

COMP 346: Operating Systems Winter 2024 – Programming Assignment 1
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Changing the size of the network buffers, from a size of 10 to a size of 20, impacted the running times as the buffer size of 20 is slightly faster than the buffer size of 10. This difference in running time arises from various factors.

First, a larger buffer size implies that there is less overhead, meaning the system spends less time managing individual transmissions of data. A smaller buffer size, e.g. a size of 10 in this program, forces the system to handle more frequent transmissions, leading to more overhead that needs to be managed.

Also, large buffers may result in less context switches. More data can be processed in a single batch, so there is a reduced number of switching between threads, which lowers the number of context switches that occur and the overhead associated with them.