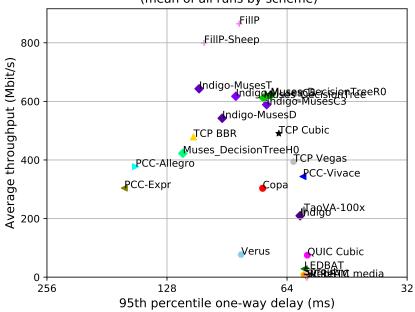
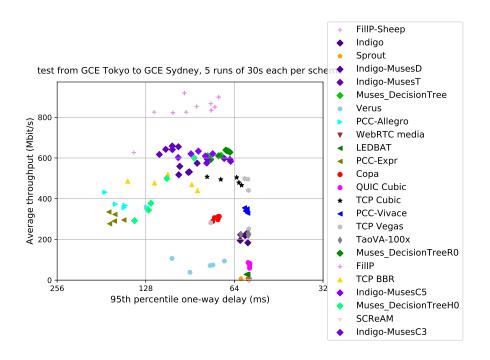
# Pantheon Report

```
Generated at 2019-11-25 02:32:12 (UTC).
   Data path: GCE Tokyo on ens4 (remote) \rightarrow GCE Sydney on ens4 (local).
   Repeated the test of 24 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 4.15.0-1044-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 @ de42328552b3776a75a932a94dfafd722537b0ec
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/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
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
```

 $\label{third_party/vivace 0} \mbox{ 2baf86211435ae071a32f96b7d8c504587f5d7f4} \\ \mbox{third_party/webrtc 0} \mbox{ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851}$ 

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 (%)
$_{\rm scheme}$	# runs	flow 1	flow 1	flow 1
TCP BBR	5	478.80	109.87	0.43
Copa	5	303.38	73.68	0.43
TCP Cubic	5	490.40	67.12	0.37
FillP	5	865.00	84.35	0.50
FillP-Sheep	5	799.52	103.35	1.04
Indigo	5	209.67	59.35	0.40
Indigo-MusesC3	5	588.77	72.01	0.45
Indigo-MusesC5	5	617.35	86.04	0.48
Indigo-MusesD	5	542.47	93.07	0.48
Indigo-MusesT	5	643.07	106.36	0.52
LEDBAT	5	28.33	58.00	0.76
$Muses\_DecisionTree$	5	611.63	73.27	0.43
$Muses\_DecisionTreeH0$	5	422.67	116.81	0.32
$Muses\_DecisionTreeR0$	5	621.19	70.39	0.44
PCC-Allegro	5	377.16	153.53	1.11
PCC-Expr	5	304.13	163.82	3.14
QUIC Cubic	5	75.02	56.93	0.44
$\operatorname{SCReAM}$	5	0.22	57.09	0.36
Sprout	5	7.75	58.14	0.40
TaoVA-100x	5	225.78	58.06	0.41
TCP Vegas	5	394.08	61.66	0.37
Verus	5	77.00	83.43	0.12
PCC-Vivace	5	343.50	58.41	0.45
WebRTC media	4	0.05	57.10	0.00

### Run 1: Statistics of TCP BBR

Start at: 2019-11-24 21:50:51 End at: 2019-11-24 21:51:21 Local clock offset: -0.116 ms Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2019-11-25 00:38:06

# Datalink statistics
-- Total of 1 flow:

Average throughput: 520.77 Mbit/s

95th percentile per-packet one-way delay: 107.648 ms

Loss rate: 0.34%

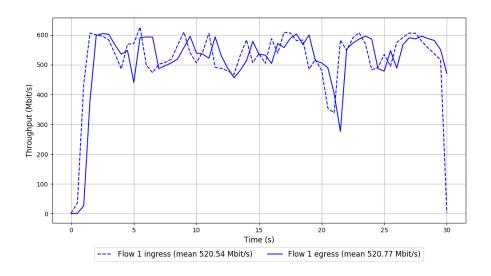
-- Flow 1:

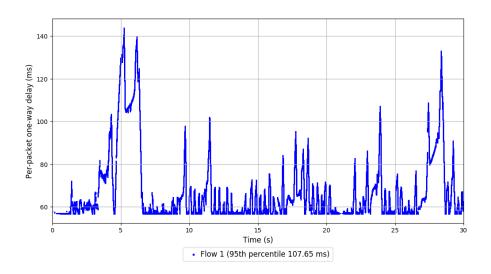
Average throughput: 520.77 Mbit/s

95th percentile per-packet one-way delay: 107.648 ms

Loss rate: 0.34%

Run 1: Report of TCP BBR — Data Link





### Run 2: Statistics of TCP BBR

Start at: 2019-11-24 22:26:07 End at: 2019-11-24 22:26:37 Local clock offset: -0.067 ms Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2019-11-25 00:38:06

# Datalink statistics
-- Total of 1 flow:

Average throughput: 469.58 Mbit/s

95th percentile per-packet one-way delay:  $89.328~\mathrm{ms}$ 

Loss rate: 0.42%

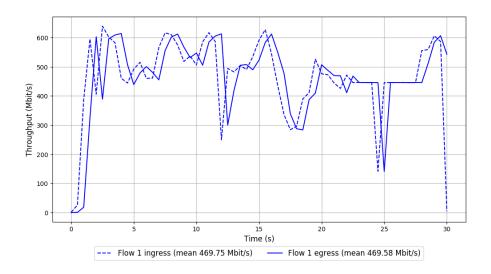
-- Flow 1:

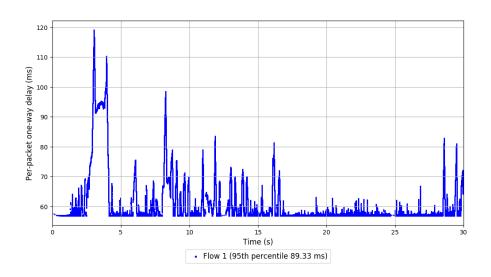
Average throughput: 469.58 Mbit/s

95th percentile per-packet one-way delay: 89.328 ms

Loss rate: 0.42%

Run 2: Report of TCP BBR — Data Link





### Run 3: Statistics of TCP BBR

Start at: 2019-11-24 23:01:12 End at: 2019-11-24 23:01:42 Local clock offset: -0.101 ms Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-11-25 00:38:06

# Datalink statistics
-- Total of 1 flow:

Average throughput: 477.41 Mbit/s

95th percentile per-packet one-way delay: 119.539 ms

Loss rate: 0.55%

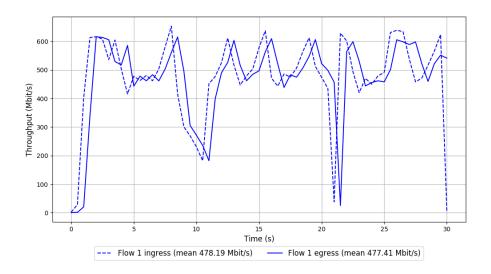
-- Flow 1:

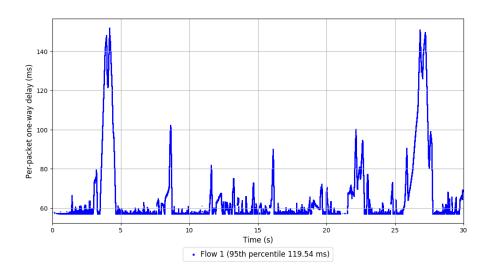
Average throughput: 477.41 Mbit/s

95th percentile per-packet one-way delay: 119.539 ms

Loss rate: 0.55%

Run 3: Report of TCP BBR — Data Link





### Run 4: Statistics of TCP BBR

Start at: 2019-11-24 23:36:37 End at: 2019-11-24 23:37:07 Local clock offset: -0.07 ms Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2019-11-25 00:38:06

# Datalink statistics
-- Total of 1 flow:

Average throughput: 486.20 Mbit/s

95th percentile per-packet one-way delay: 147.392 ms

Loss rate: 0.44%

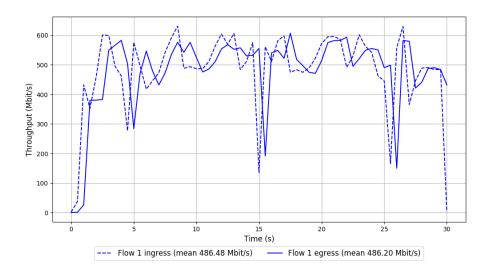
-- Flow 1:

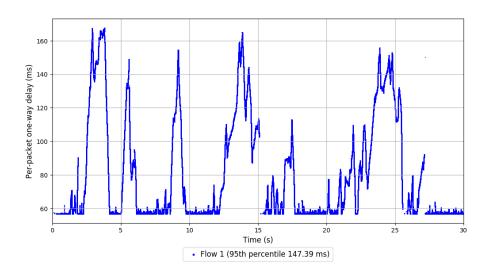
Average throughput: 486.20 Mbit/s

95th percentile per-packet one-way delay: 147.392 ms

Loss rate: 0.44%

Run 4: Report of TCP BBR — Data Link





### Run 5: Statistics of TCP BBR

Start at: 2019-11-25 00:11:32 End at: 2019-11-25 00:12:02 Local clock offset: 0.028 ms Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-11-25 00:38:06

# Datalink statistics
-- Total of 1 flow:

Average throughput: 440.05 Mbit/s

95th percentile per-packet one-way delay: 85.434  $\ensuremath{\mathrm{ms}}$ 

Loss rate: 0.39%

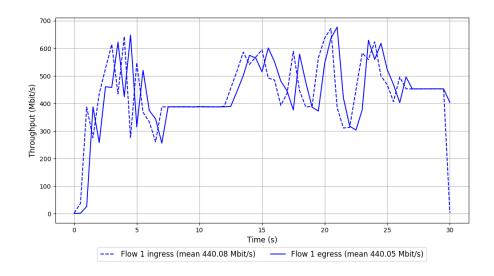
-- Flow 1:

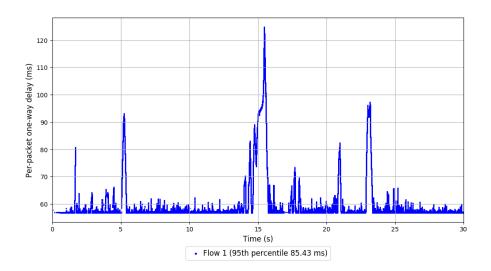
Average throughput: 440.05 Mbit/s

95th percentile per-packet one-way delay: 85.434 ms

Loss rate: 0.39%

Run 5: Report of TCP BBR — Data Link





## Run 1: Statistics of Copa

Start at: 2019-11-24 21:43:35 End at: 2019-11-24 21:44:05 Local clock offset: 0.311 ms Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2019-11-25 00:38:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 288.44 Mbit/s

95th percentile per-packet one-way delay: 75.951 ms

Loss rate: 0.37%

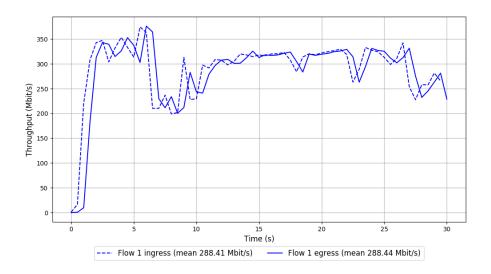
-- Flow 1:

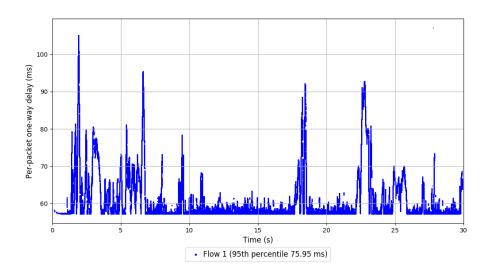
Average throughput: 288.44 Mbit/s

95th percentile per-packet one-way delay: 75.951 ms

Loss rate: 0.37%

Run 1: Report of Copa — Data Link





## Run 2: Statistics of Copa

Start at: 2019-11-24 22:18:33 End at: 2019-11-24 22:19:03 Local clock offset: -0.052 ms Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2019-11-25 00:38:34

# Datalink statistics
-- Total of 1 flow:

Average throughput: 297.33 Mbit/s

95th percentile per-packet one-way delay:  $72.842~\mathrm{ms}$ 

Loss rate: 0.44%

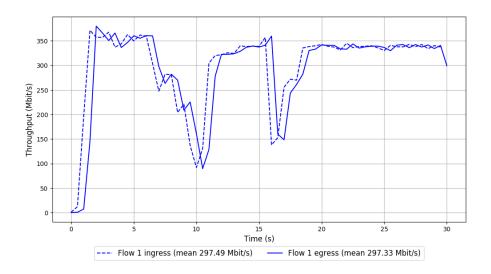
-- Flow 1:

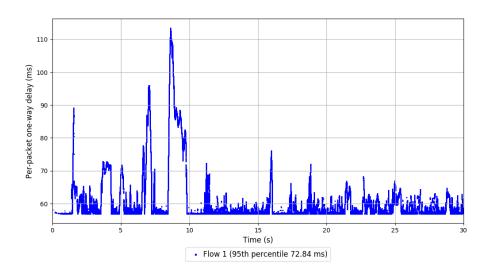
Average throughput: 297.33 Mbit/s

95th percentile per-packet one-way delay: 72.842 ms

Loss rate: 0.44%

Run 2: Report of Copa — Data Link





## Run 3: Statistics of Copa

Start at: 2019-11-24 22:53:46 End at: 2019-11-24 22:54:16 Local clock offset: -0.079 ms Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2019-11-25 00:38:48

# Datalink statistics
-- Total of 1 flow:

Average throughput: 306.40 Mbit/s

95th percentile per-packet one-way delay:  $74.785~\mathrm{ms}$ 

Loss rate: 0.53%

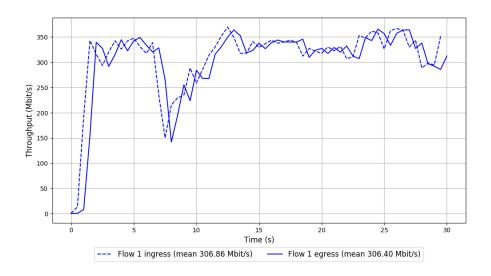
-- Flow 1:

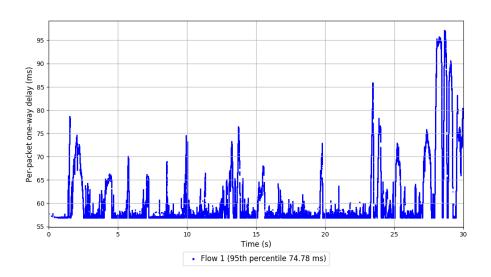
Average throughput: 306.40 Mbit/s

95th percentile per-packet one-way delay: 74.785 ms

Loss rate: 0.53%

Run 3: Report of Copa — Data Link





## Run 4: Statistics of Copa

Start at: 2019-11-24 23:29:08 End at: 2019-11-24 23:29:38 Local clock offset: 0.274 ms Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2019-11-25 00:46:49

# Datalink statistics
-- Total of 1 flow:

Average throughput: 312.66 Mbit/s

95th percentile per-packet one-way delay:  $72.093~\mathrm{ms}$ 

Loss rate: 0.44%

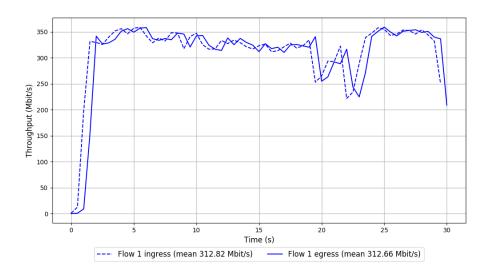
-- Flow 1:

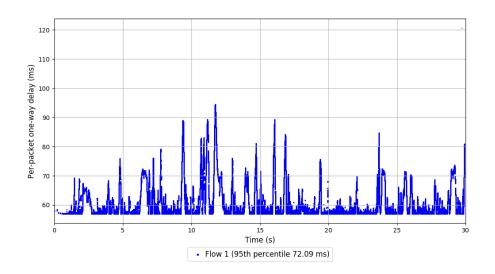
Average throughput: 312.66 Mbit/s

95th percentile per-packet one-way delay: 72.093 ms

Loss rate: 0.44%

Run 4: Report of Copa — Data Link





## Run 5: Statistics of Copa

Start at: 2019-11-25 00:04:16 End at: 2019-11-25 00:04:46 Local clock offset: 0.344 ms Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-11-25 00:47:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 312.06 Mbit/s

95th percentile per-packet one-way delay:  $72.731~\mathrm{ms}$ 

Loss rate: 0.38%

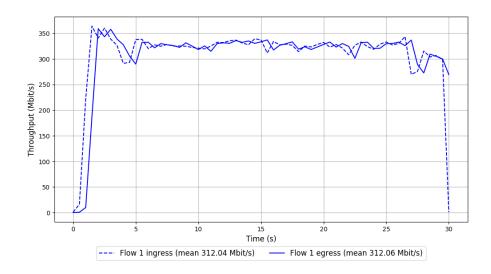
-- Flow 1:

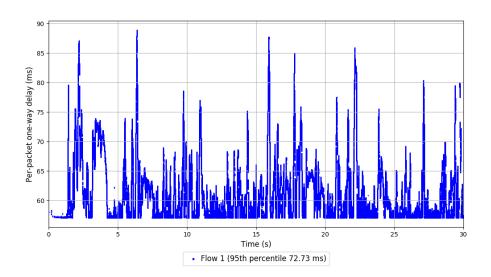
Average throughput: 312.06 Mbit/s

95th percentile per-packet one-way delay: 72.731 ms

Loss rate: 0.38%

Run 5: Report of Copa — Data Link





### Run 1: Statistics of TCP Cubic

Start at: 2019-11-24 21:53:57 End at: 2019-11-24 21:54:27 Local clock offset: -0.116 ms Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2019-11-25 00:47:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 479.11 Mbit/s

95th percentile per-packet one-way delay:  $61.798~\mathrm{ms}$ 

Loss rate: 0.35%

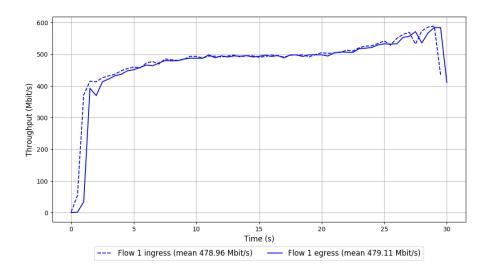
-- Flow 1:

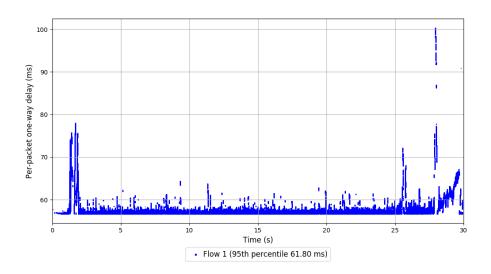
Average throughput: 479.11 Mbit/s

95th percentile per-packet one-way delay: 61.798 ms

Loss rate: 0.35%

Run 1: Report of TCP Cubic — Data Link





### Run 2: Statistics of TCP Cubic

Start at: 2019-11-24 22:29:15 End at: 2019-11-24 22:29:45 Local clock offset: 0.284 ms Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2019-11-25 00:47:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 466.34 Mbit/s

95th percentile per-packet one-way delay: 60.517 ms

Loss rate: 0.40%

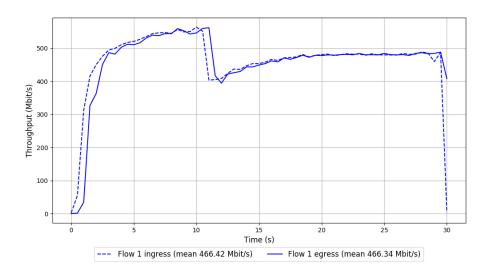
-- Flow 1:

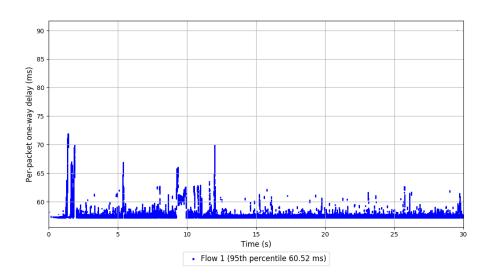
Average throughput: 466.34 Mbit/s

95th percentile per-packet one-way delay: 60.517 ms

Loss rate: 0.40%

Run 2: Report of TCP Cubic — Data Link





### Run 3: Statistics of TCP Cubic

Start at: 2019-11-24 23:04:18 End at: 2019-11-24 23:04:48 Local clock offset: -0.034 ms Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2019-11-25 00:47:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 494.71 Mbit/s

95th percentile per-packet one-way delay: 71.191  ${\tt ms}$ 

Loss rate: 0.33%

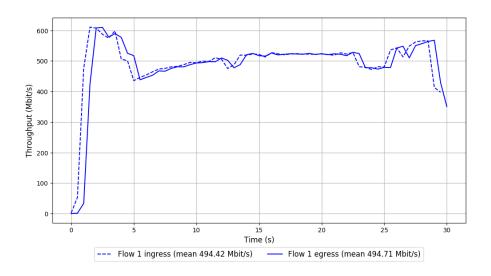
-- Flow 1:

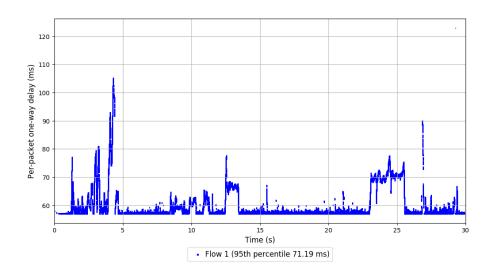
Average throughput: 494.71 Mbit/s

95th percentile per-packet one-way delay: 71.191 ms

Loss rate: 0.33%

Run 3: Report of TCP Cubic — Data Link





### Run 4: Statistics of TCP Cubic

Start at: 2019-11-24 23:39:43 End at: 2019-11-24 23:40:13 Local clock offset: -0.079 ms Remote clock offset: 0.166 ms

# Below is generated by plot.py at 2019-11-25 00:47:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 507.39 Mbit/s

95th percentile per-packet one-way delay:  $79.226~\mathrm{ms}$ 

Loss rate: 0.40%

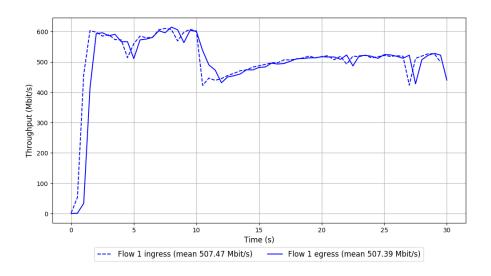
-- Flow 1:

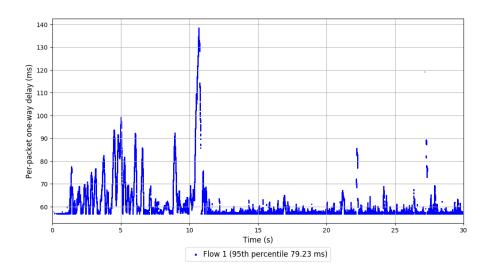
Average throughput: 507.39 Mbit/s

95th percentile per-packet one-way delay: 79.226 ms

Loss rate: 0.40%

Run 4: Report of TCP Cubic — Data Link





### Run 5: Statistics of TCP Cubic

Start at: 2019-11-25 00:14:36 End at: 2019-11-25 00:15:06 Local clock offset: 0.368 ms Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2019-11-25 00:47:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 504.45 Mbit/s

95th percentile per-packet one-way delay: 62.891  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.37%

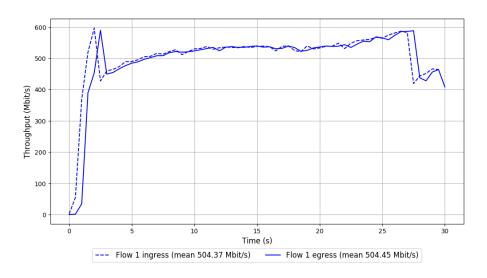
-- Flow 1:

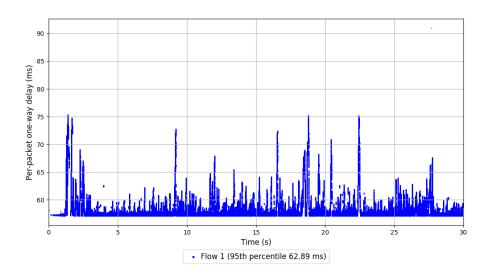
Average throughput: 504.45 Mbit/s

95th percentile per-packet one-way delay: 62.891 ms

Loss rate: 0.37%

Run 5: Report of TCP Cubic — Data Link





### Run 1: Statistics of FillP

Start at: 2019-11-24 21:31:54 End at: 2019-11-24 21:32:24 Local clock offset: -0.022 ms Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2019-11-25 00:57:15

# Datalink statistics
-- Total of 1 flow:

Average throughput: 899.21 Mbit/s

95th percentile per-packet one-way delay:  $72.372~\mathrm{ms}$ 

Loss rate: 0.42%

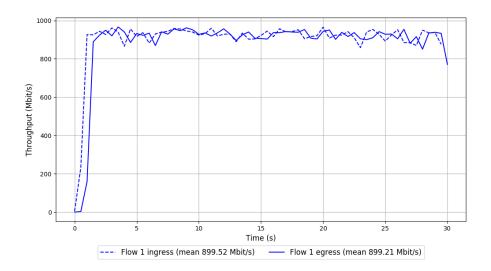
-- Flow 1:

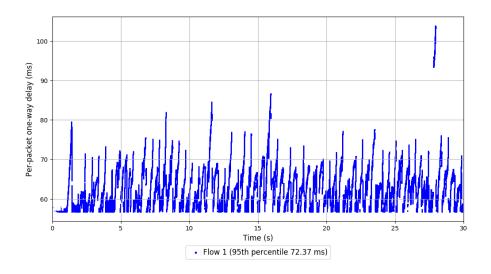
Average throughput: 899.21 Mbit/s

95th percentile per-packet one-way delay: 72.372 ms

Loss rate: 0.42%

Run 1: Report of FillP — Data Link





### Run 2: Statistics of FillP

Start at: 2019-11-24 22:06:48 End at: 2019-11-24 22:07:18 Local clock offset: -0.115 ms Remote clock offset: -0.191 ms

# Below is generated by plot.py at 2019-11-25 01:03:46

# Datalink statistics
-- Total of 1 flow:

Average throughput: 834.13 Mbit/s

95th percentile per-packet one-way delay:  $76.726~\mathrm{ms}$ 

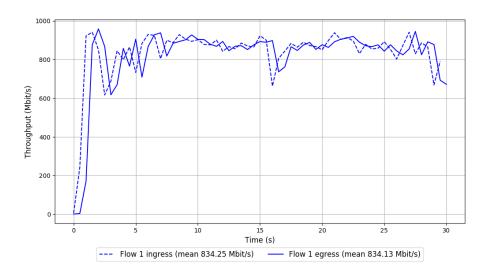
Loss rate: 0.40%

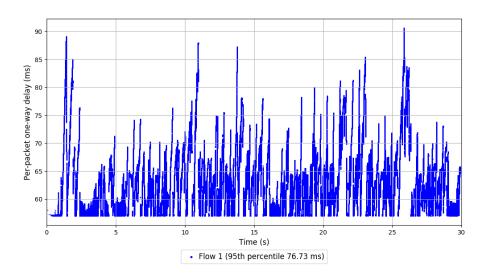
-- Flow 1:

Average throughput: 834.13 Mbit/s

95th percentile per-packet one-way delay: 76.726 ms

Run 2: Report of FillP — Data Link





### Run 3: Statistics of FillP

Start at: 2019-11-24 22:42:08 End at: 2019-11-24 22:42:38 Local clock offset: -0.052 ms Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2019-11-25 01:04:05

# Datalink statistics
-- Total of 1 flow:

Average throughput: 850.31 Mbit/s

95th percentile per-packet one-way delay:  $74.514~\mathrm{ms}$ 

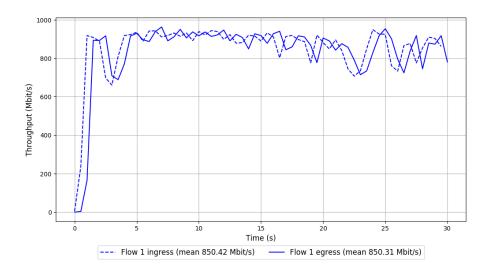
Loss rate: 0.40%

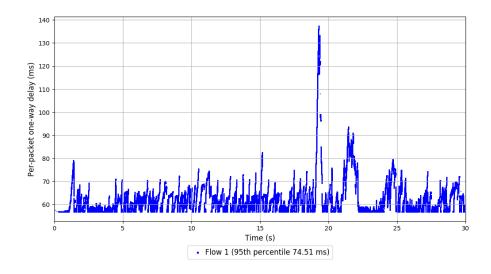
-- Flow 1:

Average throughput: 850.31 Mbit/s

95th percentile per-packet one-way delay: 74.514 ms

Run 3: Report of FillP — Data Link





### Run 4: Statistics of FillP

Start at: 2019-11-24 23:17:14 End at: 2019-11-24 23:17:44 Local clock offset: -0.11 ms Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2019-11-25 01:06:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 918.82 Mbit/s

95th percentile per-packet one-way delay: 94.602  $\ensuremath{\mathrm{ms}}$ 

Loss rate: 0.73%

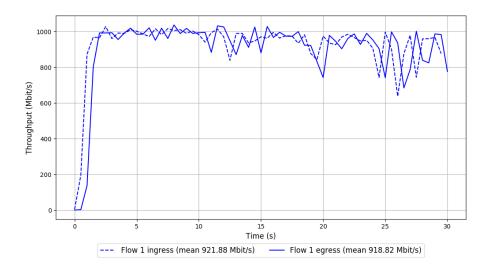
-- Flow 1:

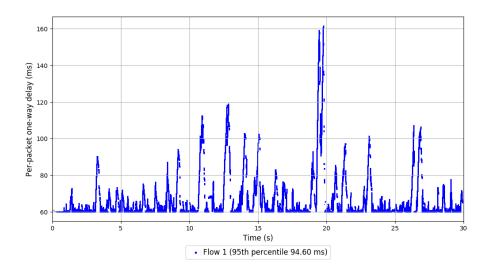
Average throughput: 918.82 Mbit/s

95th percentile per-packet one-way delay: 94.602 ms

Loss rate: 0.73%

Run 4: Report of FillP — Data Link





### Run 5: Statistics of FillP

Start at: 2019-11-24 23:52:36 End at: 2019-11-24 23:53:06 Local clock offset: -0.059 ms Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2019-11-25 01:06:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 822.55 Mbit/s

95th percentile per-packet one-way delay: 103.514 ms

Loss rate: 0.55%

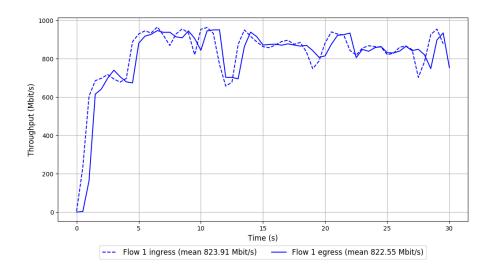
-- Flow 1:

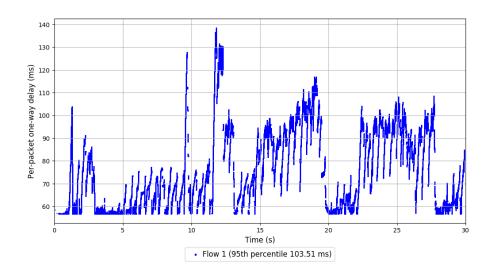
Average throughput: 822.55 Mbit/s

95th percentile per-packet one-way delay: 103.514 ms

Loss rate: 0.55%

Run 5: Report of FillP — Data Link





## Run 1: Statistics of FillP-Sheep

Start at: 2019-11-24 21:26:05 End at: 2019-11-24 21:26:35 Local clock offset: -0.027 ms Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2019-11-25 01:06:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 626.85 Mbit/s

95th percentile per-packet one-way delay: 140.591 ms

Loss rate: 2.82%

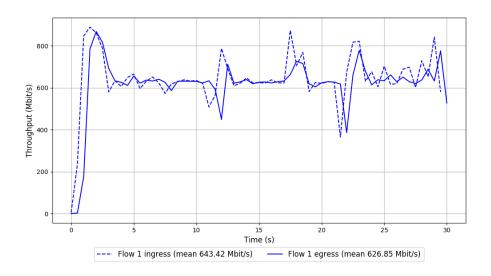
-- Flow 1:

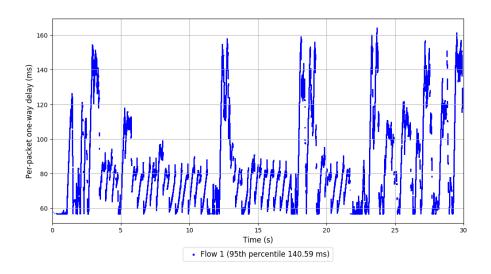
Average throughput: 626.85 Mbit/s

95th percentile per-packet one-way delay: 140.591 ms

Loss rate: 2.82%

Run 1: Report of FillP-Sheep — Data Link





## Run 2: Statistics of FillP-Sheep

Start at: 2019-11-24 22:00:54 End at: 2019-11-24 22:01:24 Local clock offset: 0.221 ms Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-11-25 01:06:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 867.48 Mbit/s

95th percentile per-packet one-way delay: 76.947 ms

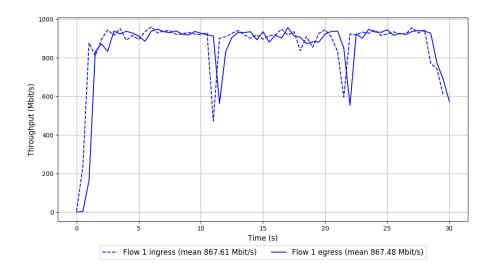
Loss rate: 0.40%

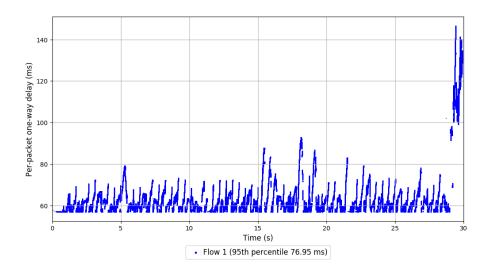
-- Flow 1:

Average throughput: 867.48 Mbit/s

95th percentile per-packet one-way delay: 76.947 ms

Run 2: Report of FillP-Sheep — Data Link





## Run 3: Statistics of FillP-Sheep

Start at: 2019-11-24 22:36:13 End at: 2019-11-24 22:36:43 Local clock offset: 0.29 ms Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2019-11-25 01:06:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 853.03 Mbit/s

95th percentile per-packet one-way delay: 86.021 ms

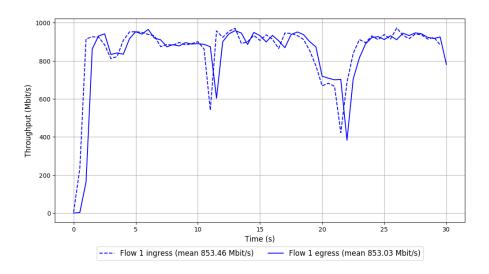
Loss rate: 0.44%

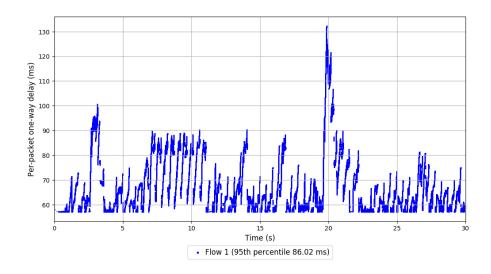
-- Flow 1:

Average throughput: 853.03 Mbit/s

95th percentile per-packet one-way delay: 86.021 ms

Run 3: Report of FillP-Sheep — Data Link





## Run 4: Statistics of FillP-Sheep

Start at: 2019-11-24 23:11:16 End at: 2019-11-24 23:11:46 Local clock offset: -0.096 ms Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2019-11-25 01:15:58

# Datalink statistics
-- Total of 1 flow:

Average throughput: 825.12 Mbit/s

95th percentile per-packet one-way delay: 119.842 ms

Loss rate: 1.07%

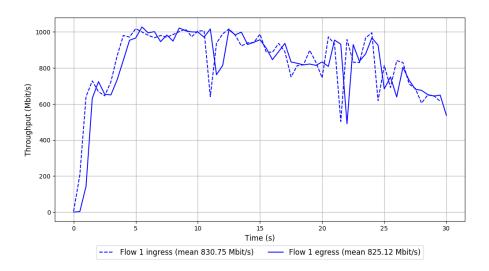
-- Flow 1:

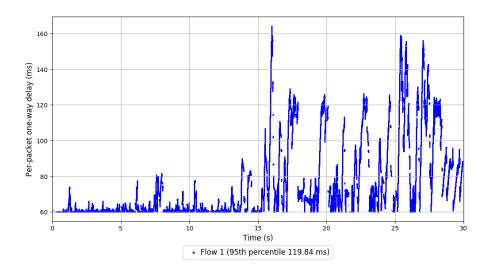
Average throughput: 825.12 Mbit/s

95th percentile per-packet one-way delay: 119.842 ms

Loss rate: 1.07%

Run 4: Report of FillP-Sheep — Data Link





## Run 5: Statistics of FillP-Sheep

Start at: 2019-11-24 23:46:40 End at: 2019-11-24 23:47:10 Local clock offset: -0.068 ms Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2019-11-25 01:18:28

# Datalink statistics
-- Total of 1 flow:

Average throughput: 825.13 Mbit/s

95th percentile per-packet one-way delay: 93.346  ${\tt ms}$ 

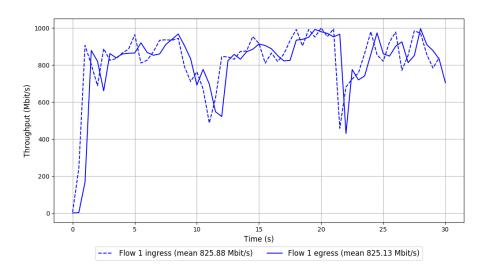
Loss rate: 0.48%

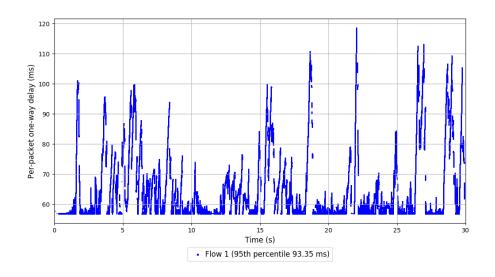
-- Flow 1:

Average throughput: 825.13 Mbit/s

95th percentile per-packet one-way delay: 93.346 ms

Run 5: Report of FillP-Sheep — Data Link





## Run 1: Statistics of Indigo

Start at: 2019-11-24 21:30:27 End at: 2019-11-24 21:30:57 Local clock offset: 0.352 ms Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2019-11-25 01:18:28

# Datalink statistics
-- Total of 1 flow:

Average throughput: 218.69 Mbit/s

95th percentile per-packet one-way delay:  $58.843~\mathrm{ms}$ 

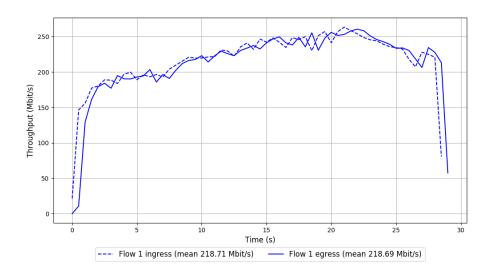
Loss rate: 0.41%

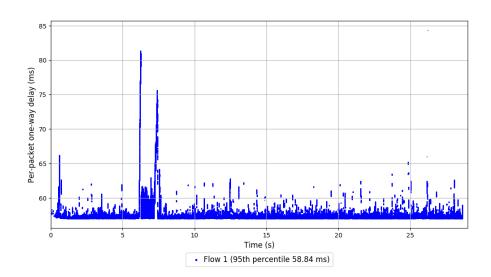
-- Flow 1:

Average throughput: 218.69 Mbit/s

95th percentile per-packet one-way delay: 58.843 ms

Run 1: Report of Indigo — Data Link





## Run 2: Statistics of Indigo

Start at: 2019-11-24 22:05:24 End at: 2019-11-24 22:05:54 Local clock offset: -0.128 ms Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2019-11-25 01:18:28

# Datalink statistics
-- Total of 1 flow:

Average throughput: 183.56 Mbit/s

95th percentile per-packet one-way delay:  $57.614~\mathrm{ms}$ 

Loss rate: 0.39%

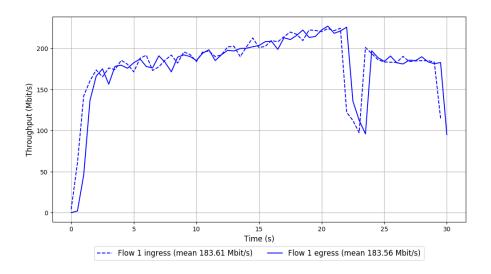
-- Flow 1:

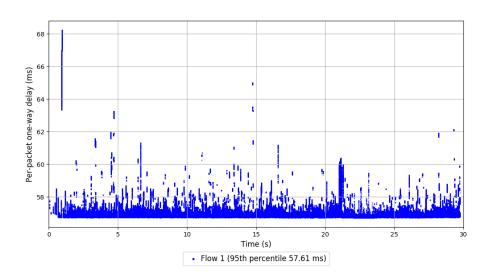
Average throughput: 183.56 Mbit/s

95th percentile per-packet one-way delay: 57.614 ms

Loss rate: 0.39%

Run 2: Report of Indigo — Data Link





## Run 3: Statistics of Indigo

Start at: 2019-11-24 22:40:42 End at: 2019-11-24 22:41:12 Local clock offset: -0.047 ms Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-11-25 01:18:28

# Datalink statistics
-- Total of 1 flow:

Average throughput: 195.09 Mbit/s

95th percentile per-packet one-way delay:  $61.154~\mathrm{ms}$ 

Loss rate: 0.39%

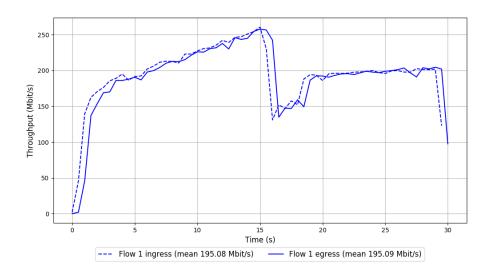
-- Flow 1:

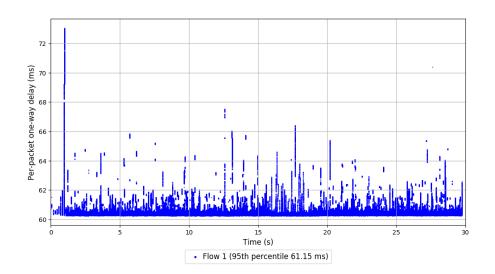
Average throughput: 195.09 Mbit/s

95th percentile per-packet one-way delay: 61.154 ms

Loss rate: 0.39%

Run 3: Report of Indigo — Data Link





## Run 4: Statistics of Indigo

Start at: 2019-11-24 23:15:45 End at: 2019-11-24 23:16:16 Local clock offset: -0.085 ms Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2019-11-25 01:18:28

# Datalink statistics
-- Total of 1 flow:

Average throughput: 227.97 Mbit/s

95th percentile per-packet one-way delay:  $58.231~\mathrm{ms}$ 

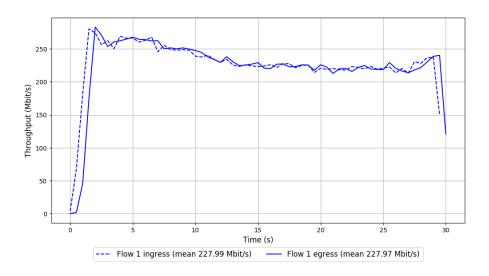
Loss rate: 0.40%

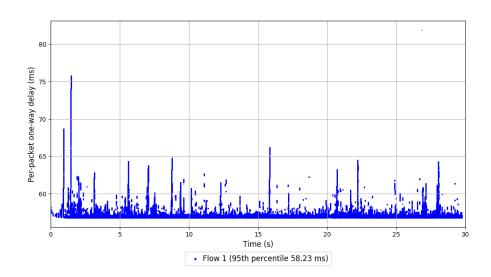
-- Flow 1:

Average throughput: 227.97 Mbit/s

95th percentile per-packet one-way delay: 58.231 ms

Run 4: Report of Indigo — Data Link





## Run 5: Statistics of Indigo

Start at: 2019-11-24 23:51:08 End at: 2019-11-24 23:51:38 Local clock offset: -0.081 ms Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-11-25 01:18:28

# Datalink statistics
-- Total of 1 flow:

Average throughput: 223.05 Mbit/s

95th percentile per-packet one-way delay: 60.922 ms

Loss rate: 0.39%

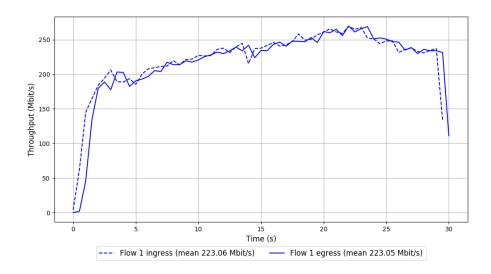
-- Flow 1:

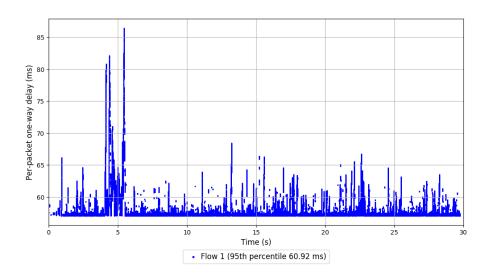
Average throughput: 223.05 Mbit/s

95th percentile per-packet one-way delay: 60.922 ms

Loss rate: 0.39%

Run 5: Report of Indigo — Data Link





# Run 1: Statistics of Indigo-MusesC3

Start at: 2019-11-24 21:22:12 End at: 2019-11-24 21:22:42 Local clock offset: -0.046 ms Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2019-11-25 01:18:28

# Datalink statistics
-- Total of 1 flow:

Average throughput: 583.98 Mbit/s

95th percentile per-packet one-way delay: 65.916  $\ensuremath{\mathsf{ms}}$ 

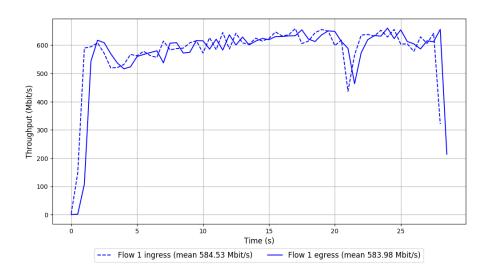
Loss rate: 0.50%

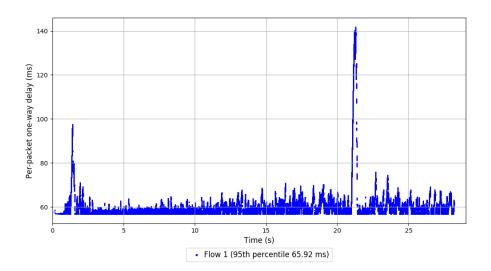
-- Flow 1:

Average throughput: 583.98 Mbit/s

95th percentile per-packet one-way delay: 65.916 ms

Run 1: Report of Indigo-MusesC3 — Data Link





# Run 2: Statistics of Indigo-MusesC3

Start at: 2019-11-24 21:57:00 End at: 2019-11-24 21:57:30 Local clock offset: -0.065 ms Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2019-11-25 01:20:11

# Datalink statistics
-- Total of 1 flow:

Average throughput: 597.88 Mbit/s

95th percentile per-packet one-way delay: 69.285 ms

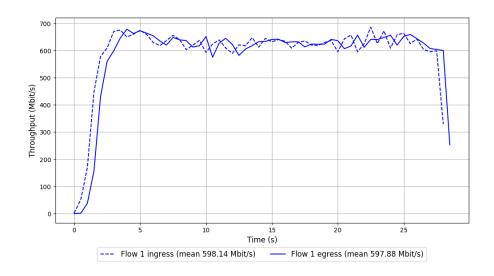
Loss rate: 0.44%

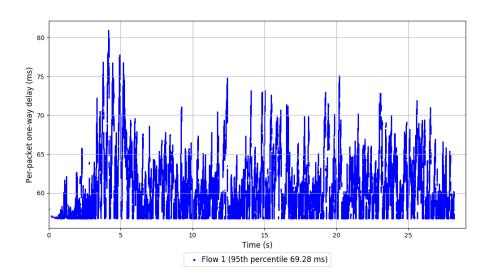
-- Flow 1:

Average throughput: 597.88 Mbit/s

95th percentile per-packet one-way delay: 69.285 ms

Run 2: Report of Indigo-MusesC3 — Data Link





## Run 3: Statistics of Indigo-MusesC3

Start at: 2019-11-24 22:32:19 End at: 2019-11-24 22:32:49 Local clock offset: -0.022 ms Remote clock offset: 0.165 ms

# Below is generated by plot.py at 2019-11-25 01:20:45

# Datalink statistics
-- Total of 1 flow:

Average throughput: 593.02 Mbit/s

95th percentile per-packet one-way delay: 66.281 ms

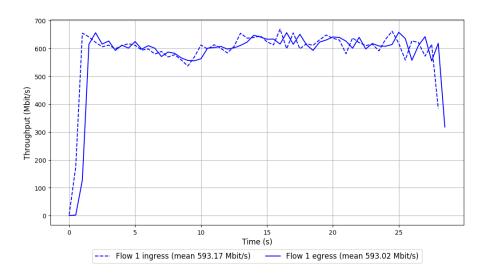
Loss rate: 0.44%

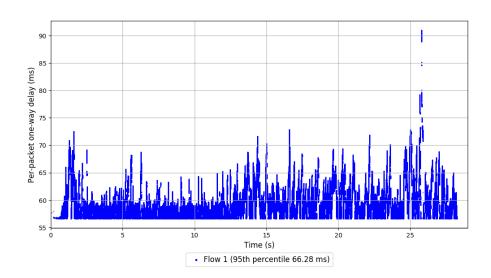
-- Flow 1:

Average throughput: 593.02 Mbit/s

95th percentile per-packet one-way delay: 66.281 ms

Run 3: Report of Indigo-MusesC3 — Data Link





## Run 4: Statistics of Indigo-MusesC3

Start at: 2019-11-24 23:07:22 End at: 2019-11-24 23:07:53 Local clock offset: -0.078 ms Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2019-11-25 01:21:18

# Datalink statistics
-- Total of 1 flow:

Average throughput: 593.91 Mbit/s

95th percentile per-packet one-way delay:  $79.095~\mathrm{ms}$ 

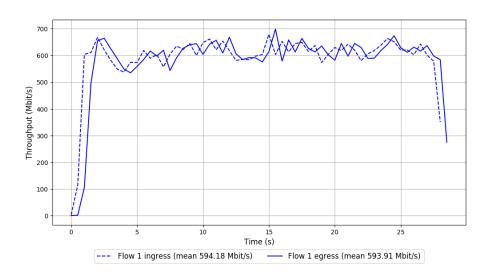
Loss rate: 0.45%

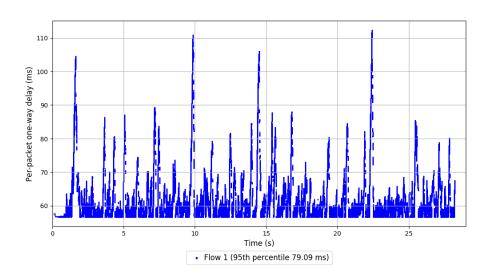
-- Flow 1:

Average throughput: 593.91 Mbit/s

95th percentile per-packet one-way delay: 79.095 ms

Run 4: Report of Indigo-MusesC3 — Data Link





# Run 5: Statistics of Indigo-MusesC3

Start at: 2019-11-24 23:42:47 End at: 2019-11-24 23:43:17 Local clock offset: -0.131 ms Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2019-11-25 01:22:57

# Datalink statistics
-- Total of 1 flow:

Average throughput: 575.05 Mbit/s

95th percentile per-packet one-way delay:  $79.478~\mathrm{ms}$ 

Loss rate: 0.42%

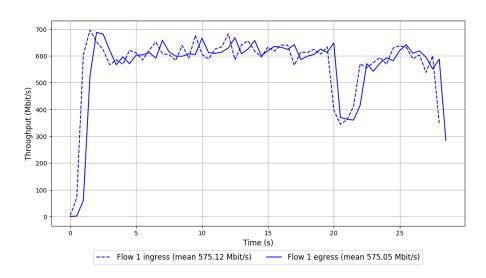
-- Flow 1:

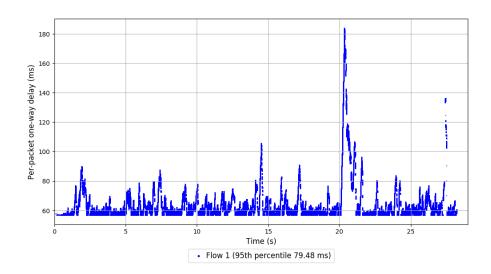
Average throughput: 575.05 Mbit/s

95th percentile per-packet one-way delay: 79.478 ms

Loss rate: 0.42%

Run 5: Report of Indigo-MusesC3 — Data Link





# Run 1: Statistics of Indigo-MusesC5

Start at: 2019-11-24 21:45:08 End at: 2019-11-24 21:45:38 Local clock offset: 0.235 ms Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2019-11-25 01:24:05

# Datalink statistics
-- Total of 1 flow:

Average throughput: 609.69 Mbit/s

95th percentile per-packet one-way delay: 80.301  $\ensuremath{\mathsf{ms}}$ 

Loss rate: 0.52%

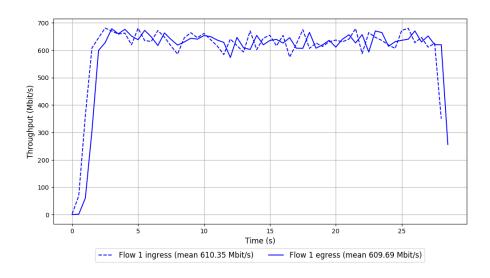
-- Flow 1:

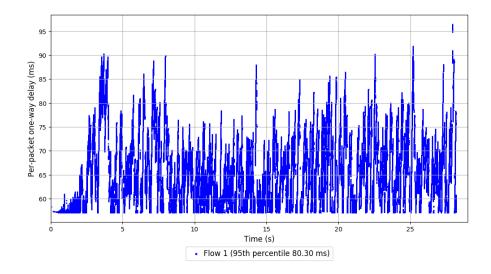
Average throughput: 609.69 Mbit/s

95th percentile per-packet one-way delay: 80.301 ms

Loss rate: 0.52%

Run 1: Report of Indigo-MusesC5 — Data Link





# Run 2: Statistics of Indigo-MusesC5

Start at: 2019-11-24 22:20:13 End at: 2019-11-24 22:20:43 Local clock offset: -0.038 ms Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2019-11-25 01:26:56

# Datalink statistics
-- Total of 1 flow:

Average throughput: 620.89 Mbit/s

95th percentile per-packet one-way delay: 75.851  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.49%

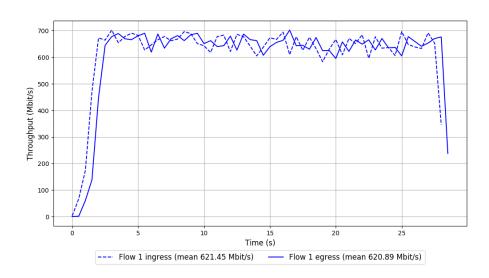
-- Flow 1:

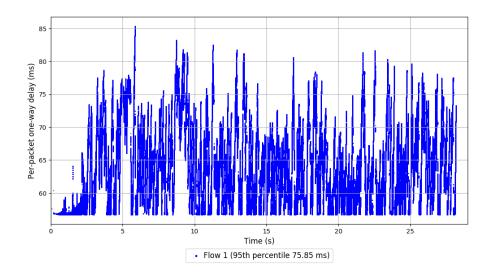
Average throughput: 620.89 Mbit/s

95th percentile per-packet one-way delay: 75.851 ms

Loss rate: 0.49%

Run 2: Report of Indigo-MusesC5 — Data Link





# Run 3: Statistics of Indigo-MusesC5

Start at: 2019-11-24 22:55:21 End at: 2019-11-24 22:55:51 Local clock offset: -0.079 ms Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-11-25 01:27:58

# Datalink statistics
-- Total of 1 flow:

Average throughput: 633.72 Mbit/s

95th percentile per-packet one-way delay: 84.817  $\ensuremath{\mathsf{ms}}$ 

Loss rate: 0.45%

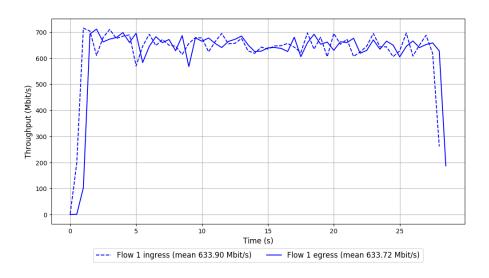
-- Flow 1:

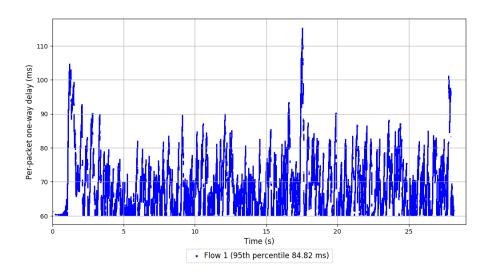
Average throughput: 633.72 Mbit/s

95th percentile per-packet one-way delay: 84.817 ms

Loss rate: 0.45%

Run 3: Report of Indigo-MusesC5 — Data Link





## Run 4: Statistics of Indigo-MusesC5

Start at: 2019-11-24 23:30:44 End at: 2019-11-24 23:31:14 Local clock offset: -0.024 ms Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2019-11-25 01:28:55

# Datalink statistics
-- Total of 1 flow:

Average throughput: 602.10 Mbit/s

95th percentile per-packet one-way delay: 99.355  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.53%

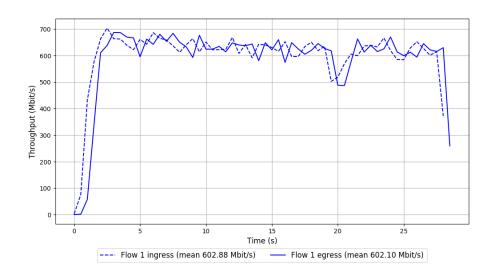
-- Flow 1:

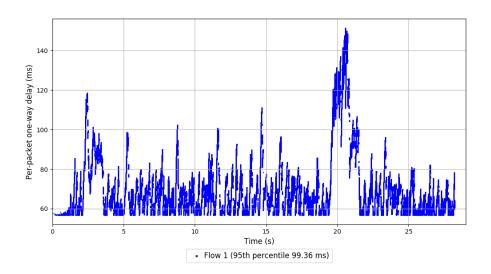
Average throughput: 602.10 Mbit/s

95th percentile per-packet one-way delay: 99.355 ms

Loss rate: 0.53%

Run 4: Report of Indigo-MusesC5 — Data Link





## Run 5: Statistics of Indigo-MusesC5

Start at: 2019-11-25 00:05:52 End at: 2019-11-25 00:06:22 Local clock offset: -0.051 ms Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2019-11-25 01:31:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 620.36 Mbit/s

95th percentile per-packet one-way delay:  $89.867~\mathrm{ms}$ 

Loss rate: 0.43%

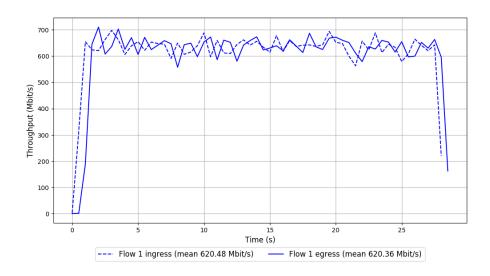
-- Flow 1:

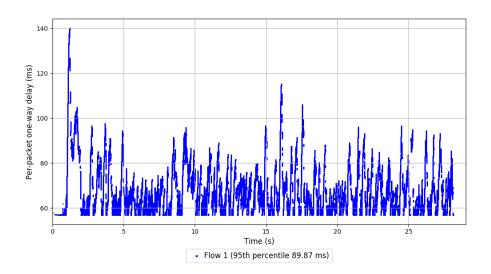
Average throughput: 620.36 Mbit/s

95th percentile per-packet one-way delay: 89.867 ms

Loss rate: 0.43%

Run 5: Report of Indigo-MusesC5 — Data Link





## Run 1: Statistics of Indigo-MusesD

Start at: 2019-11-24 21:20:39 End at: 2019-11-24 21:21:09 Local clock offset: -0.03 ms Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2019-11-25 01:31:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 531.88 Mbit/s

95th percentile per-packet one-way delay: 91.005  $\ensuremath{\mathrm{ms}}$ 

Loss rate: 0.39%

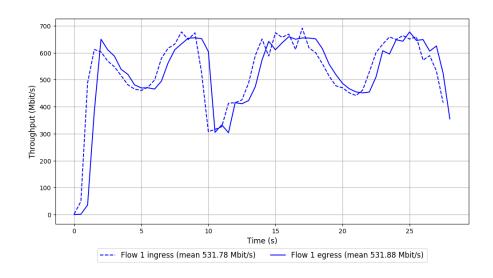
-- Flow 1:

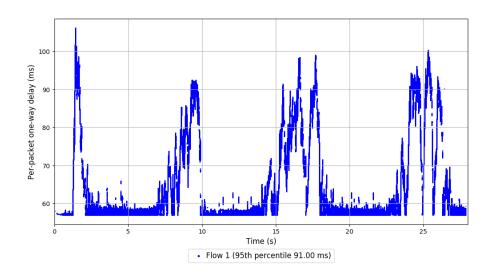
Average throughput: 531.88 Mbit/s

95th percentile per-packet one-way delay: 91.005 ms

Loss rate: 0.39%

Run 1: Report of Indigo-MusesD — Data Link





## Run 2: Statistics of Indigo-MusesD

Start at: 2019-11-24 21:55:28 End at: 2019-11-24 21:55:58 Local clock offset: -0.092 ms Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2019-11-25 01:31:23

# Datalink statistics
-- Total of 1 flow:

Average throughput: 517.66 Mbit/s

95th percentile per-packet one-way delay: 98.897  ${\tt ms}$ 

Loss rate: 0.45%

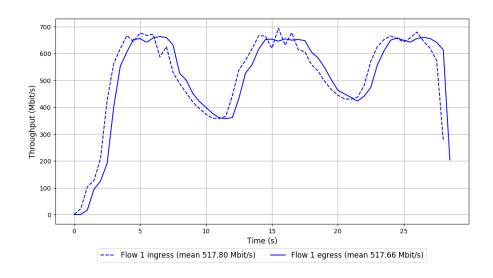
-- Flow 1:

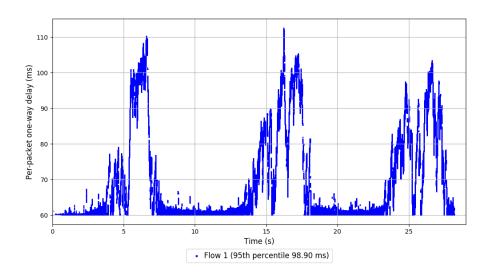
Average throughput: 517.66 Mbit/s

95th percentile per-packet one-way delay: 98.897 ms

Loss rate: 0.45%

Run 2: Report of Indigo-MusesD — Data Link





## Run 3: Statistics of Indigo-MusesD

Start at: 2019-11-24 22:30:45 End at: 2019-11-24 22:31:15 Local clock offset: -0.046 ms Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2019-11-25 01:33:26

