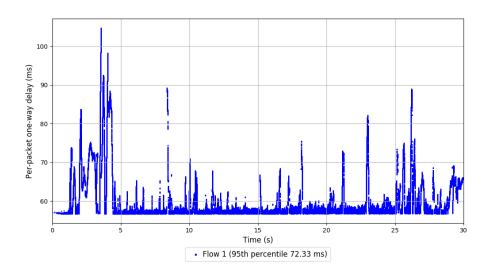
Average throughput: 502.95 Mbit/s

95th percentile per-packet one-way delay: 72.325 ms

Loss rate: 0.46%

Run 2: Report of TCP Cubic — Data Link





### Run 3: Statistics of TCP Cubic

Start at: 2019-03-19 16:06:55 End at: 2019-03-19 16:07:25 Local clock offset: -0.46 ms Remote clock offset: -0.391 ms

# Below is generated by plot.py at 2019-03-19 18:10:52

# Datalink statistics
-- Total of 1 flow:

Average throughput: 457.74 Mbit/s

95th percentile per-packet one-way delay: 82.266 ms

Loss rate: 0.41%

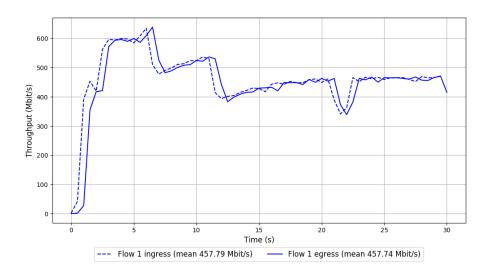
-- Flow 1:

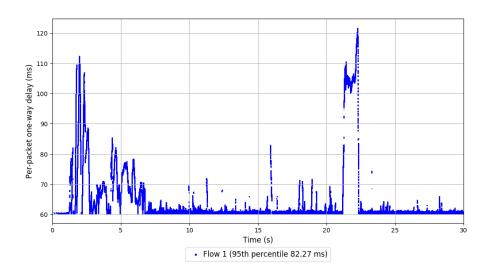
Average throughput: 457.74 Mbit/s

95th percentile per-packet one-way delay: 82.266 ms

Loss rate: 0.41%

Run 3: Report of TCP Cubic — Data Link





### Run 4: Statistics of TCP Cubic

Start at: 2019-03-19 16:42:00 End at: 2019-03-19 16:42:30 Local clock offset: -0.147 ms Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-03-19 18:10:52

# Datalink statistics
-- Total of 1 flow:

Average throughput: 552.88 Mbit/s

95th percentile per-packet one-way delay: 78.507 ms

Loss rate: 0.47%

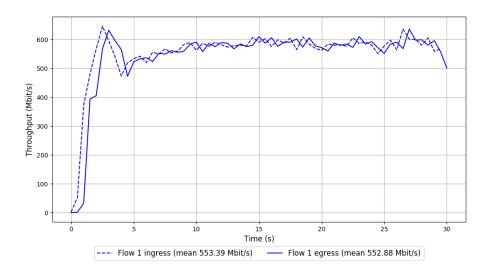
-- Flow 1:

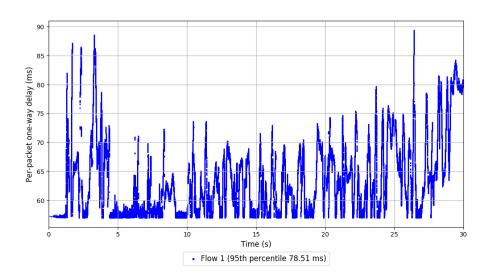
Average throughput: 552.88 Mbit/s

95th percentile per-packet one-way delay: 78.507 ms

Loss rate: 0.47%

Run 4: Report of TCP Cubic — Data Link





### Run 5: Statistics of TCP Cubic

Start at: 2019-03-19 17:17:18 End at: 2019-03-19 17:17:48 Local clock offset: 0.06 ms Remote clock offset: -0.557 ms

# Below is generated by plot.py at 2019-03-19 18:11:03

# Datalink statistics
-- Total of 1 flow:

Average throughput: 541.41 Mbit/s

95th percentile per-packet one-way delay:  $88.738~\mathrm{ms}$ 

Loss rate: 0.31%

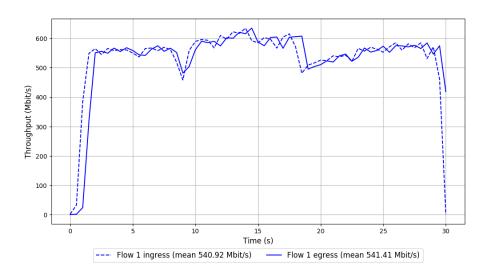
-- Flow 1:

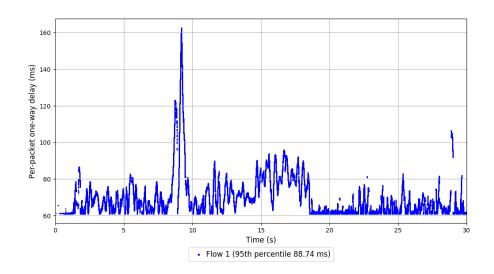
Average throughput: 541.41 Mbit/s

95th percentile per-packet one-way delay: 88.738 ms

Loss rate: 0.31%

Run 5: Report of TCP Cubic — Data Link





### Run 1: Statistics of FillP

Start at: 2019-03-19 15:06:16 End at: 2019-03-19 15:06:46 Local clock offset: -0.125 ms Remote clock offset: 0.51 ms

# Below is generated by plot.py at 2019-03-19 18:18:35

# Datalink statistics
-- Total of 1 flow:

Average throughput: 867.76 Mbit/s

95th percentile per-packet one-way delay: 112.539 ms

Loss rate: 0.75%

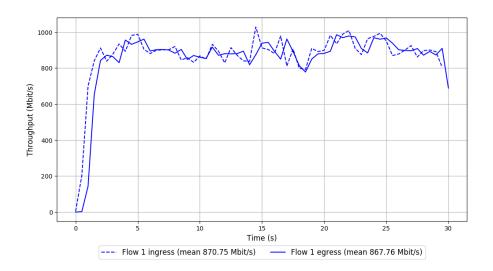
-- Flow 1:

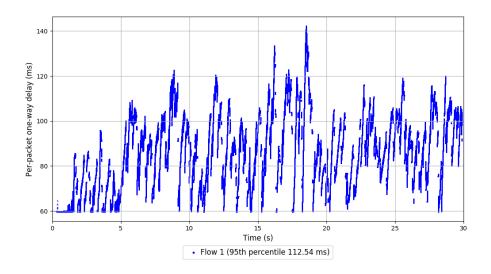
Average throughput: 867.76 Mbit/s

95th percentile per-packet one-way delay: 112.539 ms

Loss rate: 0.75%

Run 1: Report of FillP — Data Link





### Run 2: Statistics of FillP

Start at: 2019-03-19 15:40:39 End at: 2019-03-19 15:41:09 Local clock offset: -0.11 ms Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2019-03-19 18:28:11

# Datalink statistics
-- Total of 1 flow:

Average throughput: 892.48 Mbit/s

95th percentile per-packet one-way delay:  $110.721~\mathrm{ms}$ 

Loss rate: 0.89%

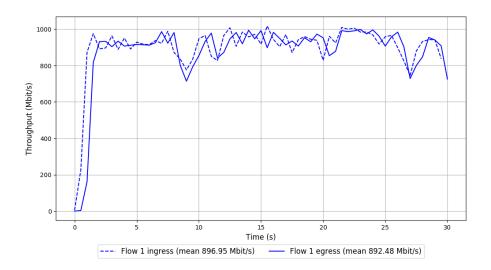
-- Flow 1:

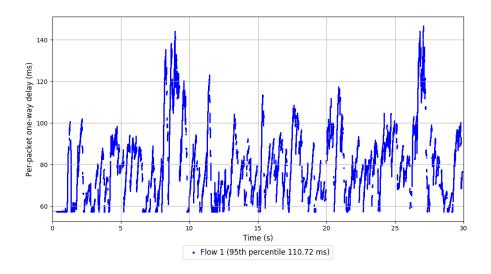
Average throughput: 892.48 Mbit/s

95th percentile per-packet one-way delay: 110.721 ms

Loss rate: 0.89%

Run 2: Report of FillP — Data Link





### Run 3: Statistics of FillP

Start at: 2019-03-19 16:14:58 End at: 2019-03-19 16:15:28 Local clock offset: 0.144 ms Remote clock offset: -0.395 ms

# Below is generated by plot.py at 2019-03-19 18:28:51

# Datalink statistics
-- Total of 1 flow:

Average throughput: 927.61 Mbit/s

95th percentile per-packet one-way delay: 81.967  $\ensuremath{\mathsf{ms}}$ 

Loss rate: 0.79%

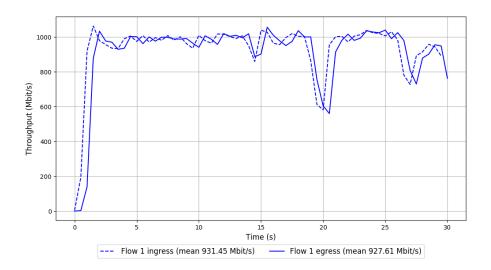
-- Flow 1:

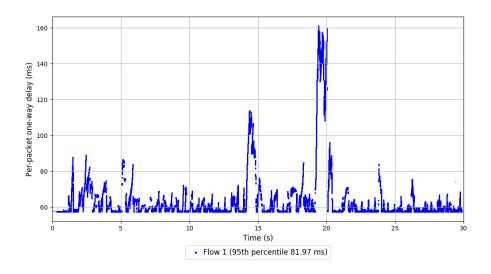
Average throughput: 927.61 Mbit/s

95th percentile per-packet one-way delay: 81.967 ms

Loss rate: 0.79%

Run 3: Report of FillP — Data Link





### Run 4: Statistics of FillP

Start at: 2019-03-19 16:50:17 End at: 2019-03-19 16:50:47 Local clock offset: -0.156 ms Remote clock offset: -0.732 ms

# Below is generated by plot.py at 2019-03-19 18:29:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 902.65 Mbit/s

95th percentile per-packet one-way delay: 107.899 ms

Loss rate: 0.76%

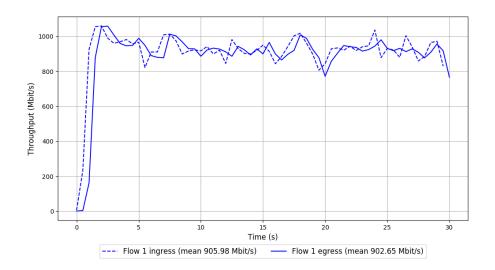
-- Flow 1:

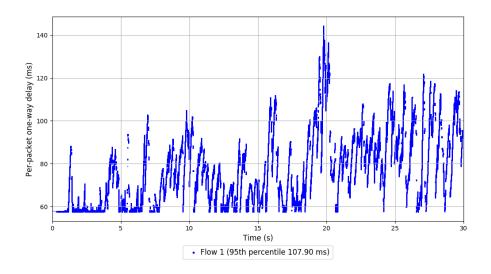
Average throughput: 902.65 Mbit/s

95th percentile per-packet one-way delay: 107.899 ms

Loss rate: 0.76%

Run 4: Report of FillP — Data Link





### Run 5: Statistics of FillP

Start at: 2019-03-19 17:25:33 End at: 2019-03-19 17:26:03 Local clock offset: -0.006 ms Remote clock offset: -0.618 ms

# Below is generated by plot.py at 2019-03-19 18:29:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 878.96 Mbit/s

95th percentile per-packet one-way delay: 105.220 ms

Loss rate: 0.60%

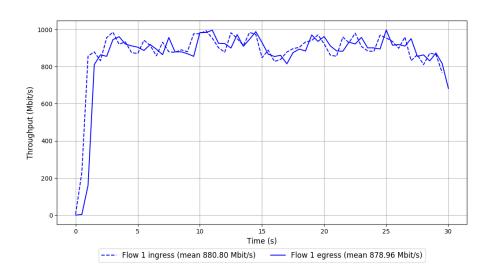
-- Flow 1:

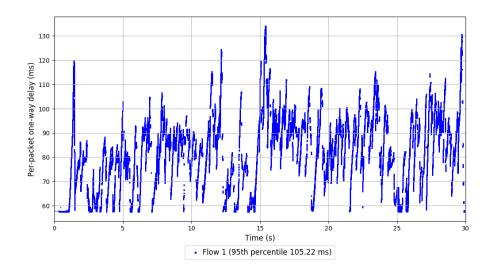
Average throughput: 878.96 Mbit/s

95th percentile per-packet one-way delay: 105.220 ms

Loss rate: 0.60%

Run 5: Report of FillP — Data Link





## Run 1: Statistics of FillP-Sheep

Start at: 2019-03-19 14:52:12 End at: 2019-03-19 14:52:42 Local clock offset: -0.082 ms Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2019-03-19 18:29:26

# Datalink statistics
-- Total of 1 flow:

Average throughput: 897.75 Mbit/s

95th percentile per-packet one-way delay: 93.828  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.63%

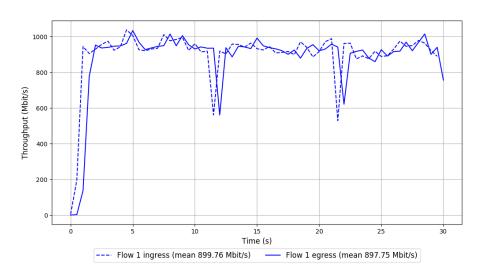
-- Flow 1:

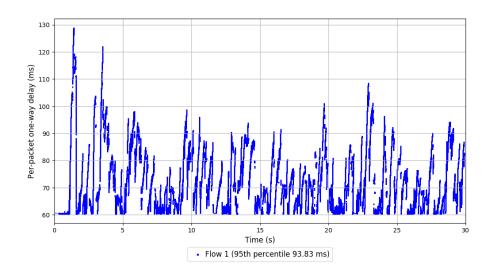
Average throughput: 897.75 Mbit/s

95th percentile per-packet one-way delay: 93.828 ms

Loss rate: 0.63%

Run 1: Report of FillP-Sheep — Data Link





## Run 2: Statistics of FillP-Sheep

Start at: 2019-03-19 15:27:16 End at: 2019-03-19 15:27:46 Local clock offset: -0.137 ms Remote clock offset: -0.93 ms

# Below is generated by plot.py at 2019-03-19 18:29:26

# Datalink statistics
-- Total of 1 flow:

Average throughput: 884.28 Mbit/s

95th percentile per-packet one-way delay: 122.797 ms

Loss rate: 1.19%

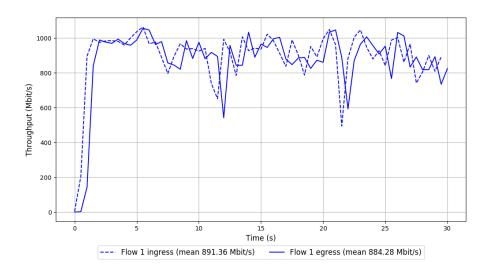
-- Flow 1:

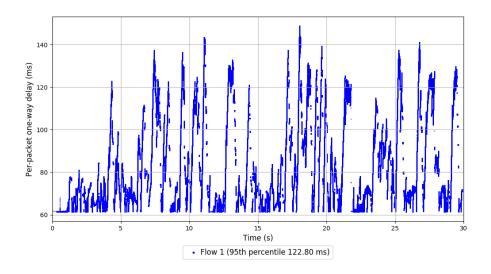
Average throughput: 884.28 Mbit/s

95th percentile per-packet one-way delay: 122.797 ms

Loss rate: 1.19%

Run 2: Report of FillP-Sheep — Data Link





## Run 3: Statistics of FillP-Sheep

Start at: 2019-03-19 16:01:17 End at: 2019-03-19 16:01:47 Local clock offset: -0.293 ms Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2019-03-19 18:29:26

# Datalink statistics
-- Total of 1 flow:

Average throughput: 866.68 Mbit/s

95th percentile per-packet one-way delay: 87.184 ms

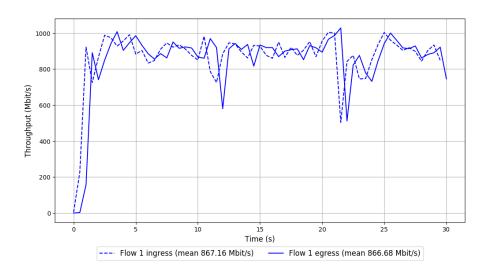
Loss rate: 0.45%

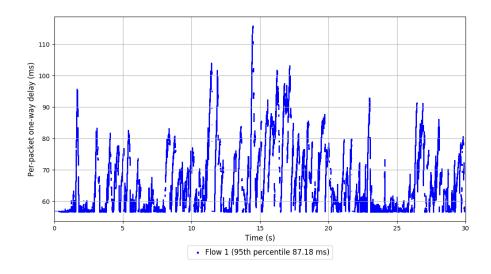
-- Flow 1:

Average throughput: 866.68 Mbit/s

95th percentile per-packet one-way delay: 87.184 ms

Run 3: Report of FillP-Sheep — Data Link





## Run 4: Statistics of FillP-Sheep

Start at: 2019-03-19 16:36:14 End at: 2019-03-19 16:36:44 Local clock offset: 0.185 ms Remote clock offset: 0.189 ms

# Below is generated by plot.py at 2019-03-19 18:39:00

# Datalink statistics
-- Total of 1 flow:

Average throughput: 837.79 Mbit/s

95th percentile per-packet one-way delay: 115.955 ms

Loss rate: 0.62%

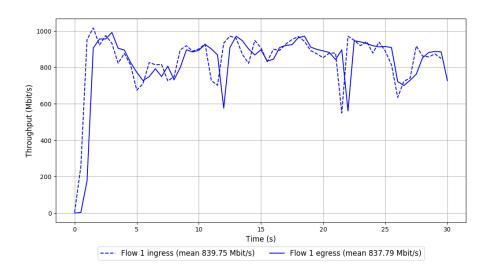
-- Flow 1:

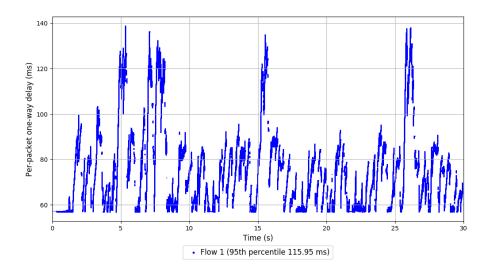
Average throughput: 837.79 Mbit/s

95th percentile per-packet one-way delay: 115.955 ms

Loss rate: 0.62%

Run 4: Report of FillP-Sheep — Data Link





## Run 5: Statistics of FillP-Sheep

Start at: 2019-03-19 17:11:39 End at: 2019-03-19 17:12:09 Local clock offset: -0.39 ms Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2019-03-19 18:46:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 863.72 Mbit/s

95th percentile per-packet one-way delay:  $76.230~\mathrm{ms}$ 

Loss rate: 0.68%

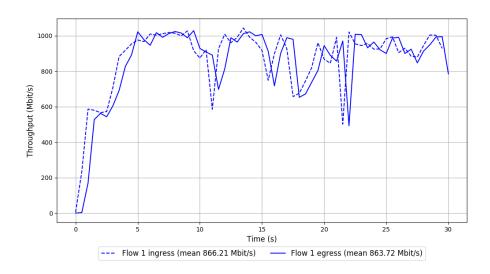
-- Flow 1:

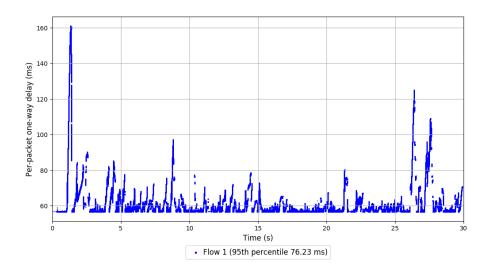
Average throughput: 863.72 Mbit/s

95th percentile per-packet one-way delay: 76.230 ms

Loss rate: 0.68%

Run 5: Report of FillP-Sheep — Data Link





## Run 1: Statistics of Indigo

Start at: 2019-03-19 15:14:56 End at: 2019-03-19 15:15:26 Local clock offset: 0.308 ms Remote clock offset: -0.135 ms

# Below is generated by plot.py at 2019-03-19 18:46:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 224.26 Mbit/s

95th percentile per-packet one-way delay:  $59.152~\mathrm{ms}$ 

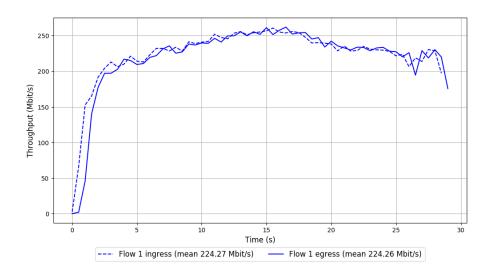
Loss rate: 0.40%

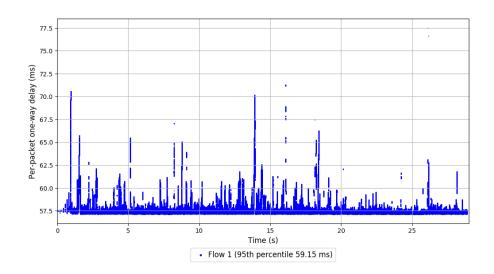
-- Flow 1:

Average throughput: 224.26 Mbit/s

95th percentile per-packet one-way delay: 59.152 ms

Run 1: Report of Indigo — Data Link





## Run 2: Statistics of Indigo

Start at: 2019-03-19 15:49:23 End at: 2019-03-19 15:49:53 Local clock offset: -0.04 ms Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-03-19 18:46:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 224.71 Mbit/s

95th percentile per-packet one-way delay:  $59.477~\mathrm{ms}$ 

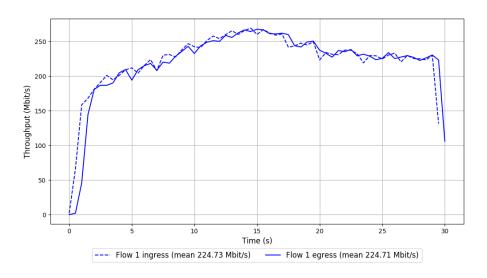
Loss rate: 0.40%

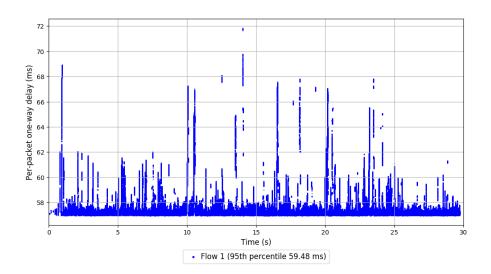
-- Flow 1:

Average throughput: 224.71 Mbit/s

95th percentile per-packet one-way delay: 59.477 ms

Run 2: Report of Indigo — Data Link





## Run 3: Statistics of Indigo

Start at: 2019-03-19 16:23:20 End at: 2019-03-19 16:23:50 Local clock offset: -0.008 ms Remote clock offset: 0.051 ms

# Below is generated by plot.py at 2019-03-19 18:46:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 225.26 Mbit/s

95th percentile per-packet one-way delay: 59.484 ms

Loss rate: 0.37%

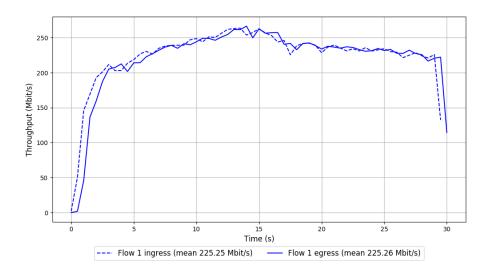
-- Flow 1:

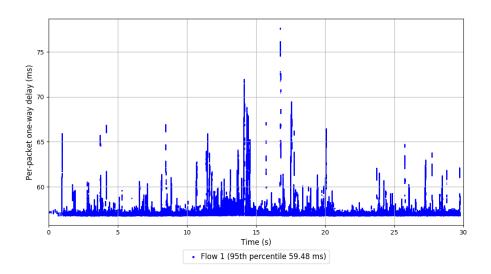
Average throughput: 225.26 Mbit/s

95th percentile per-packet one-way delay: 59.484 ms

Loss rate: 0.37%

Run 3: Report of Indigo — Data Link





## Run 4: Statistics of Indigo

Start at: 2019-03-19 16:59:04 End at: 2019-03-19 16:59:34 Local clock offset: -0.016 ms Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2019-03-19 18:46:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 222.20 Mbit/s

95th percentile per-packet one-way delay: 62.889 ms

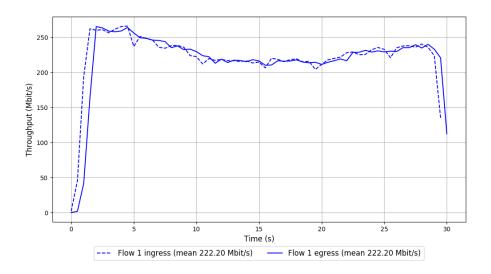
Loss rate: 0.41%

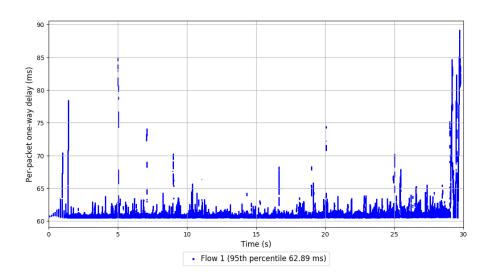
-- Flow 1:

Average throughput: 222.20 Mbit/s

95th percentile per-packet one-way delay: 62.889 ms

Run 4: Report of Indigo — Data Link





## Run 5: Statistics of Indigo

Start at: 2019-03-19 17:33:54 End at: 2019-03-19 17:34:24 Local clock offset: 0.366 ms Remote clock offset: -0.766 ms

# Below is generated by plot.py at 2019-03-19 18:46:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 219.56 Mbit/s

95th percentile per-packet one-way delay: 62.617  $\ensuremath{\mathsf{ms}}$ 

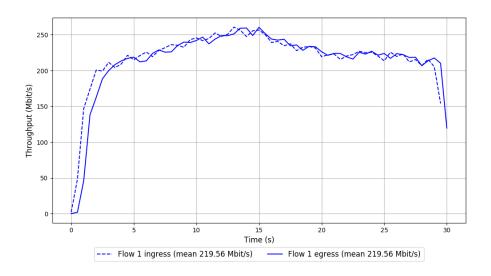
Loss rate: 0.41%

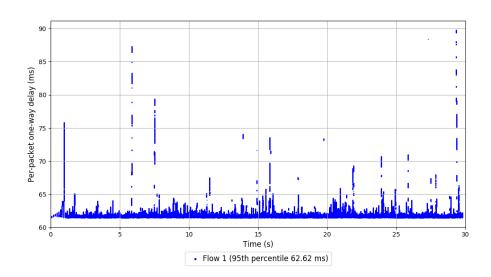
-- Flow 1:

Average throughput: 219.56 Mbit/s

95th percentile per-packet one-way delay: 62.617 ms

Run 5: Report of Indigo — Data Link





## Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-19 15:10:15 End at: 2019-03-19 15:10:45 Local clock offset: 0.153 ms Remote clock offset: -0.26 ms

# Below is generated by plot.py at 2019-03-19 18:46:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 580.48 Mbit/s

95th percentile per-packet one-way delay: 87.018  $\ensuremath{\mathsf{ms}}$ 

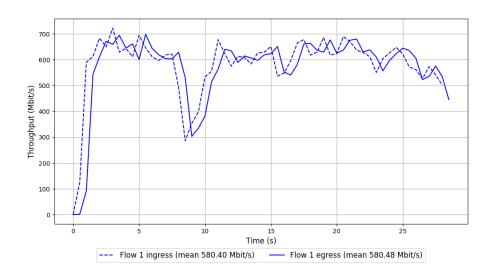
Loss rate: 0.40%

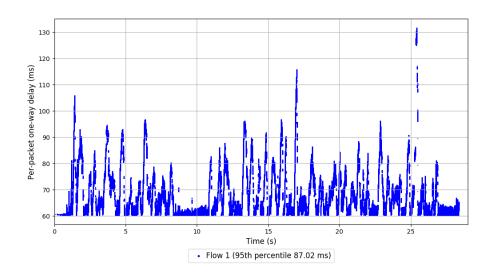
-- Flow 1:

Average throughput: 580.48 Mbit/s

95th percentile per-packet one-way delay: 87.018 ms

Run 1: Report of Indigo-MusesC3 — Data Link





# Run 2: Statistics of Indigo-MusesC3

Start at: 2019-03-19 15:44:33 End at: 2019-03-19 15:45:03 Local clock offset: 0.162 ms Remote clock offset: 0.337 ms

# Below is generated by plot.py at 2019-03-19 18:46:41

# Datalink statistics
-- Total of 1 flow:

Average throughput: 601.87 Mbit/s

95th percentile per-packet one-way delay:  $84.026~\mathrm{ms}$ 

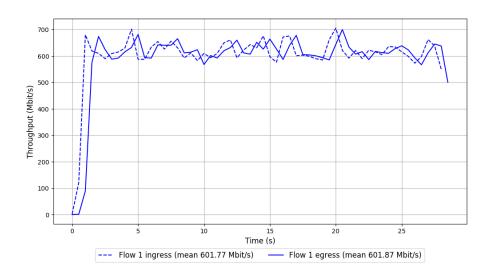
Loss rate: 0.41%

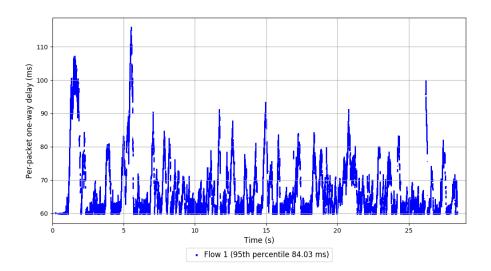
-- Flow 1:

Average throughput: 601.87 Mbit/s

95th percentile per-packet one-way delay: 84.026 ms

Run 2: Report of Indigo-MusesC3 — Data Link





## Run 3: Statistics of Indigo-MusesC3

Start at: 2019-03-19 16:18:33 End at: 2019-03-19 16:19:03 Local clock offset: 0.017 ms Remote clock offset: -0.32 ms

# Below is generated by plot.py at 2019-03-19 18:47:02

# Datalink statistics
-- Total of 1 flow:

Average throughput: 624.43 Mbit/s

95th percentile per-packet one-way delay: 82.751  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.38%

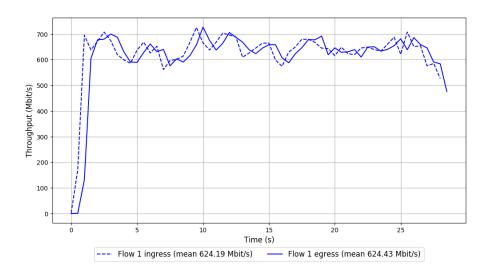
-- Flow 1:

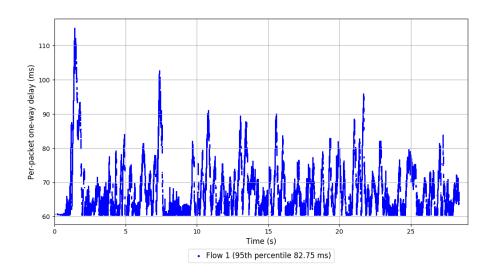
Average throughput: 624.43 Mbit/s

95th percentile per-packet one-way delay: 82.751 ms

Loss rate: 0.38%

Run 3: Report of Indigo-MusesC3 — Data Link





## Run 4: Statistics of Indigo-MusesC3

Start at: 2019-03-19 16:54:24 End at: 2019-03-19 16:54:54 Local clock offset: 0.018 ms Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2019-03-19 18:47:02

# Datalink statistics
-- Total of 1 flow:

Average throughput: 600.46 Mbit/s

95th percentile per-packet one-way delay:  $78.757~\mathrm{ms}$ 

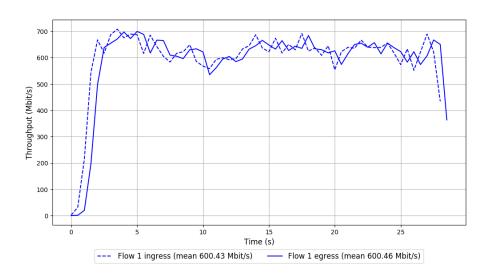
Loss rate: 0.41%

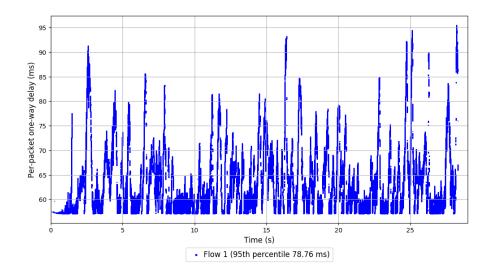
-- Flow 1:

Average throughput: 600.46 Mbit/s

95th percentile per-packet one-way delay: 78.757 ms

Run 4: Report of Indigo-MusesC3 — Data Link





# Run 5: Statistics of Indigo-MusesC3

Start at: 2019-03-19 17:29:23 End at: 2019-03-19 17:29:53 Local clock offset: 0.181 ms Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-03-19 18:47:02

# Datalink statistics
-- Total of 1 flow:

Average throughput: 606.41 Mbit/s

95th percentile per-packet one-way delay:  $77.923~\mathrm{ms}$ 

Loss rate: 0.46%

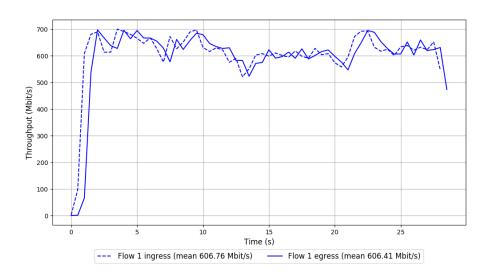
-- Flow 1:

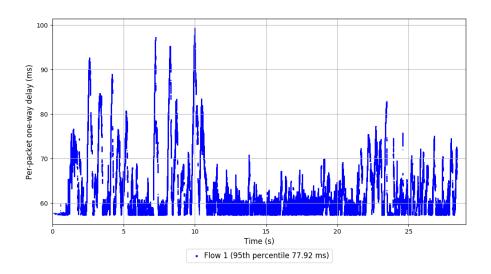
Average throughput: 606.41 Mbit/s

95th percentile per-packet one-way delay: 77.923 ms

Loss rate: 0.46%

Run 5: Report of Indigo-MusesC3 — Data Link





# Run 1: Statistics of Indigo-MusesC5

Start at: 2019-03-19 15:17:49 End at: 2019-03-19 15:18:19 Local clock offset: 0.14 ms Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2019-03-19 18:48:05

# Datalink statistics
-- Total of 1 flow:

Average throughput: 626.98 Mbit/s

95th percentile per-packet one-way delay: 88.768 ms

Loss rate: 0.53%

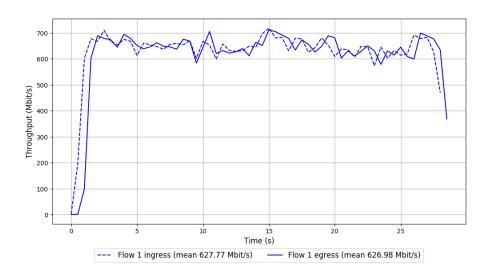
-- Flow 1:

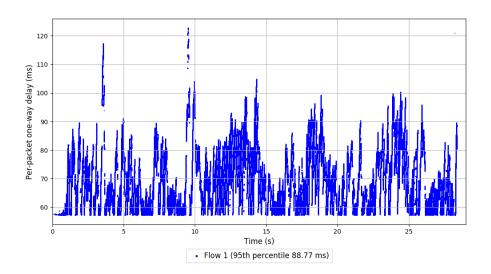
Average throughput: 626.98 Mbit/s

95th percentile per-packet one-way delay: 88.768 ms

Loss rate: 0.53%

Run 1: Report of Indigo-MusesC5 — Data Link





# Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-19 15:52:13 End at: 2019-03-19 15:52:43 Local clock offset: 0.067 ms Remote clock offset: 0.093 ms

# Below is generated by plot.py at 2019-03-19 18:50:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 619.03 Mbit/s

95th percentile per-packet one-way delay: 92.302 ms

Loss rate: 0.48%

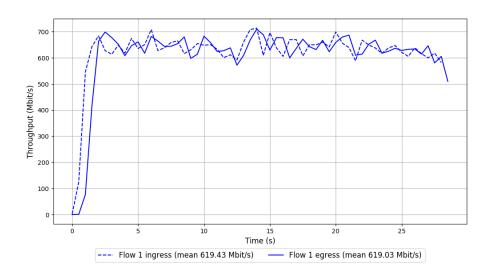
-- Flow 1:

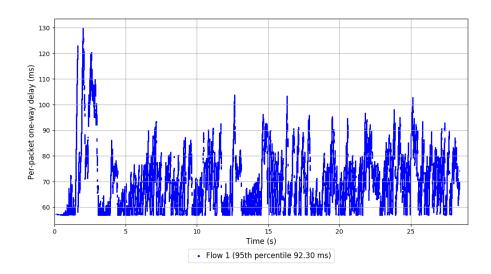
Average throughput: 619.03 Mbit/s

95th percentile per-packet one-way delay: 92.302 ms

Loss rate: 0.48%

Run 2: Report of Indigo-MusesC5 — Data Link





# Run 3: Statistics of Indigo-MusesC5

Start at: 2019-03-19 16:26:12 End at: 2019-03-19 16:26:42 Local clock offset: 0.226 ms Remote clock offset: -0.434 ms

# Below is generated by plot.py at 2019-03-19 18:50:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 623.38 Mbit/s

95th percentile per-packet one-way delay: 90.676  $\ensuremath{\mathsf{ms}}$ 

Loss rate: 0.47%

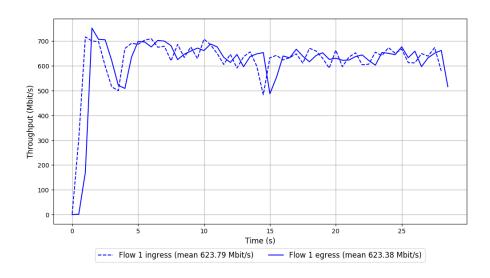
-- Flow 1:

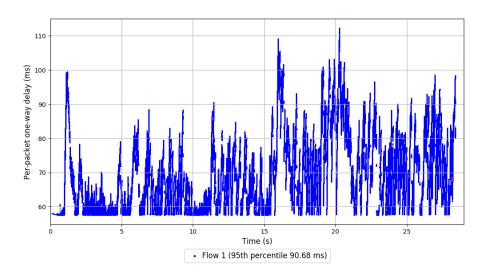
Average throughput: 623.38 Mbit/s

95th percentile per-packet one-way delay: 90.676 ms

Loss rate: 0.47%

Run 3: Report of Indigo-MusesC5 — Data Link





## Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-19 17:01:54 End at: 2019-03-19 17:02:24 Local clock offset: -0.384 ms Remote clock offset: -0.315 ms

# Below is generated by plot.py at 2019-03-19 18:57:01

# Datalink statistics
-- Total of 1 flow:

Average throughput: 621.73 Mbit/s

95th percentile per-packet one-way delay: 93.965 ms

Loss rate: 0.49%

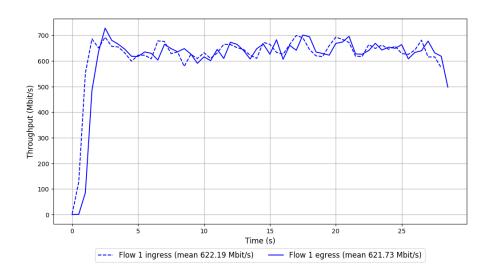
-- Flow 1:

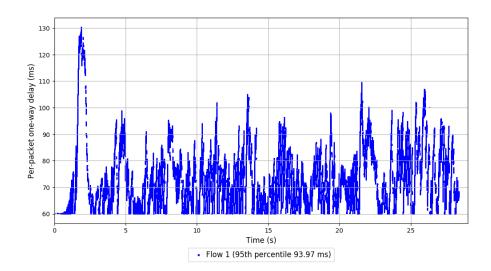
Average throughput: 621.73 Mbit/s

95th percentile per-packet one-way delay: 93.965 ms

Loss rate: 0.49%

Run 4: Report of Indigo-MusesC5 — Data Link





## Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-19 17:36:45 End at: 2019-03-19 17:37:15 Local clock offset: -0.433 ms Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2019-03-19 18:57:10

# Datalink statistics
-- Total of 1 flow:

Average throughput: 610.52 Mbit/s

95th percentile per-packet one-way delay: 98.293  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.51%

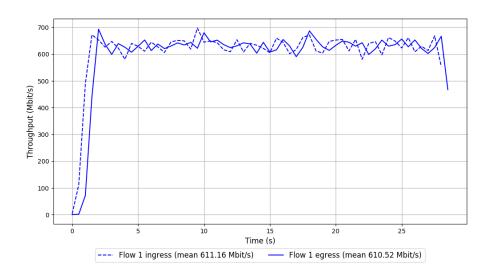
-- Flow 1:

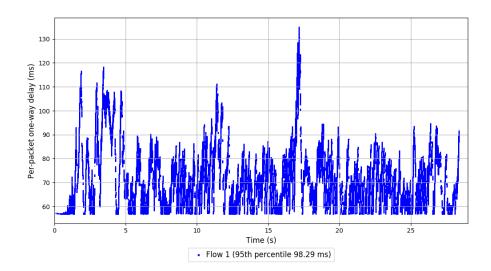
Average throughput: 610.52 Mbit/s

95th percentile per-packet one-way delay: 98.293 ms

Loss rate: 0.51%

Run 5: Report of Indigo-MusesC5 — Data Link





## Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-19 15:00:16 End at: 2019-03-19 15:00:46 Local clock offset: -0.005 ms Remote clock offset: -0.988 ms

# Below is generated by plot.py at 2019-03-19 18:57:10

# Datalink statistics
-- Total of 1 flow:

Average throughput: 511.84 Mbit/s

95th percentile per-packet one-way delay: 85.725 ms

Loss rate: 0.47%

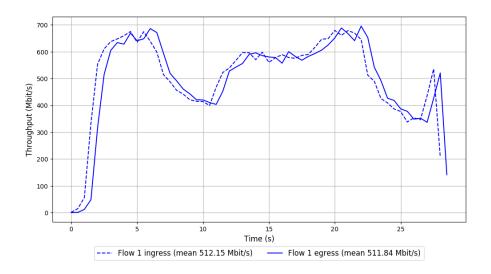
-- Flow 1:

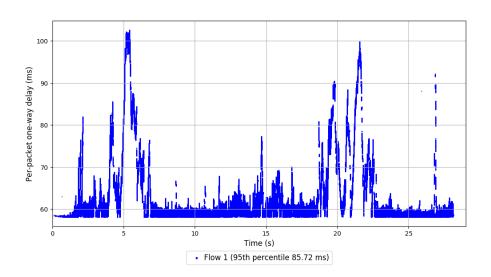
Average throughput: 511.84 Mbit/s

95th percentile per-packet one-way delay: 85.725 ms

Loss rate: 0.47%

Run 1: Report of Indigo-MusesD — Data Link





# Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-19 15:34:43 End at: 2019-03-19 15:35:13 Local clock offset: 0.103 ms Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2019-03-19 18:57:10

# Datalink statistics
-- Total of 1 flow:

Average throughput: 555.23 Mbit/s

95th percentile per-packet one-way delay:  $84.627~\mathrm{ms}$ 

Loss rate: 0.42%

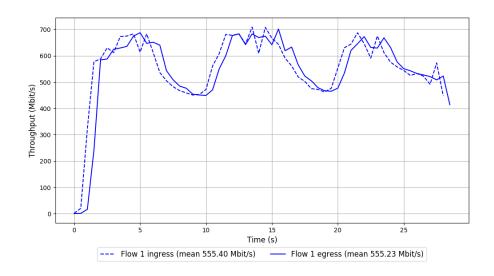
-- Flow 1:

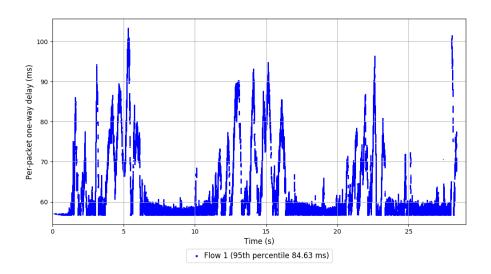
Average throughput: 555.23 Mbit/s

95th percentile per-packet one-way delay: 84.627 ms

Loss rate: 0.42%

Run 2: Report of Indigo-MusesD — Data Link





## Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-19 16:08:43 End at: 2019-03-19 16:09:13 Local clock offset: 0.206 ms Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2019-03-19 18:57:10

# Datalink statistics
-- Total of 1 flow:

Average throughput: 573.65 Mbit/s

95th percentile per-packet one-way delay: 97.508  $\ensuremath{\mathrm{ms}}$ 

Loss rate: 0.35%

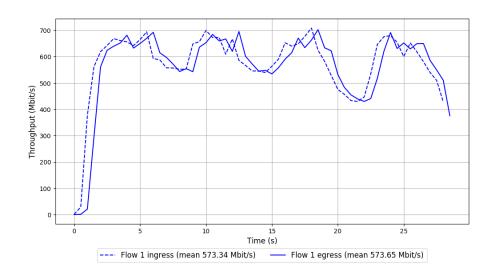
-- Flow 1:

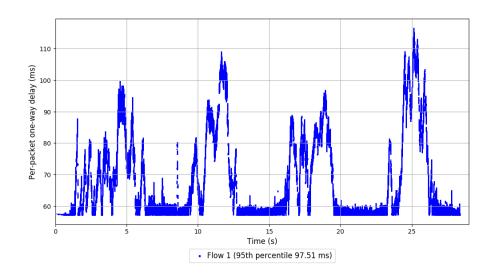
Average throughput: 573.65 Mbit/s

95th percentile per-packet one-way delay: 97.508 ms

Loss rate: 0.35%

Run 3: Report of Indigo-MusesD — Data Link





## Run 4: Statistics of Indigo-MusesD

Start at: 2019-03-19 16:43:42 End at: 2019-03-19 16:44:12 Local clock offset: 0.005 ms Remote clock offset: -0.792 ms

# Below is generated by plot.py at 2019-03-19 18:57:10

# Datalink statistics
-- Total of 1 flow:

Average throughput: 553.45 Mbit/s

95th percentile per-packet one-way delay: 96.031  $\ensuremath{\mathsf{ms}}$ 

Loss rate: 0.43%

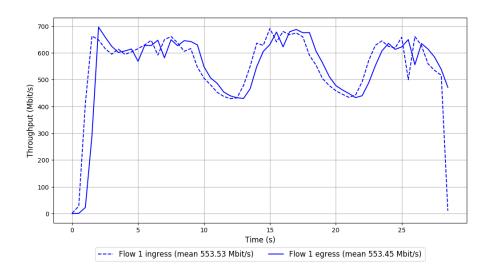
-- Flow 1:

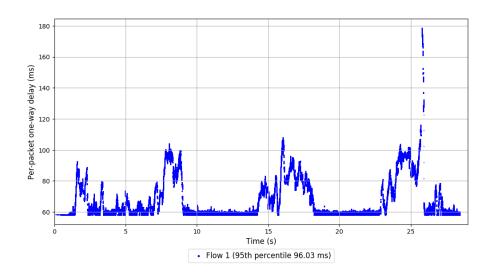
Average throughput: 553.45 Mbit/s

95th percentile per-packet one-way delay: 96.031 ms

Loss rate: 0.43%

Run 4: Report of Indigo-MusesD — Data Link





## Run 5: Statistics of Indigo-MusesD

Start at: 2019-03-19 17:19:08 End at: 2019-03-19 17:19:38 Local clock offset: -0.016 ms Remote clock offset: -0.821 ms

# Below is generated by plot.py at 2019-03-19 19:00:27

# Datalink statistics
-- Total of 1 flow:

Average throughput: 558.86 Mbit/s

95th percentile per-packet one-way delay: 82.179  ${\tt ms}$ 

Loss rate: 0.38%

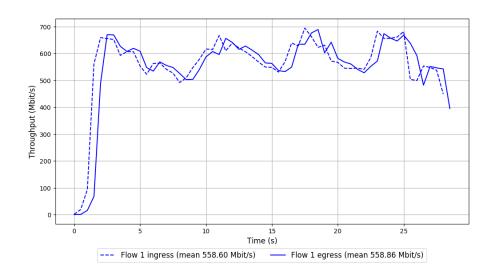
-- Flow 1:

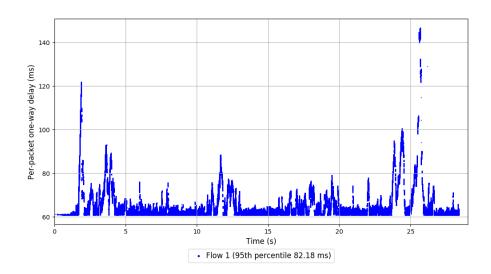
Average throughput: 558.86 Mbit/s

95th percentile per-packet one-way delay: 82.179 ms

Loss rate: 0.38%

Run 5: Report of Indigo-MusesD — Data Link





## Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-19 14:54:17 End at: 2019-03-19 14:54:47 Local clock offset: -0.06 ms Remote clock offset: 0.186 ms

