

Connecting to the guernika server from outside the laboratories and file manipulation through SSH

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1. On Windows Platform

1.1. Downloading the program

A free software called MobaXterm is used, which is a terminal containing Shell bash and a number of tools available for Unix/Linux. Thanks to this software, the following tools are made available:

- Remote connection clients through the terminals SSH, Telnet, rlogin, Mosh.
- Remote desktop clients like RDP, VNC, Xdmcp.
- Other remote connections: FTP, SFTP, etc.
- Server X integrated with graphic acceleration.
- Possibility of using various sessions with different protocols from a window.
- Possibility of adding new functions and tools with the use of plugins.

It can be downloaded directly from the following link:

<http://mobaxterm.mobatek.net/download-home-edition.html>

1.2. Installing the program

It should be noted that there exists two types of downloads. The portable edition and the installer edition. Firstly, the portable version, does not require installation and can be easily stored in a USB. If download is done in this manner, a .zip file is obtained which can then be unzipped to use the program. To do that:

1. Right click on the file and select the option **Extract all...**
2. Select the location where you would like to store the extracted files
3. Select **Extract**
4. You will receive a folder with the files of the application:
 - **MobaXterm_Installer_23.6**

The second option is to use an installable version. On clicking the option of installer edition, a file of format **.msi** will download which will allow for the program to be downloaded onto the computer. When this file is run, a guiding window will appear for the installation.

On running the application, the following window will appear:

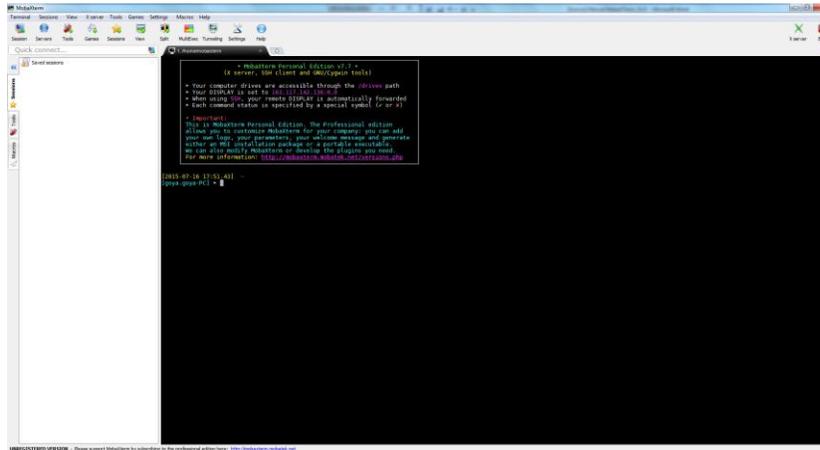


Illustration 1. MobaXterm workspace

1.3. Connecting to the guernika server

Once the program is installed, we will proceed to start the SSH session in the **guernika** server. To do this, we click on the **Session** icon in the upper left part of the window. The following window will open:

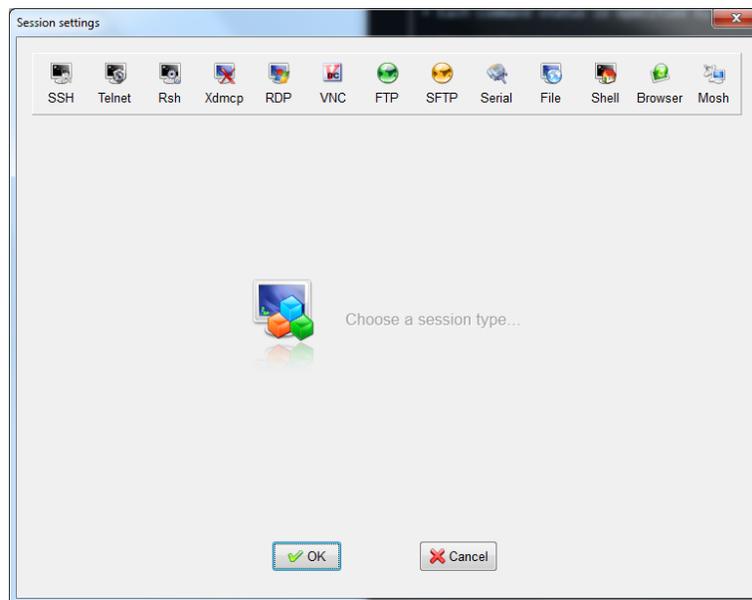


Illustration 2. Window to choose the type of connection

Select SSH. In the **Basic SSH settings**, we input the following data:

- **Remote host:** Direction of the server (**guernika.lab.inf.uc3m.es**).
- Select **Specify username** and fill in your lab username (**a0XXXXXXX**).
- **Puerto:** 22, corresponding to the SSH connection.