# Datalink statistics
-- Total of 1 flow:

Average throughput: 574.33 Mbit/s

95th percentile per-packet one-way delay: 85.653 ms

Loss rate: 0.57%

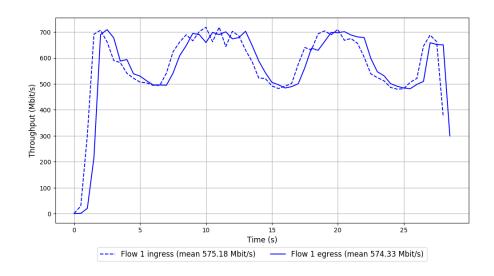
-- Flow 1:

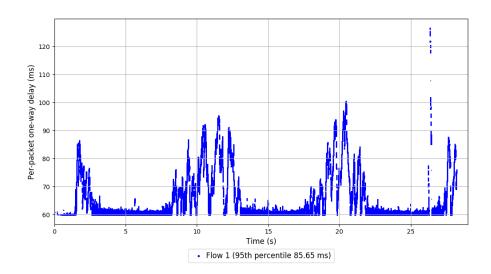
Average throughput: 574.33 Mbit/s

95th percentile per-packet one-way delay: 85.653 ms

Loss rate: 0.57%

Run 3: Report of Indigo-MusesD — Data Link





## Run 4: Statistics of Indigo-MusesD

Start at: 2019-11-24 23:05:49 End at: 2019-11-24 23:06:19 Local clock offset: -0.072 ms Remote clock offset: -0.183 ms

# Below is generated by plot.py at 2019-11-25 01:33:52

# Datalink statistics
-- Total of 1 flow:

Average throughput: 559.11 Mbit/s

95th percentile per-packet one-way delay: 98.111  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.61%

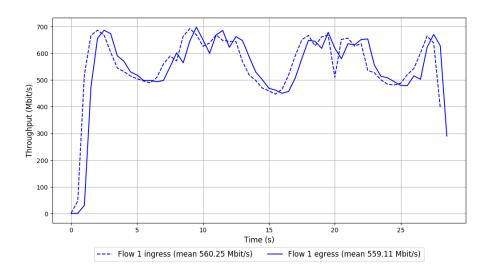
-- Flow 1:

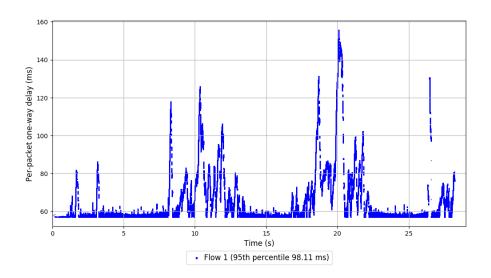
Average throughput: 559.11 Mbit/s

95th percentile per-packet one-way delay: 98.111 ms

Loss rate: 0.61%

Run 4: Report of Indigo-MusesD — Data Link





## Run 5: Statistics of Indigo-MusesD

Start at: 2019-11-24 23:41:15 End at: 2019-11-24 23:41:45 Local clock offset: -0.068 ms Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2019-11-25 01:36:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 529.38 Mbit/s

95th percentile per-packet one-way delay: 91.703  $\ensuremath{\mathtt{ms}}$ 

Loss rate: 0.37%

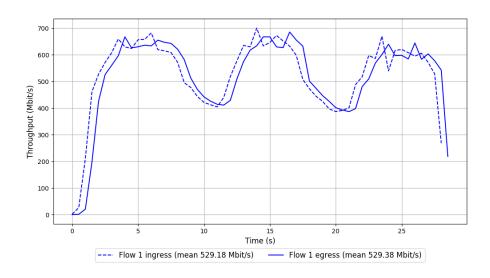
-- Flow 1:

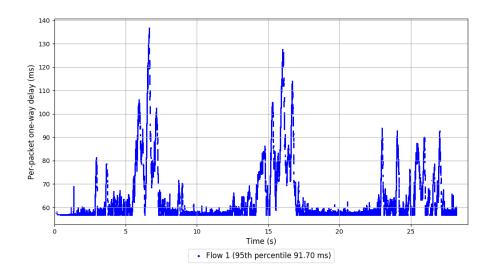
Average throughput: 529.38 Mbit/s

95th percentile per-packet one-way delay: 91.703 ms

Loss rate: 0.37%

Run 5: Report of Indigo-MusesD — Data Link





## Run 1: Statistics of Indigo-MusesT

Start at: 2019-11-24 21:33:37 End at: 2019-11-24 21:34:07 Local clock offset: 0.334 ms Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-11-25 01:39:24

# Datalink statistics
-- Total of 1 flow:

Average throughput: 641.23 Mbit/s

95th percentile per-packet one-way delay: 103.942 ms

Loss rate: 0.51%

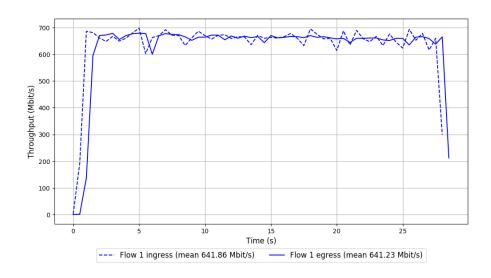
-- Flow 1:

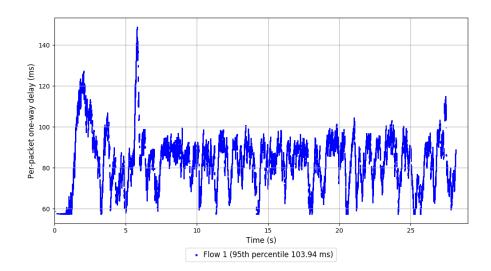
Average throughput: 641.23 Mbit/s

95th percentile per-packet one-way delay: 103.942 ms

Loss rate: 0.51%

Run 1: Report of Indigo-MusesT — Data Link





## Run 2: Statistics of Indigo-MusesT

Start at: 2019-11-24 22:08:30 End at: 2019-11-24 22:09:00 Local clock offset: -0.075 ms Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-11-25 01:40:26

# Datalink statistics
-- Total of 1 flow:

Average throughput: 655.42 Mbit/s

95th percentile per-packet one-way delay: 99.153 ms

Loss rate: 0.55%

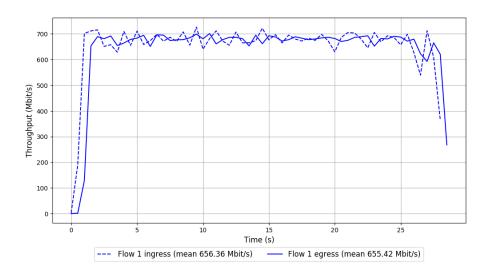
-- Flow 1:

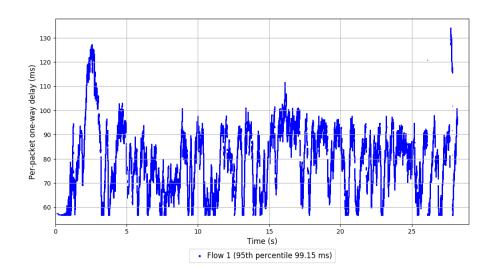
Average throughput: 655.42 Mbit/s

95th percentile per-packet one-way delay: 99.153 ms

Loss rate: 0.55%

Run 2: Report of Indigo-MusesT — Data Link





## Run 3: Statistics of Indigo-MusesT

Start at: 2019-11-24 22:43:48 End at: 2019-11-24 22:44:18 Local clock offset: -0.003 ms Remote clock offset: 0.121 ms

# Below is generated by plot.py at 2019-11-25 01:41:29

# Datalink statistics
-- Total of 1 flow:

Average throughput: 658.86 Mbit/s

95th percentile per-packet one-way delay: 104.071 ms

Loss rate: 0.51%

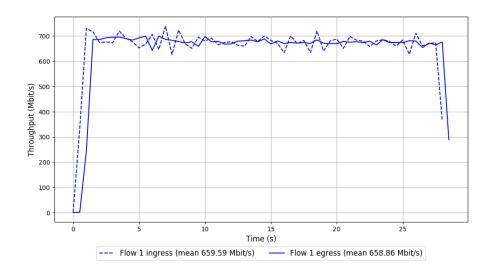
-- Flow 1:

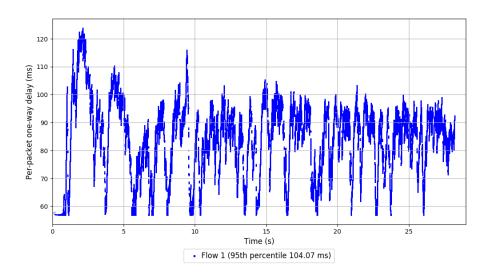
Average throughput: 658.86 Mbit/s

95th percentile per-packet one-way delay: 104.071 ms

Loss rate: 0.51%

Run 3: Report of Indigo-MusesT — Data Link





## Run 4: Statistics of Indigo-MusesT

Start at: 2019-11-24 23:18:57 End at: 2019-11-24 23:19:27 Local clock offset: -0.064 ms Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-11-25 01:41:29

# Datalink statistics
-- Total of 1 flow:

Average throughput: 617.28 Mbit/s

95th percentile per-packet one-way delay: 115.106 ms

Loss rate: 0.50%

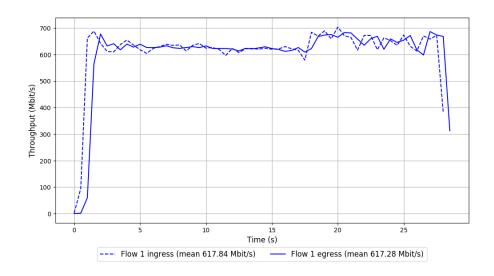
-- Flow 1:

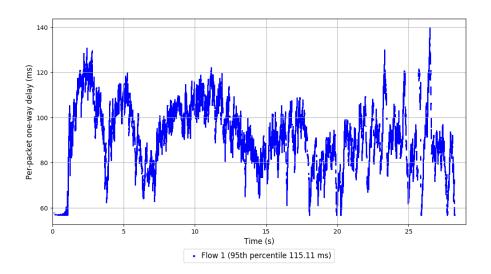
Average throughput: 617.28 Mbit/s

95th percentile per-packet one-way delay: 115.106 ms

Loss rate: 0.50%

Run 4: Report of Indigo-MusesT — Data Link





## Run 5: Statistics of Indigo-MusesT

Start at: 2019-11-24 23:54:17 End at: 2019-11-24 23:54:47 Local clock offset: -0.104 ms Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2019-11-25 01:42:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 642.58 Mbit/s

95th percentile per-packet one-way delay: 109.513 ms

Loss rate: 0.52%

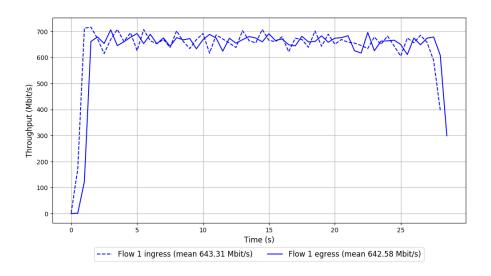
-- Flow 1:

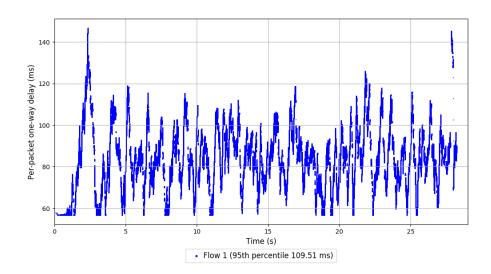
Average throughput: 642.58 Mbit/s

95th percentile per-packet one-way delay: 109.513 ms

Loss rate: 0.52%

Run 5: Report of Indigo-MusesT — Data Link





### Run 1: Statistics of LEDBAT

Start at: 2019-11-24 21:24:54 End at: 2019-11-24 21:25:24 Local clock offset: 0.331 ms Remote clock offset: 0.078 ms

# Below is generated by plot.py at 2019-11-25 01:42:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.28 Mbit/s

95th percentile per-packet one-way delay: 58.214 ms

Loss rate: 0.75%

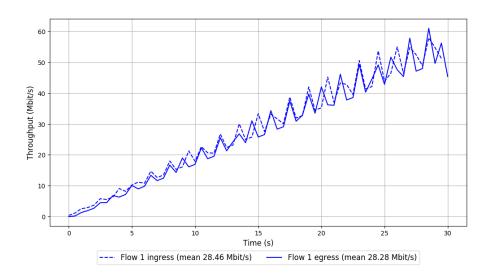
-- Flow 1:

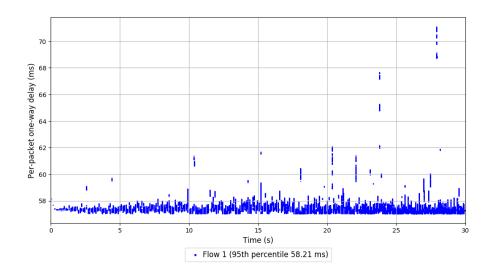
Average throughput: 28.28 Mbit/s

95th percentile per-packet one-way delay: 58.214 ms

Loss rate: 0.75%

Run 1: Report of LEDBAT — Data Link





### Run 2: Statistics of LEDBAT

Start at: 2019-11-24 21:59:43 End at: 2019-11-24 22:00:13 Local clock offset: -0.078 ms Remote clock offset: -0.212 ms

# Below is generated by plot.py at 2019-11-25 01:42:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.16 Mbit/s

95th percentile per-packet one-way delay: 58.379 ms

Loss rate: 0.76%

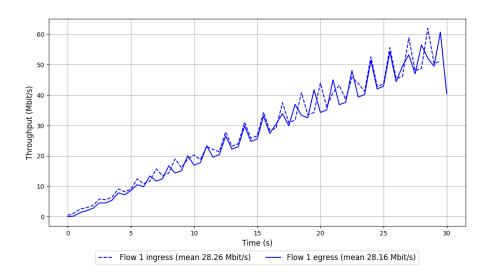
-- Flow 1:

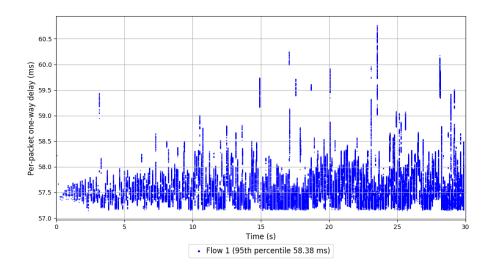
Average throughput: 28.16 Mbit/s

95th percentile per-packet one-way delay: 58.379 ms

Loss rate: 0.76%

Run 2: Report of LEDBAT — Data Link





# Run 3: Statistics of LEDBAT

Start at: 2019-11-24 22:35:02 End at: 2019-11-24 22:35:32 Local clock offset: -0.05 ms Remote clock offset: 0.128 ms

# Below is generated by plot.py at 2019-11-25 01:42:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.40 Mbit/s

95th percentile per-packet one-way delay: 57.617 ms

Loss rate: 0.76%

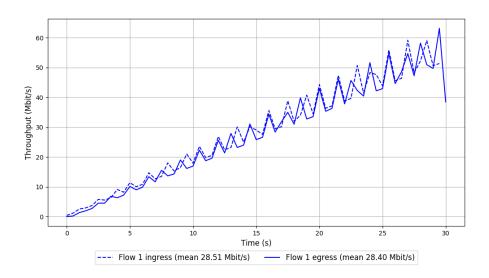
-- Flow 1:

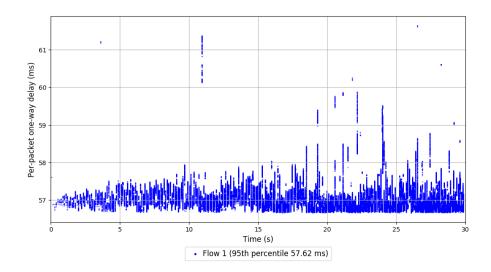
Average throughput: 28.40 Mbit/s

95th percentile per-packet one-way delay: 57.617 ms

Loss rate: 0.76%

Run 3: Report of LEDBAT — Data Link





# Run 4: Statistics of LEDBAT

Start at: 2019-11-24 23:10:05 End at: 2019-11-24 23:10:35 Local clock offset: -0.054 ms Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2019-11-25 01:42:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.36 Mbit/s

95th percentile per-packet one-way delay: 57.740 ms

Loss rate: 0.76%

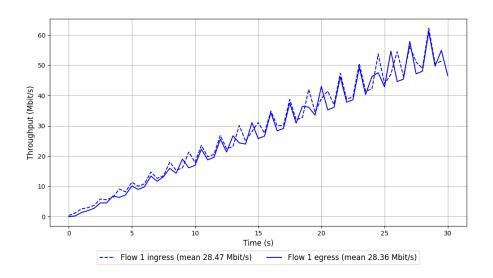
-- Flow 1:

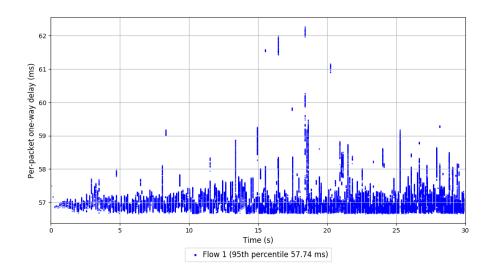
Average throughput: 28.36 Mbit/s

95th percentile per-packet one-way delay:  $57.740~\mathrm{ms}$ 

Loss rate: 0.76%

Run 4: Report of LEDBAT — Data Link





# Run 5: Statistics of LEDBAT

Start at: 2019-11-24 23:45:29 End at: 2019-11-24 23:45:59 Local clock offset: -0.083 ms Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2019-11-25 01:42:13

# Datalink statistics
-- Total of 1 flow:

Average throughput: 28.46 Mbit/s

95th percentile per-packet one-way delay: 58.035 ms

Loss rate: 0.75%

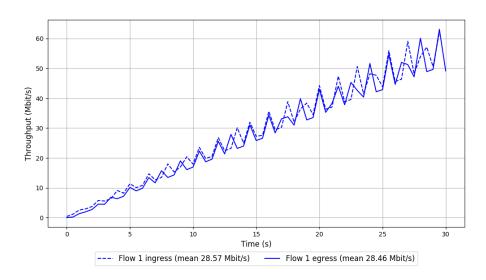
-- Flow 1:

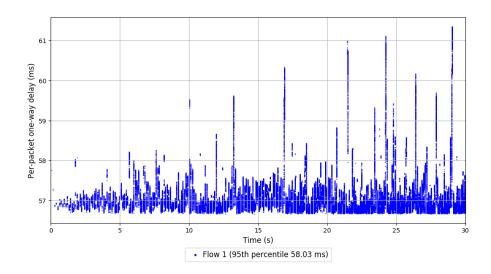
Average throughput: 28.46 Mbit/s

95th percentile per-packet one-way delay: 58.035 ms

Loss rate: 0.75%

Run 5: Report of LEDBAT — Data Link





# Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 21:27:38 End at: 2019-11-24 21:28:08 Local clock offset: -0.024 ms Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2019-11-25 01:47:33

# Datalink statistics
-- Total of 1 flow:

Average throughput: 613.61 Mbit/s

95th percentile per-packet one-way delay: 71.129 ms

Loss rate: 0.44%

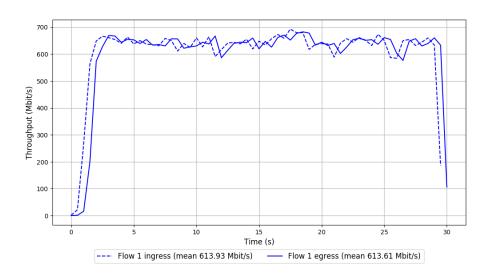
-- Flow 1:

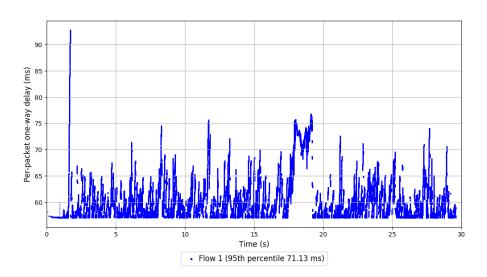
Average throughput: 613.61 Mbit/s

95th percentile per-packet one-way delay: 71.129 ms

Loss rate: 0.44%

Run 1: Report of Muses\_DecisionTree — Data Link





# Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 22:02:36 End at: 2019-11-24 22:03:06 Local clock offset: 0.225 ms Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2019-11-25 01:47:48

# Datalink statistics
-- Total of 1 flow:

Average throughput: 601.57 Mbit/s

95th percentile per-packet one-way delay: 69.830 ms

Loss rate: 0.43%

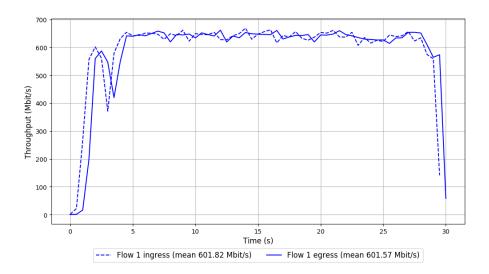
-- Flow 1:

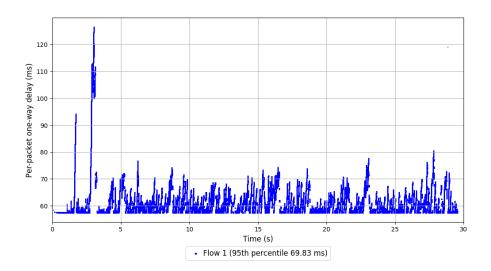
Average throughput: 601.57 Mbit/s

95th percentile per-packet one-way delay: 69.830 ms

Loss rate: 0.43%

Run 2: Report of Muses\_DecisionTree — Data Link





# Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 22:37:53 End at: 2019-11-24 22:38:23 Local clock offset: 0.007 ms Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2019-11-25 01:49:02

