

# How to connect to the CCI server

We run the CCI server as a resource to host websites and projects for students and staff at CCI, the server currently hosts:

- Apache 2 (Web Server)
- PHP
- Node.js
- Python
- MySQL
- MQTT

For security reasons access to the server is via SSH (Secure SHell) using key authentication. To connect to the server you'll need to:

1. Request access via Slack #technical for a username and password
2. Create a public/private key pair on your computer
3. Upload the public key to the server
4. Login using SSH or SFTP

Creating an SSH key requires some basic SSH commands on your computer, it's also really important that you keep the private key secret and that you revoke it immediately if you ever lose it or suspect illegal access to your computer.

## Check for an existing key

1. Open the Terminal / Command Prompt
2. View the contents of the `.ssh` folder in your home directory

macOS/\*nix: `ls .ssh` and press enter Windows: `dir .ssh` and press enter

3. Check for 2 files `id_rsa` and `id_rsa.pub`

If these files exist then you have existing keys, otherwise follow the instructions to create a key

## Create a key

1. Open the Terminal / Command Prompt
2. Type `ssh-keygen` and press enter. The computer will hold on `Generating public/private rsa key pair.` for a short time.
3. Press enter when you see `Enter file in which to save the key (/Users/username/.ssh/id_rsa):`
4. Press enter when you see `Enter passphrase (empty for no passphrase):` unless you want to be prompted for a password when you connect to the server, in which case you should type

this now (when typing passwords in the Terminal it will not be visible).

- When you see `Enter same passphrase again:` either retype the passphrase or press enter for no password.
- You'll see a number of lines output:

```
Your identification has been saved in id_rsa.  
Your public key has been saved in id_rsa.pub.  
The key fingerprint is:  
SHA256:wS+TjYgAeQftejsnZOE4b7SQJ+iRAPAd6FwA1/ykCcY username@computername  
The key's randomart image is:  
+---[RSA 3072]----+  
|==++B.          |  
|o+E.*...        |  
|.o=.o=.o        |  
|.o.=...*         |  
|...=...So        |  
|.oB B o          |  
|. .@ o           |  
|. B .            |  
|. .+             |  
+----[SHA256]-----+
```

After this is complete you should check the key using the previous instructions.

## Upload the key

- Open the Terminal / Command Prompt
- Copy the contents of `id_rsa.pub`

macOS: Type `pbcopy < ~/.ssh/id_rsa.pub` and press enter, this will copy the key to your clipboard.

Windows/Linux users go to your file browser and find the folder `.ssh` in your home directory and then open `id_rsa.pub` in your plain text editor and copy the text.

### Tip

Your username is the one for the CCI server, not your UAL login.

- Open a web browser and login using your username and password a <https://cci.arts.ac.uk:20000>
- Select SSH Configuration
- On your first login you need to select Key Type as `RSA (for SSH v2)` and then press `Setup SSH Keys`

6. Select "Authorised Keys"
7. Click "Add a new SSH 2 authorised key"
8. Type a key name as one word i.e. "MyKey"
9. Set the type to "RSA"
10. Paste the key into the large text box, and remove the suffix (`ssh-rsa`) and prefix (`username@computer`) as highlighted...

#### “ ssh-rsa

```
AAAAB3NzaC1yc2EAAAADAQABAAQGCvYsTJEU5YabS5sXnquAh7Cxn+UK9Rmc
f2iM+qsObyOp4VWcSCGHUHGsgUPnSeOijtwdRGQI8M7ZcXKuUFSOV2FCHTFzTi
G7F/lrFWt/PpgPUajCF3WXmH19baCBO6ymTV3wUWXg7xHsSc83k+cb9af5QT+ml
315vqSF45oO935DadaOJnKTZkMHLBydmIVSkxDFWHLkNURw7jmDNwZ2yNCru6y
2iamgdQFwGxoNIVewhG+k2jUKURN7JeGP/4dOD8u+ajeY57wp3+GxQKcp/JvtDhF
Ux92TO+1SIYk1ZcKilxActc3L6j2U3TIk3LOCryBmwPNeeHuhLgD4ePsR4PsHz5zdO
smTLvjfM4n6B5K+Y52Re+gOE3dG5gjkvY/bhQdKGes1hBP2p3NW8/vjdZ08/auCs
wEFWoCnDKT9h8OQUTEjtywDzius6LYIHZFSLTnedEf54CfePzVcDNhdSuKc2SD6df
gE+Jk/zzqpBNmLjwCb0jxrWU0xyQDGBQFk= username@computer
```

11. Press Create

## Verify SSH key

### Tip

Remember to replace username with your CCI server username, not your UAL username!

