## CINECA

# ADA cloud user documentation **Getting started**

**HPC Cloud support group** 

#### **STEP BY STEP user GUIDE**

Get a CINECA HPC user and a cloud project



# Getting started workflow STEP BY STEP user GUIDE

Get a CINECA HPC user and a cloud project

Access your cloud resources



# Getting started workflow STEP BY STEP user GUIDE

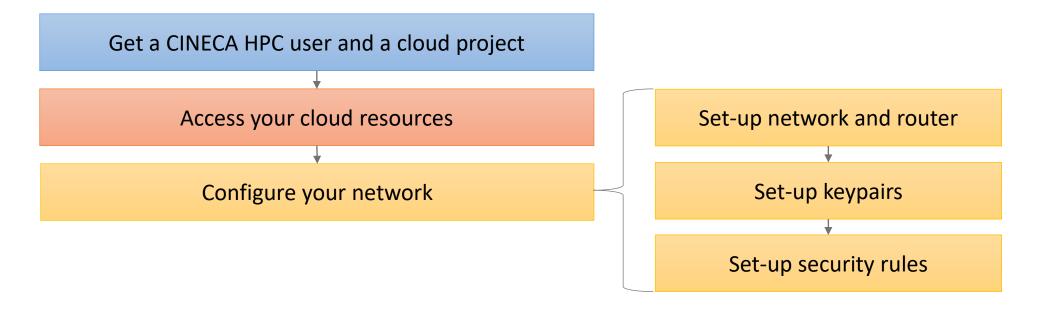
Get a CINECA HPC user and a cloud project

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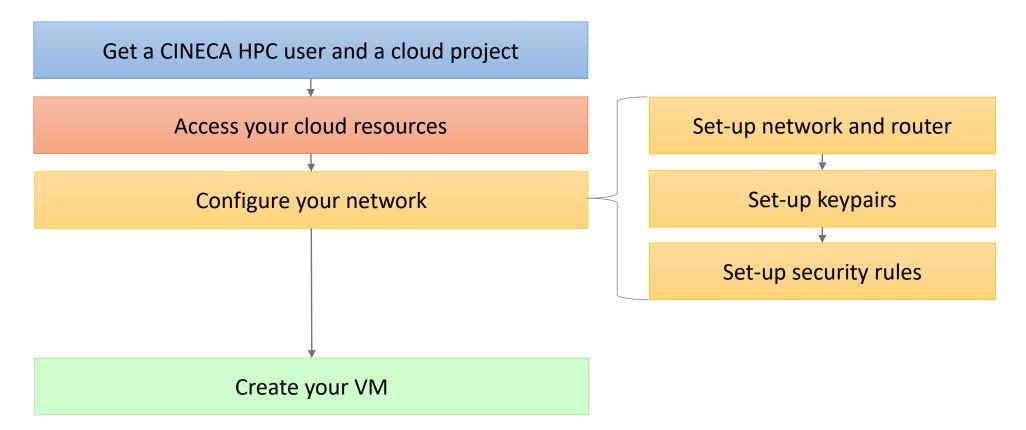
Configure your network



