

Accessing Server for NGS hands-on lab (Programming Laboratory for Bioinformatics 2020-21)

Brief tutorial on how to access and Infomics lab server and transfer files from local computers to the server.

Prerequisites:

- Valid VPN access (UniVR GIA + password required) Further details at <https://www.univr.it/en/our-services/-/servizi/ssl-vpn-secure-remote-access>.
- Unix bash/shell
- ssh (it should be already available in every UNIX OS)

Important Notes

The server access will remain available only during the hands-on lab session. Thus, it will not be possible to access it outside the lab sessions.

Be very careful using the server. If you have doubts, **ask before doing anything that could cause important issues!!!**

1. How can I access the server?

Connect to the UniVR network via VPN.

Open your Unix bash/shell and type `ssh` followed by the server's IP address:

```
ssh wonderful_server@123.45.67.89
```

Then type the password.

Closing the current bash/shell will close the connection to the server.

NB. IP address and password will be given during the hands-on lab.

2. How can I upload files and directories from my computer to the server?

Open a new bash/shell (**do not connect to the server!!**).

To upload **files** from your local computer to the server, type:

```
scp my_fancy_file.txt wonderful_server@123.45.67.89:/path/to/some/location/in/server/
```

You will be required to enter the password.

To upload **directories** from your local computer to the server, type:

```
scp -r my_fancy_directory wonderful_server@123.45.67.89:/path/to/some/location/in/server
```

3. How can I download files and directories from the server to my computer?

Open a new bash/shell (**do not connect to the server!!**).

To download **files** from the server to your local computer, type:

```
scp wonderful_server@123.45.67.89:/path/to/file/awesome_file.txt ./
```

To download **directories** from the server to your local computer, type:

```
scp -r wonderful_server@123.45.67.89:/path/to/directory/unbelievable_directory.txt ./
```

4. How can I see the currently running processes, memory usage, etc.?

Take the bash/shell currently connected to the server.

To see memory usage, currently running processes, type:

```
htop
```

To exit htop, type:

```
q
```