1. Open the Terminal / Command Prompt
2. Type `ssh username@cci.arts.ac.uk -p 2020` and press enter
3. You will see the UAL CCI logo if you've logged in correctly:

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```

```
_|||_|> |_| ||||_|_
```

Welcome to the CCI server

Ada Lovelace

cci.arts.ac.uk



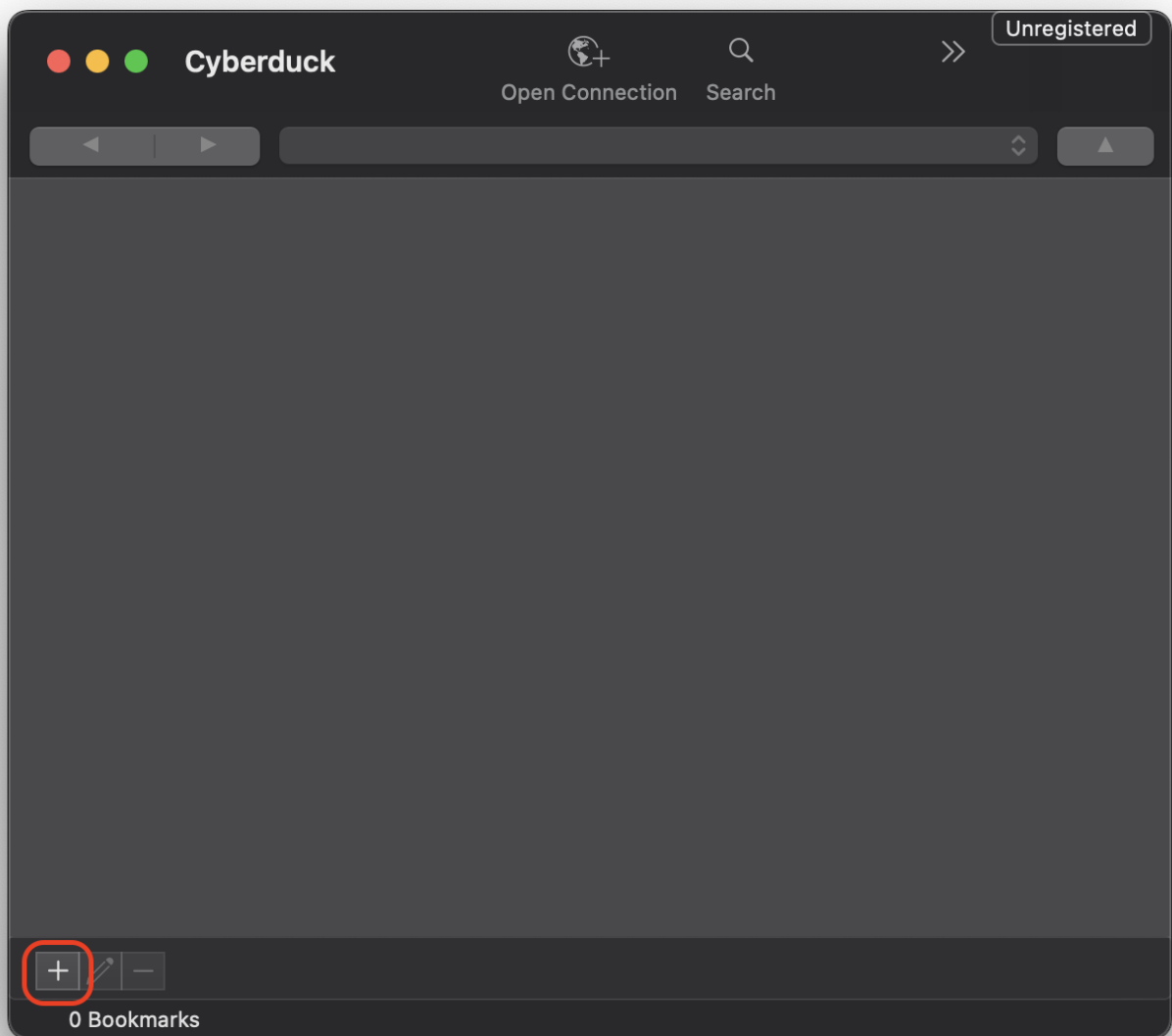
1. Type `exit` and press enter to disconnect.

If you've seen the UAL CCI logo it means everything is working, otherwise you'll need to check your steps, or contact support in Slack #technical sharing a screenshot of the issue you're trying.

