

Practical 1 - RVDS Exercise

Overview

- Setup and Connect to the Research Virtual Desktop Service using X2go
- Connect to iCSF
- Suspend and Resume X2Go session

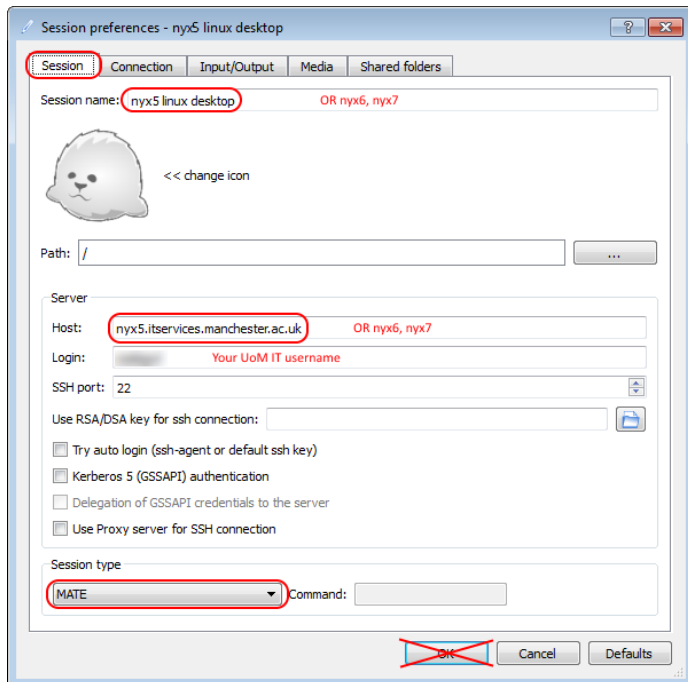
Note

- Further information and instructions for other operating systems can be found by following this link.
<http://ri.itservices.manchester.ac.uk/virtual-desktop-service/x2go/>

1. Virtual Desktop --- X2Go

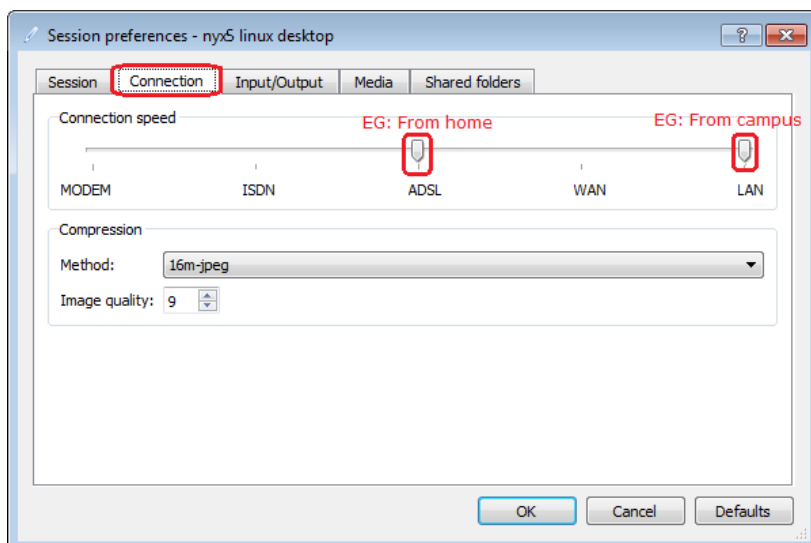
- Download and install X2go - <https://wiki.x2go.org/doku.php/download:start>
- Open X2go
- **Session >> New Session**