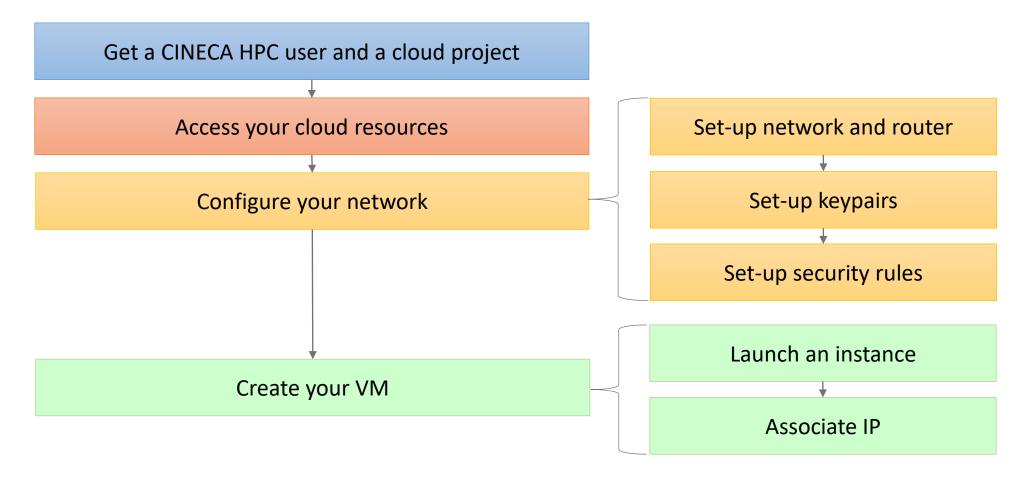




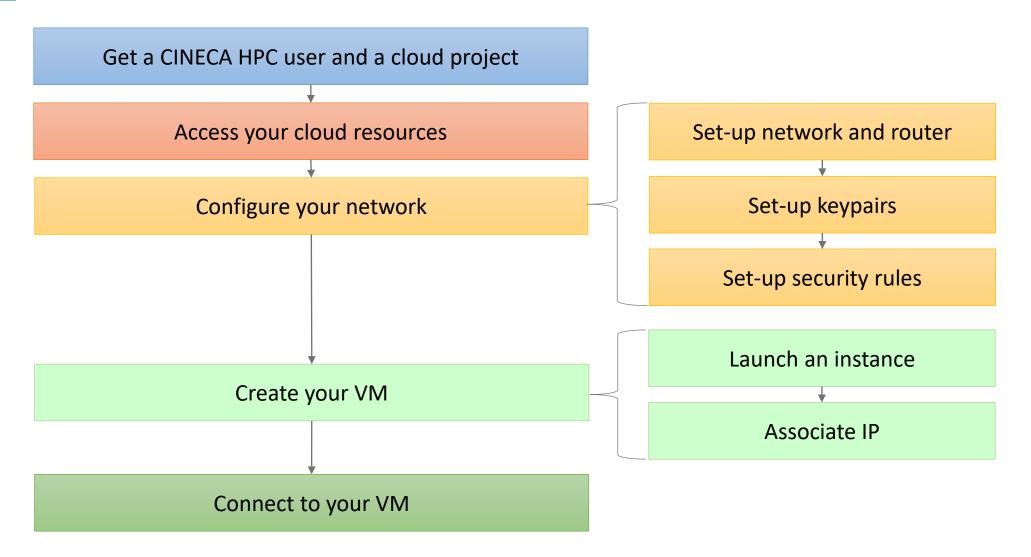




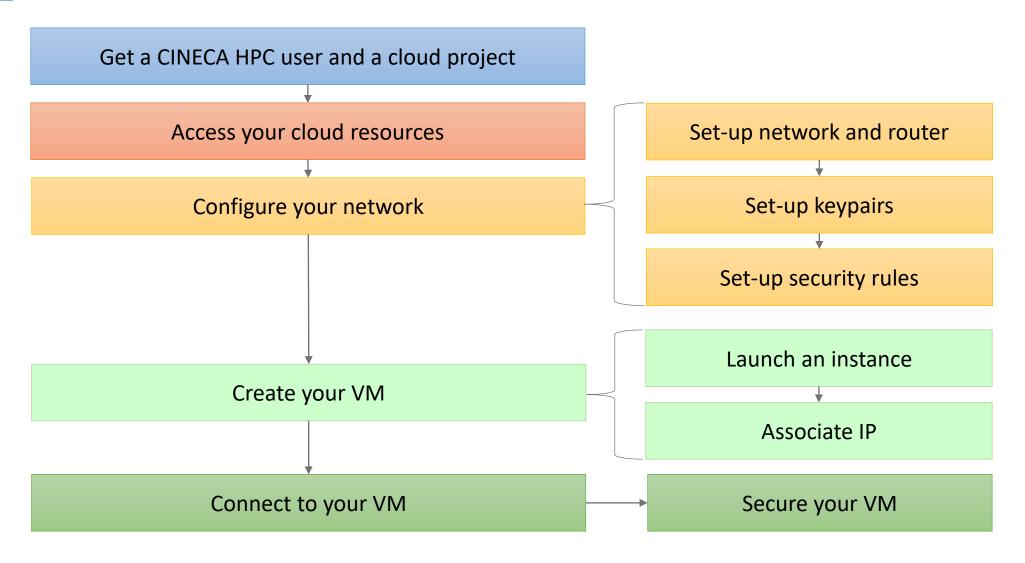
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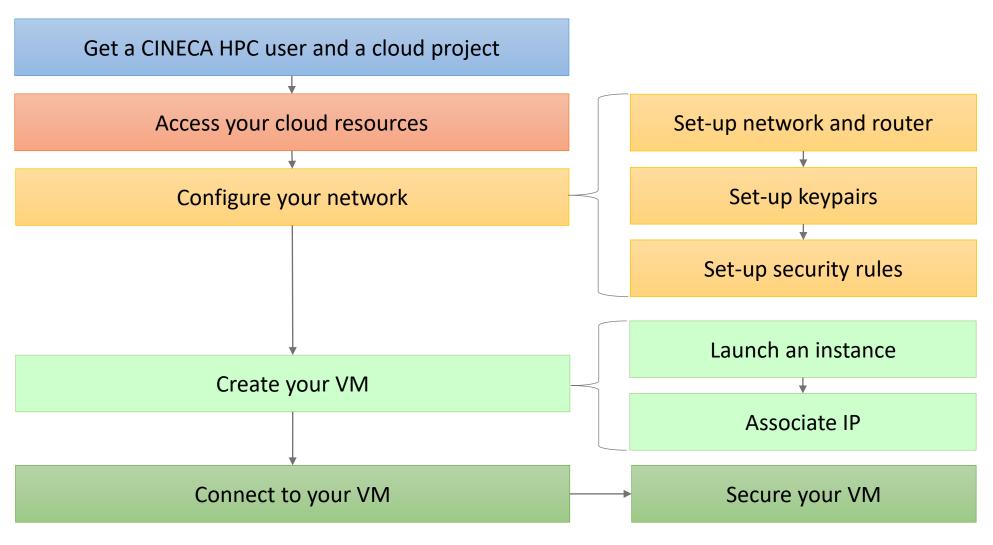


