

How to Create Your Own “DropBox” in Linux

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There is a company that offers a DropBox on the Internet. It is useful for storing off-site files and sharing of files. When installed on a Windows computer it installs itself so that it looks like just another folder on your computer.

This “DropBox” I am presenting works in a similar manner but it is up to you how you use it. I am working with Linux Mint, and Debian (the standard Pi OS on the Raspberry Pi)

I will detail how to set it up on your Local Area Network (LAN) but it will work anywhere that you have a login and password. In my case I will use a Pi-Zero but it will work equally with any Linux computer where you can log on. It will not work with Windows because we use a secure shell (SSH) connection and Windows does not support ssh connections.

First step is to make sure ssh is enabled on the remote computer and that you have a ID and Password to log on. Next you must make sure it is connected to the network. If you do not know what the ip address of your remote computer is, use the Terminal (on the remote computer) and enter the command **hostname -I** and you should read something like this:

192.168.1.14 (local LAN address) Depending on the computer you may get a confusing line like:

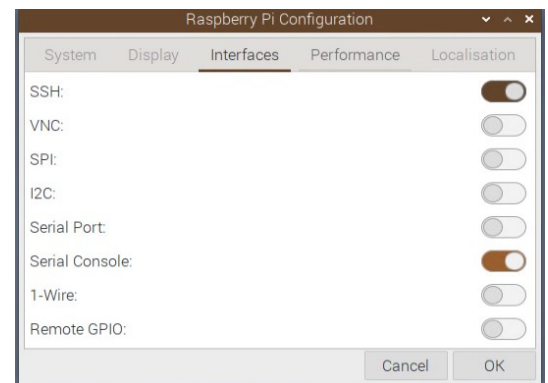
192.168.0.21 2604:2d80:ec0b:c900:72b5:e8ff:fe4c:4fa0

You can make it pretty with: `<hostname -I | tr “ “ “\n”>` and you will get:

192.168.0.21

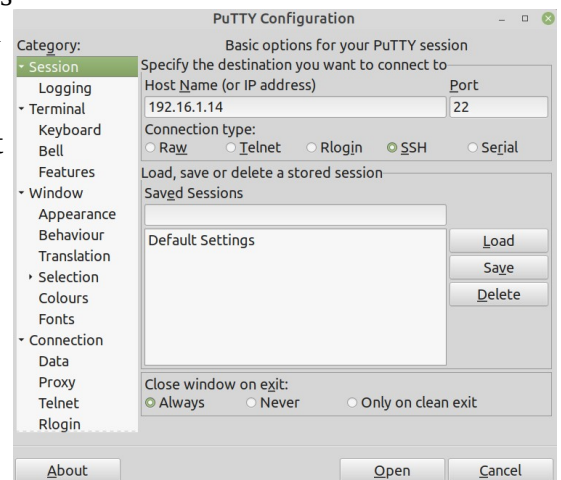
2604:2d80:ec0b:c900:72b5:e8ff:fe4c:4fa0

Next make sure that ssh is enabled on the remote computer. The default on a Raspberry Pi is “disabled” but you can change it in your configuration, available (on the Pi) either from the Terminal mode (`sudo raspi-config`) or from the normal menu.

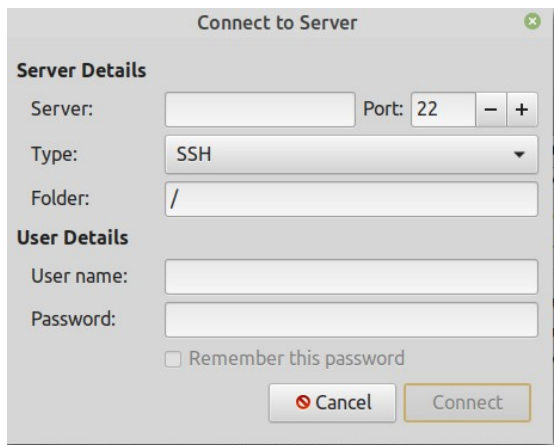


When all of this is done you are ready to set up your local computer (the one you are using). I will make up a login and password just for ease of explanation, but you would replace my name and password with yours. My ID could be warren and my password is ***** (well that’s what you see). The first time you log on with ssh the system want’s to make a ‘fingerprint’ so I suggest you log on from the Terminal and type “ssh 192.168.0.21” (no quotes and use the correct IP address) When you run it, see what it does. The first time it should ask you if you want to save the fingerprint. Say yes. It will prompt for ID and Password. If all goes well, you can log on but if it is working, we are done with this. Be sure you do this from the command line, not the desktop because you need to see the responses you will miss using the desktop,

