



Connecting to the MPI-P with MobaXterm

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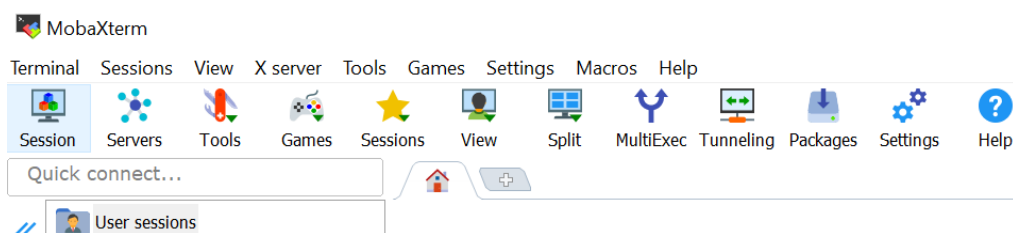
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Windows 10 Build 1803 and above contain the OpenSSH client. You can change your SSH keys password as described at “Changing the SSH key’s password”.

Do not use MobaXterm version 22.0 !!! This version has issues.

1 SSH Session to your Linux Office PC

After starting MobaXterm press the “Session” button in the upper left of the MobaXterm window.



In the window popping up, press the “SSH” button in the upper left.

In the session settings enter:

*kleinrob@mpip-mainz.mpg.de

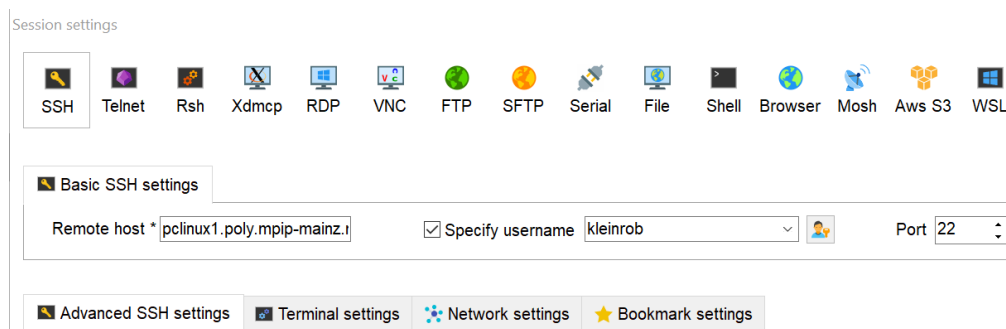


Figure 1: Choosing “SSH” and setting the PC you want to connect to

- As “Remote host” your PC at the MPIP. If you do not have a Linux PC of your own, please use `pclinux1.poly.mpip-mainz.mpg.de`.
- Check “Specify Username” and enter your user name at the MPIP (that’s the part of your email address *before* the @ character).
- Optional: using an SSH key.