Session TAB

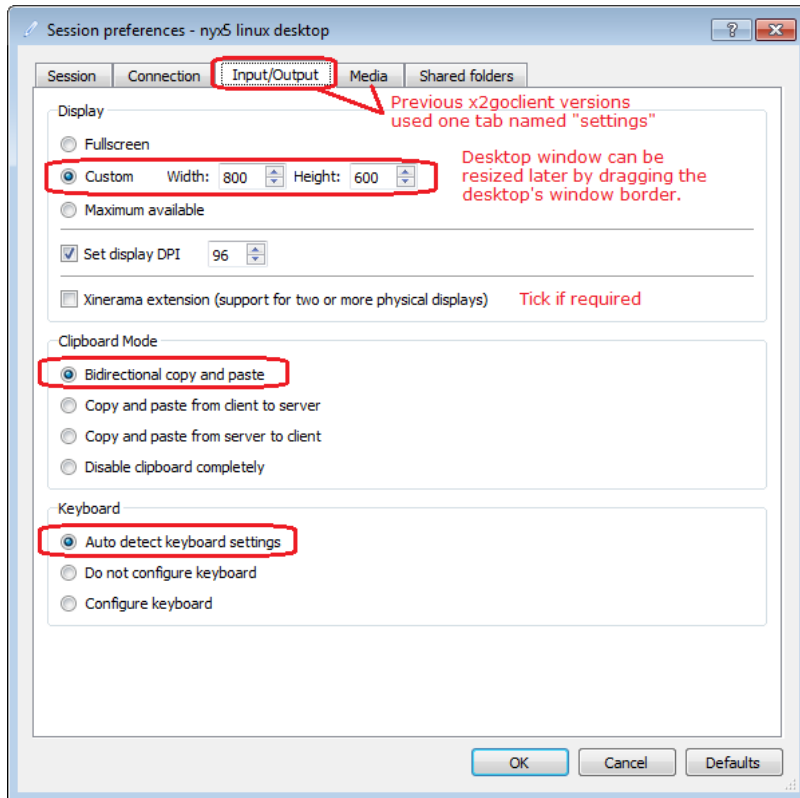


- Set the host to be one of the following:
 - nyx5.itservices.manchester.ac.uk OR
 - nyx6.itservices.manchester.ac.uk OR
 - nyx7.itservices.manchester.ac.uk
- Set the login to be your central University username.
- Set the Session type to be MATE for use with nyx5 and nyx6 and nyx7.
- **DO NOT** select OK just yet. **DO** select the Connection tab.

Connection TAB

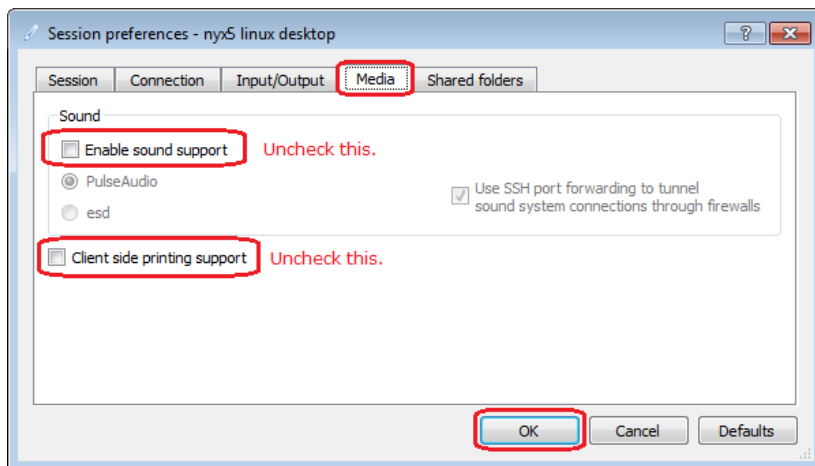


Input/Output TAB



- Allowing X2GO to automatically choose the keyboard settings is usually the best option. If it can't detect your keyboard settings then keys may behave incorrectly (e.g., cursor keys don't work or some characters such as @ and " are the wrong way round.) In this case, choose Configure Keyboard and change the Keyboard settings to match your own hardware. Note that for British English keyboards specify gb (rather than uk). Try using pc105 for the model and gb for the layout. Variant is usually left blank.