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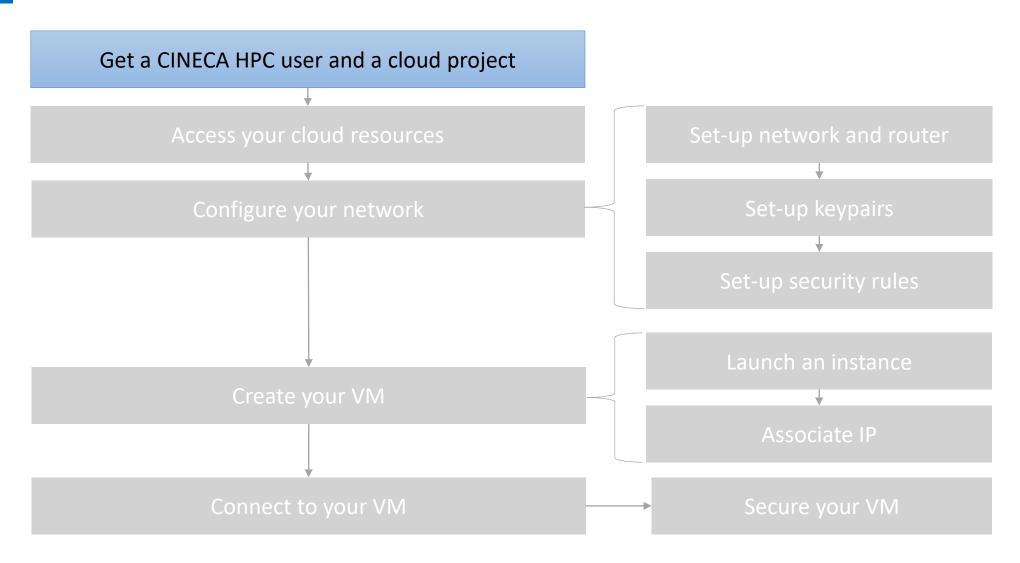
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#### **STEP BY STEP user GUIDE**



