CENG519 - TPPhase1

Batuhan Teberoğlu

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Objective

Using the provided Python processor, introduce random delays to Ethernet frames and observe the impact on round-trip time (RTT) for ping packets exchanged between the `sec` and `insec` containers.

The selected mean delay values, in seconds, are: 1×10^{-6}, 1×10^{-5}, 1×10^{-4}, 1×10^{-3}, and 1×10^{-2}.

Steps

- Start the Python processor: `python main.py`
- Access the `sec` container and start pinging `insec`: `ping -c 100 insec`
- Wait until all packets have been sent.
- Compute the mean RTT for every 20 packets from the ping output. If a packet is lost, adjust the calculation accordingly.

Results

As expected, an increase in delay results in a corresponding increase in RTT.

Mean Delay (ms)	Mean RTT (ms)
0.001	4.38
0.01	5.13
0.1	6.65
1	10.88
10	22.64

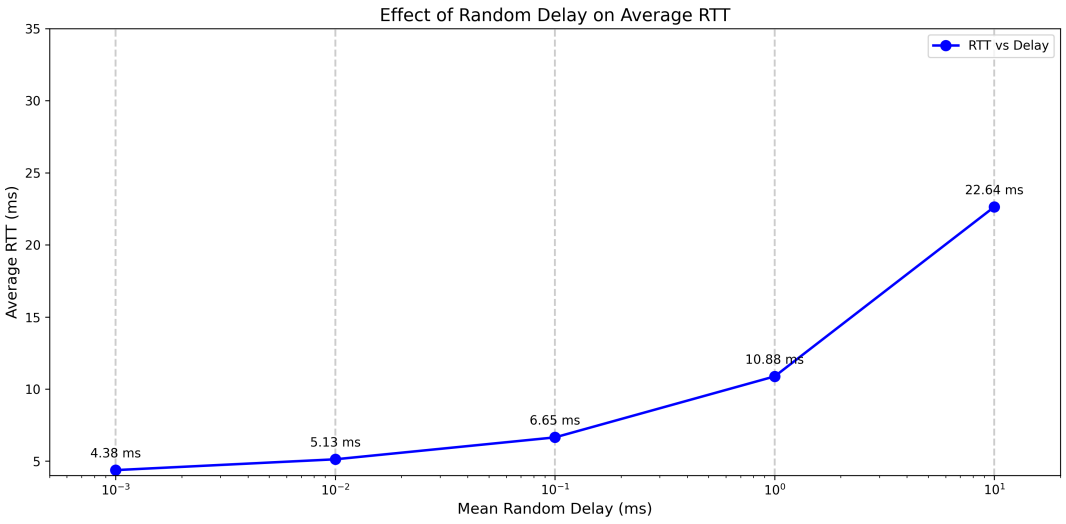

Figure 1: RTT vs. Mean Delay