1

Accessing the reference computers from other networks without remote desktop connection

IMPORTANT NOTE:

- **Reference computers can be accessed at IP address 10.10.5.120.**
- **Save your work within folder `FIC_BOX/linux`. Anything stored out of this directory WILL BE DELETED once you log out.**

1.1 Selecting the network

If you are in the campus or in the faculty, just connect your computer (by wifi) to `eduroam`. If you are off campus, then you need to make use of the UDC VPN service through the following url `https://vpn.udc.es/estudantes`

1.2 Connecting from GNU/Linux and Mac OS X

1. Open a terminal.
2. From your terminal, connect to the reference computer through `ssh` using its IP address (`10.10.5.120`) like this (replacing `name.surname` with your own login):

   ```
   user@machine:~$ ssh "name.surname@udc.pri"@10.10.5.120
   ```

3. In your first connection to the remote computer, a message like this will be shown in your screen. Answer `yes`.

   ```
   The authenticity of host '10.10.5.120 (10.10.5.120)' can't be established.
   RSA key fingerprint is e3:1a:0f:fa:8a:88:03:b9:dd:fe:ef:20:64:e8:3b:cd.
   Are you sure you want to continue connecting (yes/no)?
   ```

4. Next, input your password.

   ```
   Password:
   ```

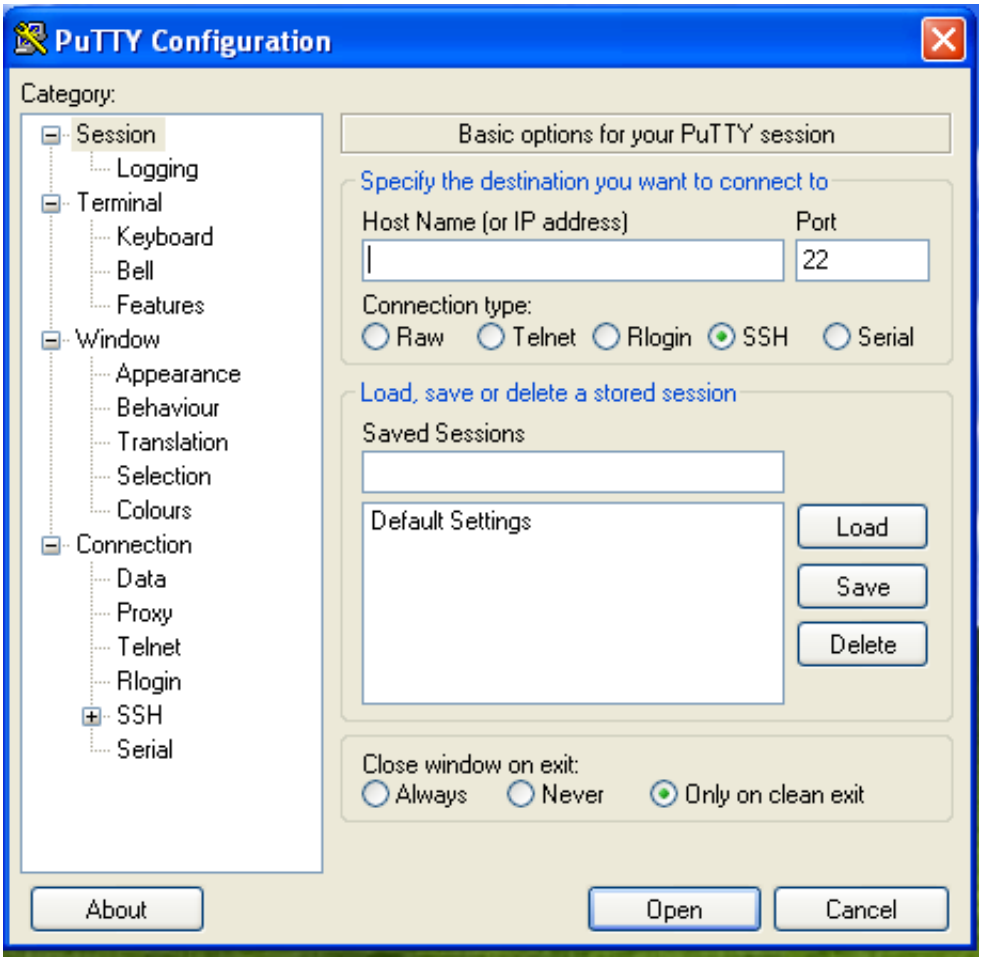
5. If your identification is successful, you will enter into the root folder of your account at the remote host:

```
Welcome to Ubuntu 14.04.5 LTS (GNU/Linux 4.4.0-59-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

Your Hardware Enablement Stack (HWE) is supported until April 2019.
name.surname@l005:~$
```