# Datalink statistics
-- Total of 1 flow:

Average throughput: 634.16 Mbit/s

95th percentile per-packet one-way delay: 67.094 ms

Loss rate: 0.45%

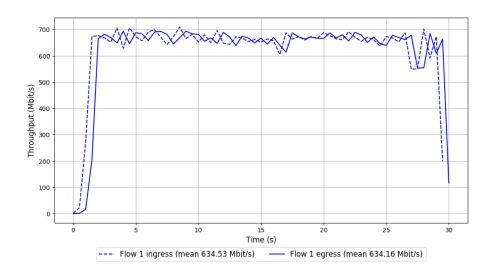
-- Flow 1:

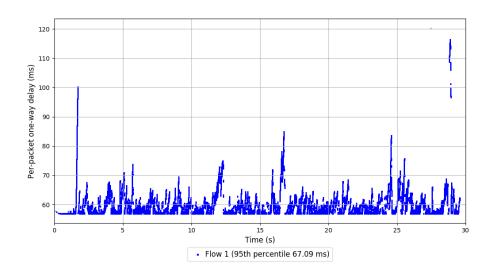
Average throughput: 634.16 Mbit/s

95th percentile per-packet one-way delay: 67.094 ms

Loss rate: 0.45%

Run 3: Report of Muses\_DecisionTree — Data Link





# Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 23:12:56 End at: 2019-11-24 23:13:26 Local clock offset: -0.033 ms Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2019-11-25 01:50:17

# Datalink statistics
-- Total of 1 flow:

Average throughput: 611.10 Mbit/s

95th percentile per-packet one-way delay: 78.889 ms

Loss rate: 0.42%

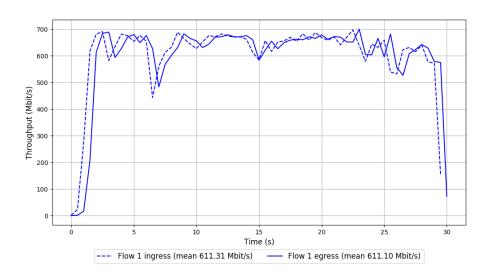
-- Flow 1:

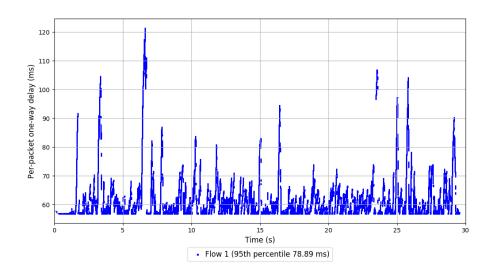
Average throughput: 611.10 Mbit/s

95th percentile per-packet one-way delay: 78.889 ms

Loss rate: 0.42%

Run 4: Report of Muses\_DecisionTree — Data Link





# Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 23:48:21 End at: 2019-11-24 23:48:51 Local clock offset: -0.104 ms Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2019-11-25 01:51:20

# Datalink statistics
-- Total of 1 flow:

Average throughput: 597.71 Mbit/s

95th percentile per-packet one-way delay: 79.404 ms

Loss rate: 0.41%

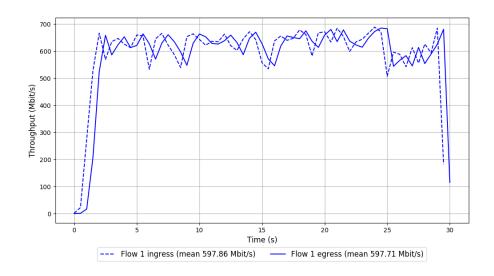
-- Flow 1:

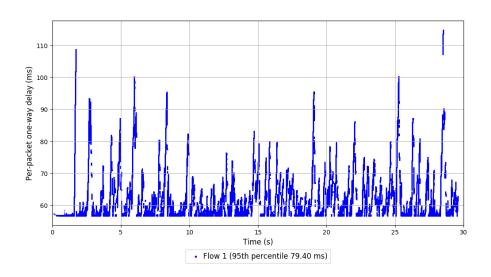
Average throughput: 597.71 Mbit/s

95th percentile per-packet one-way delay: 79.404 ms

Loss rate: 0.41%

Run 5: Report of Muses\_DecisionTree — Data Link





# Run 1: Statistics of Muses\\_DecisionTreeHO

Start at: 2019-11-24 21:35:13 End at: 2019-11-24 21:35:43 Local clock offset: -0.059 ms Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2019-11-25 01:51:20

# Datalink statistics
-- Total of 1 flow:

Average throughput: 344.04 Mbit/s

95th percentile per-packet one-way delay: 125.250 ms

Loss rate: 0.08%

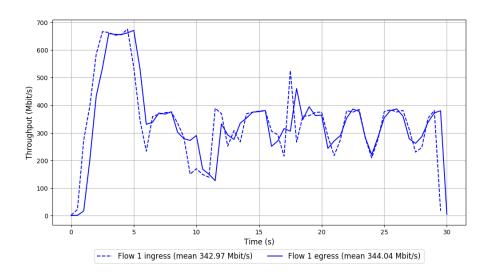
-- Flow 1:

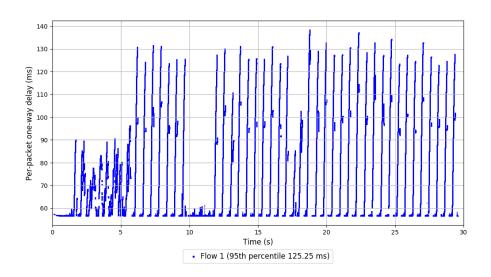
Average throughput: 344.04 Mbit/s

95th percentile per-packet one-way delay: 125.250 ms

Loss rate: 0.08%

Run 1: Report of Muses\_DecisionTreeH0 — Data Link





# Run 2: Statistics of Muses\\_DecisionTreeHO

Start at: 2019-11-24 22:10:07 End at: 2019-11-24 22:10:37 Local clock offset: -0.048 ms Remote clock offset: -0.196 ms

# Below is generated by plot.py at 2019-11-25 01:51:20

# Datalink statistics
-- Total of 1 flow:

Average throughput: 499.36 Mbit/s

95th percentile per-packet one-way delay: 108.513 ms

Loss rate: 0.04%

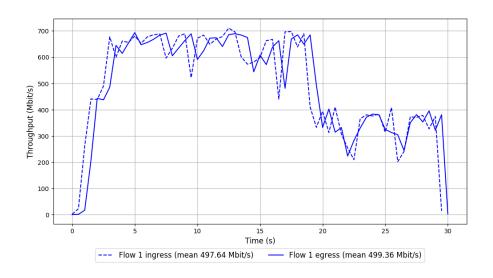
-- Flow 1:

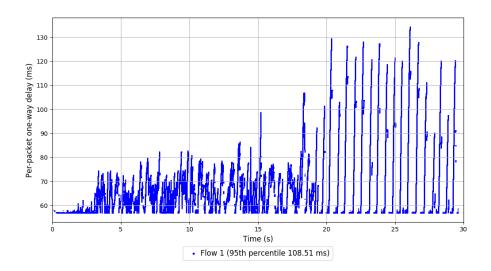
Average throughput: 499.36 Mbit/s

95th percentile per-packet one-way delay: 108.513 ms

Loss rate: 0.04%

Run 2: Report of Muses\_DecisionTreeH0 — Data Link





# Run 3: Statistics of Muses\\_DecisionTreeHO

Start at: 2019-11-24 22:45:26 End at: 2019-11-24 22:45:56 Local clock offset: 0.291 ms Remote clock offset: 0.283 ms

# Below is generated by plot.py at 2019-11-25 01:51:20

# Datalink statistics
-- Total of 1 flow:

Average throughput: 377.77 Mbit/s

95th percentile per-packet one-way delay: 122.892 ms

Loss rate: 0.91%

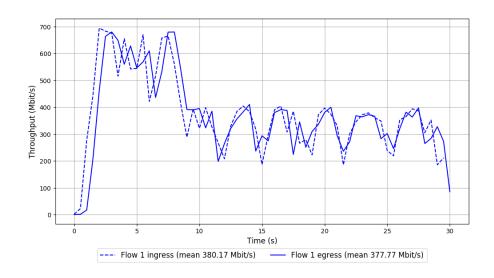
-- Flow 1:

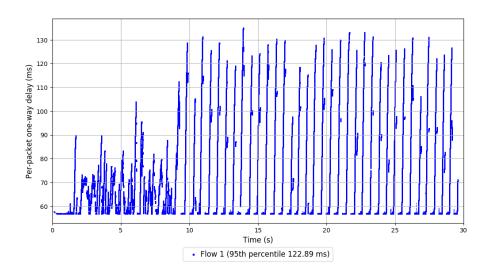
Average throughput: 377.77 Mbit/s

95th percentile per-packet one-way delay: 122.892 ms

Loss rate: 0.91%

Run 3: Report of Muses\_DecisionTreeH0 — Data Link





# Run 4: Statistics of Muses\\_DecisionTreeHO

Start at: 2019-11-24 23:20:32 End at: 2019-11-24 23:21:02 Local clock offset: 0.266 ms Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2019-11-25 01:58:51

# Datalink statistics
-- Total of 1 flow:

Average throughput: 600.03 Mbit/s

95th percentile per-packet one-way delay: 87.638 ms

Loss rate: 0.01%

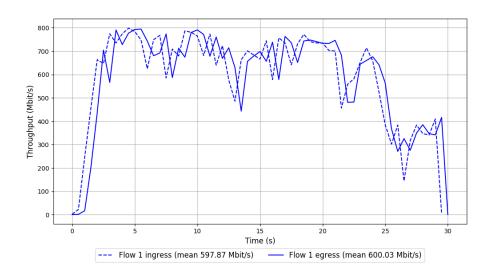
-- Flow 1:

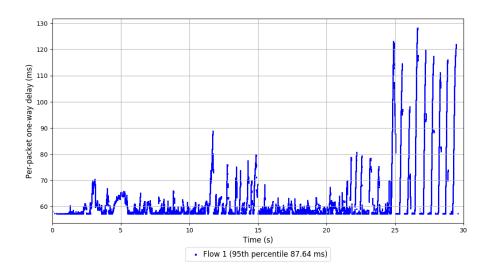
Average throughput: 600.03 Mbit/s

95th percentile per-packet one-way delay: 87.638 ms

Loss rate: 0.01%

Run 4: Report of Muses\_DecisionTreeH0 — Data Link





# Run 5: Statistics of Muses\\_DecisionTreeHO

Start at: 2019-11-24 23:55:54 End at: 2019-11-24 23:56:24 Local clock offset: -0.082 ms Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2019-11-25 01:58:51

# Datalink statistics
-- Total of 1 flow:

Average throughput: 292.16 Mbit/s

95th percentile per-packet one-way delay: 139.750 ms

Loss rate: 0.58%

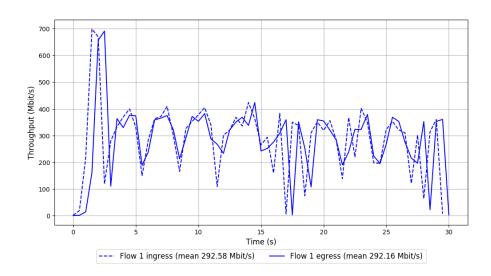
-- Flow 1:

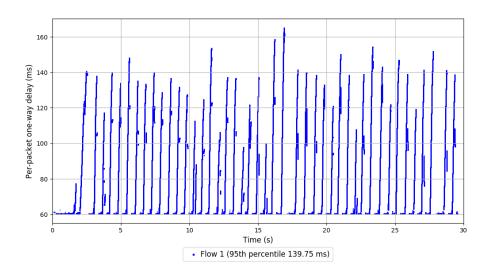
Average throughput: 292.16 Mbit/s

95th percentile per-packet one-way delay: 139.750 ms

Loss rate: 0.58%

Run 5: Report of Muses\_DecisionTreeH0 — Data Link





# Run 1: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 21:48:06 End at: 2019-11-24 21:48:36 Local clock offset: -0.072 ms Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2019-11-25 01:59:20

# Datalink statistics
-- Total of 1 flow:

Average throughput: 610.64 Mbit/s

95th percentile per-packet one-way delay: 72.445 ms

Loss rate: 0.43%

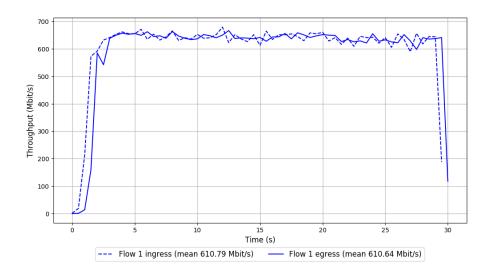
-- Flow 1:

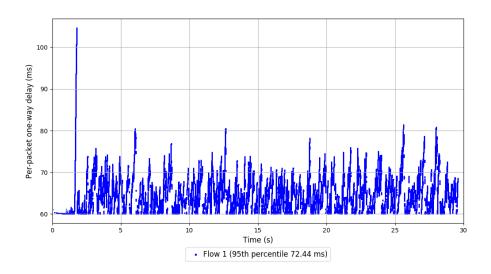
Average throughput: 610.64 Mbit/s

95th percentile per-packet one-way delay: 72.445 ms

Loss rate: 0.43%

Run 1: Report of Muses\_DecisionTreeR0 — Data Link





# Run 2: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 22:23:21 End at: 2019-11-24 22:23:51 Local clock offset: -0.013 ms Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2019-11-25 02:00:21

# Datalink statistics
-- Total of 1 flow:

Average throughput: 635.30 Mbit/s

95th percentile per-packet one-way delay: 67.808 ms

Loss rate: 0.47%

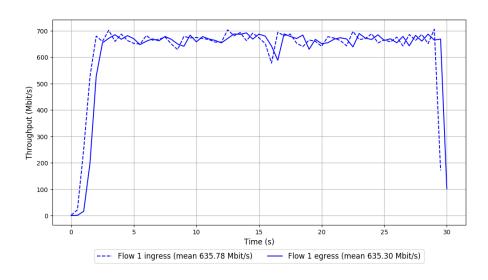
-- Flow 1:

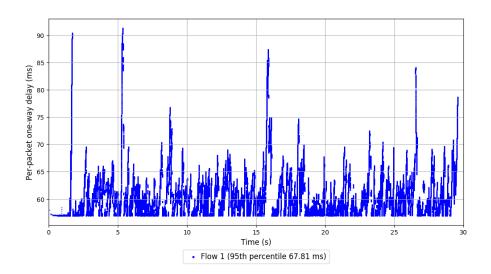
Average throughput: 635.30 Mbit/s

95th percentile per-packet one-way delay: 67.808 ms

Loss rate: 0.47%

Run 2: Report of Muses\_DecisionTreeR0 — Data Link





# Run 3: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 22:58:26 End at: 2019-11-24 22:58:56 Local clock offset: -0.036 ms Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2019-11-25 02:01:41

# Datalink statistics
-- Total of 1 flow:

Average throughput: 638.90 Mbit/s

95th percentile per-packet one-way delay: 68.419 ms

Loss rate: 0.47%

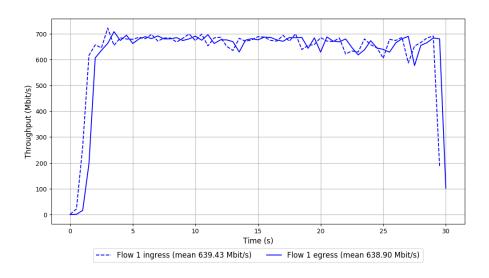
-- Flow 1:

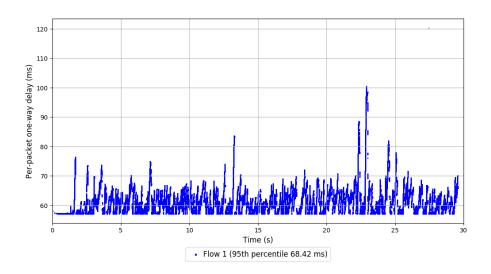
Average throughput: 638.90 Mbit/s

95th percentile per-packet one-way delay: 68.419 ms

Loss rate: 0.47%

Run 3: Report of Muses\_DecisionTreeR0 — Data Link





# Run 4: Statistics of Muses\\_DecisionTreeRO

Start at: 2019-11-24 23:33:51 End at: 2019-11-24 23:34:21 Local clock offset: -0.065 ms Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2019-11-25 02:01:59

# Datalink statistics
-- Total of 1 flow:

Average throughput: 628.36 Mbit/s

95th percentile per-packet one-way delay: 66.259 ms

Loss rate: 0.41%

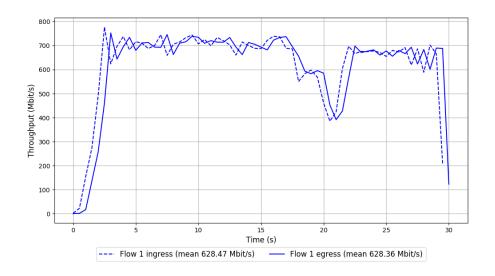
-- Flow 1:

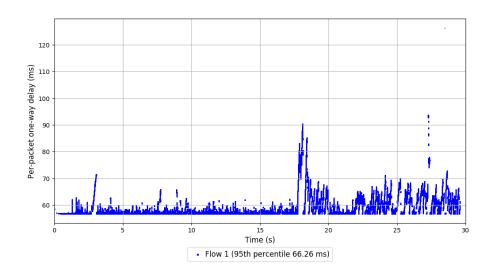
Average throughput: 628.36 Mbit/s

95th percentile per-packet one-way delay: 66.259 ms

Loss rate: 0.41%

Run 4: Report of Muses\_DecisionTreeR0 — Data Link





# Run 5: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-25 00:08:48 End at: 2019-11-25 00:09:18 Local clock offset: 0.371 ms Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2019-11-25 02:02:04

# Datalink statistics
-- Total of 1 flow:

Average throughput: 592.75 Mbit/s

95th percentile per-packet one-way delay: 77.032 ms

Loss rate: 0.42%

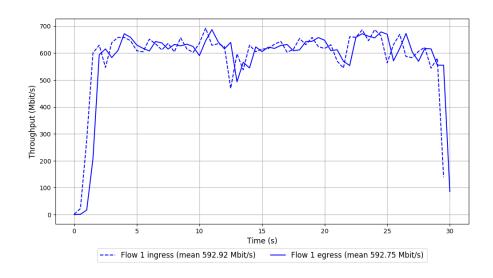
-- Flow 1:

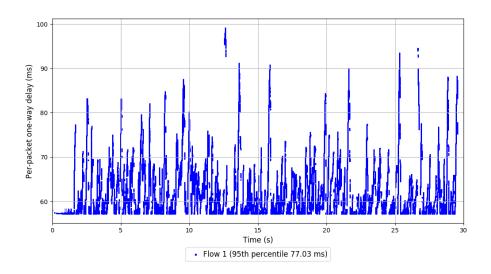
Average throughput: 592.75 Mbit/s

95th percentile per-packet one-way delay: 77.032 ms

Loss rate: 0.42%

Run 5: Report of Muses\_DecisionTreeR0 — Data Link





# Run 1: Statistics of PCC-Allegro

Start at: 2019-11-24 21:52:27 End at: 2019-11-24 21:52:57 Local clock offset: -0.1 ms Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2019-11-25 02:04:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 358.02 Mbit/s

95th percentile per-packet one-way delay: 127.004 ms

Loss rate: 0.60%

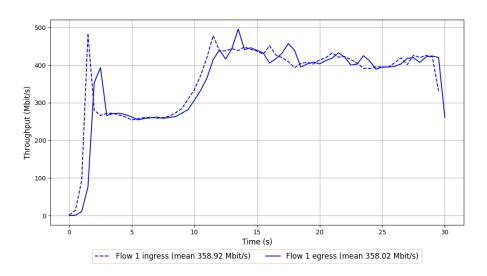
-- Flow 1:

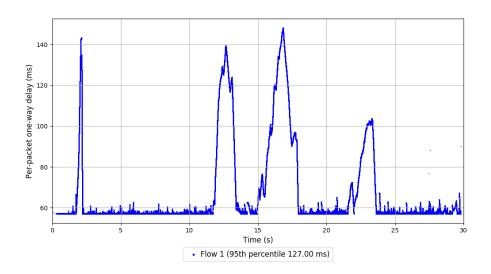
Average throughput: 358.02 Mbit/s

95th percentile per-packet one-way delay: 127.004 ms

Loss rate: 0.60%

Run 1: Report of PCC-Allegro — Data Link





# Run 2: Statistics of PCC-Allegro

Start at: 2019-11-24 22:27:39 End at: 2019-11-24 22:28:10 Local clock offset: -0.053 ms Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2019-11-25 02:09:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 431.69 Mbit/s

95th percentile per-packet one-way delay: 176.199 ms

Loss rate: 2.55%

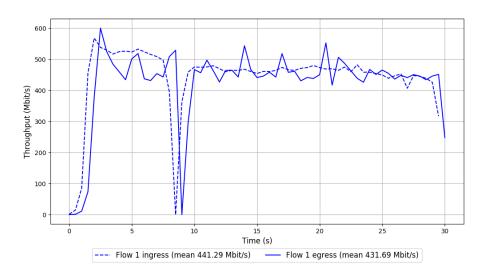
-- Flow 1:

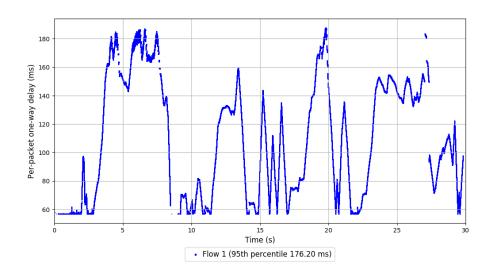
Average throughput: 431.69 Mbit/s

95th percentile per-packet one-way delay: 176.199 ms

Loss rate: 2.55%

Run 2: Report of PCC-Allegro — Data Link





# Run 3: Statistics of PCC-Allegro

Start at: 2019-11-24 23:02:46 End at: 2019-11-24 23:03:16 Local clock offset: -0.071 ms Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2019-11-25 02:12:50

# Datalink statistics
-- Total of 1 flow:

Average throughput: 373.17 Mbit/s

95th percentile per-packet one-way delay: 162.357 ms

Loss rate: 1.10%

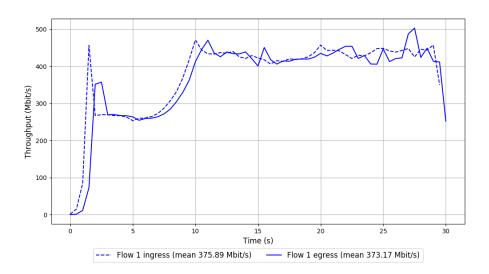
-- Flow 1:

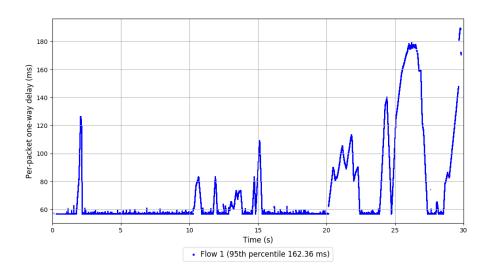
Average throughput: 373.17 Mbit/s

95th percentile per-packet one-way delay: 162.357 ms

Loss rate: 1.10%

Run 3: Report of PCC-Allegro — Data Link





# Run 4: Statistics of PCC-Allegro

Start at: 2019-11-24 23:38:12 End at: 2019-11-24 23:38:42 Local clock offset: -0.076 ms Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2019-11-25 02:12:50

# Datalink statistics
-- Total of 1 flow:

Average throughput: 356.14 Mbit/s

95th percentile per-packet one-way delay: 151.573 ms

Loss rate: 0.75%

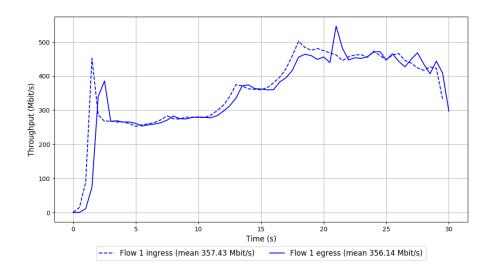
-- Flow 1:

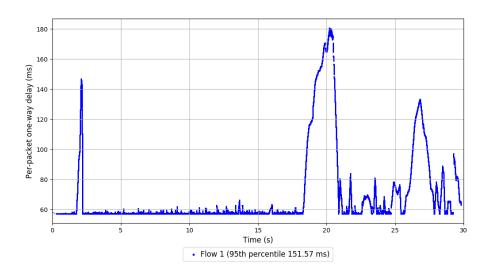
Average throughput: 356.14 Mbit/s

95th percentile per-packet one-way delay: 151.573 ms

Loss rate: 0.75%

Run 4: Report of PCC-Allegro — Data Link





# Run 5: Statistics of PCC-Allegro

Start at: 2019-11-25 00:13:04 End at: 2019-11-25 00:13:34 Local clock offset: -0.049 ms Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-11-25 02:14:36

# Datalink statistics
-- Total of 1 flow:

Average throughput: 366.76 Mbit/s

95th percentile per-packet one-way delay: 150.507 ms

Loss rate: 0.56%

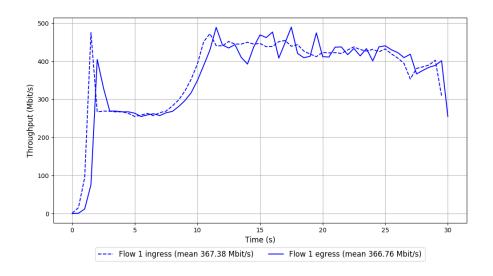
-- Flow 1:

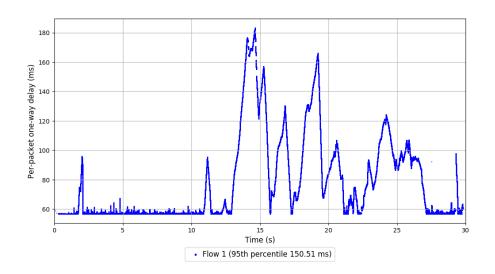
Average throughput: 366.76 Mbit/s

95th percentile per-packet one-way delay: 150.507 ms

Loss rate: 0.56%

Run 5: Report of PCC-Allegro — Data Link





# Run 1: Statistics of PCC-Expr

Start at: 2019-11-24 21:40:31 End at: 2019-11-24 21:41:01 Local clock offset: -0.118 ms Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2019-11-25 02:14:36

# Datalink statistics
-- Total of 1 flow:

Average throughput: 277.13 Mbit/s

95th percentile per-packet one-way delay: 169.843 ms

Loss rate: 3.25%

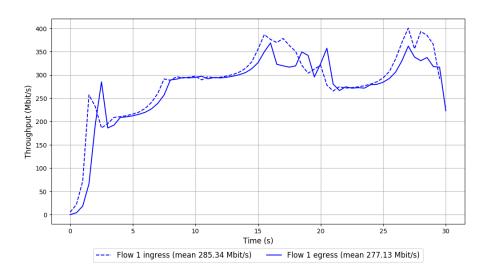
-- Flow 1:

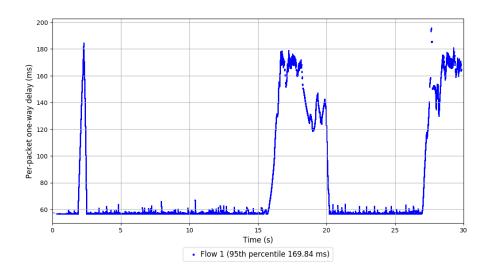
Average throughput: 277.13 Mbit/s

95th percentile per-packet one-way delay: 169.843 ms

Loss rate: 3.25%

Run 1: Report of PCC-Expr — Data Link





# Run 2: Statistics of PCC-Expr

Start at: 2019-11-24 22:15:27 End at: 2019-11-24 22:15:57 Local clock offset: -0.082 ms Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2019-11-25 02:14:36

# Datalink statistics
-- Total of 1 flow:

Average throughput: 322.96 Mbit/s

95th percentile per-packet one-way delay: 162.911 ms

Loss rate: 1.85%

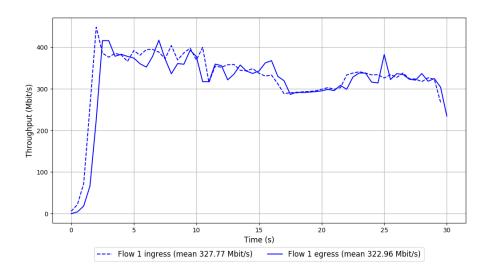
-- Flow 1:

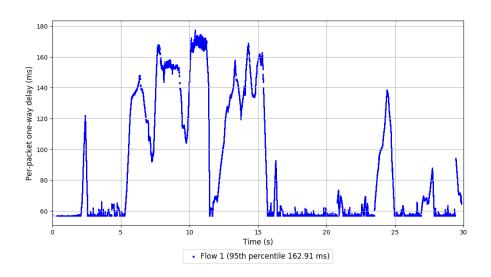
Average throughput: 322.96 Mbit/s

95th percentile per-packet one-way delay: 162.911 ms

Loss rate: 1.85%

Run 2: Report of PCC-Expr — Data Link





# Run 3: Statistics of PCC-Expr

Start at: 2019-11-24 22:50:43 End at: 2019-11-24 22:51:13 Local clock offset: -0.065 ms Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2019-11-25 02:14:36

# Datalink statistics
-- Total of 1 flow:

Average throughput: 290.32 Mbit/s

95th percentile per-packet one-way delay: 163.648 ms

Loss rate: 1.79%

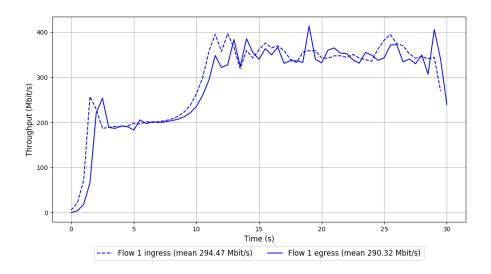
-- Flow 1:

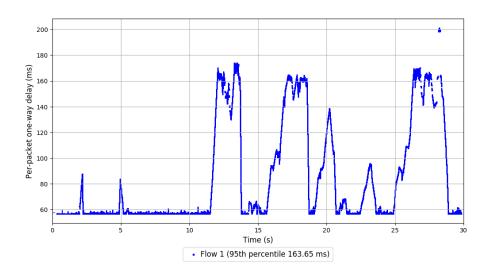
Average throughput: 290.32 Mbit/s

95th percentile per-packet one-way delay: 163.648 ms

Loss rate: 1.79%

Run 3: Report of PCC-Expr — Data Link





# Run 4: Statistics of PCC-Expr

Start at: 2019-11-24 23:26:01 End at: 2019-11-24 23:26:31 Local clock offset: 0.244 ms Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-11-25 02:17:21

# Datalink statistics
-- Total of 1 flow:

Average throughput: 334.91 Mbit/s

95th percentile per-packet one-way delay: 170.814 ms

Loss rate: 7.98%

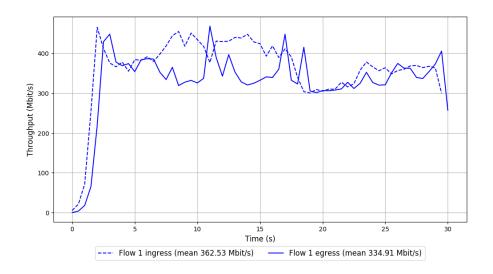
-- Flow 1:

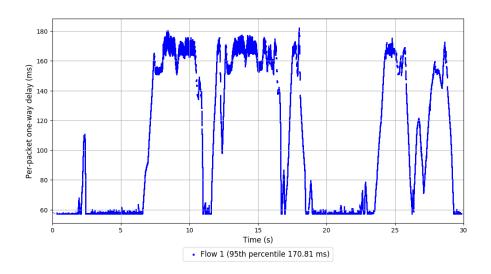
Average throughput: 334.91 Mbit/s

95th percentile per-packet one-way delay: 170.814 ms

Loss rate: 7.98%

Run 4: Report of PCC-Expr — Data Link





# Run 5: Statistics of PCC-Expr

Start at: 2019-11-25 00:01:11 End at: 2019-11-25 00:01:41 Local clock offset: -0.023 ms Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 295.34 Mbit/s

95th percentile per-packet one-way delay: 151.887 ms

Loss rate: 0.85%

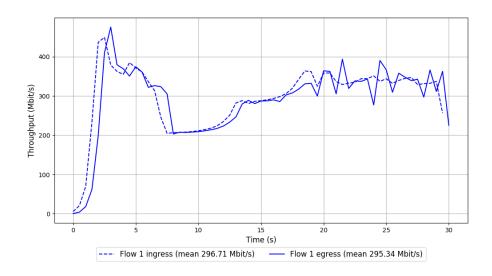
-- Flow 1:

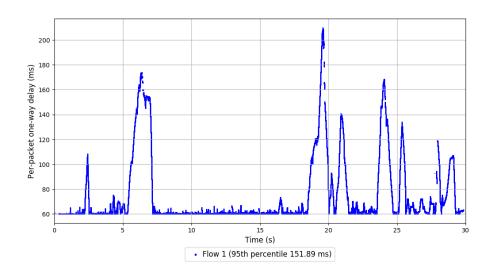
Average throughput: 295.34 Mbit/s

95th percentile per-packet one-way delay: 151.887 ms

Loss rate: 0.85%

Run 5: Report of PCC-Expr — Data Link





# Run 1: Statistics of QUIC Cubic

Start at: 2019-11-24 21:29:15 End at: 2019-11-24 21:29:45 Local clock offset: -0.076 ms Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 81.95 Mbit/s

95th percentile per-packet one-way delay: 56.686 ms

Loss rate: 0.00%

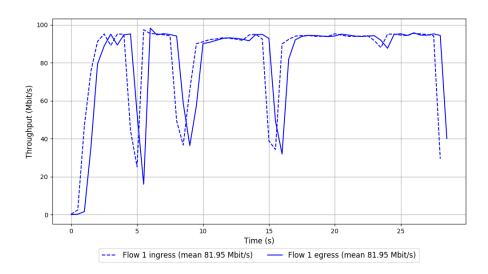
-- Flow 1:

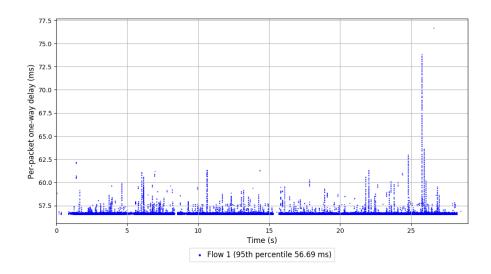
Average throughput: 81.95 Mbit/s

95th percentile per-packet one-way delay: 56.686 ms

Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link





# Run 2: Statistics of QUIC Cubic

Start at: 2019-11-24 22:04:12 End at: 2019-11-24 22:04:42 Local clock offset: -0.119 ms Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 77.31 Mbit/s

95th percentile per-packet one-way delay: 56.826 ms

Loss rate: 0.51%

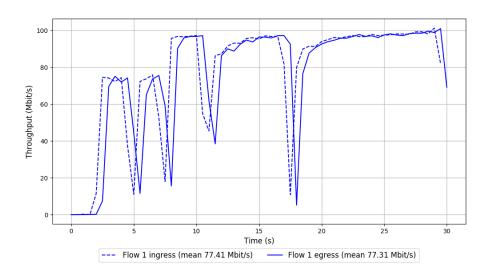
-- Flow 1:

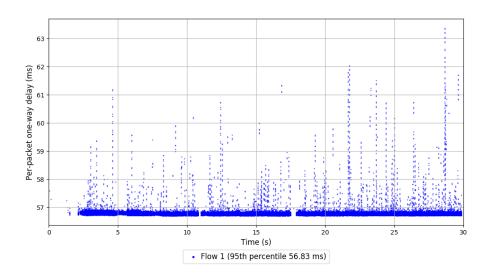
Average throughput: 77.31 Mbit/s

95th percentile per-packet one-way delay: 56.826 ms

Loss rate: 0.51%

Run 2: Report of QUIC Cubic — Data Link





# Run 3: Statistics of QUIC Cubic

Start at: 2019-11-24 22:39:31 End at: 2019-11-24 22:40:01 Local clock offset: -0.067 ms Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 58.34 Mbit/s

95th percentile per-packet one-way delay: 56.843 ms

Loss rate: 0.59%

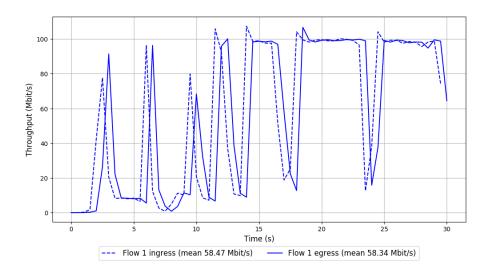
-- Flow 1:

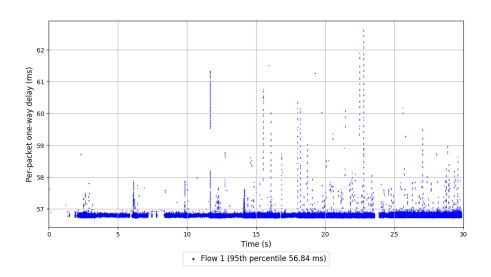
Average throughput: 58.34 Mbit/s

95th percentile per-packet one-way delay: 56.843 ms

Loss rate: 0.59%

Run 3: Report of QUIC Cubic — Data Link





# Run 4: Statistics of QUIC Cubic

Start at: 2019-11-24 23:14:33 End at: 2019-11-24 23:15:03 Local clock offset: 0.245 ms Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 86.48 Mbit/s

95th percentile per-packet one-way delay: 57.484 ms

Loss rate: 0.50%

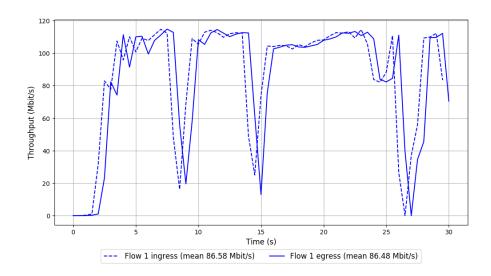
-- Flow 1:

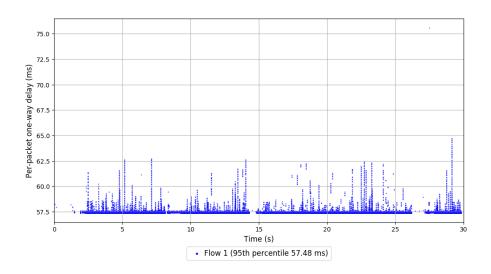
Average throughput: 86.48 Mbit/s

95th percentile per-packet one-way delay: 57.484 ms

Loss rate: 0.50%

Run 4: Report of QUIC Cubic — Data Link





# Run 5: Statistics of QUIC Cubic

Start at: 2019-11-24 23:49:57 End at: 2019-11-24 23:50:27 Local clock offset: -0.088 ms Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 71.03 Mbit/s

95th percentile per-packet one-way delay: 56.822 ms

Loss rate: 0.62%

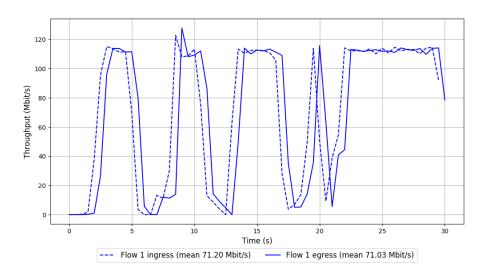
-- Flow 1:

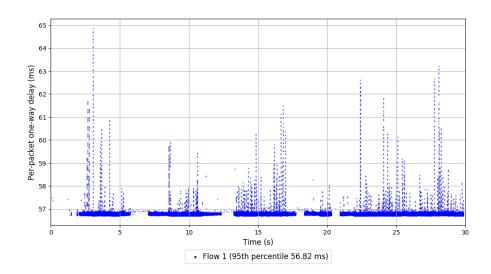
Average throughput: 71.03 Mbit/s

95th percentile per-packet one-way delay: 56.822 ms

Loss rate: 0.62%

Run 5: Report of QUIC Cubic — Data Link





### Run 1: Statistics of SCReAM

Start at: 2019-11-24 21:49:43 End at: 2019-11-24 21:50:13 Local clock offset: -0.103 ms Remote clock offset: -0.191 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.251 ms

Loss rate: 0.39%

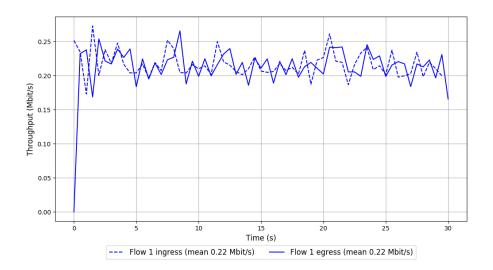
-- Flow 1:

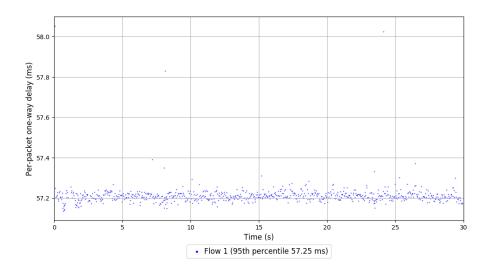
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.251 ms

Loss rate: 0.39%

Run 1: Report of SCReAM — Data Link





### Run 2: Statistics of SCReAM

Start at: 2019-11-24 22:24:59 End at: 2019-11-24 22:25:29 Local clock offset: -0.023 ms Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay:  $57.067~\mathrm{ms}$ 

Loss rate: 0.39%

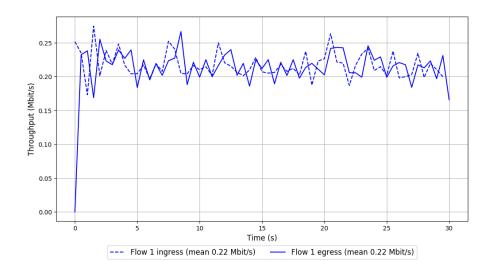
-- Flow 1:

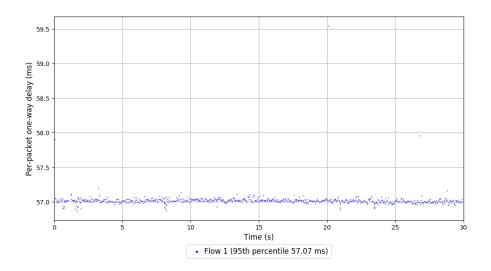
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.067 ms

Loss rate: 0.39%

Run 2: Report of SCReAM — Data Link





### Run 3: Statistics of SCReAM

Start at: 2019-11-24 23:00:04 End at: 2019-11-24 23:00:34 Local clock offset: -0.031 ms Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.898 ms