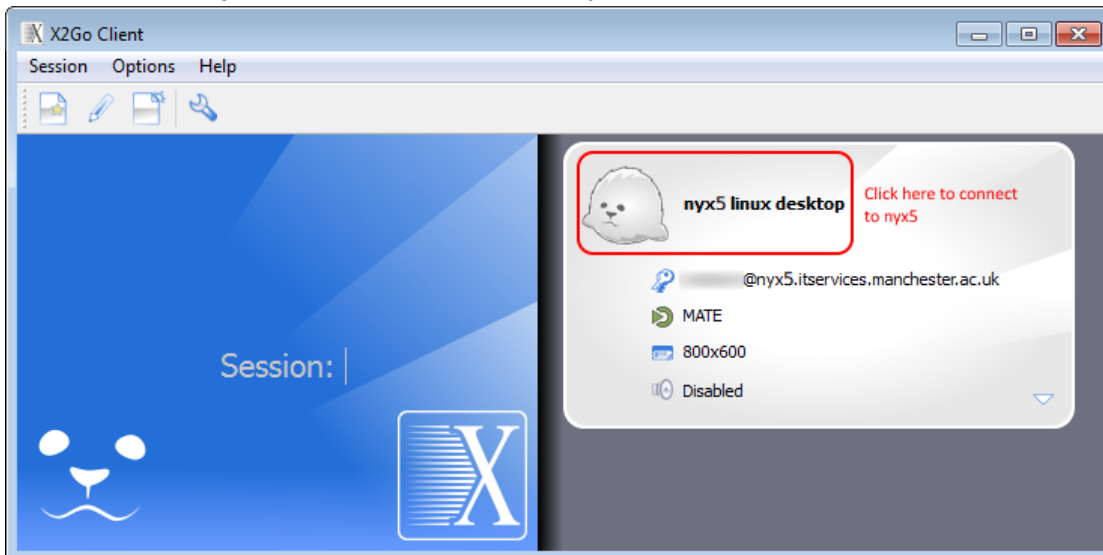
Media TAB



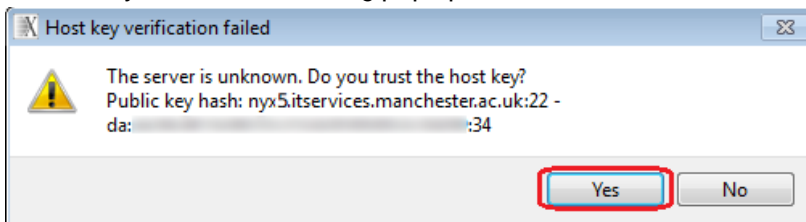
- **Uncheck** the two boxes
- Disabling sound support and printing will increase performance, but this is optional.
- Click **OK** to finish configuring X2Go

Start X2go Session

- On the X2go home screen select the '**baby seal**' to start the session



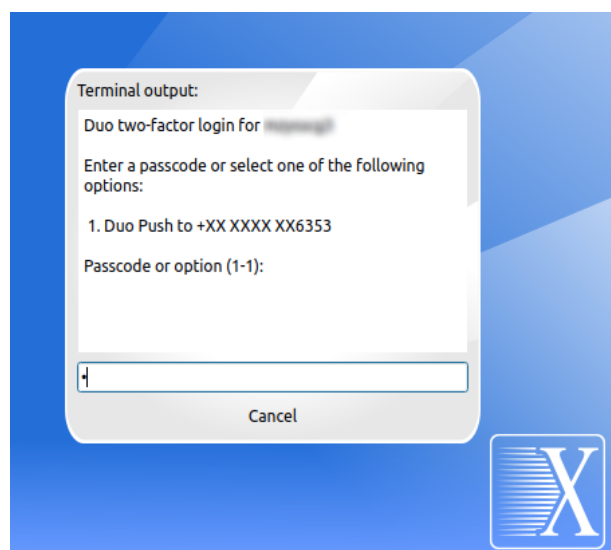
- When prompted Enter your **central username** and **password**
- If you see the following pop up select **YES**



