

UG2.3: Access to the Systems

In this page:

- [Access via Secure Shell \(SSH\)](#)
- [Access via Desktop Based Tool](#)
- [Access to download or upload data](#)
- [Policy for password definition](#)

Additional page:

- [How to connect via 2FA](#)

There are several ways to access our HPC Systems.

Access via Secure Shell (SSH)

The Secure Shell protocol allows data to be exchanged over a secure channel between two computers. SSH is typically used for logging into a remote machine and executing commands (remote console), but it can also be used to run programs and transfer files. The **ssh client** is usually pre-loaded on Linux and Mac systems, while on Windows systems, you have to download and install an SSH client. For example, [Powershell](#), [openSSH](#), [Putty](#) or [Tectia](#).

The access is done via one of the following commands:

```
ssh <username>@login.marconi.cineca.it
ssh <username>@login.gl00.cineca.it
ssh <username>@login.leonardo.cineca.it
```

depending on which cluster you have the account. You can use option `-X` to enable X11 display forwarding.

All the systems share the same username/password.

You will login to our systems with one of the two shells: **bash** or **tcsh**. Contact the HPC support (superc@cinca.it) if you want to change your default login shell.

Notice: login is prevented on systems in which you don't have budget accounts.

Notice: we have identified a potential issue for local PC with openssh 8.6 (check with the command "ssh -V"). The solution can be found here in our [FAQ](#) page.

Access via Desktop Based Tool

It is possible to access a "desktop" based way (particularly useful if you are using visualization tools) by using our Remote Connection Manager (RCM).

RCM is a client/server application to connect to HPC machines using graphical mode.

This [specific document](#) has a detailed description of how to install and use it.

Access to download or upload data

You can use several protocols or utilities to access our systems to upload or retrieve your data:

- via **SCP** (Secure Copy) or **SFTP** (SSH File Transfer Protocol) functions;
- using **RSYNC** (remote sync) utility. You can find a [dedicated page](#) on how to use efficiently rsync on our systems.
- using **GridFTP**: a protocol that allows very efficient data transfers among different HPC platforms. A detailed description is reported in a specific document [Globus Online](#).

Additional details can be found on [Data transfer](#) dedicated page.

Policy for password definition

If you change the password on the portal sso.hpc.cineca.it, it will be automatically changed on all the clusters (the propagation can take up to one hour).

We set **new policies** for the definition of the password.

They are the following:

- The new password has to be at least 10 characters long and contains at least 1 capital letter, 1 number, and 1 special character (! " # \$ % & ' () * + , - . / : ; < = > ? @ [\] ^ _ ` { | } ~)
 - The password has a validity of 3 months. You will receive a reminder 10 days before the expiration when you login.
 - The new password has to be different from the previous 5 ones.
 - Any password change will be notified to the user by email.
-