# Below is generated by plot.py at 2019-03-19 19:01:30

# Datalink statistics
-- Total of 1 flow:

Average throughput: 632.57 Mbit/s

95th percentile per-packet one-way delay: 121.207 ms

Loss rate: 0.57%

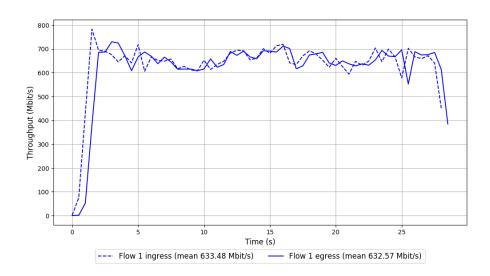
-- Flow 1:

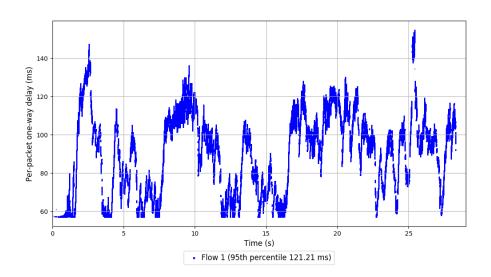
Average throughput: 632.57 Mbit/s

95th percentile per-packet one-way delay: 121.207 ms

Loss rate: 0.57%

Run 1: Report of Indigo-MusesT — Data Link





## Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-19 15:29:18 End at: 2019-03-19 15:29:48 Local clock offset: -0.292 ms Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2019-03-19 19:06:24

# Datalink statistics
-- Total of 1 flow:

Average throughput: 644.25 Mbit/s

95th percentile per-packet one-way delay: 110.686 ms

Loss rate: 0.47%

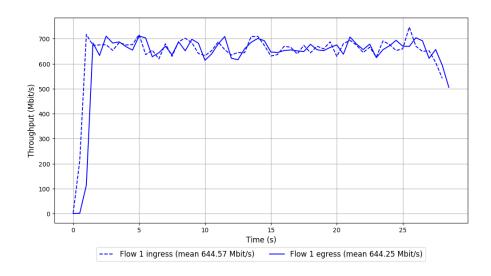
-- Flow 1:

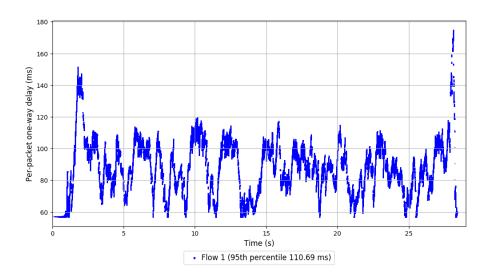
Average throughput: 644.25 Mbit/s

95th percentile per-packet one-way delay: 110.686 ms

Loss rate: 0.47%

Run 2: Report of Indigo-MusesT — Data Link





## Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-19 16:03:09 End at: 2019-03-19 16:03:39 Local clock offset: 0.059 ms Remote clock offset: -0.882 ms

# Below is generated by plot.py at 2019-03-19 19:06:48

# Datalink statistics
-- Total of 1 flow:

Average throughput: 626.40 Mbit/s

95th percentile per-packet one-way delay: 127.061 ms

Loss rate: 0.61%

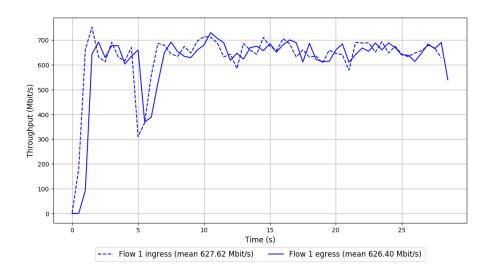
-- Flow 1:

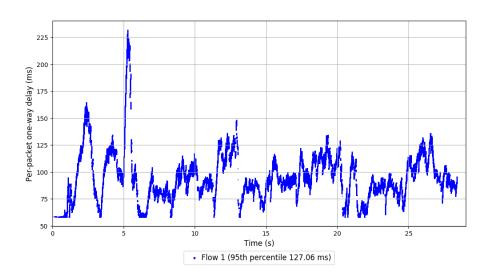
Average throughput: 626.40 Mbit/s

95th percentile per-packet one-way delay: 127.061 ms

Loss rate: 0.61%

Run 3: Report of Indigo-MusesT — Data Link





## Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-19 16:38:15 End at: 2019-03-19 16:38:45 Local clock offset: -0.425 ms Remote clock offset: -0.227 ms

# Below is generated by plot.py at 2019-03-19 19:07:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 631.90 Mbit/s

95th percentile per-packet one-way delay: 119.216 ms

Loss rate: 0.60%

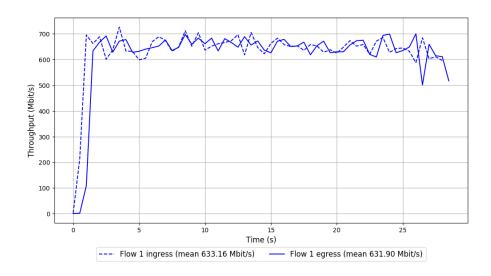
-- Flow 1:

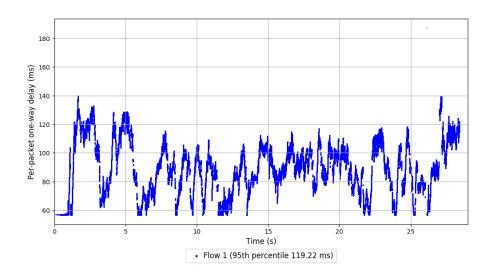
Average throughput: 631.90 Mbit/s

95th percentile per-packet one-way delay: 119.216 ms

Loss rate: 0.60%

Run 4: Report of Indigo-MusesT — Data Link





## Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-19 17:13:40 End at: 2019-03-19 17:14:10 Local clock offset: 0.242 ms Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2019-03-19 19:07:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 620.52 Mbit/s

95th percentile per-packet one-way delay: 125.449 ms

Loss rate: 0.57%

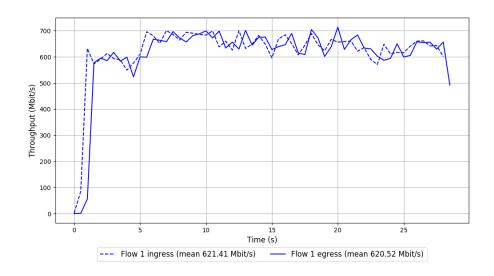
-- Flow 1:

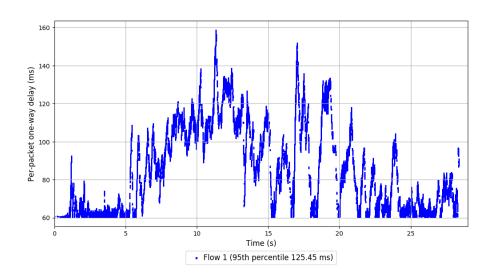
Average throughput: 620.52 Mbit/s

95th percentile per-packet one-way delay: 125.449 ms

Loss rate: 0.57%

Run 5: Report of Indigo-MusesT — Data Link





### Run 1: Statistics of LEDBAT

Start at: 2019-03-19 15:16:36 End at: 2019-03-19 15:17:06 Local clock offset: -0.494 ms Remote clock offset: -0.189 ms

# Below is generated by plot.py at 2019-03-19 19:07:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.20 Mbit/s

95th percentile per-packet one-way delay: 58.564 ms

Loss rate: 0.76%

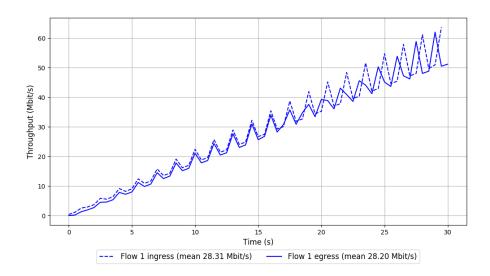
-- Flow 1:

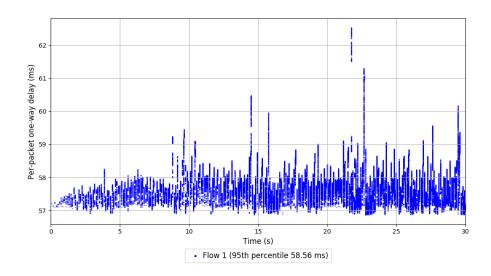
Average throughput: 28.20 Mbit/s

95th percentile per-packet one-way delay: 58.564 ms

Loss rate: 0.76%

Run 1: Report of LEDBAT — Data Link





### Run 2: Statistics of LEDBAT

Start at: 2019-03-19 15:51:01 End at: 2019-03-19 15:51:31 Local clock offset: -0.114 ms Remote clock offset: -0.226 ms

# Below is generated by plot.py at 2019-03-19 19:07:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.05 Mbit/s

95th percentile per-packet one-way delay: 59.565 ms

Loss rate: 0.76%

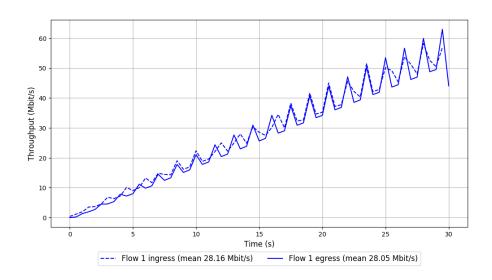
-- Flow 1:

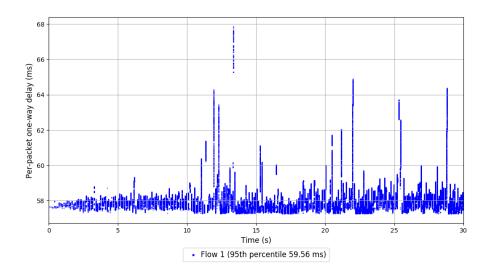
Average throughput: 28.05 Mbit/s

95th percentile per-packet one-way delay: 59.565 ms

Loss rate: 0.76%

Run 2: Report of LEDBAT — Data Link





#### Run 3: Statistics of LEDBAT

Start at: 2019-03-19 16:25:00 End at: 2019-03-19 16:25:30 Local clock offset: -0.009 ms Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2019-03-19 19:07:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.24 Mbit/s

95th percentile per-packet one-way delay: 58.753 ms

Loss rate: 0.76%

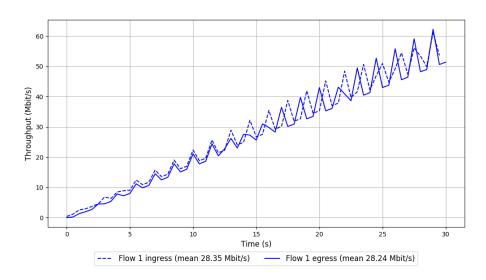
-- Flow 1:

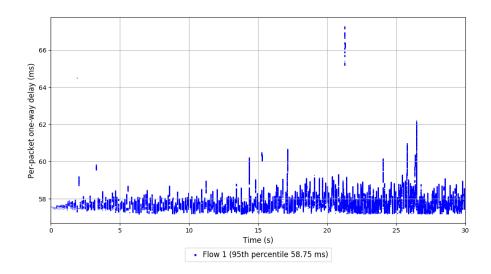
Average throughput: 28.24 Mbit/s

95th percentile per-packet one-way delay: 58.753 ms

Loss rate: 0.76%

Run 3: Report of LEDBAT — Data Link





#### Run 4: Statistics of LEDBAT

Start at: 2019-03-19 17:00:42 End at: 2019-03-19 17:01:12 Local clock offset: 0.214 ms Remote clock offset: 0.605 ms

# Below is generated by plot.py at 2019-03-19 19:07:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.41 Mbit/s

95th percentile per-packet one-way delay: 57.894 ms

Loss rate: 0.76%

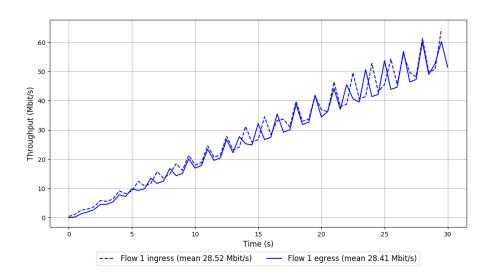
-- Flow 1:

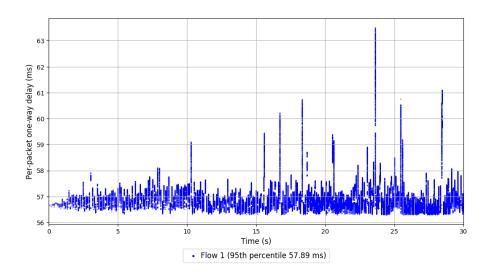
Average throughput: 28.41 Mbit/s

95th percentile per-packet one-way delay: 57.894 ms

Loss rate: 0.76%

Run 4: Report of LEDBAT — Data Link





#### Run 5: Statistics of LEDBAT

Start at: 2019-03-19 17:35:32 End at: 2019-03-19 17:36:02 Local clock offset: 0.404 ms Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2019-03-19 19:07:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 26.93 Mbit/s

95th percentile per-packet one-way delay: 62.271 ms

Loss rate: 0.78%

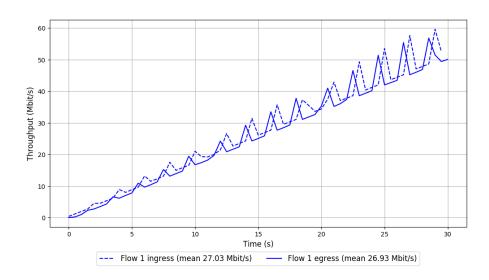
-- Flow 1:

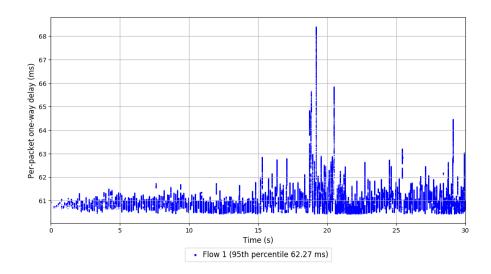
Average throughput: 26.93 Mbit/s

95th percentile per-packet one-way delay: 62.271 ms

Loss rate: 0.78%

Run 5: Report of LEDBAT — Data Link





# Run 1: Statistics of PCC-Allegro

Start at: 2019-03-19 14:49:28 End at: 2019-03-19 14:49:58 Local clock offset: -0.376 ms Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2019-03-19 19:13:09

# Datalink statistics
-- Total of 1 flow:

Average throughput: 403.60 Mbit/s

95th percentile per-packet one-way delay: 147.754 ms

Loss rate: 0.53%

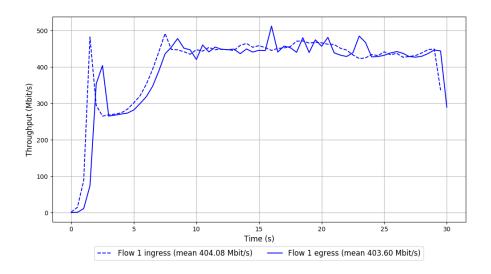
-- Flow 1:

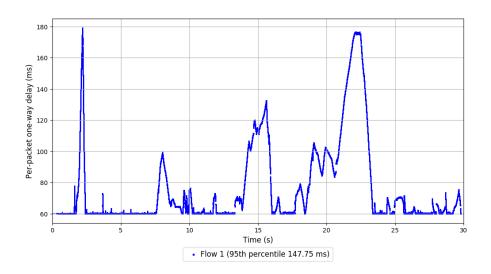
Average throughput: 403.60 Mbit/s

95th percentile per-packet one-way delay: 147.754 ms

Loss rate: 0.53%

Run 1: Report of PCC-Allegro — Data Link





# Run 2: Statistics of PCC-Allegro

Start at: 2019-03-19 15:24:21 End at: 2019-03-19 15:24:52 Local clock offset: -0.06 ms Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2019-03-19 19:14:32

# Datalink statistics
-- Total of 1 flow:

Average throughput: 410.42 Mbit/s

95th percentile per-packet one-way delay: 84.248 ms

Loss rate: 0.54%

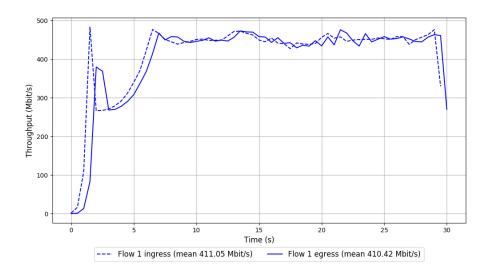
-- Flow 1:

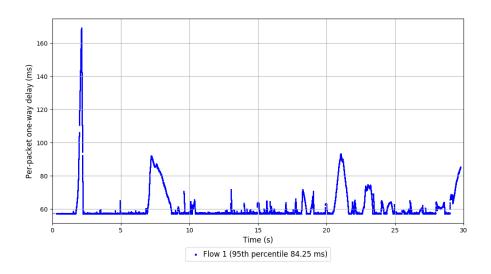
Average throughput: 410.42 Mbit/s

95th percentile per-packet one-way delay: 84.248 ms

Loss rate: 0.54%

Run 2: Report of PCC-Allegro — Data Link





# Run 3: Statistics of PCC-Allegro

Start at: 2019-03-19 15:58:23 End at: 2019-03-19 15:58:53 Local clock offset: 0.13 ms Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2019-03-19 19:15:39

# Datalink statistics
-- Total of 1 flow:

Average throughput: 427.40 Mbit/s

95th percentile per-packet one-way delay: 175.637 ms

Loss rate: 3.52%

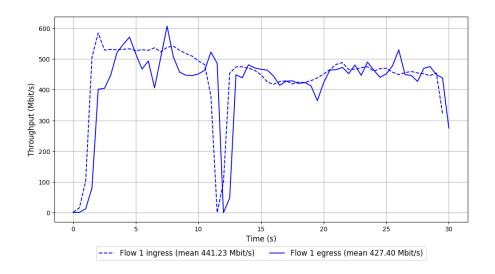
-- Flow 1:

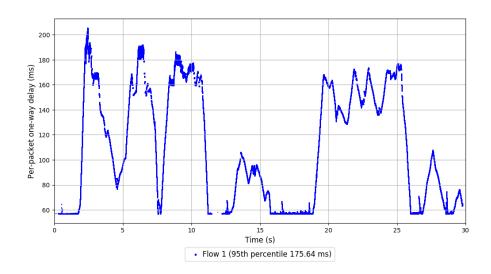
Average throughput: 427.40 Mbit/s

95th percentile per-packet one-way delay: 175.637 ms

Loss rate: 3.52%

Run 3: Report of PCC-Allegro — Data Link





# Run 4: Statistics of PCC-Allegro

Start at: 2019-03-19 16:33:01 End at: 2019-03-19 16:33:31 Local clock offset: 0.19 ms Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2019-03-19 19:17:33

# Datalink statistics
-- Total of 1 flow:

Average throughput: 432.01 Mbit/s

95th percentile per-packet one-way delay: 182.844 ms

Loss rate: 8.08%

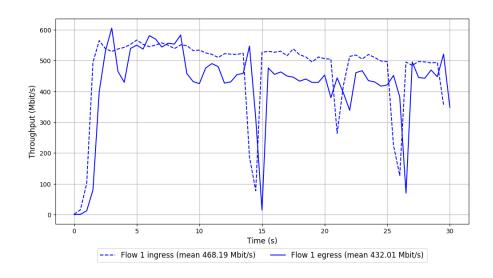
-- Flow 1:

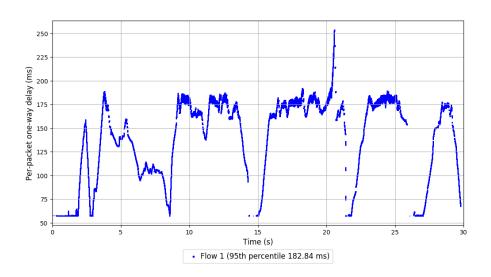
Average throughput: 432.01 Mbit/s

95th percentile per-packet one-way delay: 182.844 ms

Loss rate: 8.08%

Run 4: Report of PCC-Allegro — Data Link





# Run 5: Statistics of PCC-Allegro

Start at: 2019-03-19 17:08:31 End at: 2019-03-19 17:09:01 Local clock offset: -0.429 ms Remote clock offset: -0.204 ms

# Below is generated by plot.py at 2019-03-19 19:20:09

# Datalink statistics
-- Total of 1 flow:

Average throughput: 392.03 Mbit/s

95th percentile per-packet one-way delay: 174.856 ms

Loss rate: 1.12%

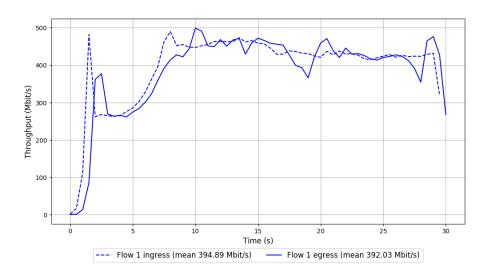
-- Flow 1:

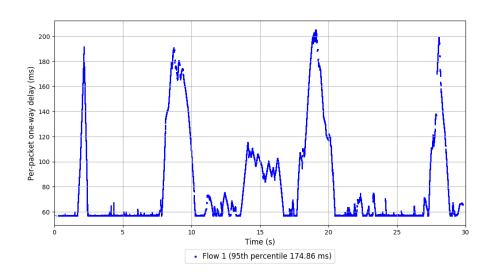
Average throughput: 392.03 Mbit/s

95th percentile per-packet one-way delay: 174.856 ms

Loss rate: 1.12%

Run 5: Report of PCC-Allegro — Data Link





# Run 1: Statistics of PCC-Expr

Start at: 2019-03-19 15:19:48 End at: 2019-03-19 15:20:18 Local clock offset: 0.285 ms Remote clock offset: -0.174 ms

# Below is generated by plot.py at 2019-03-19 19:20:09

# Datalink statistics
-- Total of 1 flow:

Average throughput: 287.92 Mbit/s

95th percentile per-packet one-way delay: 142.670 ms

Loss rate: 0.45%

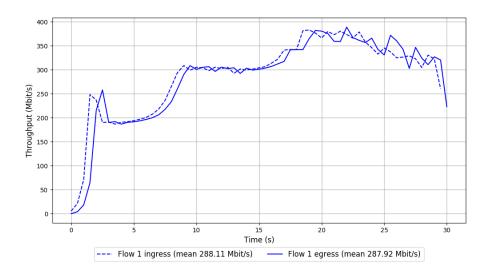
-- Flow 1:

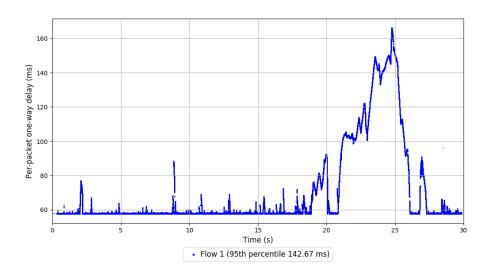
Average throughput: 287.92 Mbit/s

95th percentile per-packet one-way delay: 142.670 ms

Loss rate: 0.45%

Run 1: Report of PCC-Expr — Data Link





# Run 2: Statistics of PCC-Expr

Start at: 2019-03-19 15:53:59 End at: 2019-03-19 15:54:29 Local clock offset: -0.124 ms Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2019-03-19 19:20:09

# Datalink statistics
-- Total of 1 flow:

Average throughput: 286.46 Mbit/s

95th percentile per-packet one-way delay: 109.071 ms

Loss rate: 0.28%

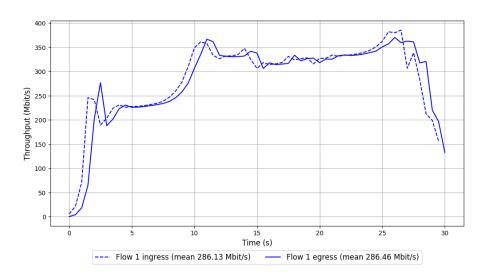
-- Flow 1:

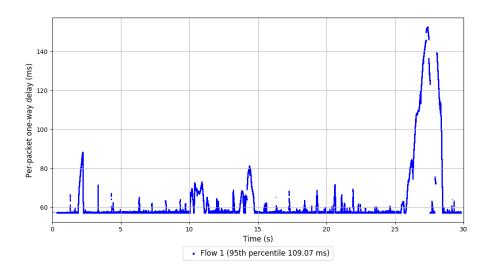
Average throughput: 286.46 Mbit/s

95th percentile per-packet one-way delay: 109.071 ms

Loss rate: 0.28%

Run 2: Report of PCC-Expr — Data Link





# Run 3: Statistics of PCC-Expr

Start at: 2019-03-19 16:28:05 End at: 2019-03-19 16:28:35 Local clock offset: 0.008 ms Remote clock offset: -0.223 ms

# Below is generated by plot.py at 2019-03-19 19:20:09

# Datalink statistics
-- Total of 1 flow:

Average throughput: 254.85 Mbit/s

95th percentile per-packet one-way delay: 158.109 ms

Loss rate: 1.91%

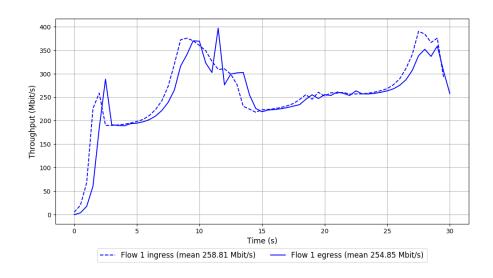
-- Flow 1:

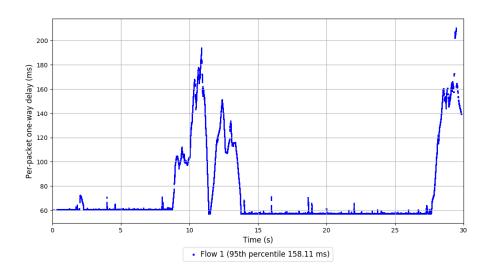
Average throughput: 254.85 Mbit/s

95th percentile per-packet one-way delay: 158.109 ms

Loss rate: 1.91%

Run 3: Report of PCC-Expr — Data Link





# Run 4: Statistics of PCC-Expr

Start at: 2019-03-19 17:03:50 End at: 2019-03-19 17:04:20 Local clock offset: 0.394 ms Remote clock offset: 0.103 ms

# Below is generated by plot.py at 2019-03-19 19:24:44

# Datalink statistics
-- Total of 1 flow:

Average throughput: 314.05 Mbit/s

95th percentile per-packet one-way delay: 158.871 ms

Loss rate: 1.85%

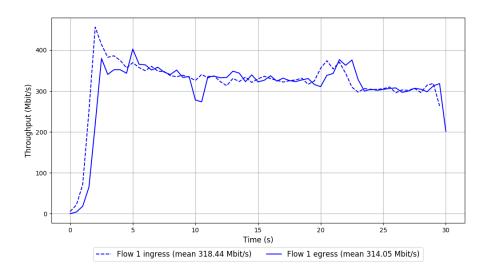
-- Flow 1:

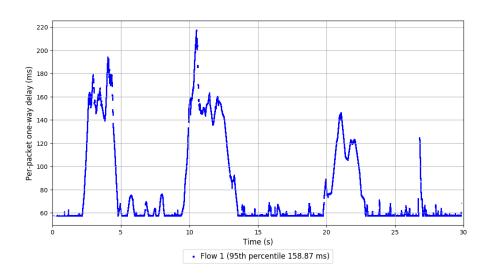
Average throughput: 314.05 Mbit/s

95th percentile per-packet one-way delay: 158.871 ms

Loss rate: 1.85%

Run 4: Report of PCC-Expr — Data Link





# Run 5: Statistics of PCC-Expr

Start at: 2019-03-19 17:38:38 End at: 2019-03-19 17:39:08 Local clock offset: 0.296 ms Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 332.18 Mbit/s

95th percentile per-packet one-way delay: 125.538 ms

Loss rate: 0.76%

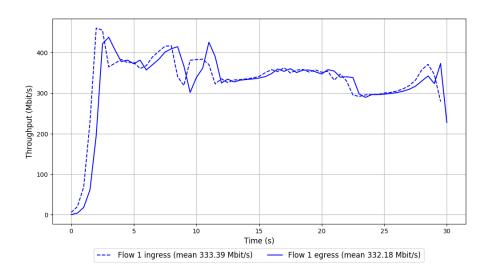
-- Flow 1:

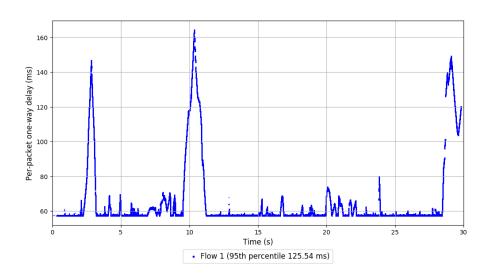
Average throughput: 332.18 Mbit/s

95th percentile per-packet one-way delay: 125.538 ms

Loss rate: 0.76%

Run 5: Report of PCC-Expr — Data Link





# Run 1: Statistics of QUIC Cubic

Start at: 2019-03-19 15:05:01 End at: 2019-03-19 15:05:31 Local clock offset: -0.153 ms Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 66.39 Mbit/s

95th percentile per-packet one-way delay: 57.053 ms

Loss rate: 0.63%

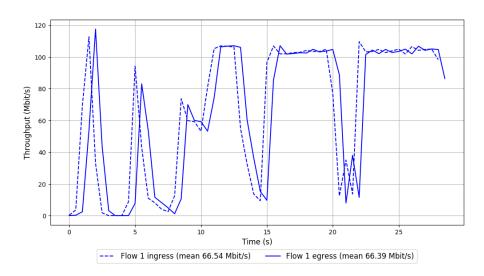
-- Flow 1:

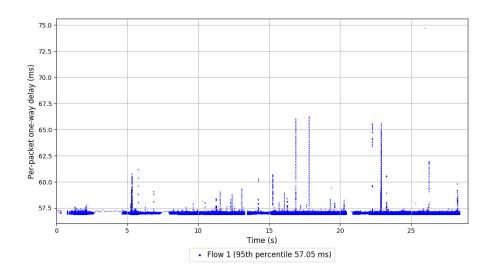
Average throughput: 66.39 Mbit/s

95th percentile per-packet one-way delay: 57.053 ms

Loss rate: 0.63%

Run 1: Report of QUIC Cubic — Data Link





# Run 2: Statistics of QUIC Cubic

Start at: 2019-03-19 15:39:25 End at: 2019-03-19 15:39:55 Local clock offset: 0.067 ms Remote clock offset: 0.495 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 68.61 Mbit/s

95th percentile per-packet one-way delay: 56.777 ms

Loss rate: 0.60%

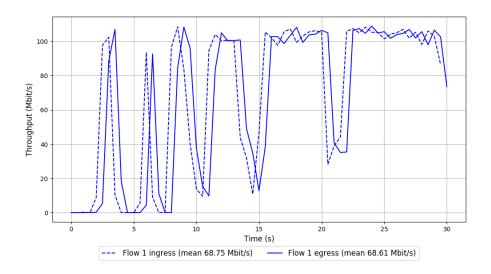
-- Flow 1:

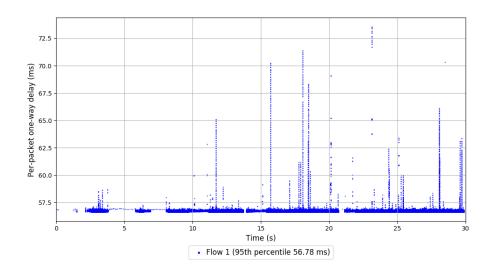
Average throughput: 68.61 Mbit/s

95th percentile per-packet one-way delay: 56.777 ms

Loss rate: 0.60%

Run 2: Report of QUIC Cubic — Data Link





# Run 3: Statistics of QUIC Cubic

Start at: 2019-03-19 16:13:47 End at: 2019-03-19 16:14:17 Local clock offset: 0.38 ms Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 54.55 Mbit/s

95th percentile per-packet one-way delay: 57.494 ms

Loss rate: 0.72%

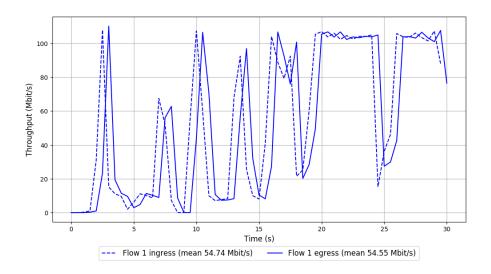
-- Flow 1:

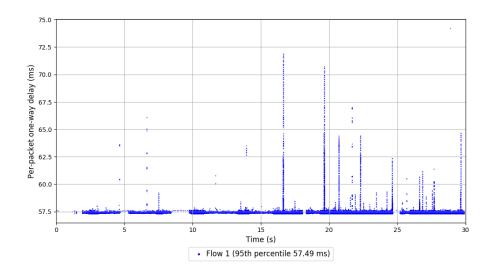
Average throughput: 54.55 Mbit/s

95th percentile per-packet one-way delay: 57.494 ms

Loss rate: 0.72%

Run 3: Report of QUIC Cubic — Data Link





# Run 4: Statistics of QUIC Cubic

Start at: 2019-03-19 16:49:04 End at: 2019-03-19 16:49:34 Local clock offset: -0.001 ms Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 53.69 Mbit/s

95th percentile per-packet one-way delay: 56.958 ms

Loss rate: 0.71%

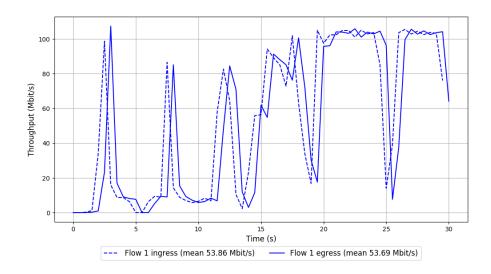
-- Flow 1:

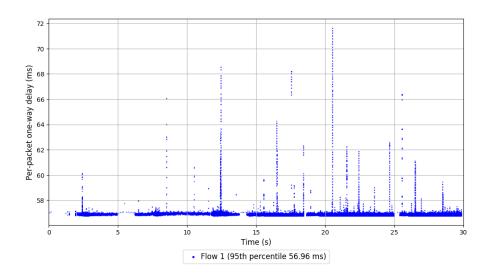
Average throughput: 53.69 Mbit/s

95th percentile per-packet one-way delay: 56.958 ms

Loss rate: 0.71%

Run 4: Report of QUIC Cubic — Data Link





# Run 5: Statistics of QUIC Cubic

Start at: 2019-03-19 17:24:20 End at: 2019-03-19 17:24:50 Local clock offset: 0.368 ms Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 60.23 Mbit/s

95th percentile per-packet one-way delay: 60.719 ms

Loss rate: 0.70%

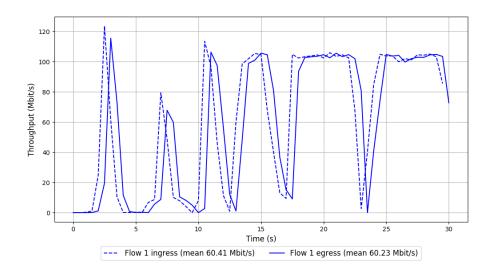
-- Flow 1:

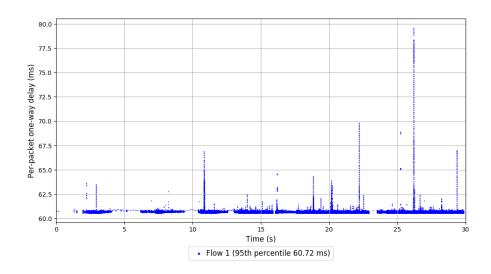
Average throughput: 60.23 Mbit/s

95th percentile per-packet one-way delay: 60.719 ms

Loss rate: 0.70%

Run 5: Report of QUIC Cubic — Data Link





## Run 1: Statistics of SCReAM

Start at: 2019-03-19 15:13:48 End at: 2019-03-19 15:14:18 Local clock offset: 0.105 ms Remote clock offset: -0.227 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.661 ms

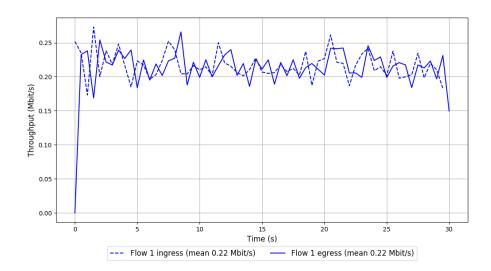
Loss rate: 0.38%

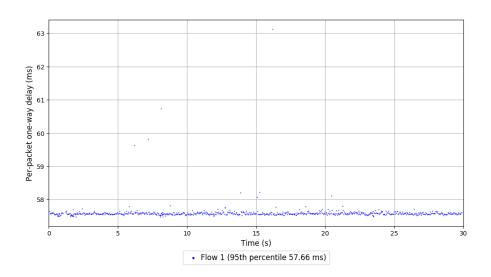
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.661 ms

Run 1: Report of SCReAM — Data Link





## Run 2: Statistics of SCReAM

Start at: 2019-03-19 15:48:15 End at: 2019-03-19 15:48:45 Local clock offset: -0.107 ms Remote clock offset: -0.533 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 60.843 ms

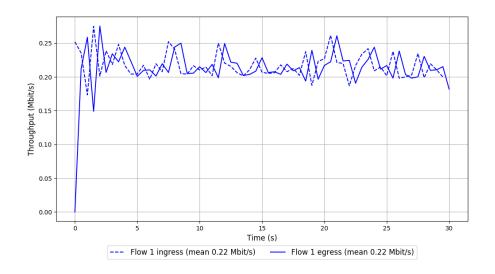
Loss rate: 0.39%

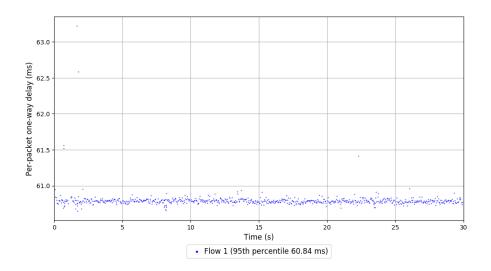
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 60.843 ms

Run 2: Report of SCReAM — Data Link





## Run 3: Statistics of SCReAM

Start at: 2019-03-19 16:22:12 End at: 2019-03-19 16:22:42 Local clock offset: -0.034 ms Remote clock offset: 0.064 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.396 ms

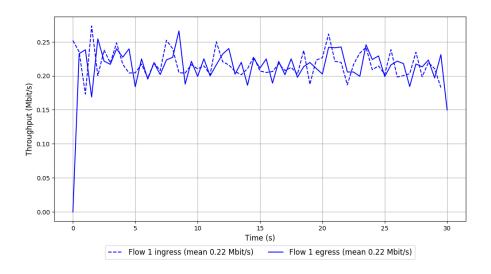
Loss rate: 0.38%

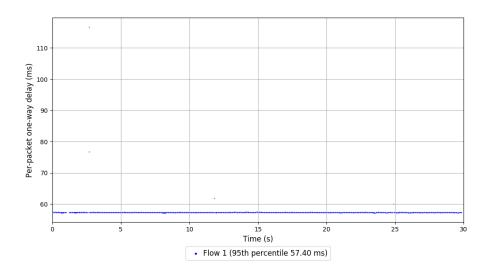
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.396 ms

Run 3: Report of SCReAM — Data Link





## Run 4: Statistics of SCReAM

Start at: 2019-03-19 16:57:56 End at: 2019-03-19 16:58:26 Local clock offset: 0.451 ms Remote clock offset: -0.189 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 60.837 ms

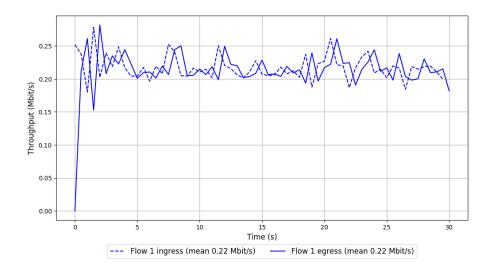
Loss rate: 0.39%

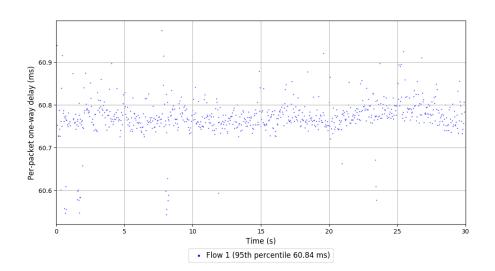
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 60.837 ms

Run 4: Report of SCReAM — Data Link





## Run 5: Statistics of SCReAM

Start at: 2019-03-19 17:32:46 End at: 2019-03-19 17:33:16 Local clock offset: -0.395 ms Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.154 ms

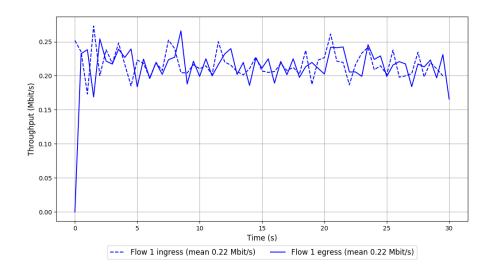
Loss rate: 0.39%

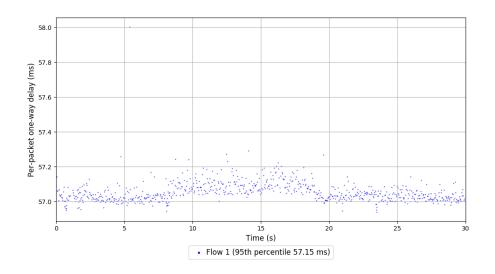
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.154 ms

Run 5: Report of SCReAM — Data Link





# Run 1: Statistics of Sprout

Start at: 2019-03-19 14:51:03 End at: 2019-03-19 14:51:33 Local clock offset: -0.08 ms Remote clock offset: -0.311 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.05 Mbit/s

95th percentile per-packet one-way delay: 61.215 ms

Loss rate: 0.48%

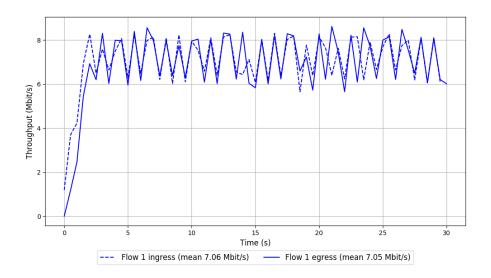
-- Flow 1:

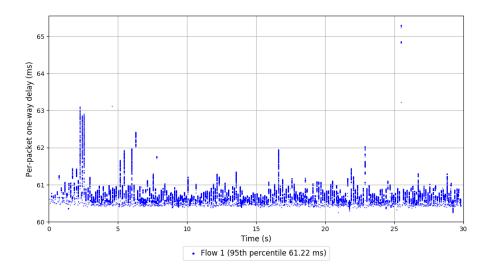
Average throughput: 7.05 Mbit/s

95th percentile per-packet one-way delay: 61.215 ms

Loss rate: 0.48%

Run 1: Report of Sprout — Data Link





# Run 2: Statistics of Sprout

Start at: 2019-03-19 15:26:07 End at: 2019-03-19 15:26:37 Local clock offset: 0.335 ms Remote clock offset: -0.255 ms

# Below is generated by plot.py at 2019-03-19 19:25:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 58.296 ms

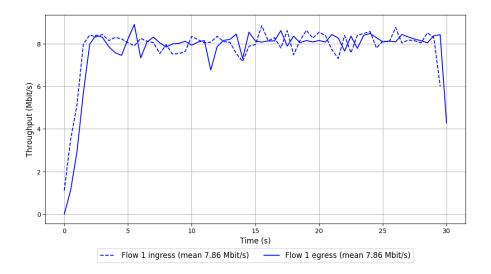
Loss rate: 0.37%

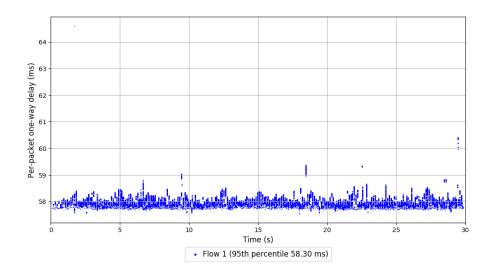
-- Flow 1:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 58.296 ms

Run 2: Report of Sprout — Data Link





# Run 3: Statistics of Sprout

Start at: 2019-03-19 16:00:09 End at: 2019-03-19 16:00:39 Local clock offset: -0.394 ms Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2019-03-19 19:25:50

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 57.325 ms

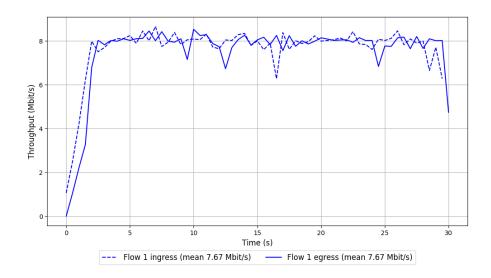
Loss rate: 0.39%

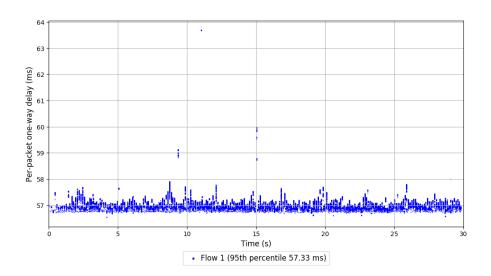
-- Flow 1:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 57.325 ms

Run 3: Report of Sprout — Data Link





# Run 4: Statistics of Sprout

Start at: 2019-03-19 16:35:05 End at: 2019-03-19 16:35:35 Local clock offset: 0.176 ms Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2019-03-19 19:25:50

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 57.752 ms

Loss rate: 0.06%

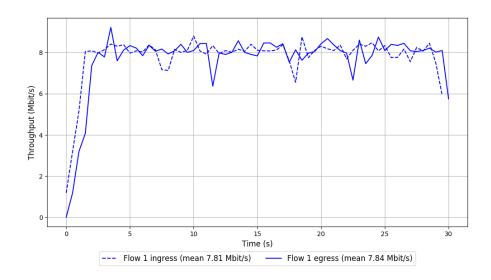
-- Flow 1:

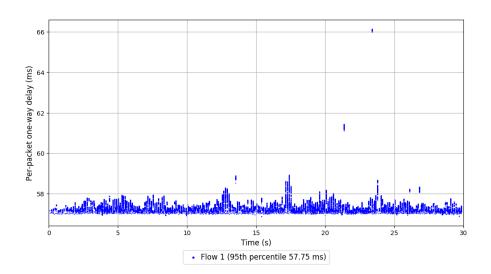
Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 57.752 ms

Loss rate: 0.06%

Run 4: Report of Sprout — Data Link





# Run 5: Statistics of Sprout

Start at: 2019-03-19 17:10:30 End at: 2019-03-19 17:11:00 Local clock offset: -0.303 ms Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-03-19 19:25:50

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 57.314 ms

Loss rate: 0.44%

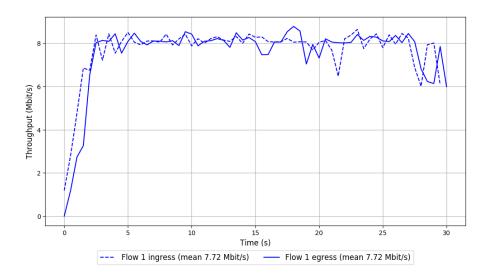
-- Flow 1:

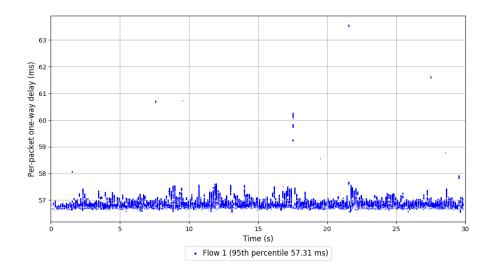
Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 57.314 ms

Loss rate: 0.44%

Run 5: Report of Sprout — Data Link





## Run 1: Statistics of TaoVA-100x

Start at: 2019-03-19 15:12:10 End at: 2019-03-19 15:12:40 Local clock offset: -0.384 ms Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2019-03-19 19:26:24

# Datalink statistics
-- Total of 1 flow:

Average throughput: 241.31 Mbit/s

95th percentile per-packet one-way delay: 58.576 ms

Loss rate: 0.40%

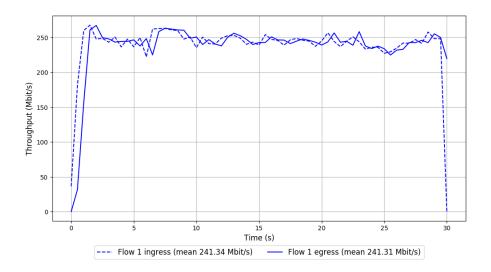
-- Flow 1:

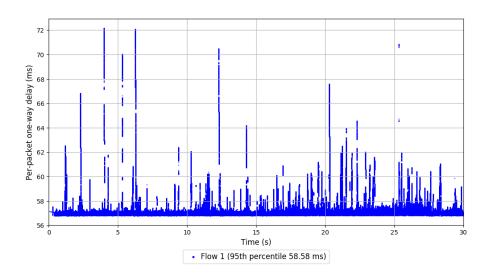
Average throughput: 241.31 Mbit/s

95th percentile per-packet one-way delay: 58.576 ms

Loss rate: 0.40%

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





## Run 2: Statistics of TaoVA-100x

Start at: 2019-03-19 15:46:30 End at: 2019-03-19 15:47:00 Local clock offset: 0.152 ms Remote clock offset: -0.783 ms

# Below is generated by plot.py at 2019-03-19 19:26:24

# Datalink statistics
-- Total of 1 flow:

Average throughput: 232.96 Mbit/s

95th percentile per-packet one-way delay: 59.027 ms

Loss rate: 0.41%

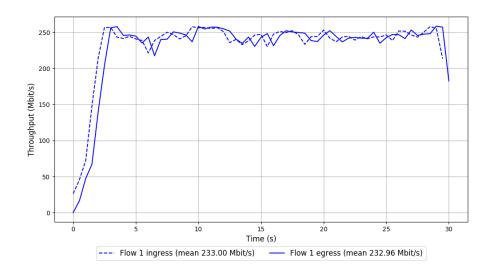
-- Flow 1:

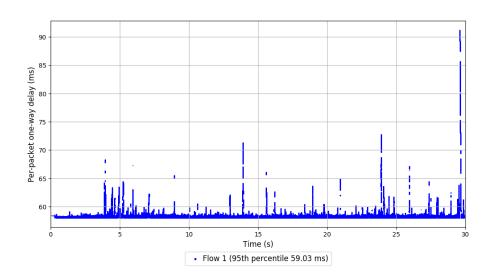
Average throughput: 232.96 Mbit/s

95th percentile per-packet one-way delay: 59.027 ms

Loss rate: 0.41%

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





## Run 3: Statistics of TaoVA-100x

Start at: 2019-03-19 16:20:25 End at: 2019-03-19 16:20:55 Local clock offset: -0.045 ms Remote clock offset: -0.247 ms

# Below is generated by plot.py at 2019-03-19 19:26:26

# Datalink statistics
-- Total of 1 flow:

Average throughput: 240.66 Mbit/s

95th percentile per-packet one-way delay: 61.368 ms

Loss rate: 0.40%

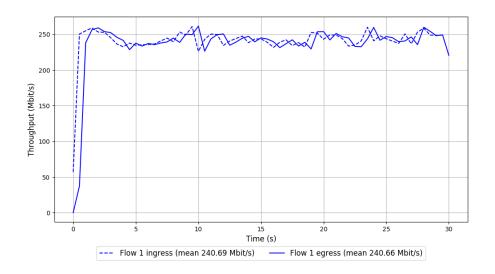
-- Flow 1:

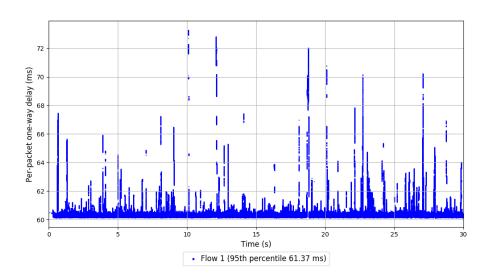
Average throughput: 240.66 Mbit/s

95th percentile per-packet one-way delay: 61.368 ms

Loss rate: 0.40%

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





## Run 4: Statistics of TaoVA-100x

Start at: 2019-03-19 16:56:16 End at: 2019-03-19 16:56:46 Local clock offset: -0.026 ms Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2019-03-19 19:26:26

# Datalink statistics
-- Total of 1 flow:

Average throughput: 235.34 Mbit/s

95th percentile per-packet one-way delay: 57.694 ms

Loss rate: 0.41%

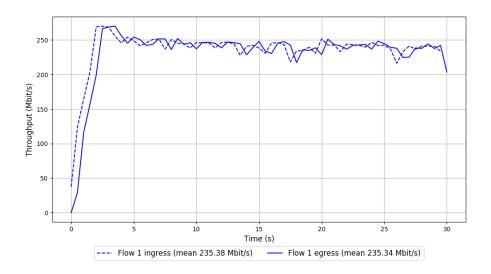
-- Flow 1:

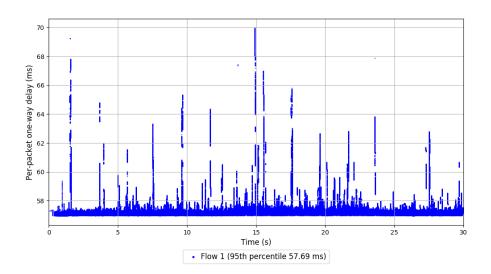
Average throughput: 235.34 Mbit/s

95th percentile per-packet one-way delay: 57.694 ms

Loss rate: 0.41%

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





## Run 5: Statistics of TaoVA-100x

Start at: 2019-03-19 17:31:09 End at: 2019-03-19 17:31:39 Local clock offset: 0.156 ms Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-03-19 19:27:20

# Datalink statistics
-- Total of 1 flow:

Average throughput: 247.83 Mbit/s

95th percentile per-packet one-way delay: 58.383 ms

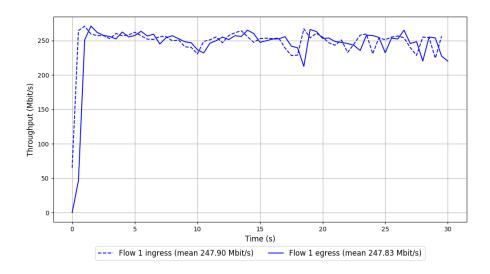
Loss rate: 0.43%

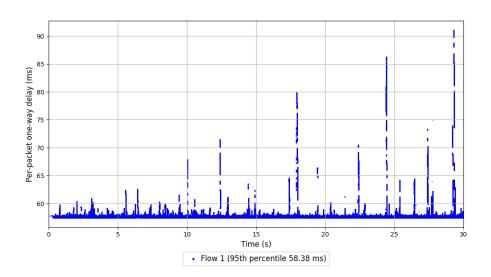
-- Flow 1:

Average throughput: 247.83 Mbit/s

95th percentile per-packet one-way delay: 58.383 ms

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





# Run 1: Statistics of TCP Vegas

Start at: 2019-03-19 14:46:48 End at: 2019-03-19 14:47:18 Local clock offset: -0.467 ms Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2019-03-19 19:29:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 471.08 Mbit/s

95th percentile per-packet one-way delay: 68.931 ms

Loss rate: 0.42%

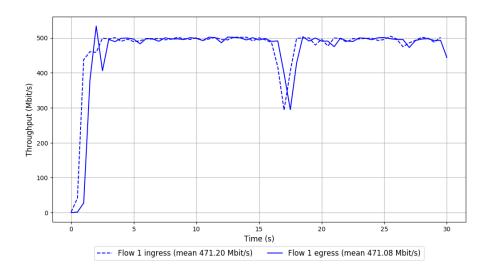
-- Flow 1:

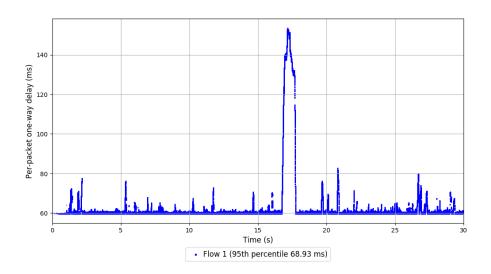
Average throughput: 471.08 Mbit/s

95th percentile per-packet one-way delay: 68.931 ms

Loss rate: 0.42%

Run 1: Report of TCP Vegas — Data Link





# Run 2: Statistics of TCP Vegas

Start at: 2019-03-19 15:21:34 End at: 2019-03-19 15:22:04 Local clock offset: -0.081 ms Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2019-03-19 19:33:00

# Datalink statistics
-- Total of 1 flow:

Average throughput: 471.60 Mbit/s

95th percentile per-packet one-way delay: 65.271 ms

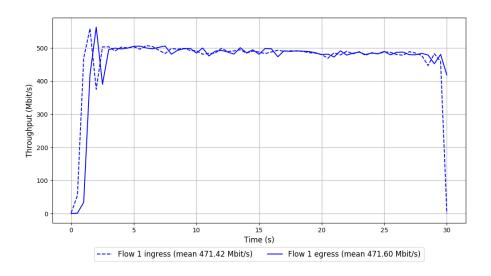
Loss rate: 0.34%

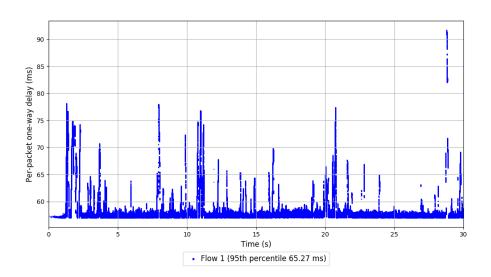
-- Flow 1:

Average throughput: 471.60 Mbit/s

95th percentile per-packet one-way delay: 65.271 ms

Run 2: Report of TCP Vegas — Data Link





# Run 3: Statistics of TCP Vegas

Start at: 2019-03-19 15:55:42 End at: 2019-03-19 15:56:12 Local clock offset: -0.281 ms Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2019-03-19 19:33:00

# Datalink statistics
-- Total of 1 flow:

Average throughput: 320.98 Mbit/s

95th percentile per-packet one-way delay: 62.909 ms

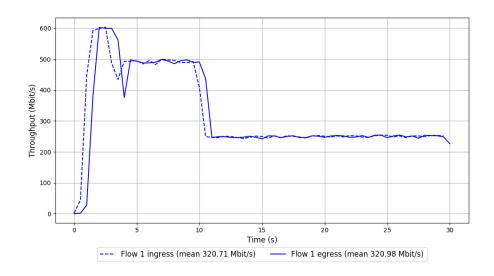
Loss rate: 0.31%

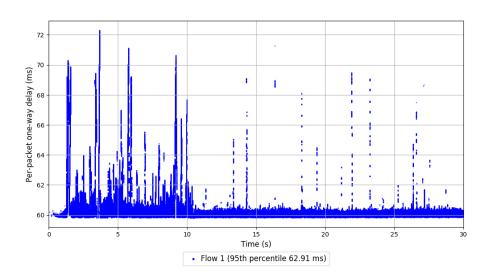
-- Flow 1:

Average throughput: 320.98 Mbit/s

95th percentile per-packet one-way delay: 62.909 ms

Run 3: Report of TCP Vegas — Data Link





# Run 4: Statistics of TCP Vegas

Start at: 2019-03-19 16:29:52 End at: 2019-03-19 16:30:22 Local clock offset: -0.002 ms Remote clock offset: 0.071 ms

# Below is generated by plot.py at 2019-03-19 19:35:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 482.31 Mbit/s

95th percentile per-packet one-way delay: 62.132 ms

Loss rate: 0.39%

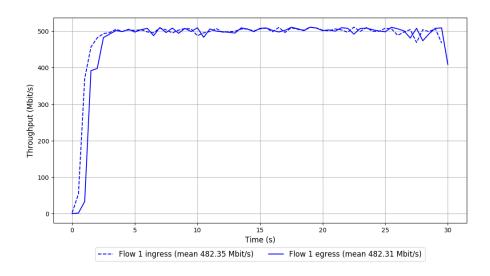
-- Flow 1:

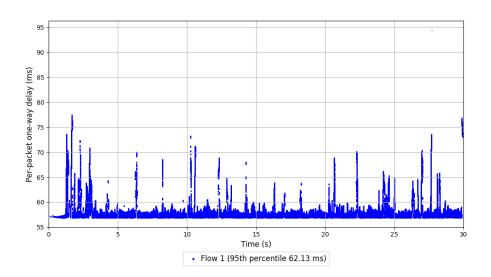
Average throughput: 482.31 Mbit/s

95th percentile per-packet one-way delay: 62.132 ms

Loss rate: 0.39%

Run 4: Report of TCP Vegas — Data Link





# Run 5: Statistics of TCP Vegas

Start at: 2019-03-19 17:05:50 End at: 2019-03-19 17:06:20 Local clock offset: -0.138 ms Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2019-03-19 19:35:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 282.99 Mbit/s

95th percentile per-packet one-way delay: 72.412 ms

Loss rate: 0.36%

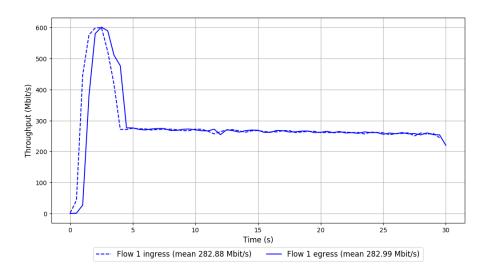
-- Flow 1:

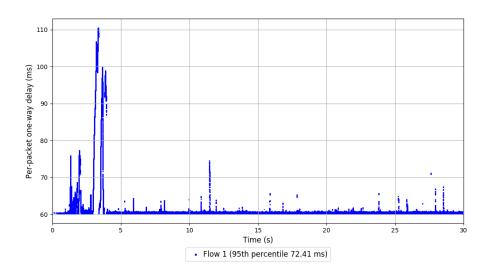
Average throughput: 282.99 Mbit/s

95th percentile per-packet one-way delay: 72.412 ms

Loss rate: 0.36%

Run 5: Report of TCP Vegas — Data Link





## Run 1: Statistics of Verus

Start at: 2019-03-19 15:02:03 End at: 2019-03-19 15:02:33 Local clock offset: 0.063 ms Remote clock offset: 0.566 ms

# Below is generated by plot.py at 2019-03-19 19:35:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 117.54 Mbit/s

95th percentile per-packet one-way delay: 89.861 ms

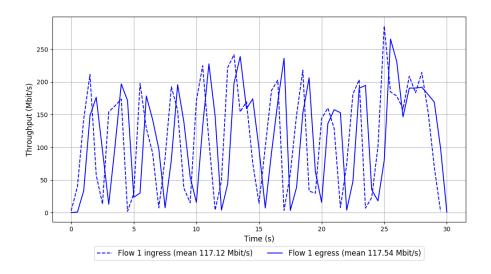
Loss rate: 0.03%

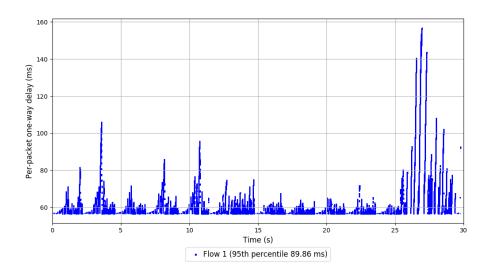
-- Flow 1:

Average throughput: 117.54 Mbit/s

95th percentile per-packet one-way delay: 89.861 ms

Run 1: Report of Verus — Data Link





## Run 2: Statistics of Verus

Start at: 2019-03-19 15:36:27 End at: 2019-03-19 15:36:57 Local clock offset: -0.331 ms Remote clock offset: -0.174 ms

# Below is generated by plot.py at 2019-03-19 19:35:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 147.85 Mbit/s

95th percentile per-packet one-way delay: 89.684 ms

Loss rate: 0.76%

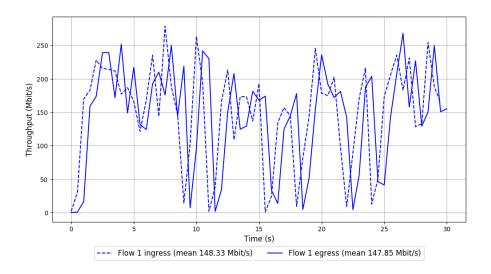
-- Flow 1:

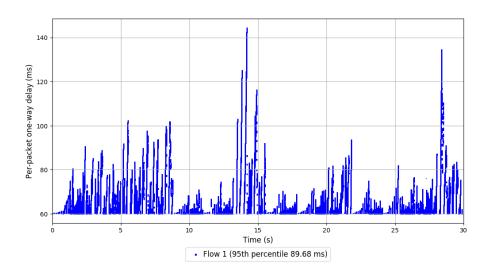
Average throughput: 147.85 Mbit/s

95th percentile per-packet one-way delay: 89.684 ms

Loss rate: 0.76%

Run 2: Report of Verus — Data Link





## Run 3: Statistics of Verus

Start at: 2019-03-19 16:10:31 End at: 2019-03-19 16:11:01 Local clock offset: 0.35 ms Remote clock offset: 0.138 ms