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

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## 1 - Account and project

#### How to get a CINECA HPC account and cloud resources

#### Get a HPC user

- Account = "personal" username for HPC systems in CINECA
- 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 HPC User support

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Access your cloud resources

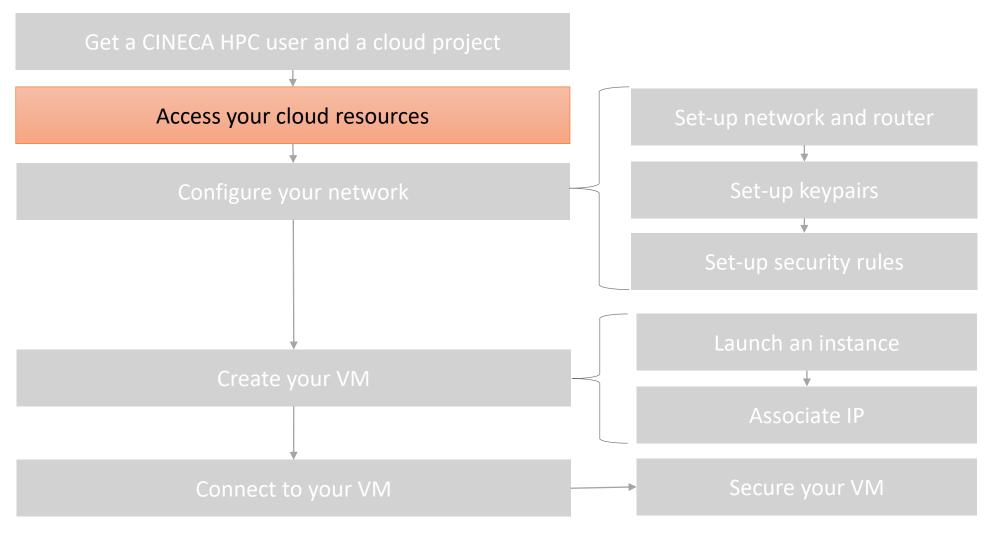
Configure your network

Create your VM

Connect to your VM

For more info: <u>Become a user</u> in User Guide

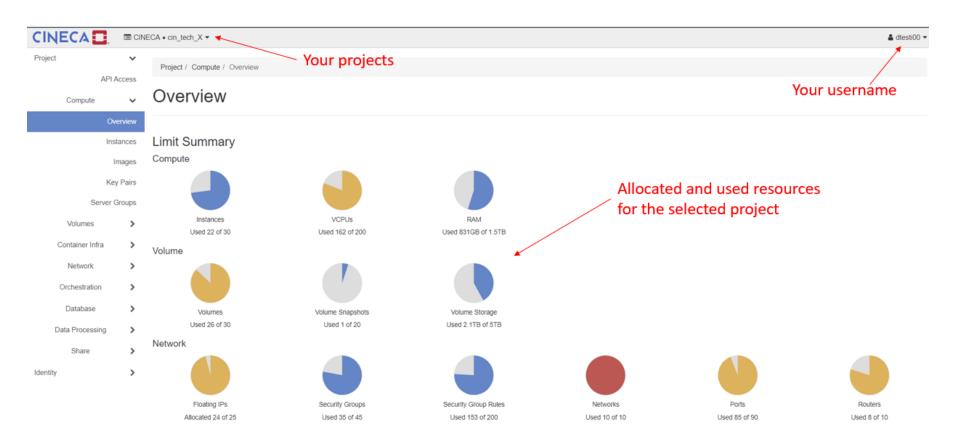




### 2 - Access your cloud resources

#### **ADA Cloud dashboard**

- Go to <a href="https://adacloud.hpc.cineca.it">https://adacloud.hpc.cineca.it</a>
- 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>How to connect via 2FA</u>)



