HPC School - Beginner

S1-1 - Connection to ULHPC

High Performance
Computing &
Big Data Services

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Before we start

Objective: this presentation provides an overview of the necessary steps to connect to the ULHPC for the first time. Dedicated presentations offers step by step instructions for Windows and Linux/Mac operating systems.

Prerequisite: you should have requested an account and the HPC team should have processed your request.

Request an account: link to the form

Overview

The main steps are:

1. Install the necessary software to connect to the ULHPC
2. Create a pair of SSH keys to authenticate yourself on the ULHPC
3. Add the necessary information in the ULHPC authentication system based on the above
4. Establish a first connection

Step 1 - necessary software

- This step is specific to each operating system
- For Windows there are several possible approaches. This session will only consider the one we think is the most convenient for our users
- For Linux and MacOS, this step is optional as out-of-the-box solutions are included

Step 2 - generation of an SSH key pair

What is it?

SSH key pairs are a couple of files used to authenticate a user on a server without exchanging password

A pair of keys?

- the public key can (and should) be shared
- the private key should never be shared

Why not passwords?

Servers allowing access via password exchange are prone to be attacked

Step 3 - add your public key in our system

- IPA is the name of our authentication server: https://hpc-ipa.uni.lu
- We need you to login there and add your recently created public key
- OS specific documentation will detail step-by-step instruction for this

📚Full documentation available here:
https://hpc-docs.uni.lu/connect/ipa/#upload-your-ssh-key-on-the-ulhpc-identity-management-portal

Step 4 - first connection

This step is specific to each operating system and will be covered by OS specific documentation.

End of the general introduction

- Download the step-by-step instructions for your operating system
- Take your time and report all unclear / incomplete / incorrect instructions in Slack or via email