

Assignment 4

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What's Working

My server passes all the tests executed by the test scripts, so that's a good sign. Security is enforced by matching the hostname of the client to a line in the .rfahosts file. At the initial run of the program, a linked list of strings is made that can be quickly iterated over to find a match. IP addresses are only used in debugging messages, only the hostname is used. Hopefully that is the correct behavior.

Opening files also seems to be working as expected. I haven't thoroughly tested that the mode passed to open is correct, but it's worked for everything I've tried. All the flags are being OR'd appropriately, and exactly one of 'R' 'W' and 'RW' must be present or an error is returned. Also, file names with spaces are parsed correctly. The simple validation of pathnames is also being performed.

Reading is pretty straightforward, and has worked well as long as open is functioning.

Write also works appropriately.

Close works.

What's Not Working

Nothing seems broken, although there are definitely improvements to be made. Initially, I started using strtok() to parse the request strings, but after realizing it wouldn't work for the Open command without some extra work I reverted to simple char-by-char processing. While this is working for now, it's not quite robust enough and could be prone to buffer overflows if *name_ilength_i is specified incorrectly*.

Also, I'm not 100% sure that all the correct error numbers are being returned. I've been counting on the global errno being set appropriately in most cases, which is hopefully enough.