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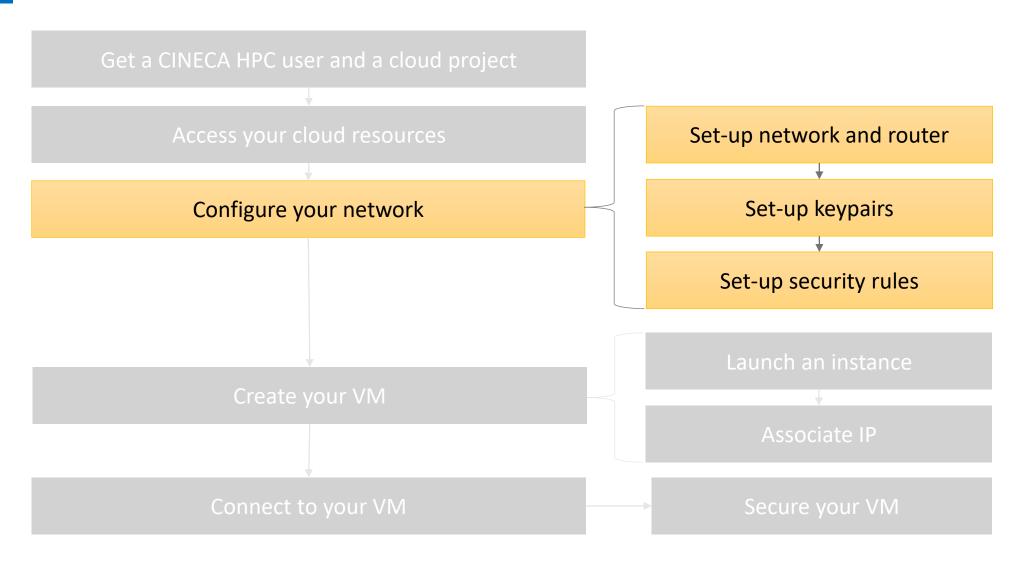
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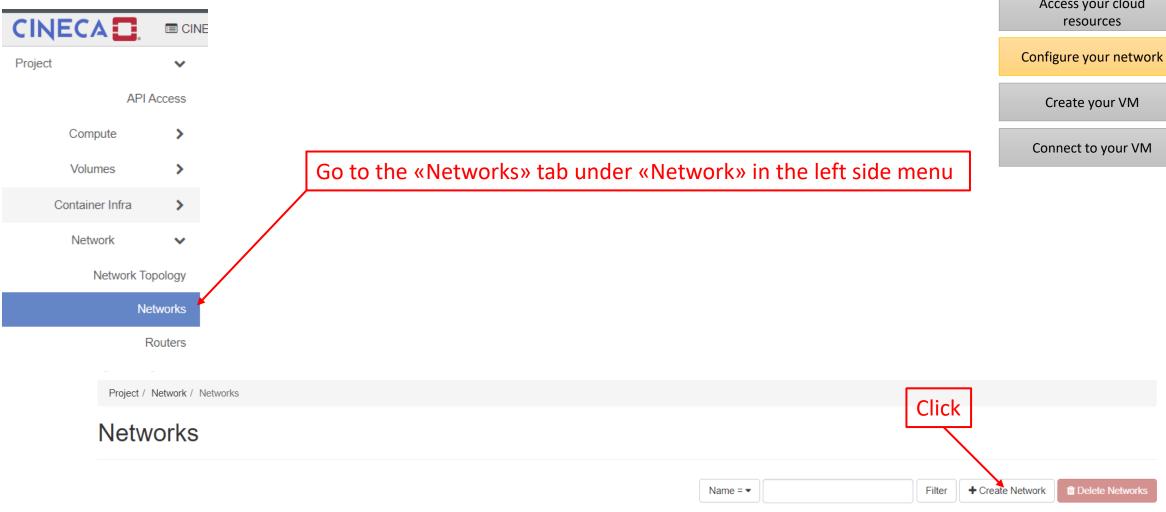
Configure your network