1.3 Windows systems

1. Firstly, you need to install an ssh client. Although you will find several clients publicly available, we suggest to install `putty` `http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html`. It is ad-free and very easy to use.

2. Launch `putty`. The following window will appear:



3. Enter the following parameters and click `Open`:

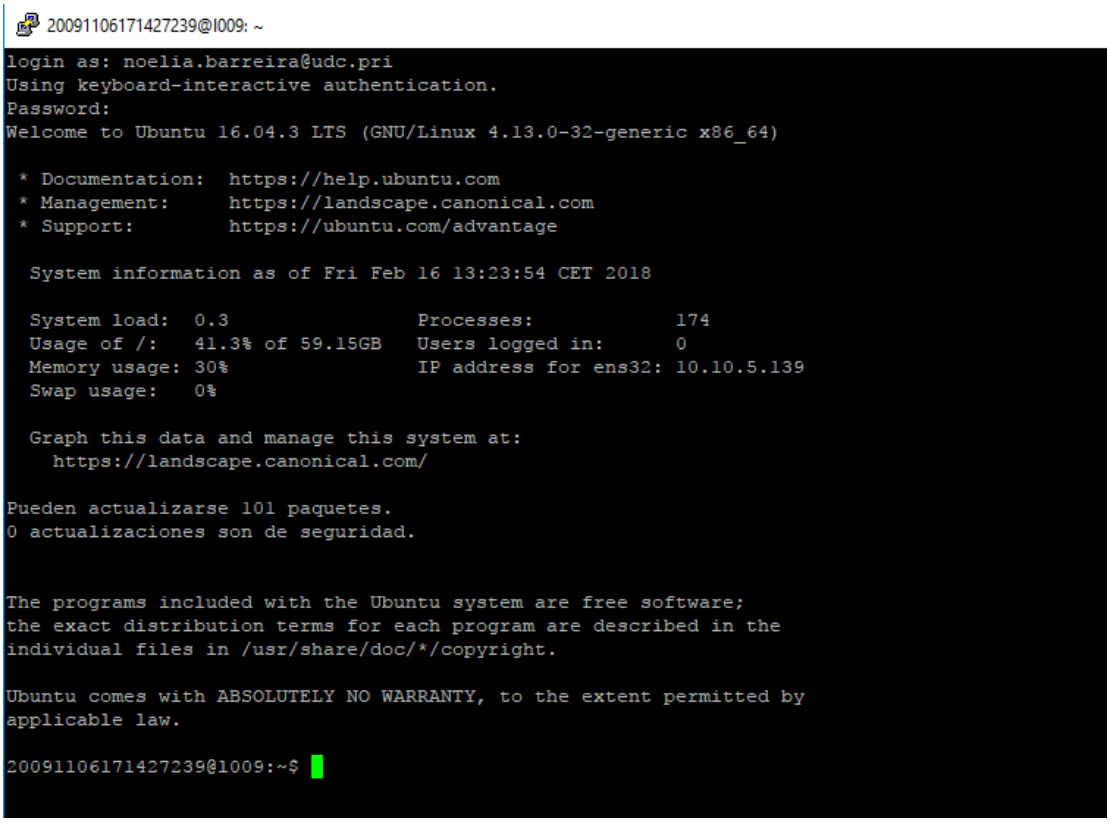
   Host name 10.10.5.120

   Port 22

   Connection type SSH

4. The first time you connect to a given computer, you will get a warning message like this. Click `Yes`.

