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CS 472

October 22, 2020

Assignment 2

1. It depends. It depends on what type of files are being transferred, is it important classified documents, or is it just some open source games? It depends on the purpose, for example, the peer-to-peer file transfer works well with BitTorrent, but it might not be a good idea for a company like Nasdaq, which manages many stock exchanges.
2. Certainly. There is a multitude of ways someone could hack into the FTP Server I made. The first and foremost and the easiest way is through getting authentication details. I tried implementing the server with a config file with the credentials in it, then realised no matter the convenience but how vulnerable the system would be.
3. FTP is good at transferring small to medium-sized files. It functioned well back when it was developed. However, I wouldn't think it'd be very useful now. FTP was not designed with much Security; Hacking and cracking were not so common then. But now, if you run any kind of server connected to the internet, you can almost always assume a high risk of attacks. There are no encryptions involved in the transfer of files with FTP, this introduces a major risk of interference. Also, it starts to mess up and fail when put forth against multiple connections. Another thing that I find weird and bad is that FTP uses

two channels, one for commands and one for data. I've had to spend countless hours working on getting that two-channel implementation right with my client and server.

4. I think making FTP use just one channel instead of two would be very hard because one would have to make an entire revision to the protocol. It'd involve documenting a new RFC. Every server and client would have to change their implementations of many commands that use the two-channel communication.