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#### 3.1 – Create Network and subnet for the project



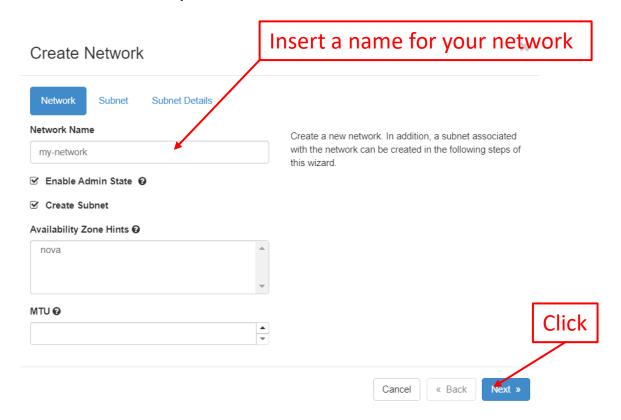
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#### 3.1 - Create Network and subnet for the project

#### Follow the wizard steps



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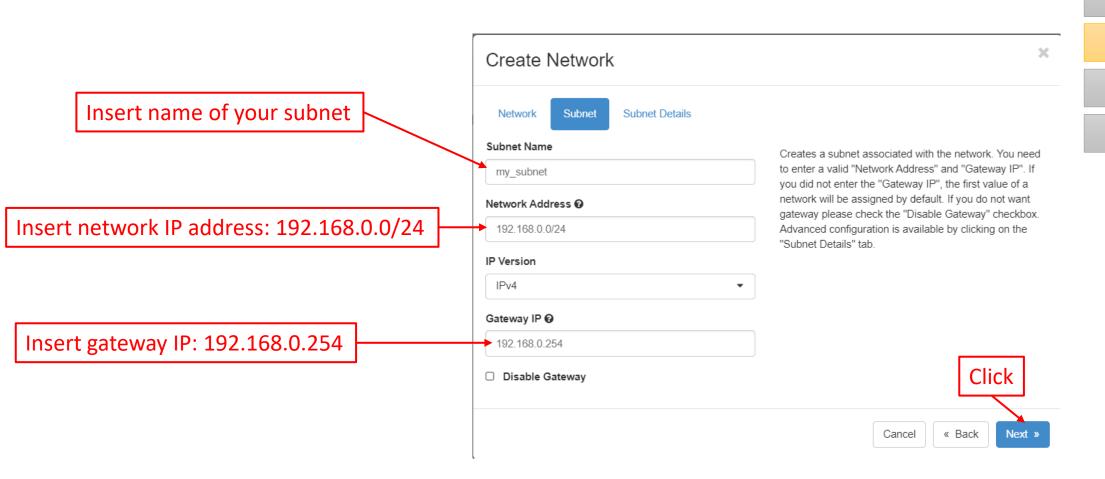
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#### 3.1 - Create Network and subnet for the project