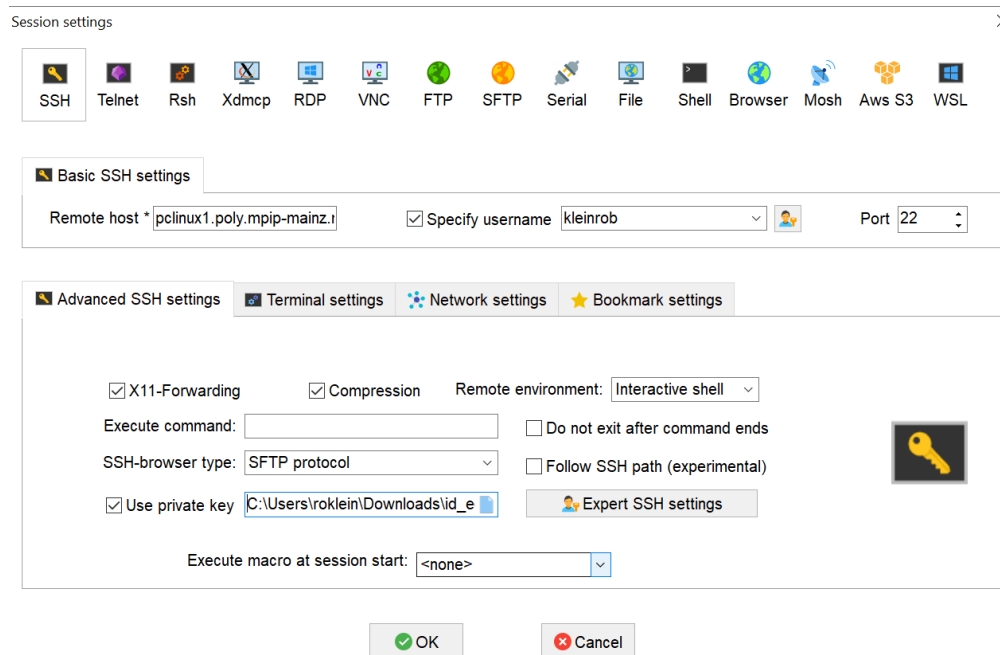


Figure 2: Using a private key to authenticate at your PC

If you have added your public SSH key to the `.ssh/authorized_keys` file on your MPIP Linux PC, you can use the SSH key – instead of your password – to authorize yourself to your PC.

To use the SSH key you got per mail together with the password for the login server, click

the “Advanced SSH-settings” tab below, check “Use private key” and enter the path to your private key on your local computer.

Note: If you haven't added your SSH key you'll get an error message “Server refused key” and will later be asked to enter “USER@127.0.0.1's password” (where 127.0.0.1 is really your Office PC and the password your MPI-P password).

- Add the gateway host.
 - Click the “Network Settings” tab.
 - check “Connect through SSH gateway (jump host)
 - MobaXTerm v22.1 and above:
 - * press the large “SSH Gateway (jump host) button”:

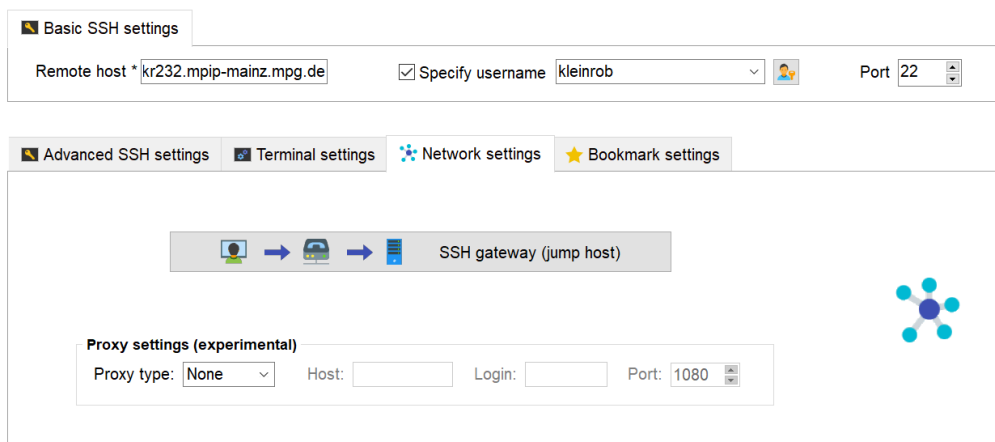


Figure 3: Choosing the “SSH Gateway option”

- * Entering the Gateway information:
 - Enter “login2.mpip-mainz.mpg.de” as “Gateway host”
 - Enter your MPI-P username in the „Username“ field
 - Check „Use SSH key“
 - Enter the path to your private key on your local computer.
 - Click „OK“
- MobaXTerm below v22.0
 - * Enter “login2.mpip-mainz.mpg.de” as “Gateway SSH server”
 - * Optional: Check “Use private key” and enter the path to your private key on your local computer.
- Click “Ok”.
- At first connection MobaXTerm asks you to accept the server identity. Click “Accept”, here.