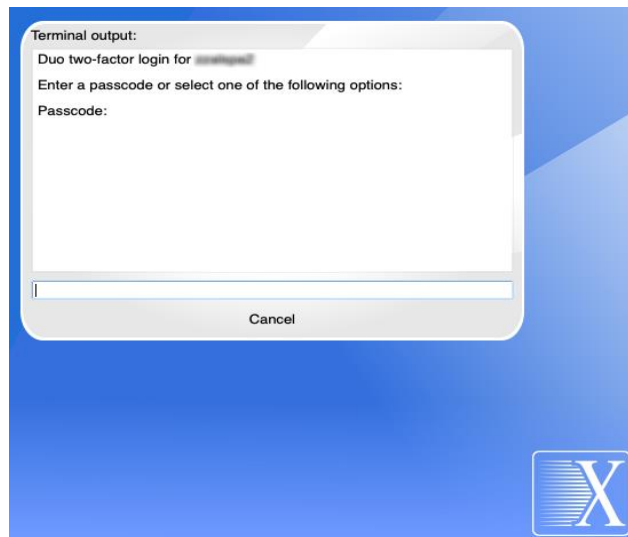
On-Campus

If on-campus and not connected to the University VPN you will need to authenticate using your 2FA device.

- If you use the Duo mobile app as your 2FA device, Enter '1' in the text box and press enter (text input will appear as a dot/s). Once the push notification has been received via the Duo mobile app 'Approve' the request in order to log on.



- If you use a Duo fob as your 2FA device, generate a passcode with the fob, type the passcode into the text box and press Enter (text input will appear as a dot/s).



Off-campus

If logging in from off-campus you will first need to be connected to the [University VPN \(GlobalProtect\)](#) – You may already connect to the University VPN in order to access your email.

- University *managed* laptops already have the GlobalProtect software installed. You can also download it and run it on your home PC/laptop.
- If not already installed, please install the [IT Services VPN Software \(GlobalProtect\)](#) on your home PC/laptop.
- This facility is provided by IT Services (not Research IT). Requests for help with the VPN and/or GlobalProtect should be made to [via the Support Portal](#).

You should now be at the nyx5 (or nyx6 or nyx7) virtual desktop (which is running the MATE desktop environment on Linux. If you've rejoined an existing session, you'll see any windows you had opened on the desktop. If you didn't have an existing session running you'll be given a new session with no windows currently open. See the [example usage](#) for screenshots of the virtual desktop and instructions on how to connect to the CSF (or other system) from the virtual desktop.

2. Log into iCSF

- Using the toolbar at the top of the Virtual Desktop (X2go) open Terminal:
 - **Applications ----> System Tools ----> Terminal (MATE Terminal)**
- You should have a white window with a prompt:
`[username@nyx5/6/7 ~]$`
- This is the command line. At the prompt type:
`[username@nyx5/6/7 ~]$ ssh -X username@inline2000.itservices.manchester.ac.uk`
*** Replace username in the above with your actual IT username ***
- Press Enter
- You may get a prompt asking you to accept a key – say 'yes'. (You may get this frequently when connecting to iCSF, this is because there are several compute nodes and you may get a different key sometimes). Your password is your central password (When entering password you will not see any input). It takes a little bit of time for iCSF to decide which compute node to place you on. Occasionally you will get a timeout error and you are not logged on to iCSF – try again.

On-campus

If on-campus you will need to authenticate using your 2FA device.

