

This graph clearly shows a linear relationship between the file size and runtime. This is to be expected, as there is a loop that transfers the file contents, so the amount of iterations for that loop is going to linearly increase with the file size, assuming that the buffer capacity stays the same, which it did for this test, as the loop will iterate filesize / m times.

I tried transferring a file that was around 100 MB, and it took 18.116 seconds. The bottleneck for transferring files faster is the large number of loop iterations required to transfer a large file.