When you start a session now, you'll first be asked to enter your SSH keys password. Then you get asked to enter your password on “login2.mpip-mainz.mpg.de”. This is the password you get from the authenticator app on your phone.

Please don't save the password, it'll be invalid in thirty seconds.

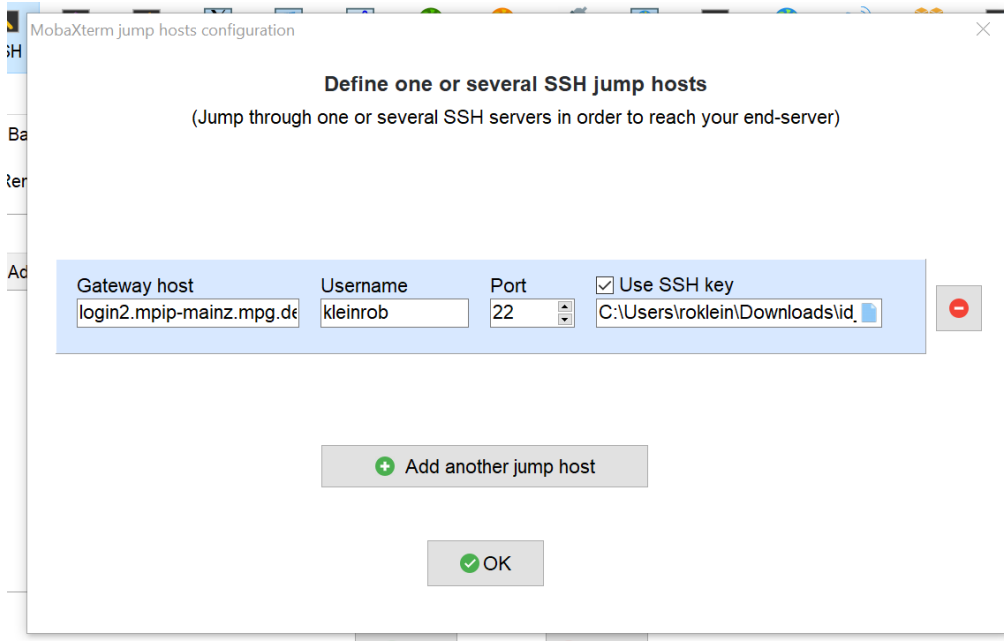