- If you use the Duo mobile app as your 2FA device, Enter '1' at the prompt and press Enter. Once the push notification has been received via the Duo mobile app 'Approve' the request in order to log on.

```
$ ssh -X username@incline2000.itservices.manchester.ac.uk
Password:
Enter a passcode or select one of the following options:

1. Duo Push to +XX XXXX XXX555

Passcode or option (1-1):1
```

OR

- If you use a Duo fob as your 2FA device, generate a passcode with the fob, type the passcode at the prompt and press Enter

```
$ ssh -X username@incline2000.itservices.manchester.ac.uk
Password:
Duo two-factor login for username

Passcode: 123
```

Off-campus

If logging in from off-campus you will first need to be connected to the [University VPN \(GlobalProtect\)](#) – You may already connect to the University VPN in order to access your email.

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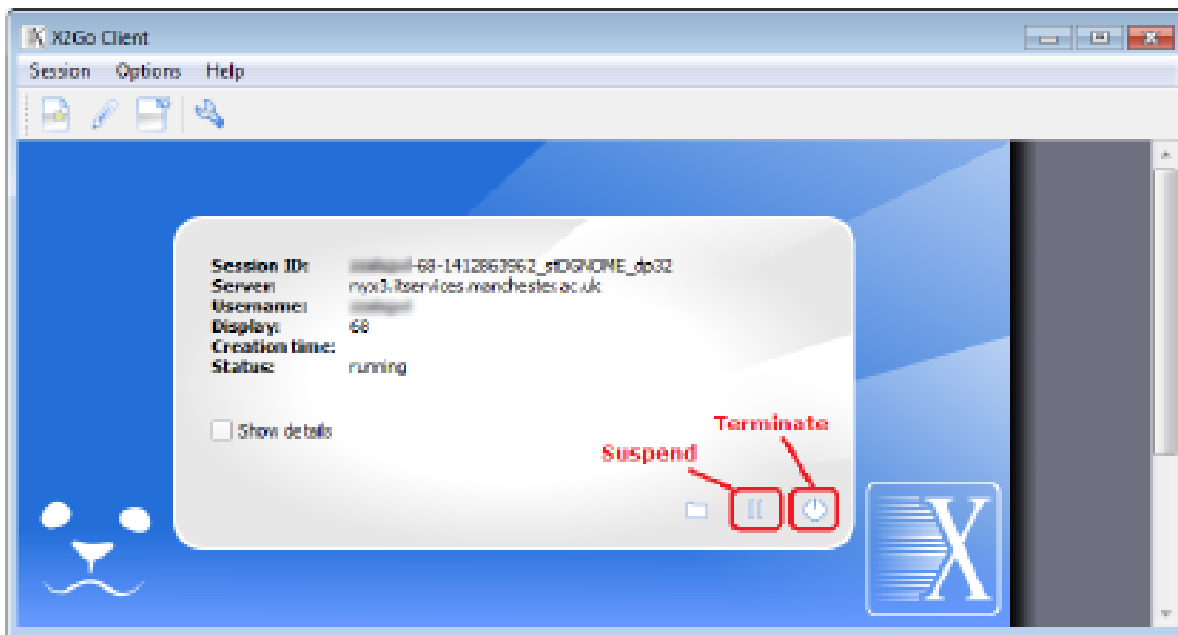
You should now be connected to an iCSF compute node. Notice that your prompt has changed to

```
[username@incline31 ~]$
```

***** Please Note when logging in to the iCSF you will be logged directly on to a backend node. The node is indicated by the 2 digit number in the above example the backend node is '31'. *****

3. Using the 'suspend/resume' function of X2Go

- X2Go always leaves a 'management' window open which looks a little like this:



- You should be able to see there that you have a running nyx* session and at the bottom of that a **suspend** button that looks like pause on a CD/media player – [click on it](#) (see above picture).
- Your desktop window disappears. Now **close** the X2Go management window in the usual way.
- Wait a minute or two before doing anything else.
- Imagine you've gone home, and a few hours later want to reconnect to the same session. Start the X2GO software, select the nyx* and log in.
- You should see the same inline session that you started at the beginning of this section.