# Below is generated by plot.py at 2019-03-19 19:35:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 153.89 Mbit/s

95th percentile per-packet one-way delay: 115.546 ms

Loss rate: 0.31%

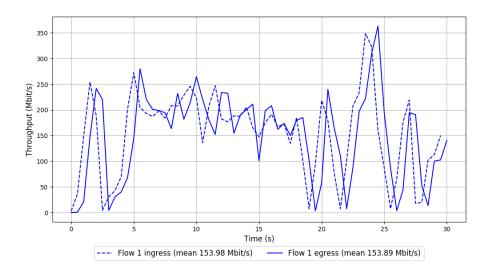
-- Flow 1:

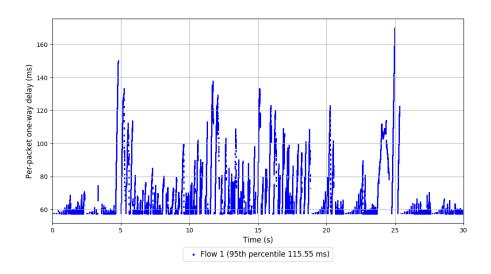
Average throughput: 153.89 Mbit/s

95th percentile per-packet one-way delay: 115.546 ms

Loss rate: 0.31%

Run 3: Report of Verus — Data Link





## Run 4: Statistics of Verus

Start at: 2019-03-19 16:45:29 End at: 2019-03-19 16:45:59 Local clock offset: 0.014 ms Remote clock offset: -0.182 ms

# Below is generated by plot.py at 2019-03-19 19:36:11

# Datalink statistics
-- Total of 1 flow:

Average throughput: 195.61 Mbit/s

95th percentile per-packet one-way delay: 178.045 ms

Loss rate: 2.84%

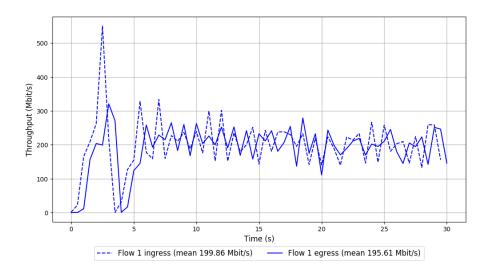
-- Flow 1:

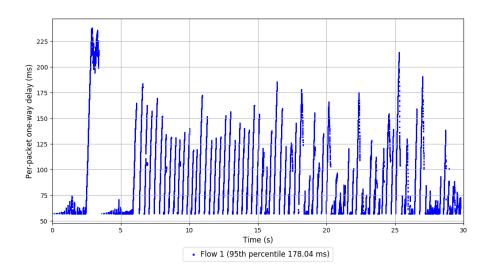
Average throughput: 195.61 Mbit/s

95th percentile per-packet one-way delay: 178.045 ms

Loss rate: 2.84%

Run 4: Report of Verus — Data Link





## Run 5: Statistics of Verus

Start at: 2019-03-19 17:20:56 End at: 2019-03-19 17:21:27 Local clock offset: -0.245 ms Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2019-03-19 19:36:11

# Datalink statistics
-- Total of 1 flow:

Average throughput: 150.67 Mbit/s

95th percentile per-packet one-way delay: 175.996 ms

Loss rate: 1.54%

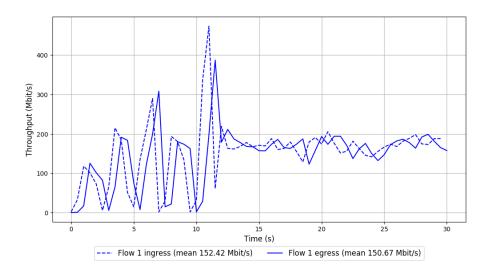
-- Flow 1:

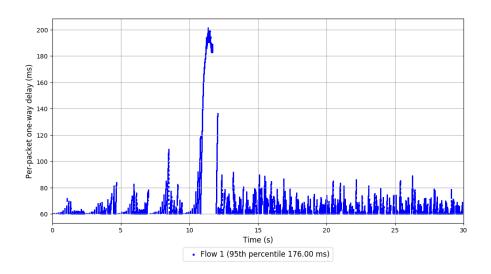
Average throughput: 150.67 Mbit/s

95th percentile per-packet one-way delay: 175.996 ms

Loss rate: 1.54%

Run 5: Report of Verus — Data Link





## Run 1: Statistics of PCC-Vivace

Start at: 2019-03-19 15:03:24 End at: 2019-03-19 15:03:54 Local clock offset: 0.272 ms Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-03-19 19:36:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 266.63 Mbit/s

95th percentile per-packet one-way delay: 58.086 ms

Loss rate: 0.59%

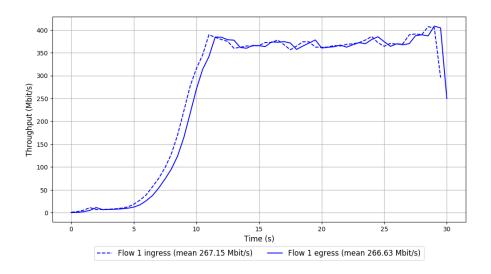
-- Flow 1:

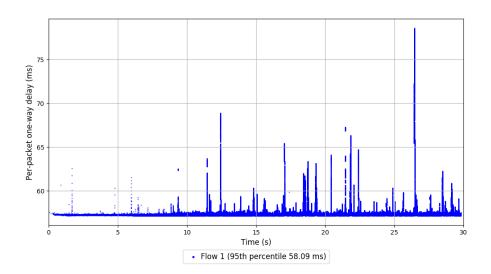
Average throughput: 266.63 Mbit/s

95th percentile per-packet one-way delay: 58.086 ms

Loss rate: 0.59%

Run 1: Report of PCC-Vivace — Data Link





## Run 2: Statistics of PCC-Vivace

Start at: 2019-03-19 15:37:57 End at: 2019-03-19 15:38:27 Local clock offset: -0.191 ms Remote clock offset: -0.176 ms

# Below is generated by plot.py at 2019-03-19 19:36:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 210.95 Mbit/s

95th percentile per-packet one-way delay: 57.618 ms

Loss rate: 0.65%

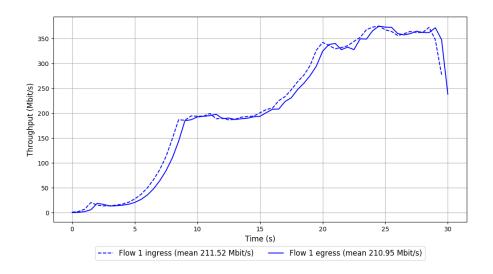
-- Flow 1:

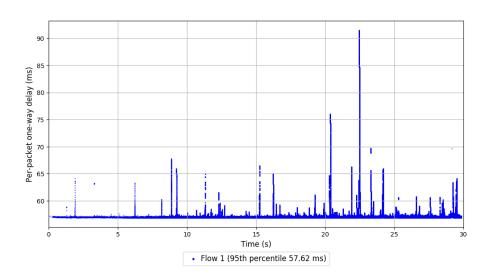
Average throughput: 210.95 Mbit/s

95th percentile per-packet one-way delay: 57.618 ms

Loss rate: 0.65%

Run 2: Report of PCC-Vivace — Data Link





## Run 3: Statistics of PCC-Vivace

Start at: 2019-03-19 16:12:03 End at: 2019-03-19 16:12:33 Local clock offset: 0.361 ms Remote clock offset: -0.601 ms

# Below is generated by plot.py at 2019-03-19 19:36:18

# Datalink statistics
-- Total of 1 flow:

Average throughput: 294.55 Mbit/s

95th percentile per-packet one-way delay: 69.042 ms

Loss rate: 0.39%

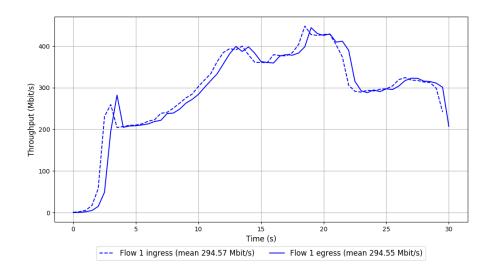
-- Flow 1:

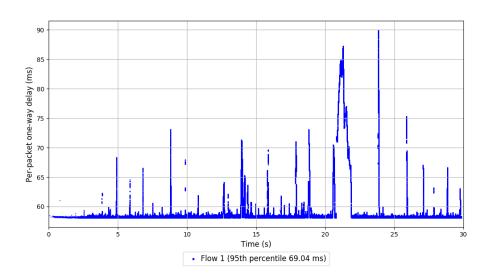
Average throughput: 294.55 Mbit/s

95th percentile per-packet one-way delay: 69.042 ms

Loss rate: 0.39%

Run 3: Report of PCC-Vivace — Data Link





## Run 4: Statistics of PCC-Vivace

Start at: 2019-03-19 16:47:09 End at: 2019-03-19 16:47:39 Local clock offset: -0.359 ms Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2019-03-19 19:36:55

# Datalink statistics
-- Total of 1 flow:

Average throughput: 347.36 Mbit/s

95th percentile per-packet one-way delay: 259.721 ms

Loss rate: 2.59%

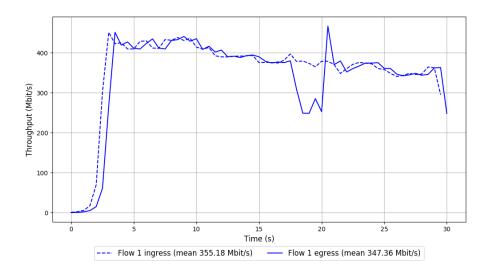
-- Flow 1:

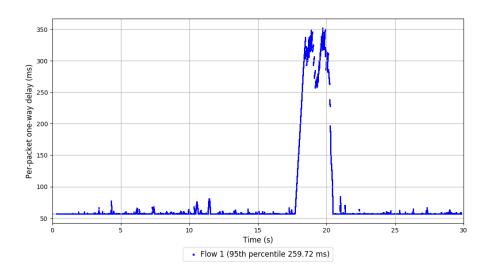
Average throughput: 347.36 Mbit/s

95th percentile per-packet one-way delay: 259.721 ms

Loss rate: 2.59%

Run 4: Report of PCC-Vivace — Data Link





## Run 5: Statistics of PCC-Vivace

Start at: 2019-03-19 17:22:34 End at: 2019-03-19 17:23:04 Local clock offset: -0.217 ms Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2019-03-19 19:36:56

# Datalink statistics
-- Total of 1 flow:

Average throughput: 346.62 Mbit/s

95th percentile per-packet one-way delay: 64.309 ms

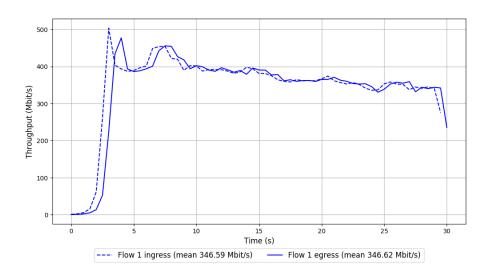
Loss rate: 0.40%

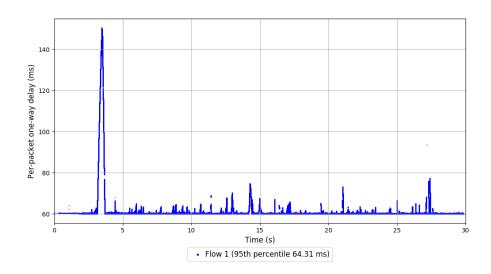
-- Flow 1:

Average throughput: 346.62 Mbit/s

95th percentile per-packet one-way delay: 64.309 ms

Run 5: Report of PCC-Vivace — Data Link

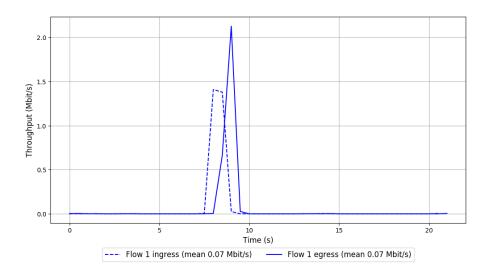


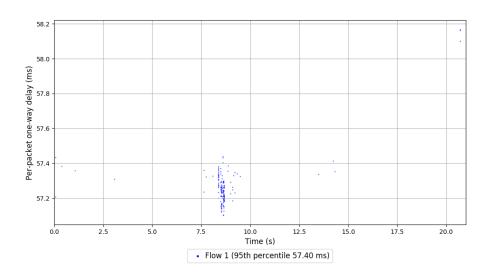


# Run 1: Statistics of WebRTC media

Start at: 2019-03-19 14:48:20 End at: 2019-03-19 14:48:50 Local clock offset: -0.381 ms Remote clock offset: -0.188 ms

Run 1: Report of WebRTC media — Data Link





## Run 2: Statistics of WebRTC media

Start at: 2019-03-19 15:23:14 End at: 2019-03-19 15:23:44 Local clock offset: 0.327 ms Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2019-03-19 19:36:56

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.758 ms

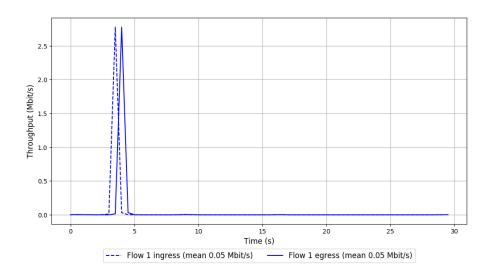
Loss rate: 0.00%

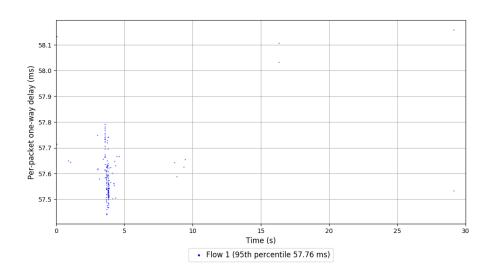
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.758 ms

Run 2: Report of WebRTC media — Data Link





## Run 3: Statistics of WebRTC media

Start at: 2019-03-19 15:57:15 End at: 2019-03-19 15:57:45 Local clock offset: -0.104 ms Remote clock offset: -0.299 ms

# Below is generated by plot.py at 2019-03-19 19:36:56

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.385 ms

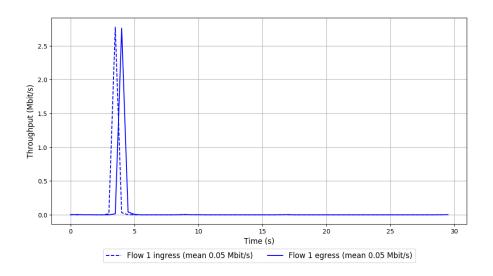
Loss rate: 0.00%

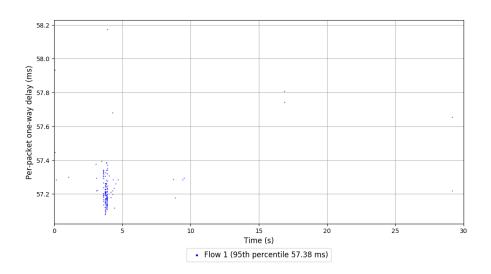
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.385 ms

Run 3: Report of WebRTC media — Data Link





## Run 4: Statistics of WebRTC media

Start at: 2019-03-19 16:31:53 End at: 2019-03-19 16:32:23 Local clock offset: -0.441 ms Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2019-03-19 19:36:56

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 56.809 ms

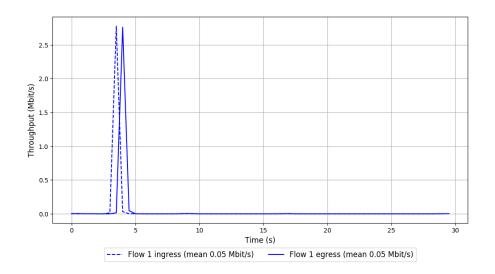
Loss rate: 0.00%

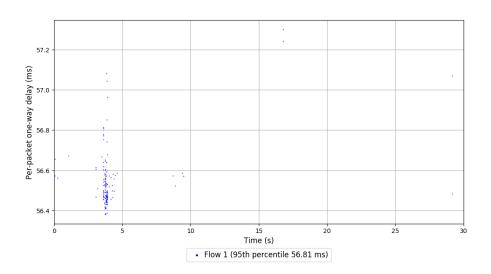
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 56.809 ms

Run 4: Report of WebRTC media — Data Link





## Run 5: Statistics of WebRTC media

Start at: 2019-03-19 17:07:23 End at: 2019-03-19 17:07:53 Local clock offset: -0.214 ms Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2019-03-19 19:36:56

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 60.654 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 60.654 ms

Run 5: Report of WebRTC media — Data Link