Figure 4: SSH Gateway dialog

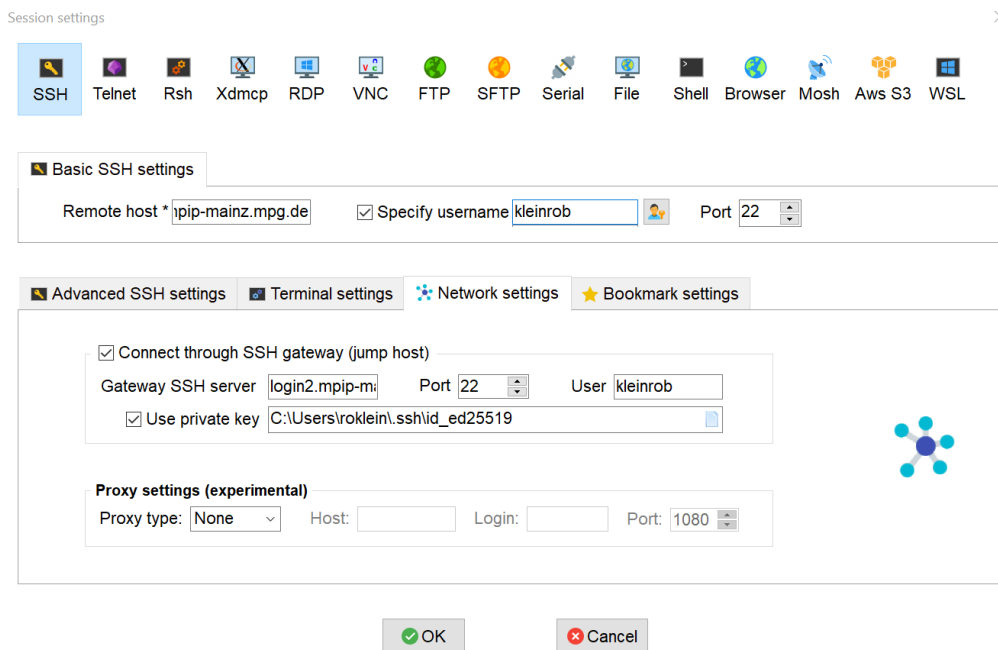


Figure 5: Setting login2.mpip-mainz.mpg.de as gateway into the MPI-P

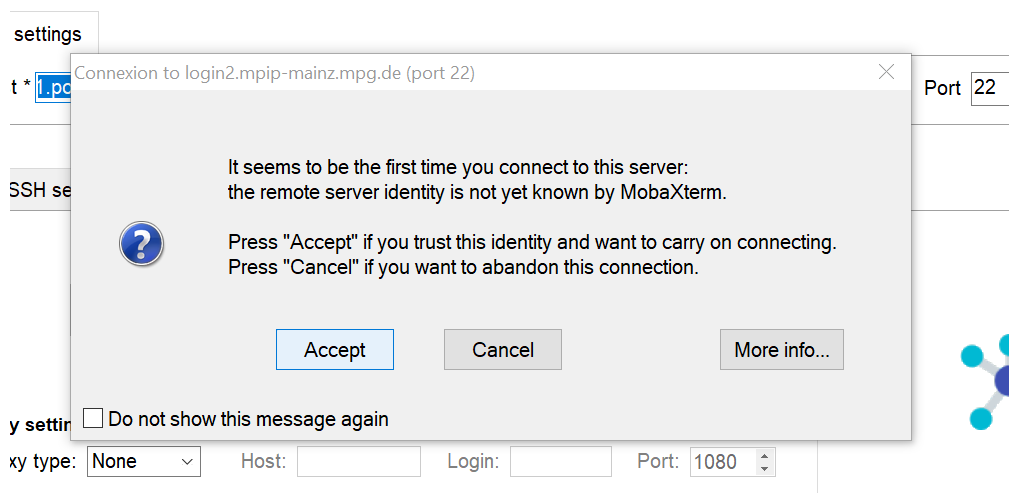


Figure 6: Accepting server identity at first connection

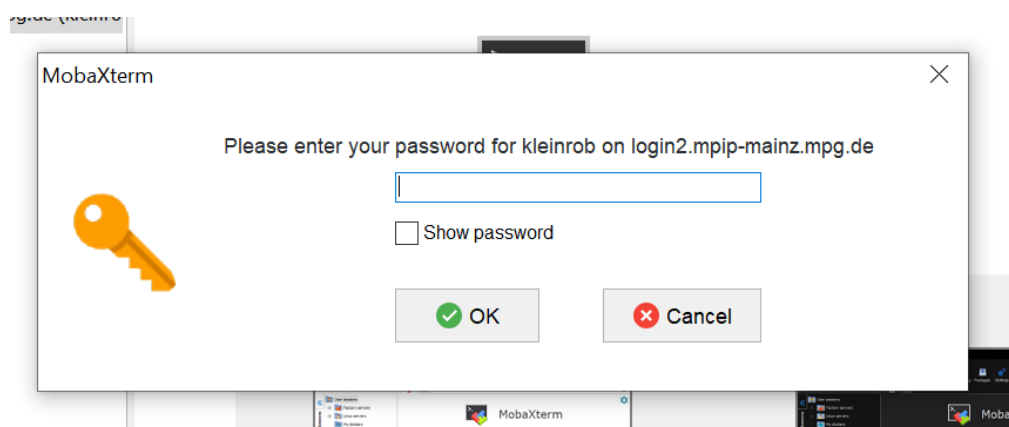
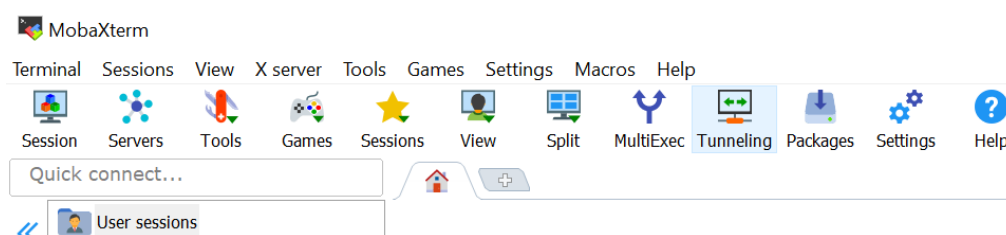