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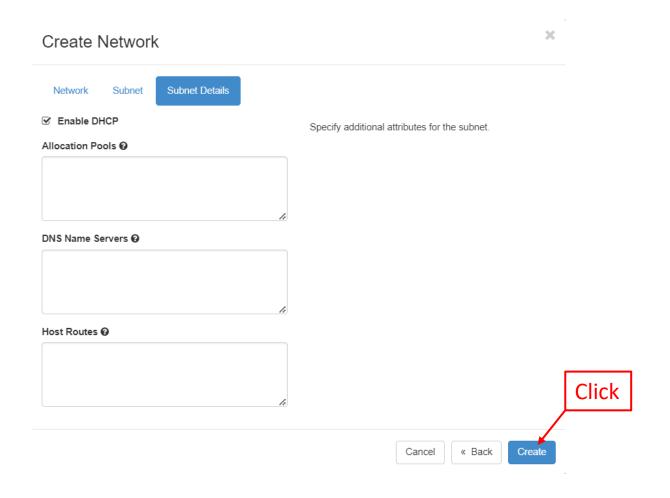
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#### 3.1 – Create Network and subnet for the project



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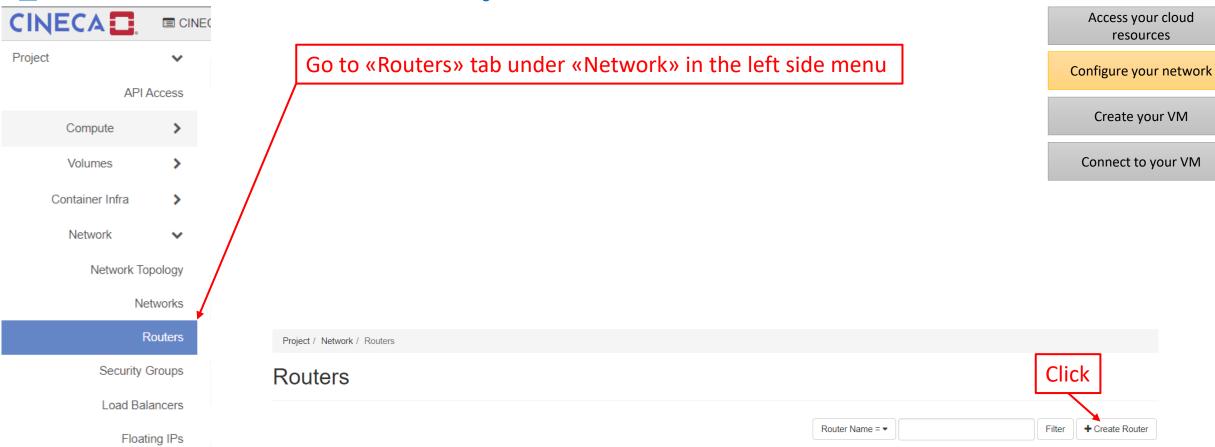
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#### 3.2 - Create Router for the Project

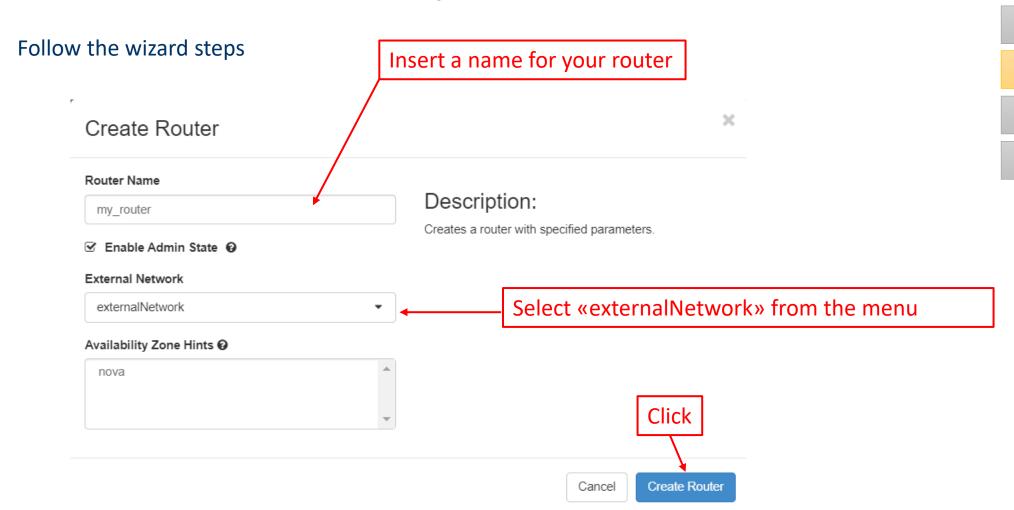


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#### 3.2 - Create Router for the Project