5. A terminal will be opened, and you will be prompted to enter your UDC credentials (with `@udc.pri`):



6. If your identification is successful, you will enter into the root folder of your account (at the remote host).

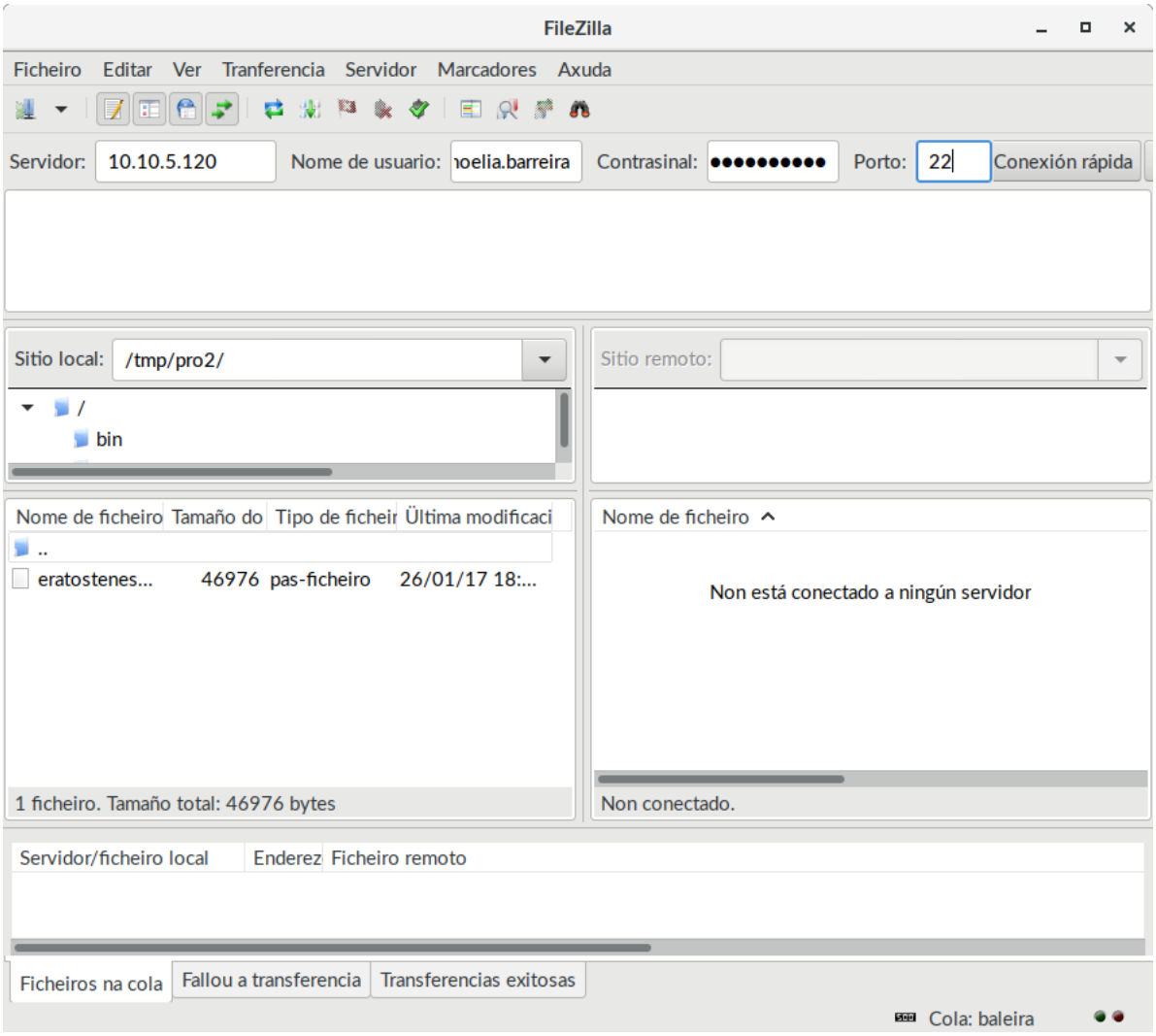
2

Copying files to your UDC account from other networks

Once you are connected to a reference host, you will have access to the tools available in that remote computer (such as compilers, debuggers, etc).