Loss rate: 0.38%

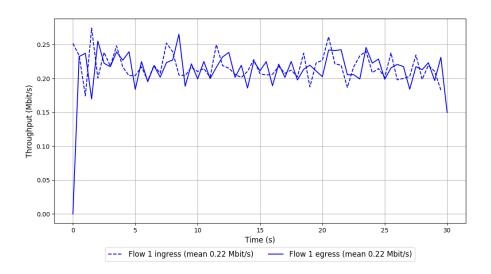
-- Flow 1:

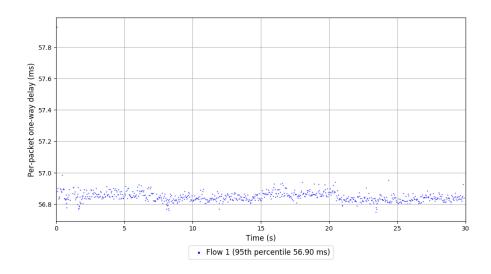
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.898 ms

Loss rate: 0.38%

Run 3: Report of SCReAM — Data Link





## Run 4: Statistics of SCReAM

Start at: 2019-11-24 23:35:29 End at: 2019-11-24 23:35:59 Local clock offset: -0.031 ms Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.241 ms

Loss rate: 0.39%

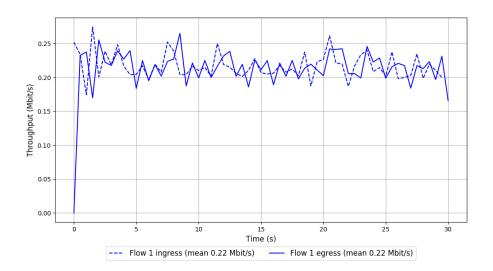
-- Flow 1:

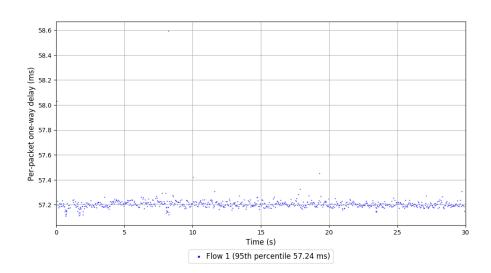
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.241 ms

Loss rate: 0.39%

Run 4: Report of SCReAM — Data Link





## Run 5: Statistics of SCReAM

Start at: 2019-11-25 00:10:24 End at: 2019-11-25 00:10:54 Local clock offset: 0.009 ms Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.993 ms

Loss rate: 0.26%

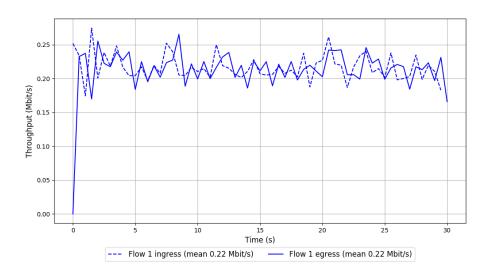
-- Flow 1:

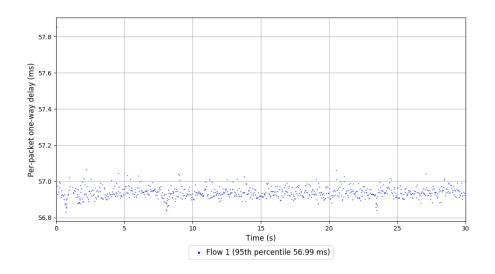
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.993 ms

Loss rate: 0.26%

Run 5: Report of SCReAM — Data Link





# Run 1: Statistics of Sprout

Start at: 2019-11-24 21:39:22 End at: 2019-11-24 21:39:52 Local clock offset: -0.063 ms Remote clock offset: -0.199 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 57.446 ms

Loss rate: 0.42%

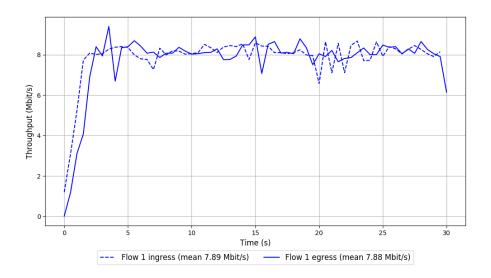
-- Flow 1:

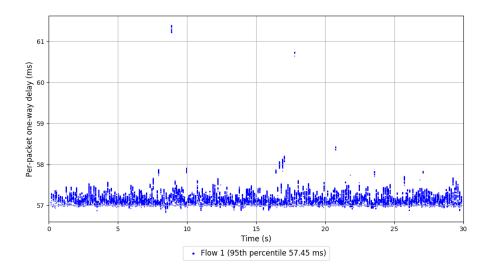
Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 57.446 ms

Loss rate: 0.42%

Run 1: Report of Sprout — Data Link





# Run 2: Statistics of Sprout

Start at: 2019-11-24 22:14:18 End at: 2019-11-24 22:14:48 Local clock offset: -0.038 ms Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 57.520 ms

Loss rate: 0.43%

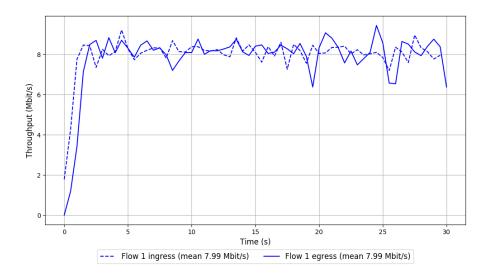
-- Flow 1:

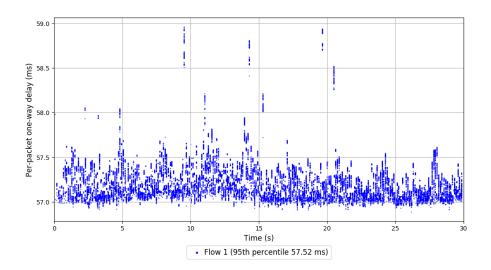
Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 57.520 ms

Loss rate: 0.43%

Run 2: Report of Sprout — Data Link





# Run 3: Statistics of Sprout

Start at: 2019-11-24 22:49:34 End at: 2019-11-24 22:50:04 Local clock offset: -0.078 ms Remote clock offset: 0.069 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 57.378 ms

Loss rate: 0.38%

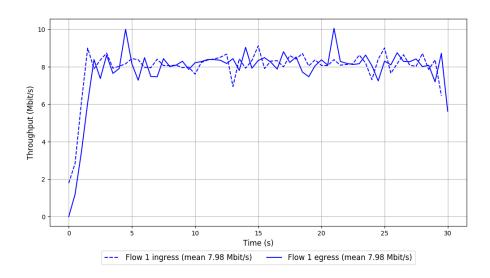
-- Flow 1:

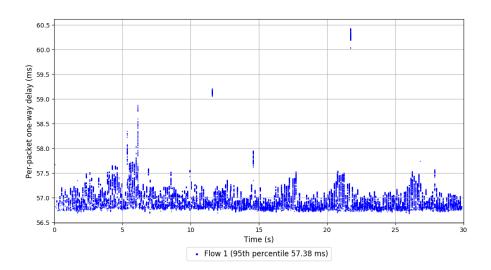
Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 57.378 ms

Loss rate: 0.38%

Run 3: Report of Sprout — Data Link





# Run 4: Statistics of Sprout

Start at: 2019-11-24 23:24:52 End at: 2019-11-24 23:25:22 Local clock offset: -0.109 ms Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 57.574 ms

Loss rate: 0.42%

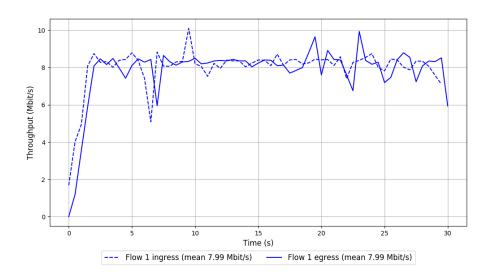
-- Flow 1:

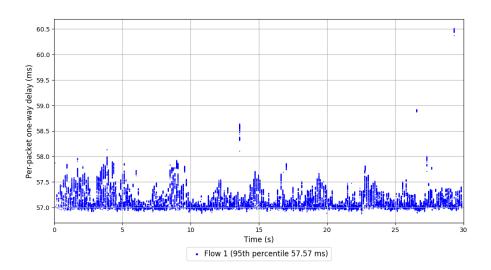
Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 57.574 ms

Loss rate: 0.42%

Run 4: Report of Sprout — Data Link





# Run 5: Statistics of Sprout

Start at: 2019-11-25 00:00:02 End at: 2019-11-25 00:00:32 Local clock offset: -0.039 ms Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2019-11-25 02:19:53

# Datalink statistics
-- Total of 1 flow:

Average throughput: 6.93 Mbit/s

95th percentile per-packet one-way delay: 60.795 ms

Loss rate: 0.37%

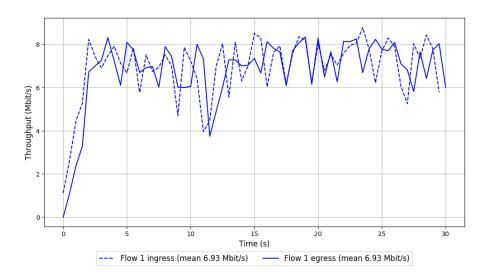
-- Flow 1:

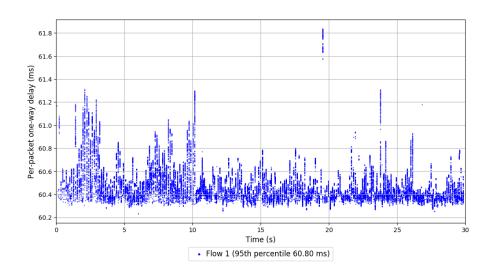
Average throughput: 6.93 Mbit/s

95th percentile per-packet one-way delay: 60.795 ms

Loss rate: 0.37%

Run 5: Report of Sprout — Data Link





## Run 1: Statistics of TaoVA-100x

Start at: 2019-11-24 21:36:38 End at: 2019-11-24 21:37:08 Local clock offset: -0.069 ms Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-11-25 02:23:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 229.99 Mbit/s

95th percentile per-packet one-way delay: 57.507 ms

Loss rate: 0.39%

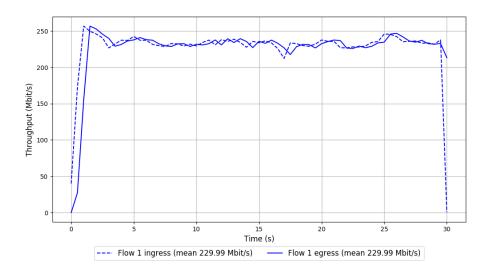
-- Flow 1:

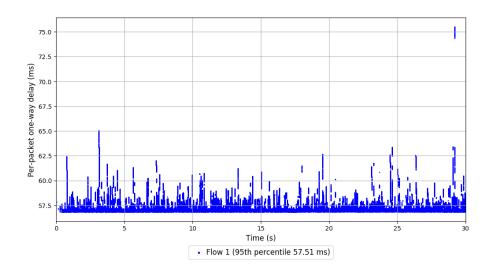
Average throughput: 229.99 Mbit/s

95th percentile per-packet one-way delay: 57.507 ms

Loss rate: 0.39%

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





## Run 2: Statistics of TaoVA-100x

Start at: 2019-11-24 22:11:39 End at: 2019-11-24 22:12:09 Local clock offset: -0.102 ms Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-11-25 02:23:12

# Datalink statistics
-- Total of 1 flow:

Average throughput: 225.23 Mbit/s

95th percentile per-packet one-way delay: 57.056 ms

Loss rate: 0.41%

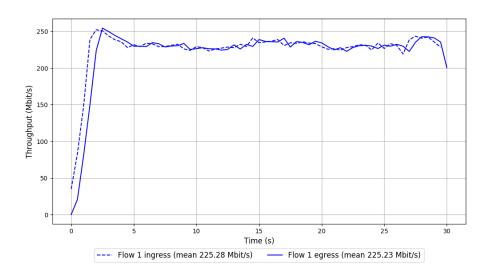
-- Flow 1:

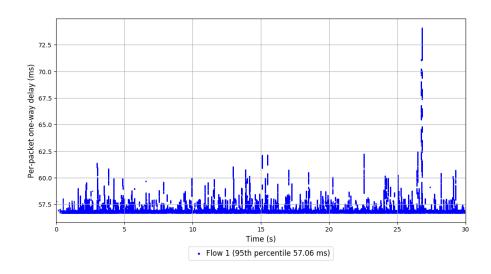
Average throughput: 225.23 Mbit/s

95th percentile per-packet one-way delay: 57.056 ms

Loss rate: 0.41%

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





## Run 3: Statistics of TaoVA-100x

Start at: 2019-11-24 22:46:51 End at: 2019-11-24 22:47:21 Local clock offset: -0.021 ms Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2019-11-25 02:23:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 229.10 Mbit/s

95th percentile per-packet one-way delay: 57.459 ms

Loss rate: 0.40%

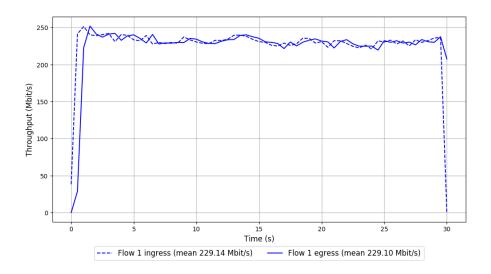
-- Flow 1:

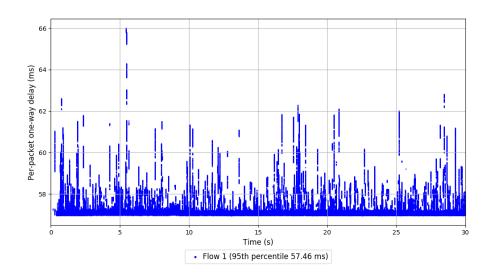
Average throughput: 229.10 Mbit/s

95th percentile per-packet one-way delay: 57.459 ms

Loss rate: 0.40%

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





## Run 4: Statistics of TaoVA-100x

Start at: 2019-11-24 23:22:08 End at: 2019-11-24 23:22:38 Local clock offset: -0.071 ms Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2019-11-25 02:23:14

# Datalink statistics
-- Total of 1 flow:

Average throughput: 219.86 Mbit/s

95th percentile per-packet one-way delay: 57.453 ms

Loss rate: 0.42%

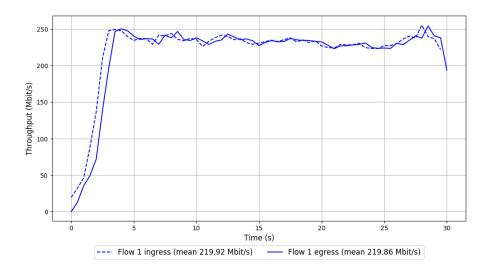
-- Flow 1:

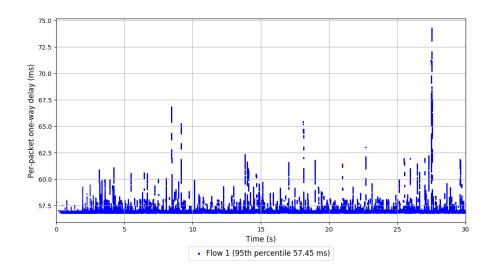
Average throughput: 219.86 Mbit/s

95th percentile per-packet one-way delay: 57.453 ms

Loss rate: 0.42%

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





## Run 5: Statistics of TaoVA-100x

Start at: 2019-11-24 23:57:16 End at: 2019-11-24 23:57:46 Local clock offset: -0.029 ms Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2019-11-25 02:23:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 224.74 Mbit/s

95th percentile per-packet one-way delay: 60.844 ms

Loss rate: 0.44%

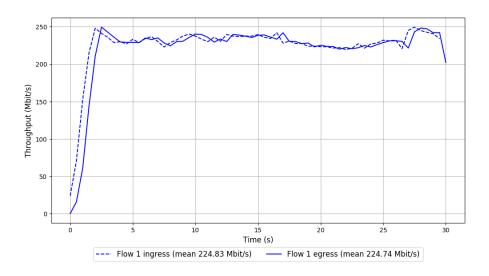
-- Flow 1:

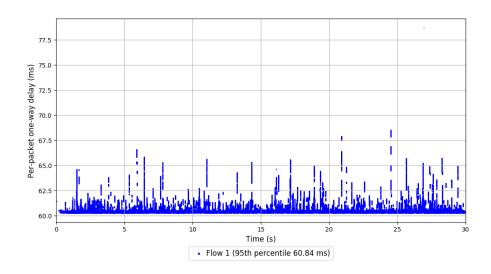
Average throughput: 224.74 Mbit/s

95th percentile per-packet one-way delay: 60.844 ms

Loss rate: 0.44%

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





# Run 1: Statistics of TCP Vegas

Start at: 2019-11-24 21:46:44 End at: 2019-11-24 21:47:14 Local clock offset: -0.109 ms Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2019-11-25 02:23:19

# Datalink statistics
-- Total of 1 flow:

Average throughput: 282.02 Mbit/s

95th percentile per-packet one-way delay: 77.020 ms

Loss rate: 0.31%

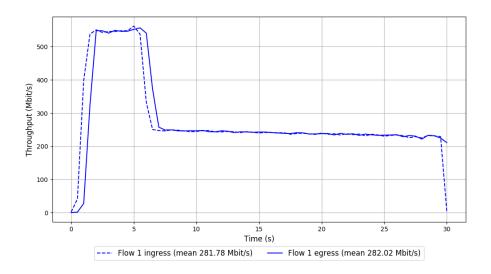
-- Flow 1:

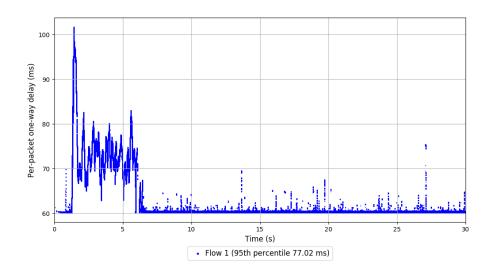
Average throughput: 282.02 Mbit/s

95th percentile per-packet one-way delay: 77.020 ms

Loss rate: 0.31%

Run 1: Report of TCP Vegas — Data Link





# Run 2: Statistics of TCP Vegas

Start at: 2019-11-24 22:21:49 End at: 2019-11-24 22:22:19 Local clock offset: -0.06 ms Remote clock offset: 0.102 ms

# Below is generated by plot.py at 2019-11-25 02:27:16

# Datalink statistics
-- Total of 1 flow:

Average throughput: 495.93 Mbit/s

95th percentile per-packet one-way delay: 57.610 ms

Loss rate: 0.40%

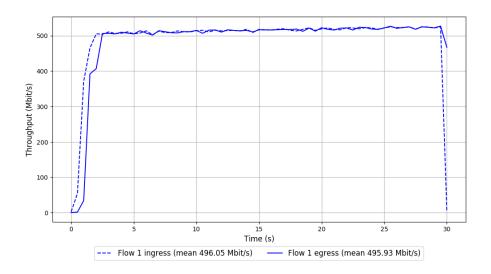
-- Flow 1:

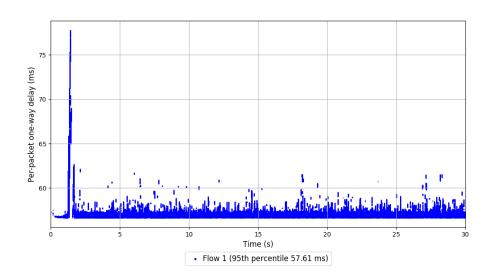
Average throughput: 495.93 Mbit/s

95th percentile per-packet one-way delay: 57.610 ms

Loss rate: 0.40%

Run 2: Report of TCP Vegas — Data Link





# Run 3: Statistics of TCP Vegas

Start at: 2019-11-24 22:56:57 End at: 2019-11-24 22:57:27 Local clock offset: -0.028 ms Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2019-11-25 02:29:15

# Datalink statistics
-- Total of 1 flow:

Average throughput: 441.08 Mbit/s

95th percentile per-packet one-way delay: 57.335 ms

Loss rate: 0.39%

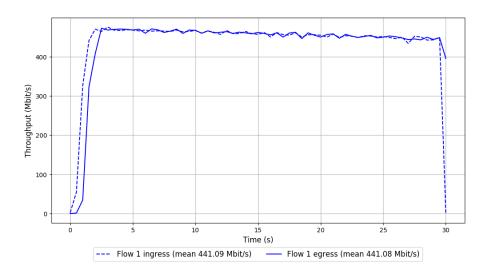
-- Flow 1:

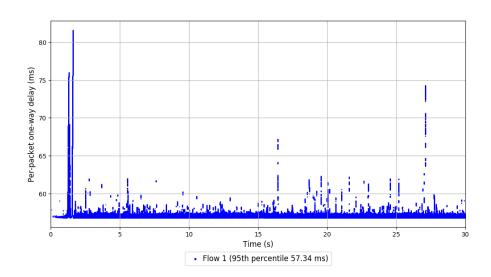
Average throughput: 441.08 Mbit/s

95th percentile per-packet one-way delay: 57.335 ms

Loss rate: 0.39%

Run 3: Report of TCP Vegas — Data Link





# Run 4: Statistics of TCP Vegas

Start at: 2019-11-24 23:32:19 End at: 2019-11-24 23:32:49 Local clock offset: -0.084 ms Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2019-11-25 02:30:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 498.96 Mbit/s

95th percentile per-packet one-way delay: 59.089 ms

Loss rate: 0.40%

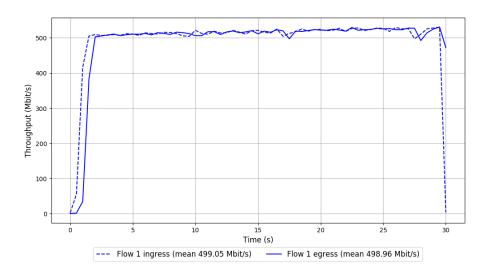
-- Flow 1:

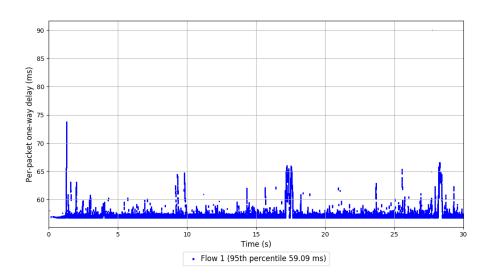
Average throughput: 498.96 Mbit/s

95th percentile per-packet one-way delay: 59.089 ms

Loss rate: 0.40%

Run 4: Report of TCP Vegas — Data Link





# Run 5: Statistics of TCP Vegas

Start at: 2019-11-25 00:07:28 End at: 2019-11-25 00:07:58 Local clock offset: -0.019 ms Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2019-11-25 02:30:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 252.42 Mbit/s

95th percentile per-packet one-way delay: 57.237 ms

Loss rate: 0.35%

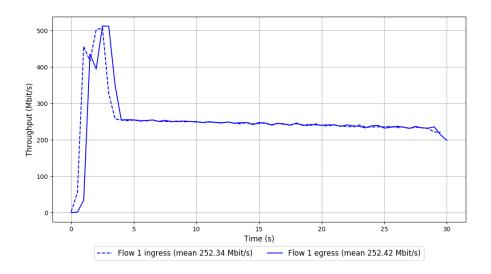
-- Flow 1:

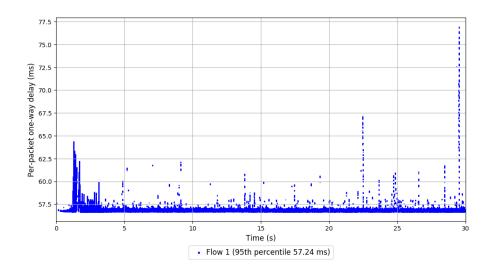
Average throughput: 252.42 Mbit/s

95th percentile per-packet one-way delay: 57.237 ms

Loss rate: 0.35%

Run 5: Report of TCP Vegas — Data Link





## Run 1: Statistics of Verus

Start at: 2019-11-24 21:38:06 End at: 2019-11-24 21:38:37 Local clock offset: 0.28 ms Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2019-11-25 02:30:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 74.18 Mbit/s

95th percentile per-packet one-way delay: 75.711 ms

Loss rate: 0.00%

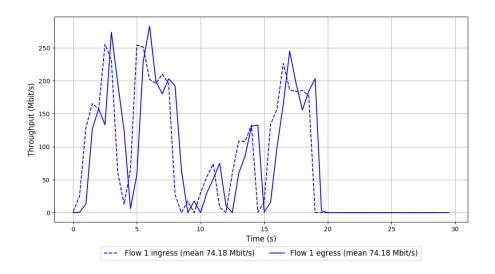
-- Flow 1:

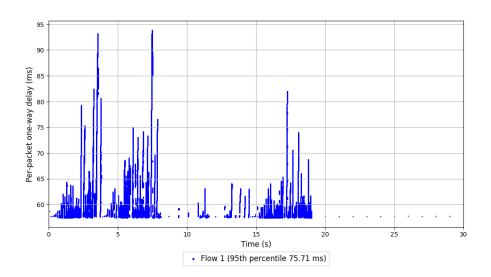
Average throughput: 74.18 Mbit/s

95th percentile per-packet one-way delay: 75.711 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link





### Run 2: Statistics of Verus

Start at: 2019-11-24 22:13:07 End at: 2019-11-24 22:13:37 Local clock offset: -0.12 ms Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2019-11-25 02:30:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 38.64 Mbit/s

95th percentile per-packet one-way delay: 90.601 ms

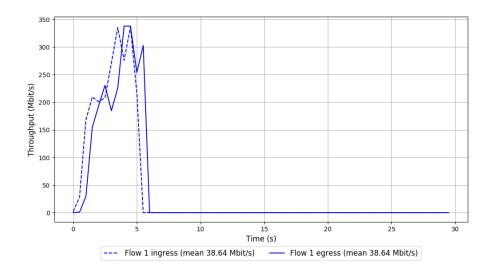
Loss rate: 0.00%

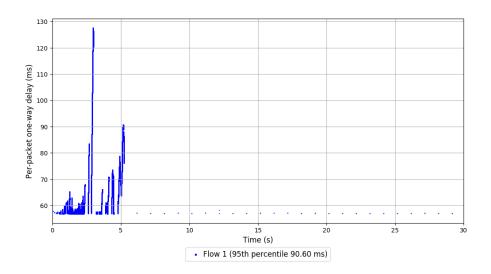
-- Flow 1:

Average throughput: 38.64 Mbit/s

95th percentile per-packet one-way delay: 90.601 ms

Run 2: Report of Verus — Data Link





### Run 3: Statistics of Verus

Start at: 2019-11-24 22:48:20 End at: 2019-11-24 22:48:50 Local clock offset: 0.277 ms Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-11-25 02:30:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 71.82 Mbit/s

95th percentile per-packet one-way delay: 77.406 ms

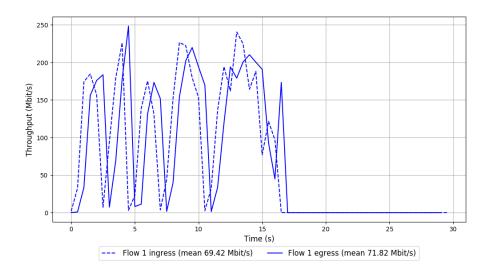
Loss rate: 0.00%

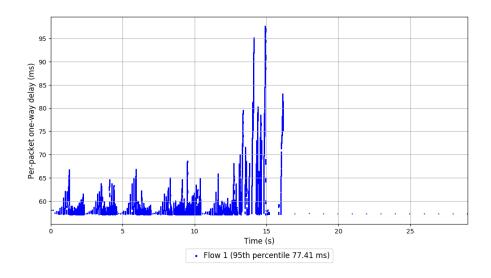
-- Flow 1:

Average throughput: 71.82 Mbit/s

95th percentile per-packet one-way delay: 77.406 ms

Run 3: Report of Verus — Data Link





### Run 4: Statistics of Verus

Start at: 2019-11-24 23:23:36 End at: 2019-11-24 23:24:06 Local clock offset: 0.009 ms Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2019-11-25 02:30:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 93.88 Mbit/s

95th percentile per-packet one-way delay: 69.190 ms

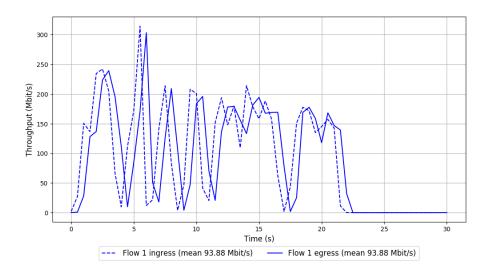
Loss rate: 0.00%

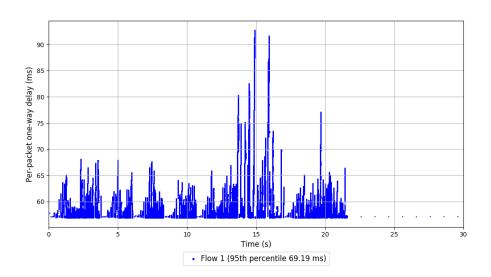
-- Flow 1:

Average throughput: 93.88 Mbit/s

95th percentile per-packet one-way delay: 69.190 ms

Run 4: Report of Verus — Data Link





### Run 5: Statistics of Verus

Start at: 2019-11-24 23:58:44 End at: 2019-11-24 23:59:14 Local clock offset: 0.323 ms Remote clock offset: 0.053 ms

# Below is generated by plot.py at 2019-11-25 02:30:40

# Datalink statistics
-- Total of 1 flow:

Average throughput: 106.46 Mbit/s

95th percentile per-packet one-way delay: 104.227 ms

Loss rate: 0.59%

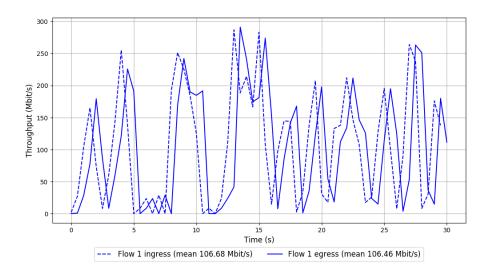
-- Flow 1:

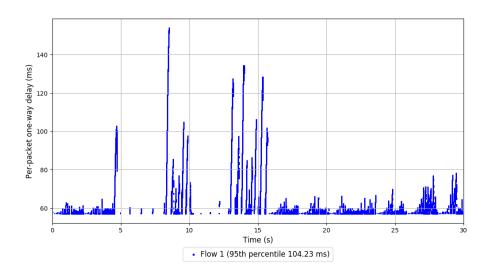
Average throughput: 106.46 Mbit/s

95th percentile per-packet one-way delay: 104.227 ms

Loss rate: 0.59%

Run 5: Report of Verus — Data Link





### Run 1: Statistics of PCC-Vivace

Start at: 2019-11-24 21:42:04 End at: 2019-11-24 21:42:34 Local clock offset: 0.277 ms Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-11-25 02:31:44

# Datalink statistics
-- Total of 1 flow:

Average throughput: 355.23 Mbit/s

95th percentile per-packet one-way delay: 59.195 ms

Loss rate: 0.49%

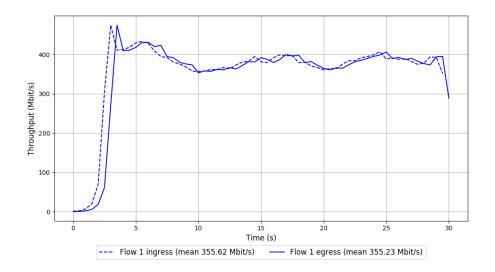
-- Flow 1:

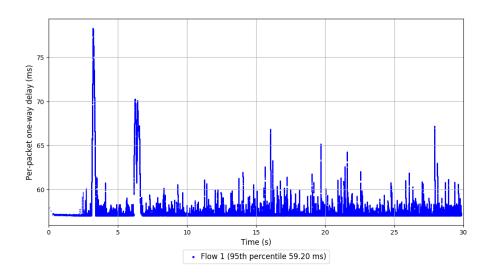
Average throughput: 355.23 Mbit/s

95th percentile per-packet one-way delay: 59.195 ms

Loss rate: 0.49%

Run 1: Report of PCC-Vivace — Data Link





### Run 2: Statistics of PCC-Vivace

Start at: 2019-11-24 22:17:03 End at: 2019-11-24 22:17:33 Local clock offset: -0.036 ms Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2019-11-25 02:31:44

# Datalink statistics
-- Total of 1 flow:

Average throughput: 329.11 Mbit/s

95th percentile per-packet one-way delay: 57.684 ms

Loss rate: 0.48%

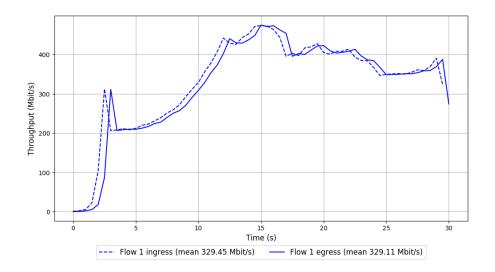
-- Flow 1:

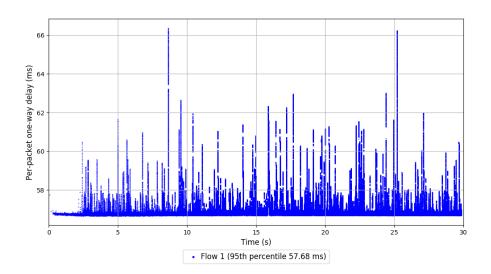
Average throughput: 329.11 Mbit/s

95th percentile per-packet one-way delay: 57.684 ms

Loss rate: 0.48%

Run 2: Report of PCC-Vivace — Data Link





### Run 3: Statistics of PCC-Vivace

Start at: 2019-11-24 22:52:16 End at: 2019-11-24 22:52:46 Local clock offset: -0.04 ms Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2019-11-25 02:32:03

# Datalink statistics
-- Total of 1 flow:

Average throughput: 344.55 Mbit/s

95th percentile per-packet one-way delay: 58.476 ms

Loss rate: 0.48%

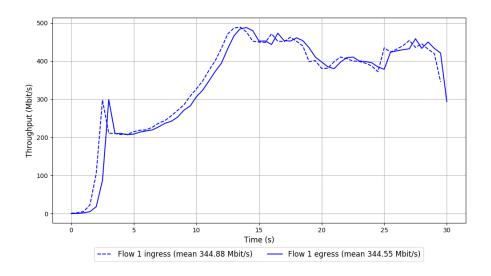
-- Flow 1:

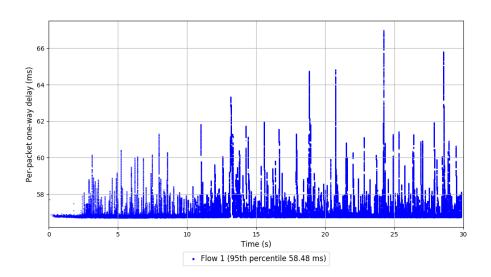
Average throughput: 344.55 Mbit/s

95th percentile per-packet one-way delay: 58.476 ms

Loss rate: 0.48%

Run 3: Report of PCC-Vivace — Data Link





### Run 4: Statistics of PCC-Vivace

Start at: 2019-11-24 23:27:38 End at: 2019-11-24 23:28:08 Local clock offset: -0.096 ms Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2019-11-25 02:32:06

# Datalink statistics
-- Total of 1 flow:

Average throughput: 349.87 Mbit/s

95th percentile per-packet one-way delay: 57.992 ms

Loss rate: 0.44%

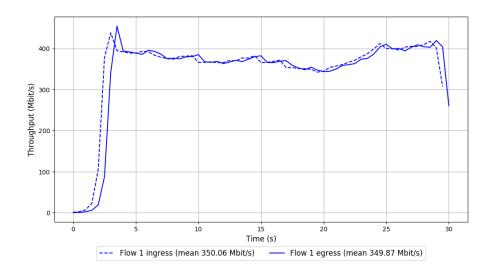
-- Flow 1:

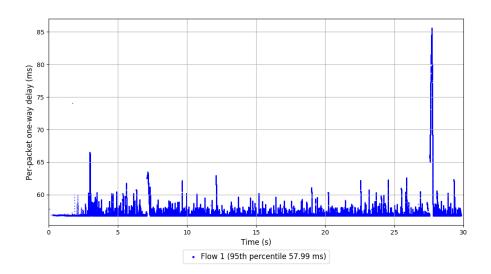
Average throughput: 349.87 Mbit/s

95th percentile per-packet one-way delay: 57.992 ms

Loss rate: 0.44%

Run 4: Report of PCC-Vivace — Data Link





### Run 5: Statistics of PCC-Vivace

Start at: 2019-11-25 00:02:45 End at: 2019-11-25 00:03:15 Local clock offset: -0.026 ms Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-11-25 02:32:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 338.76 Mbit/s

95th percentile per-packet one-way delay: 58.689 ms

Loss rate: 0.38%

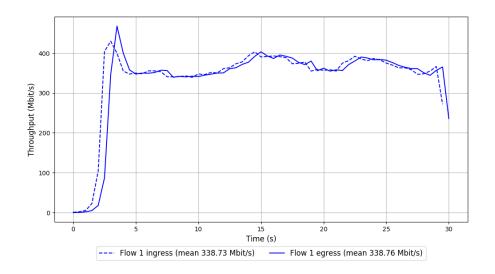
-- Flow 1:

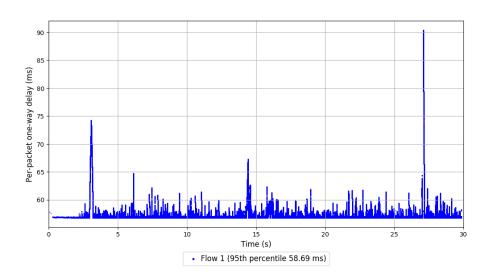
Average throughput: 338.76 Mbit/s

95th percentile per-packet one-way delay: 58.689 ms

Loss rate: 0.38%

Run 5: Report of PCC-Vivace — Data Link

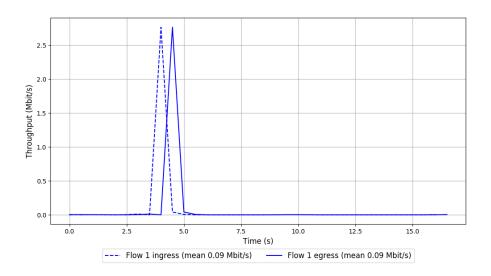


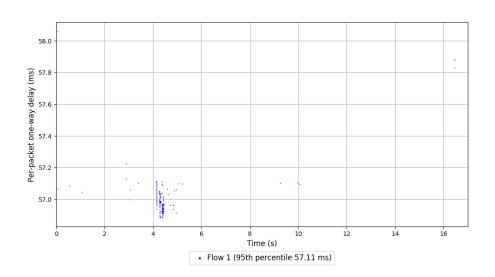


# Run 1: Statistics of WebRTC media

Start at: 2019-11-24 21:23:46 End at: 2019-11-24 21:24:16 Local clock offset: -0.022 ms Remote clock offset: -0.157 ms

Run 1: Report of WebRTC media — Data Link





## Run 2: Statistics of WebRTC media

Start at: 2019-11-24 21:58:35 End at: 2019-11-24 21:59:05 Local clock offset: -0.097 ms Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2019-11-25 02:32:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay:  $57.011~\mathrm{ms}$ 

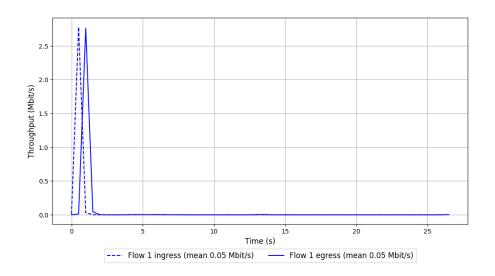
Loss rate: 0.00%

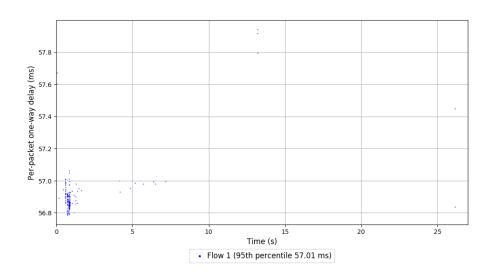
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.011 ms

Run 2: Report of WebRTC media — Data Link





### Run 3: Statistics of WebRTC media

Start at: 2019-11-24 22:33:54 End at: 2019-11-24 22:34:24 Local clock offset: -0.02 ms Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2019-11-25 02:32:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.250 ms

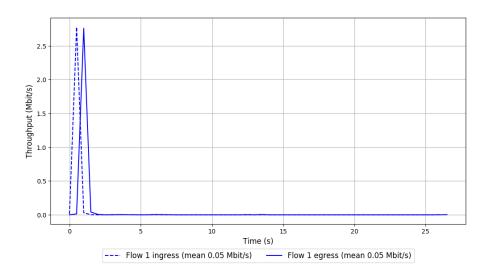
Loss rate: 0.00%

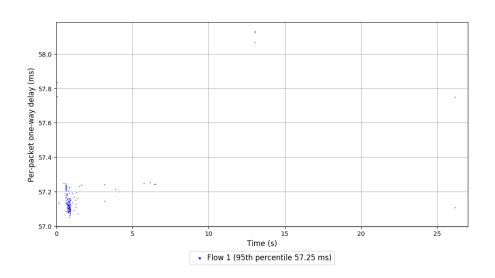
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.250 ms

Run 3: Report of WebRTC media — Data Link





### Run 4: Statistics of WebRTC media

Start at: 2019-11-24 23:08:57 End at: 2019-11-24 23:09:27 Local clock offset: -0.075 ms Remote clock offset: -0.225 ms

# Below is generated by plot.py at 2019-11-25 02:32:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.119 ms

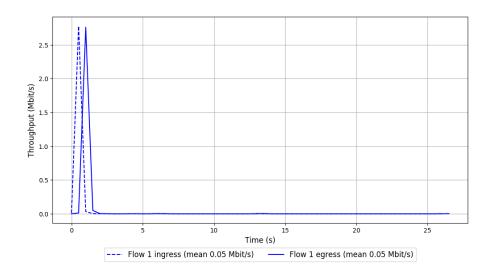
Loss rate: 0.00%

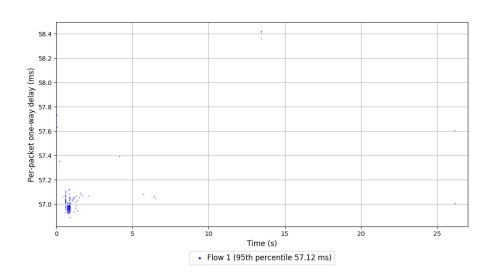
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.119 ms

Run 4: Report of WebRTC media — Data Link





### Run 5: Statistics of WebRTC media

Start at: 2019-11-24 23:44:21 End at: 2019-11-24 23:44:51 Local clock offset: -0.061 ms Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-11-25 02:32:08

# Datalink statistics
-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.039 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.039 ms

Run 5: Report of WebRTC media — Data Link