## Using SFTP with CyberDuck

💡 Tip: Don't type your password as it may not work.

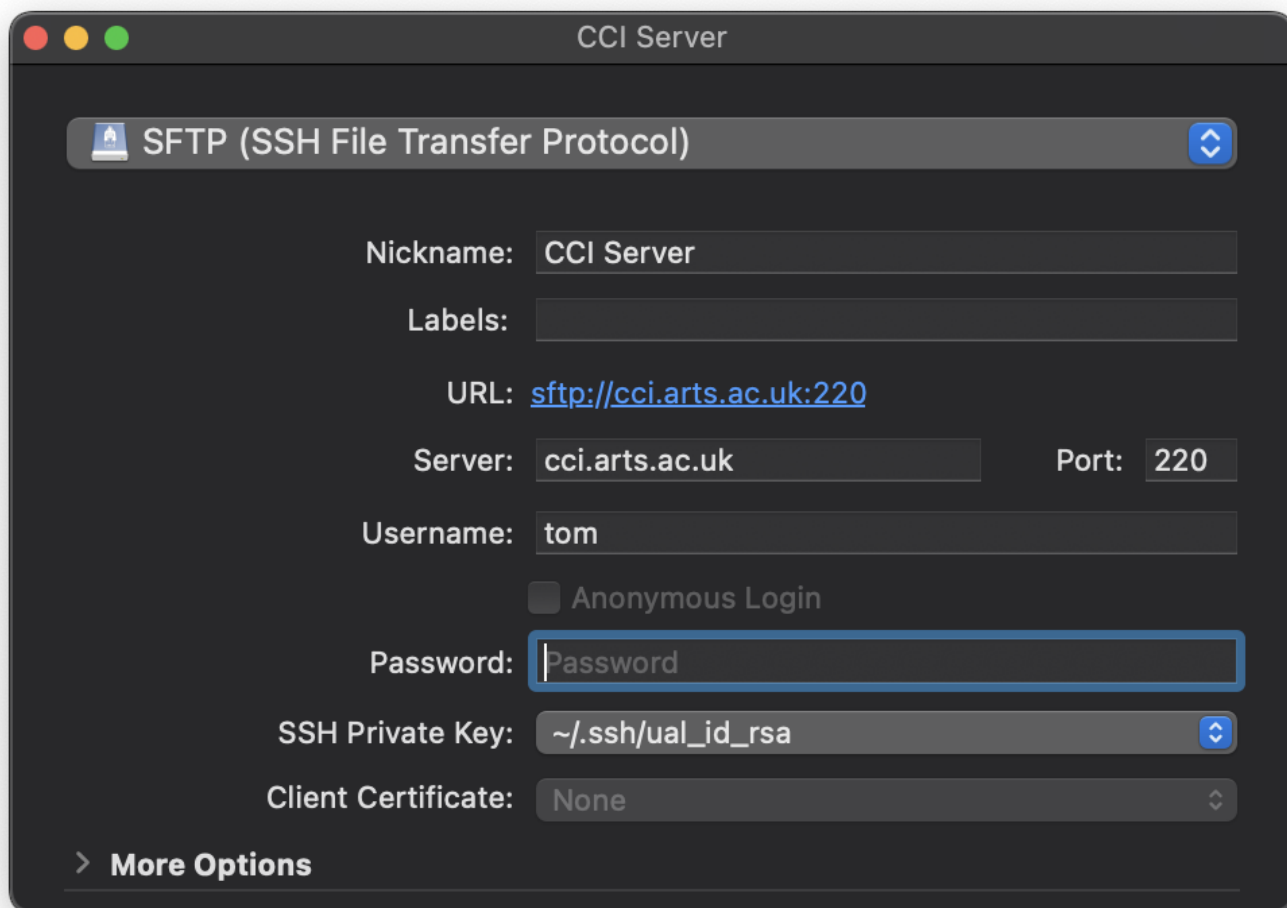
1. Open CyberDuck
2. Click the `+` button in the bottom left corner of the main window



3. Choose "SFTP" from the dropdown list at the top
4. Pick a nickname like "CCI"
5. Enter the server details:

- **Server:**
- **Port:**
- **Username:** *your cci server username*
- **Password:** *leave blank*
- **SSH Private Key:** Pick from the list, there will probably only be one option ending...

6. Close the window, no need to save!



7. Double click on the blue drive icon that appeared with your nickname "CCI" in the main window.

You should now be connected, if you experience issues please screenshot and share in Slack #technical.

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