Get X.509 personal certificate

To transfer data by using GridFTP, it's mandatory have the X.509 personal certificate.

A X.509 certificate is issued by a Certificate Authority (CA) which checks the identity of the user and guarantees that the holder of this certificate is existing and his certificate is valid.

The certificate is used for authentication instead of the user's account to avoid the replication of the user's account. When authenticating to a site, the user's certificate is mapped to a local account under which all commands are executed.

Usually the CA of your country has established a network of Registration Authorities (RA) where users can apply for their certificate. Users who need a X.509 certificate should contact either a RA which is closely related to the user's institution or the user should contact a RA who is closer. If a corresponding RA is not available or can not be identified (e.g., check the list of Registration Authorities that is provided by the national CA), the national CA should be contacted directly.

One of the main CA in Italy is INFN CA, that is recognized abroad Europe, through EUGridPMA, an organization which states who has to be trusted in various European projects (PRACE and other european HPC initiatives).

Details concerning the generation and submission of a certificate request depends on the procedures that the national CA of your country requires. You can find your national CA at the EUGridPMA website, the authority which maintains a list of CAs [http://www.eugridpma.org](http://www.eugridpma.org) members/worldmap.

If you have any problems to get a certificate from a recognized CA, please contact superc@cineca.it. CINECA can provide a X.509 certificate to be used exclusively on CINECA HPC machines.

Please refer to the X.509 certificate page in case of troubles to obtain the certificate from a recognized CA.

Register on GlobusOnline

Visit [www.globus.org](http://www.globus.org) and click "Login" at the top of the page. On the Globus login page, choose an organization you’re already registered with, such as your school or your employer. (Try typing a few letters of your organization’s name to narrow the list.) When you find it, click "Continue."

If you can’t find your organization in the list, you can use Google, ORCID, or GlobusID, all three of which allow you to create new accounts if you don’t already have one.

Create your proxy credential

According to your workstation, you can follow the instructions in Windows users or in Linux/Mac users.

Login on GlobusOnline and manage your endpoints.

To exchange data

1) between two different gridftp servers or
you have to activate the gridftp server endpoints and/or add your local machine as your endpoints.

- To activate an already defined cineca endpoint, login into www.globus.org, click on “Endpoints” tab and then search for the endpoint (cineca’s endpoints start with cineca#...). Click on the endpoint, then on the “Activate” tab click on “Activate Now” and provide the username and password that you have on CINECA HPC machines.
- To add your local machine as your endpoint, follow the instruction at such link.

For general info about GlobusOnline Endpoints, please refer to https://www.globusonline.org/xfer/ManageEndpoints.

**Transfer your data using GlobusOnline, specifying two defined and activated endpoints.**

When your two Endpoints are activated, click on “Transfer Files” tab, put in “Endpoint” the name of the two activated endpoints and start with your data moving operations.

For general info about transfer with GlobusOnline refer to https://www.globusonline.org/xfer/StartTransfer

FAQ about Globus Connect and Endpoints are available at https://docs.globus.org/faq/globus-connect-endpoints/