

GlobalProtect VPN

Using SSH with GlobalProtect

Permissions

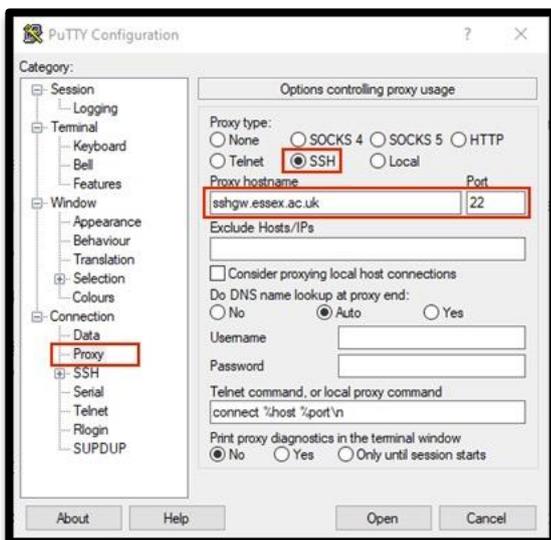
Permission for remote SSH server access via GlobalProtect is handled in the same central manner as OpenVPN. See <https://www1.essex.ac.uk/it/services/forms/vpn/> for details of your access profile – only SSH entries allow SSH access.

Terminal access via PuTTY

If you are already using PuTTY (version 0.77 or newer), you will need to modify the configuration under **Connection -> Proxy** and set the following:

- Proxy type to SSH
- Proxy hostname to sshgw.essex.ac.uk
- Port to 22

Remember to save your settings.



You may be prompted for your login name and password twice (once on the SSH gateway and once on your target host), however, this should be the only change you need to make. If you use an SSH keypair, this will be passed on by the SSH gateway to the destination.

Please note that we recommend using OpenSSH client on Windows instead of PuTTY – [you can read further guidance here](#). You only need install the client, not the server.

Terminal access via OpenSSH on Linux, macOS or Windows

Both Linux and the macOS come with OpenSSH pre-installed but you can also install OpenSSH on Windows 10 or newer too - [you can read further guidance here](#). You only need install the client, not the server.

To connect to your allowed SSH servers with OpenSSH, open a terminal window on Linux or macOS, or a PowerShell window on Windows. Then connect using:

```
ssh -J mylogin@sshgw.essex.ac.uk mylogin@host.essex.ac.uk
```

(*mylogin* is your University user name [e.g jb22007] and *host* is the host you wish to connect to).

Again, you may be prompted for your login name and password twice (once on the SSH gateway and once on your target host), however, this should be the only change you need to make. If you use an SSH keypair, this will be passed on by the SSH gateway to the destination.

You can also modify your default OpenSSH configuration file (\$HOME/.ssh/config) as shown below.

```
Host sshgw.essex.ac.uk ceres.essex.ac.uk unix4.essex.ac.uk
  ProxyJump none
```

```
Host *.essex.ac.uk
  ProxyJump sshgw.essex.ac.uk
  User mylogin # change to your login name – e.g. jb22007
```

After which, a simple

```
ssh host.essex.ac.uk
```

will work for any host to which you have access.

There is also an alternative which uses CA signed SSH keys that will enable you to avoid the password prompt on the gateway, and if you configure it, the target host. This will also work without needing to also run GlobalProtect as it uses its own two-factor authentication (2fa). Contact the [IT Helpdesk](#) for further information on this.

Copying files using scp/sftp

Should you want to copy files between your local device and the remote server, the standard scp and sftp commands (or PuTTY equivalents) should work fine.

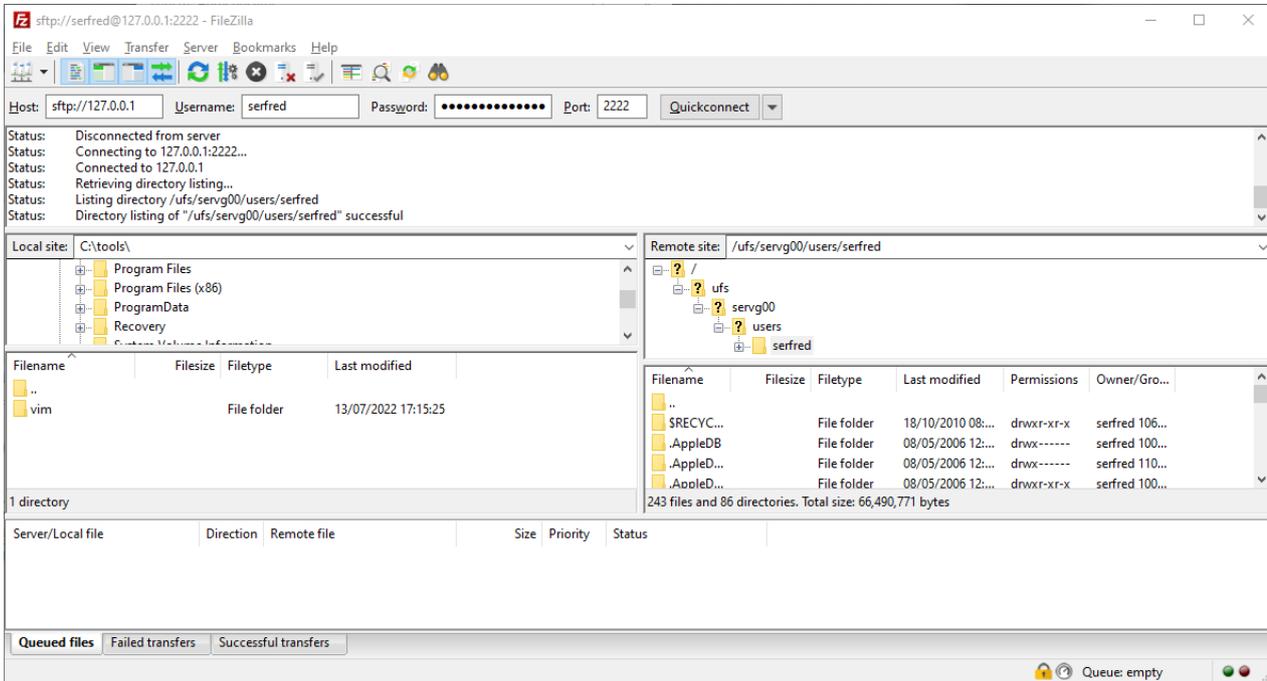
Copying file using FileZilla

If you wish to copy files using the FileZilla GUI, you'll need to make this a 2-stage process. First in a local terminal windows (use Powershell or CMD on Windows), run

ssh -N -L 2222:**host**.essex.ac.uk:22 **mylogin**@sshgw.essex.ac.uk

(modify **host** for the host you wish to connect to and **mylogin** for your login name). This will prompt you for your password and if it works will look like it has merely hung. **Note:** if you are a PuTTY user, download plink.exe and use this in place of ssh.

Now in FileZilla, connect to sftp://127.0.0.1:2222 and you should then be able to transfer files.



When you have finished transferring your files, you can close FileZilla, then CTRL-C your ssh command.

University of Essex, Digital
Innovation and Technology Services

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