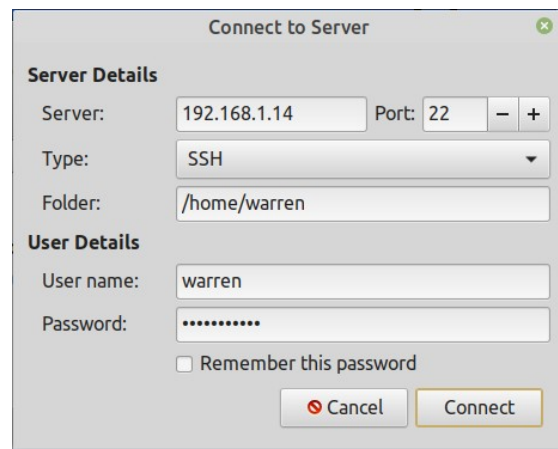
Now the cool stuff. A little known feature of the File Manager is the “Connect to Server” command located under File.



Select 'Connect to Server' and get:



The screenshot shows a 'Connect to Server' dialog box with the following fields: Server (empty), Port (22), Type (SSH), Folder (/), User name (empty), Password (empty), and a 'Remember this password' checkbox (unchecked). There are 'Cancel' and 'Connect' buttons at the bottom.



The screenshot shows the same 'Connect to Server' dialog box but with the following fields filled in: Server (192.168.1.14), Port (22), Type (SSH), Folder (/home/warren), User name (warren), Password (masked with dots), and a 'Remember this password' checkbox (unchecked). There are 'Cancel' and 'Connect' buttons at the bottom.

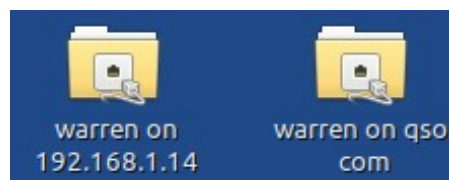
Same form but filled in

Fill in the server line with the ip address of your Pi, or other LAN computer. If you want to log to a special place other than your home directory put that on the Folder line. Fill in the user name and password, and connect. The 'Remember this password' does not seem to do anything.

When you connect you get another File Manager window exactly (on top) of your existing one so you need to grab and slide them apart.

You now have two identical windows except one on on your computer and the other displays the contents of the remote computer. For all intents and purposes the remote system is on your computer now. You can drag/drop or copy and paste items back and forth.

Here is how it becomes a DropBox. Actually it already is but you do not wish to have to log on again every time you use it. The trick is when you close the remote window, the window goes away however it is still mounted like a disk on your system. It leaves a folder that you can treat like any other folder on your computer, however it is really the other computer.



As you can see I am connected to two different computers and the shown folders are on my desktop. I can click on either one and I am actually on the other computer. Another interesting thing is if I open a file on the other machine, to edit it, it actually opens it on my computer and does not use the remote resources, but when I save it it save the original in the original location. I can push or pull files across between computers, or just work on files in place. This is great for maintaining a web page.

There are two ways to break the connection. One is to reboot your computer and the other is to right-click on the folder and click on the "Unmount" . I am not suggesting you reboot to break the connection, I am saying that if the system is rebooted, you lose the connection, it does not automatically reestablish itself.

Just as a matter of interest, I maintain a mirror image of my web page on my local computer. I do all of my programming on my local computer, then when changes have been made and it is ready, I just copy it over to the qso.com server and I'm done.

One thing you should be aware of. When you move files from your computer to the remote computer the files seem to stay linked. If you edit your original, it automatically keeps the remote copy synced. Go check it and see the changes you made are already done there. This can be useful but be careful. It also holds that if you delete, for example, your remote copy with the idea of replacing it from your system, when you erase the remote file, it erases your original on your system also... not good. I have gotten into the habit of unmounting the remote system when I am done so I cannot accidentally cause a problem. Of course if you are just moving a bunch of data files and copies are not staying on your computer, this would not be a problem. It is only a problem when duplicate files are on both computers.

The way to unmount is to right-click on the folder that represents the remote system, select "unmount" and that is all there is to it.