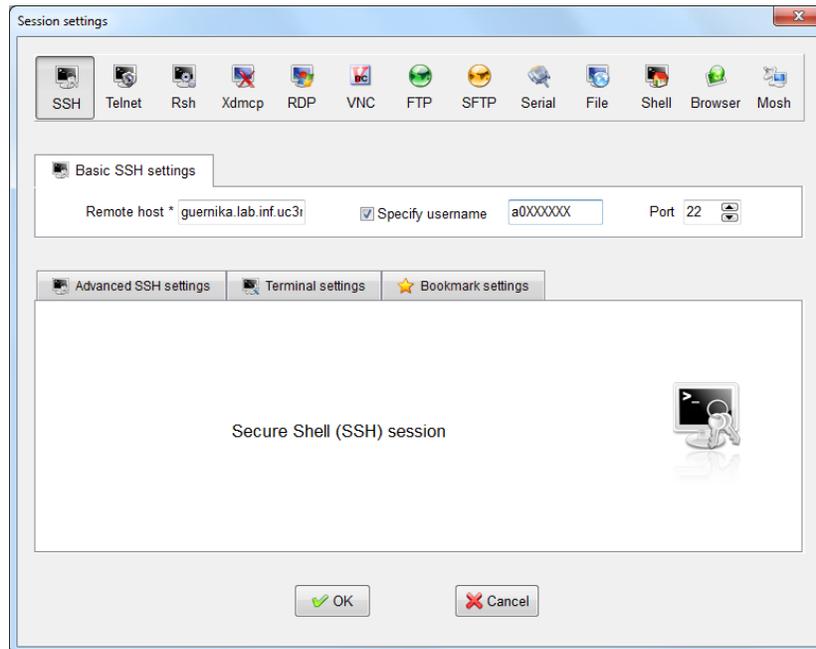


Illustration 3. Configuring the connection

Click **OK**, introduce your password and click **enter**. After this, all directories relating to the laboratory of computer science will become available on the left side of the window. As shown below:

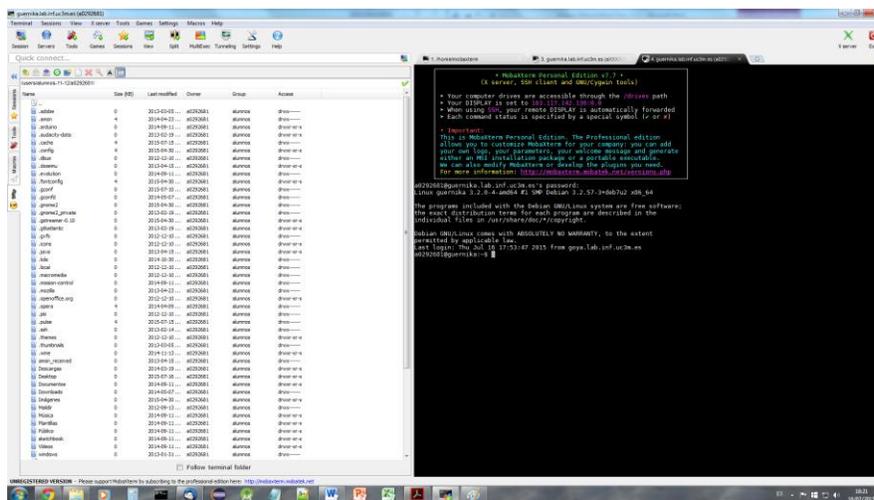


Illustration 4. Established connection to the Guernika server

1.4. Transferring files

Files and directories can be transferred by simply dragging them from the window of MobaXterm to the window of file browser and viceversa.

2. On Linux or MacOS

2.1. Connecting to the Guernika server

In order to use this method, a shell of the UNIX system is needed that provides the ssh application. These requirements can be met by nearly all systems based on UNIX.

Connect to the server of the laboratory by running the ssh command in the following manner: (Replace a0XXXXXX with the login username):

```
ssh -p 22 a0XXXXXX@guernika.lab.inf.uc3m.es
```

NOTE: On the laboratory computers, substitute the "io" for an "a" in the beginning of the NIA of the student.

2.2. Transferring files

Use the command **scp** to transfer the files from the local computers to a remote account and viceversa. The operations are the following:

- To copy the files from the local computer to a remote account:

```
scp -P 22 "local_file" "remote_directory"
```

Eg: scp -P 22 ejemplo.zip a0XXXXXX@guernika.lab.inf.uc3m.es:~/

- To copy files from a remote account to the local computer:

```
scp -P 22 "remote_file" "local_directory"
```

Eg: scp -P 22 a0XXXXXX@guernika.lab.inf.uc3m.es:~/ejemplo.zip ejemplo.zip

NOTE: On the laboratory computers, substitute the "io" for a letter "a" in the beginning of the NIA of the student.