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hw-02 OS

1. These lines of code will go into the OS and find where these scripts actually exist. These commands are actual scripts so the OS has to go into the directory and find execute them.

2. Longtext.txt is a significantly larger input so the dtrace command has to do more work. The system calls look essentially the same but it looks like they are executed more times. This makes sense because essentially the same task is being done just in the longtext.txt version the input is larger so more work needs to be done.

3. With the long file the OS needs to call the open_nocancel more than once. Also just like in the copyfile.py the length of the output is significantly longer. This goes along the same lines as the answer above. Larger inputs lead for more tasks for the OS to handle.

4. tail

getrlimit(0x1008, 0x7FFF5FBFF810, 0x7FFF808132EC) = 0 0

- getrlimit - this is a system call to get and set resource limits.

open_nocancel("longtest.txt\0", 0x0, 0x1B6) = 3 0

- open_nocancel - this call will open the first argument

fstat64(0x3, 0x7FFF5FBFF980, 0x0) = 0 0

- fstat64 -this function returns information about the file

mmap(0x0, 0x56C3, 0x1, 0x1, 0x3, 0x7FFF00000000) = 0x6F000 0

- mmap -this function creates a new mapping in the virtual address space of the calling process.

write(0x1, "be transferred to the Guards at once?\" said she.\r\n\r\n\r\n\r\n\"Believe me, Princess, I am ready to do all I can,\" answered Prince\r\n\r\nVasili, \"but it is difficult for me to ask the Emperor. I should advise\r\n\r\nyou to appeal to Rumyantsev through Prince Golitsyn. T", 0x114) = 276 0

- write - this command will write to memory

munmap(0x100300000, 0x500000) = 0 0

- munmap - this system call deletes the mappings for the specified address range, and causes further references to addresses within the range to generate invalid memory references.

lseek(0x3, 0x5000, 0x0) = 20480 0

- lseek - function repositions the file offset of the open file description associated with the file descriptor fd to the argument offset