

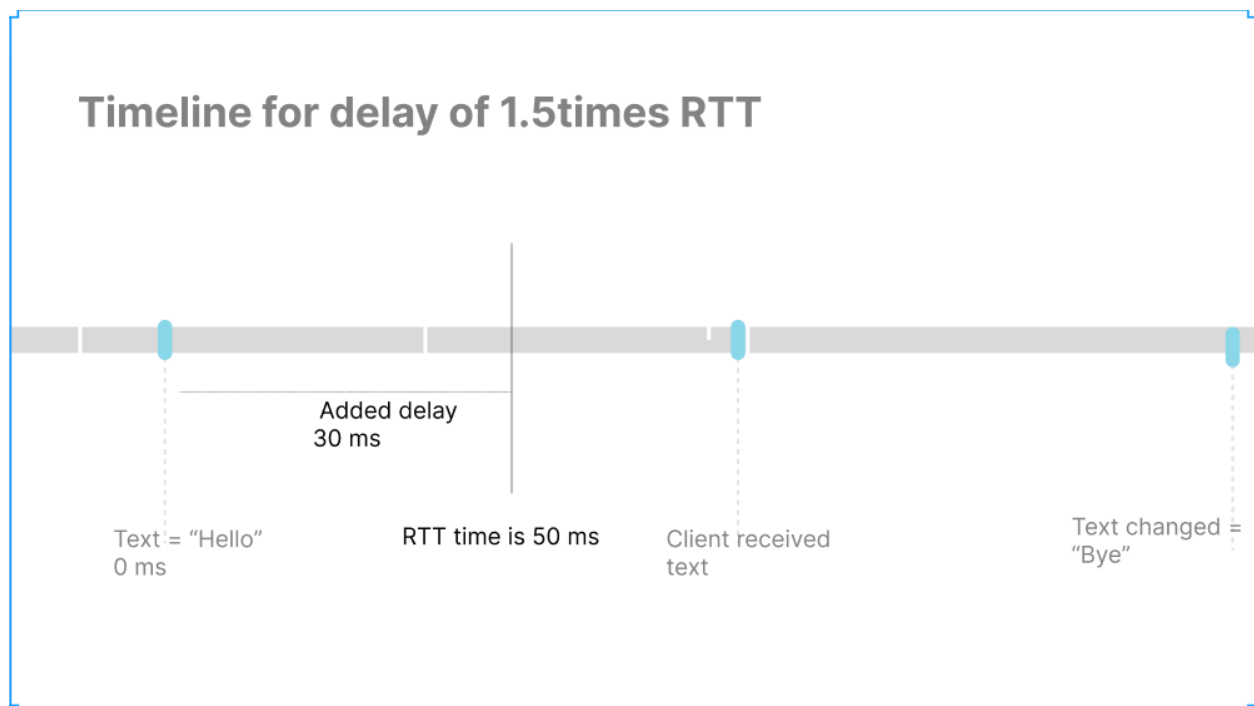
Part B: Analysis of delays by observing data sent and received to/from the server.

Client Side -

Using the average round-trip time (rtt) of a POST request on my local server, I passed a parameter of rtt and delay to the `responseTimeCall` function. This function sends a POST request to the server with some data and changes this data after $rtt \times \text{delay}$ time. If the delay parameter is greater than 1, the data sent to the server and received from it will be the same.

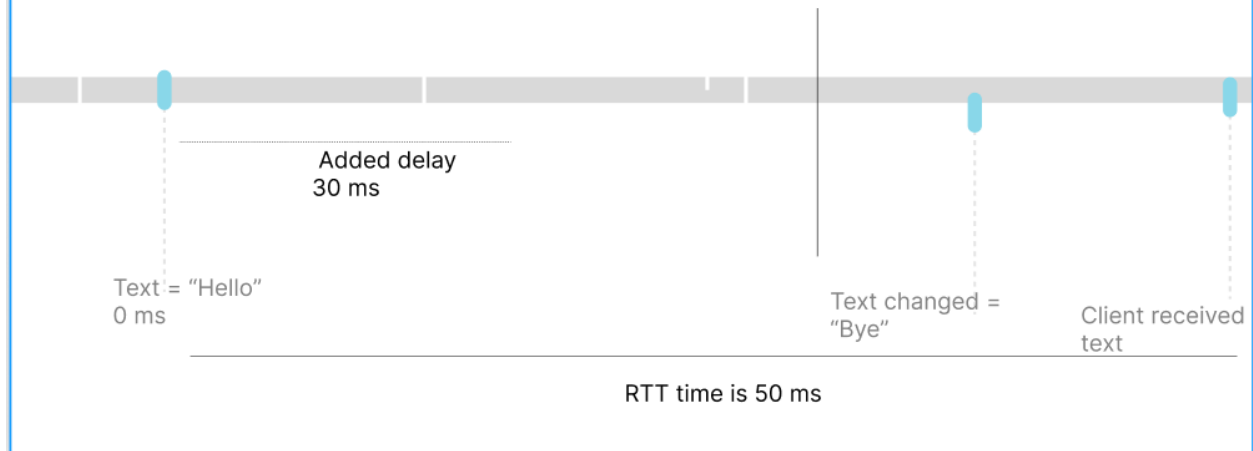
If the delay parameter is less than 1, the data sent to the server and received from it will be different as the data will be changed before the server responds.

Server Side- I added a delay of 30ms on the server side so each request should have a rtt of longer than 30ms.



In this case the initial text will be the same as the text received by the server. As the initial text is to be changed after $1.5 \times \text{RTT}$ seconds and the client receives a response from the server before that, we will get a match.

Timeline for delay of 0.8times RTT



In this case the initial text will be changed at 0.8 RTT, i.e before the server responds back. Therefore, the data received from the server will not match the initial text.

I experimented with a number of server delays and found that after a delay of around 5000ms, Jasmine asynchronous interval times out and has to be set to a higher value.