CINECA

ADA cloud user documentation Getting started (1): How to create an instance

HPC Cloud support group

Last update: 14 Feb 2025

Get a CINECA HPC user and a cloud project



Get a CINECA HPC user and a cloud project
Access your cloud resources





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Visit the <u>ADA Cloud User guide</u> for more information



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<u>Get a HPC user</u>

 Account = "personal" username for HPC systems in CINECA

1 - Account and project

How to get a CINECA HPC account and cloud resources

- Register to CINECA <u>UserDB portal</u>
- Ask to be associated with a valid project, as "Collaborator" or as "Principal Investigator"
- Important: The access is possible only through two-factors (2FA) authentication

Get cloud resources

- <u>ISCRA Projects</u>: Researchers affiliated with an Italian University or an Italian Research Agency
- <u>EuroHPC Projects</u>: European researchers
- Italian research Institutions, General users and Industrial applications: contact the <u>HPC User support</u>

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Get an HPC CINECA user

and a project

Access your cloud resources

Configure your network

Create your VM

Connect to your VM



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2 - Access your cloud resources ADA Cloud dashboard

- Go to https://adacloud.hpc.cineca.it
- Select "CINECA HPC" as Authentication method
- Insert your HPC-CINECA credentials to log in
- **NOTE**: the 2nd factor needs to be activated (see section <u>Managing password, 2FA and OTP</u>)



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and a project Access your cloud resources Configure your network

Get an HPC CINECA user

Create your VM

Connect to your VM



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Get an HPC CINECA user 3.1 - Create Network and subnet for the project and a project Access your cloud resources Configure your network × Create Network Create your VM Insert name of your subnet Network Subnet Subnet Details Connect to your VM Subnet Name Creates a subnet associated with the network. You need to enter a valid "Network Address" and "Gateway IP". If my_subnet you did not enter the "Gateway IP", the first value of a network will be assigned by default. If you do not want Network Address @ gateway please check the "Disable Gateway" checkbox. Insert network IP address: 192.168.0.0/24 192.168.0.0/24 Advanced configuration is available by clicking on the "Subnet Details" tab. IP Version IPv4 -Gateway IP @ Insert gateway IP: 192.168.0.254 192.168.0.254 Click Disable Gateway Cancel « Back Next »

3 - Create Network and subnet for the proje



3 - Configure your network CINECA 3.1 – Create Network and subnet for the project Get an HPC CINECA user and a project Access your cloud resources х Configure your network Create Network Create your VM Subnet Details Network Subnet ☑ Enable DHCP Specify additional attributes for the subnet. Connect to your VM Allocation Pools @ DNS Name Servers @ Host Routes @ Click « Back Create Cancel





3 - Configure your network 3.2 - Create Router for the Project



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3 - Configure your network 3.2 - Create Router for the Project



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and a project



3 - Configure your network3.3 - Set-up keypairs



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Get an HPC CINECA user
and a projectAccess your cloud
resourcesConfigure your networkCreate your VM

Connect to your VM

- The **public** key stays on the Openstack dashboard
- The private key is AUTOMATICALLY downloaded locally

• IMPORTANT NOTES:

- The download of the private key will be done ONLY when the keypair is created. If you lose the private key, you will have to create a new keypair.
- If you are a Linux user, <u>modify the permission of the</u> private key (downloaded file) to read-write for only the user (chmod 600 <file name>)

3 - Configure your network 3.4 - Set-up security rules



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3 - Configure your network 3.4 - Set-up security rules

In the wizard





Get an HPC CINECA user and a project Access your cloud resources

Configure your network

Create your VM

Connect to your VM

3 - Configure your network CINECA Get an HPC CINECA user 3.4 – Set-up security rules and a project Access your cloud For the security group just created, select resources «Manage Rules» on the right side Configure your network Shared Actions Create your VM Manage Rules False By default, only security rules to Connect to your VM get out of your VM are created Project / Network / Security Groups / Manage Security Group Rul. Manage Security Group Rules: my_security (064c2420-cde9-4e1d-bd02-2eb025b1274d) +Add Rule Displaying 2 items Direction ner Type IP Protocol Port Range Remote IP Prefix **Remote Security Group** Description Actions Egress IPv4 Any 0.0.0/0 Delete Rule Any IPv6 ::/0 Delete Rule Egress Anv Any Displaying 2 items Security rules to access your VM needs to be added

3 - Configure your network 3.4 - Set-up security rules

In the wizard



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Get an HPC CINECA user

and a project

Access your cloud resources

Configure your network

Create your VM

Connect to your VM

Cancel

Add



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4 - Create your VM

4.1 - Launch an instance



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4 - Create your VM 4.1 - Launch an instance

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							~	Access your cloud resources
Launch Instance	×		Launch Instance		interes Westerne and income		0	Configure your network
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4 - Create your VM

4.1 - Launch an instance

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										Configure your network
	Launch Instance								×	Create your VM
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<Back Next>

Launch Instanc

1.3

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Get an HPC CINECA user

4 - C	reate your VM		CINECA
4.1 - La	unch an instance		Get an HPC CINECA user and a project
		Select the network created in the previous «configure your network» step	Access your cloud resources
		and click «Next»	Configure your network
Launch Instance		×	Create your VM
Details	Networks provide communication channels for instances in the cloud. You can sele mix of both.	ect ports instead of networks or a	Connect to your VM
Source	✓ Allocated ①		
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Networks	> my-network mysubnet No Up	Active	
Network Ports			
Security Groups	✓ Available		
Key Pair		Select one of more	
Configuration	Q Click here for filters or full text search.	×	



4 - Create your VM4.1 - Launch an instance

Select the Security Group created in the previous «configure your network» step and click «Launch Instance»



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Get an HPC CINECA user

and a project

Access your cloud

resources



Displaving 24 items

4 - Create	CINECA	
4.2 - Associat	e a floating IP to your VM	Get an HPC CINECA user and a project
In the wizard		Access your cloud resources
		Configure your network
Allocate Floating IP	X	Create your VM
Pool *	_ Description:	Connect to your VM
Description	Allocate a floating IP from a given floating IP pool. Project Quotas Floating IP 24 of 25 Used	
	Cancel Allocate IP	

4 - Create your VM4.2 - Associate a floating IP to your VM

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Get an HPC CINECA user

and a project





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5 - Connect to your VM 5.1 - Log in to your VM

- Your VM is now ready to be used
- Login using the default user (of the OS you have chosen for your VM) and your private key (see step 3.3)
- Suppose you have used the default ubuntu cloud image, you can login as:

\$ ssh -i my_keypair.pem ubuntu@<floating IP address>

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Get an HPC CINECA user and a project Access your cloud resources Configure your network

Create your VM

Connect to your VM

5 - Connect to your VM 5.2 - Secure your VM

At the first log in, remember to:

• Update the OS and relative packages

Follow the basic security guidelines:

- activate automatic updates
- only install software from reputable sources
- disable unneeded services
- use encrypted and secure communication protocols to avoid man in the middle attacks
- keep logs of your applications
- monitor accounts created on your system and do not enable password login, use SSH keys instead

More information at: <u>Security guidelines</u>

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Get an HPC CINECA user and a project Access your cloud resources

Configure your network

Create your VM

Connect to your VM

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For any issue or question please contact the HPC User support at superc@cineca.it