Figure 7: Entering the 6-digit password from the authenticator app.

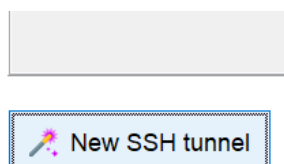
2 Establishing a tunnel to your Linux Office PC

Why? you might ask. Perhaps you want to run Jupyter Notebook using the power and disk space available to your Office PC and use the Web interface on your local computer.

After starting MobaXterm press the “Tunneling” button in the upper left of the MobaXterm window.



Press "New SSH tunnel in the new window:

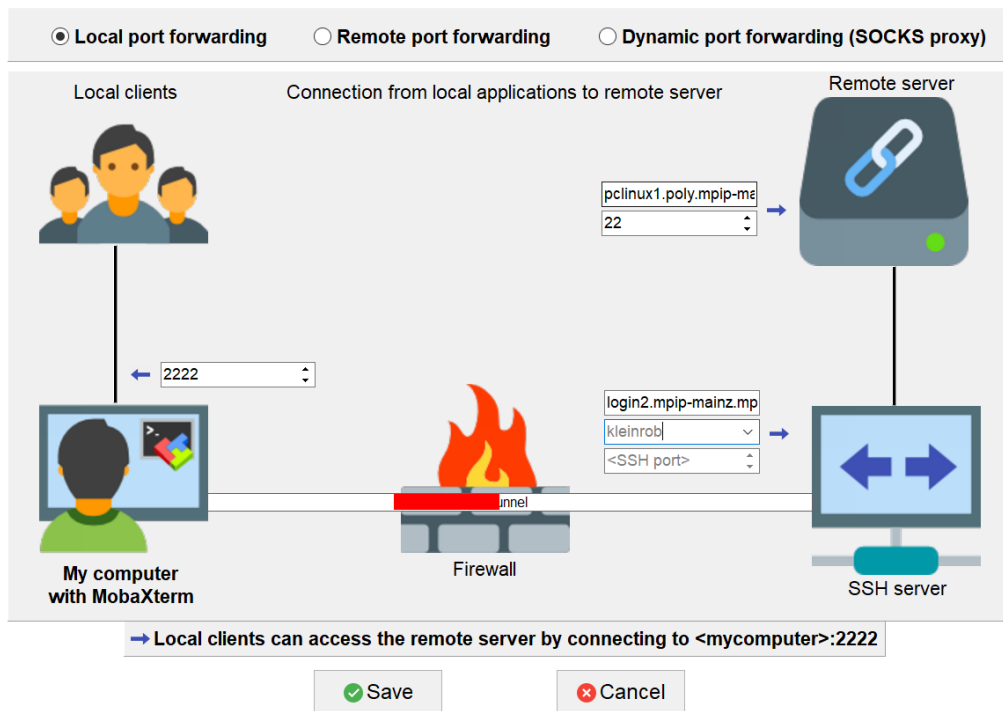


In the setup window enter:

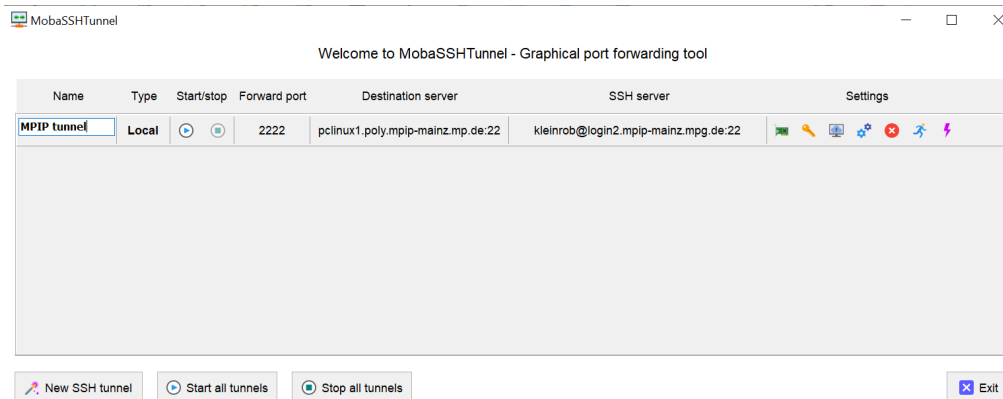
- as "Forwarded port" the value "2222" – this is the listening port number of the tunnel on your local computer.
- as "SSH Server" the value "login2.mpip-mainz.mpg.de"
- as "SSH login" Your MPIP user name
- leave "SSH port" empty
- as "Remote server" your computer at the MPIP, e.g. "pclinux1.poly.mpip-mainz.mpg.de"
- as "Remote Port" the value "22"

Then click the "Save" Button.

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In the tunnel overview give your tunnel a name, e.g. “MPIP tunnel”:



If you want to use public key authentication, click the key symbol under “Settings” and choose your private key file.

To Start or Stop the tunnel click on the symbols in the Start/stop column.

Note: You’ll have to start a SSH session as described under “SSH Session to your Linux Office PC” first.

3 Copying files

When you have a SSH session open in MobaXterm you'll see your files on the MPIP Office PC to the left of the terminal window. You can drag and drop from there to your local computers explorer and vice versa.

4 Using Jupyter Notebook running on your office PC

Note: I didn't get this working on MobaXTerm version 23.5. If you have a working setup, please share it with me.

Note: If you're using an office PC not your own, please use another port number for Jupyter Notebook, so you don't block your colleague's work – Use for example the last four digits of your numerical Account ID at the MPIP; see the output of “id -u” and add, for example 9000. A simple command to get an ID is “echo \$((9000 + \$(id -u) - 1000000))”. Should the number already be in use, please add another 1000 or 2000. Thank you very much.

First start your Jupyter notebook on your office desktop in an SSH session, my port is 9000:

```
jupyter notebook --port 9000 --no-browser
```

Note: it is important for this SSH session to already exist, so the tunnels piggyback on this session and you don't get asked the one-time password again.

Set up a tunnel as described in “Establishing a tunnel to your Linux Office PC” above and start it.

Set up a second tunnel using the following values:

- “Forwarded port”: your Jupyter Notebook port, e.g. 9000
- “SSH-Server”: localhost
- “SSH login”: your MPIP user name
- “SSH Port”: 2222
- “Remote Server”: 127.0.0.1
- “Remote Port”: your Jupyter Notebook port, e.g. 9000
- press save give it a meaningful name, e.g. Jupyter@pclinux1

Start this tunnel, too.

Now copy your jupyter notebook URL into your local browser and start doing your Jupyter stuff.