However, if you are working from your own computer, you will probably need to transfer the files you are editing to your UDC account at the remote host. One possibility that is available in all platforms, is to use a `ftp` client to make a remote copy of your files. A well-known free open-source client is `filezilla` (`https://filezilla-project.org/`), available for GNU/Linux, Mac OS X and Windows.

The main window of this tool is divided in several sections. In the upper part, you can enter the access data needed for a quick connection. Just below, log messages exchanged between the local client and the remote server will be shown. The central part of the window is divided into two panels. The left panel presents the directory tree of the local host and, just below it, a list with the content of the directory currently selected is also shown. Meanwhile, the right panel shows the directory tree of the remote host and the files it contains. Finally, the lower part presents information about the file transfer process.



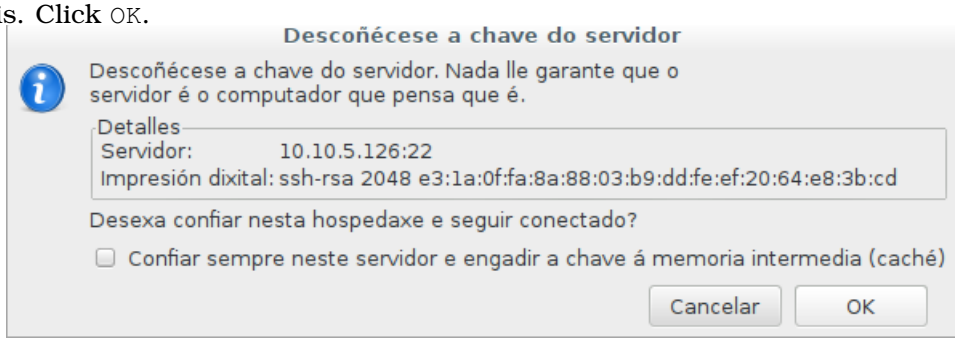
The connection data you need to enter (in the upper part of the window) to access your UDC user account are the following:

Servidor (Server) 10.10.5.120

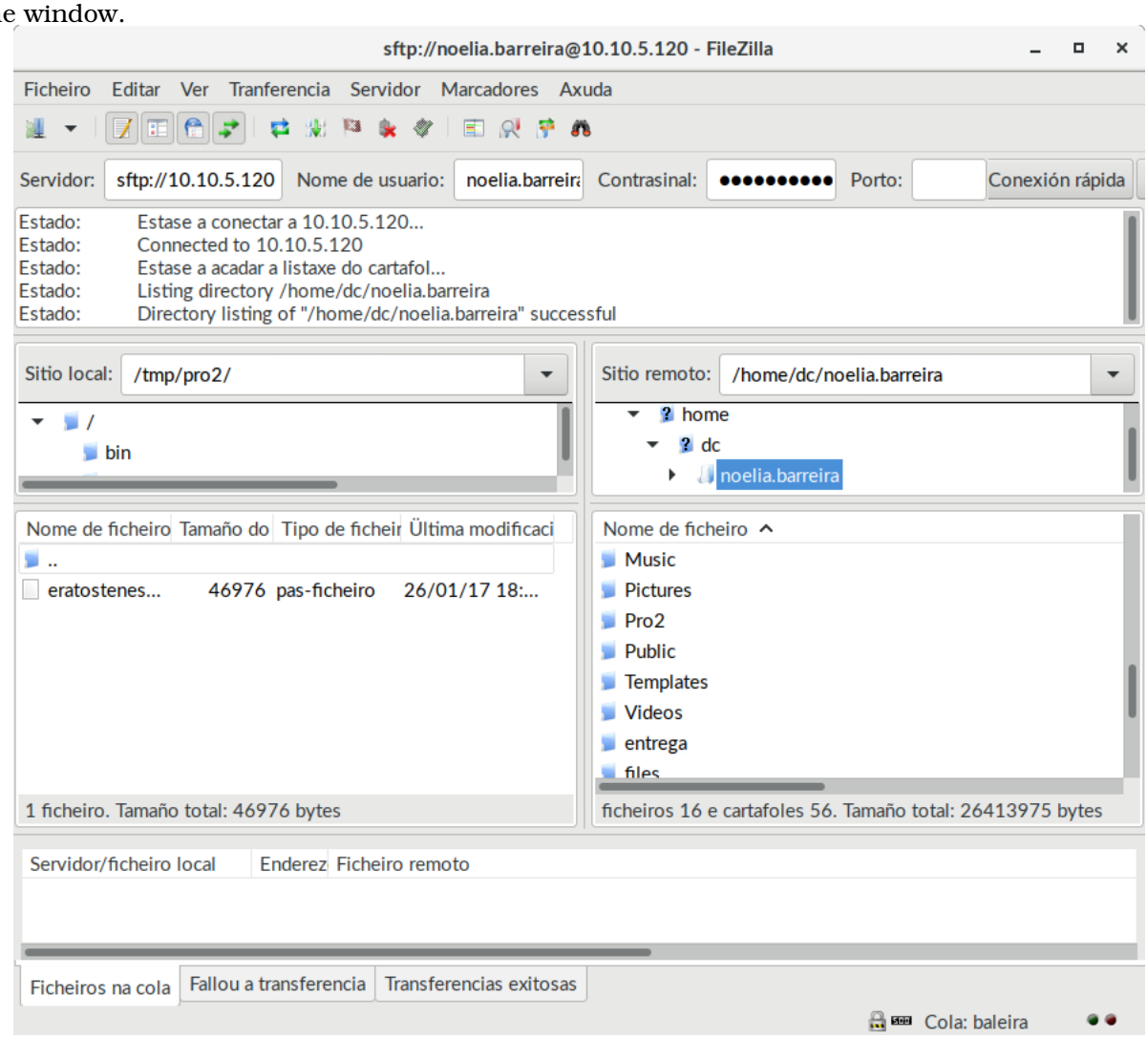
Nombre de usuario/Contraseña (Login/Password) Your UDC user credentials (with `@udc.pri`)

Puerto (Port) 22

The first time you connect to a given computer, you will get a warning message like this. Click `OK`.



If your identification is successful, `filezilla` will connect to the remote host. The content of the root folder of your UDC user account will be shown in the right panel of the window.



In order to copy files from your computer to the remote host, browse the directory tree and the file list until finding the desired files. In the right panel, select the target folder where you want to copy the files. Finally, drag the files fron the left list to the right list.

Once you have finished copying the files to your account, now you can work with them using the `ssh` connection to the reference host.

3

Problem solving

The most common problem is the inability to connect to the remote host due to a change of the keys on the ssh server, getting a warning message like this.

```
name.surname@localhost: ~$ ssh 10.10.5.120
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@
WARNING: REMOTE HOST IDENTIFICATION HAS CHANGED!
@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
IT IS POSSIBLE THAT SOMEONE IS DOING SOMETHING NASTY!
Someone could be eavesdropping on you right now (man-in-the-middle attack)!
It is also possible that a host key has just been changed.
The fingerprint for the RSA key sent by the remote host is
84:9b:2f:96:b9:d6:12:eb:45:e3:37:43:d6:20:5b:8a.
Please contact your system administrator.
Add correct host key in /home/name.surname/.ssh/known_hosts to get rid of this
Offending RSA key in /home/name.surname/.ssh/known_hosts:103
RSA host key for 10.10.5.120 has changed and you have requested strict checking.
Host key verification failed.
name.surname@localhost: ~$
```

To solve this problem, the following steps must be followed:

1. Access the hidden directory `.ssh` located in our user account

   ```
   name.surname@localhost: ~$ cd ~/.ssh
   ```

2. Delete the file `known_hosts`

   ```
   name.surname@localhost: ~/ssh$ rm known_hosts
   ```

3. Retry the connection to the server in the terminal