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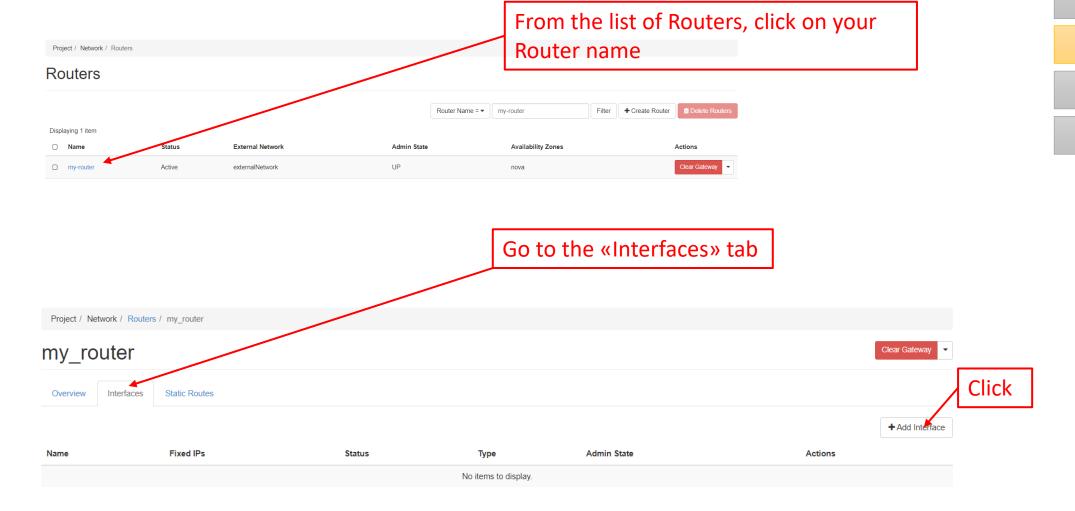
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#### 3.2 - Create Router for the Project



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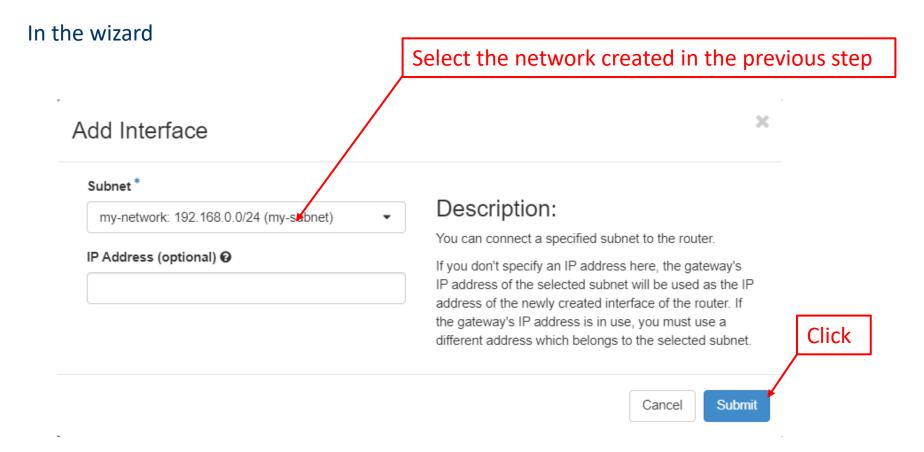
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#### 3.2 - Create Router for the Project



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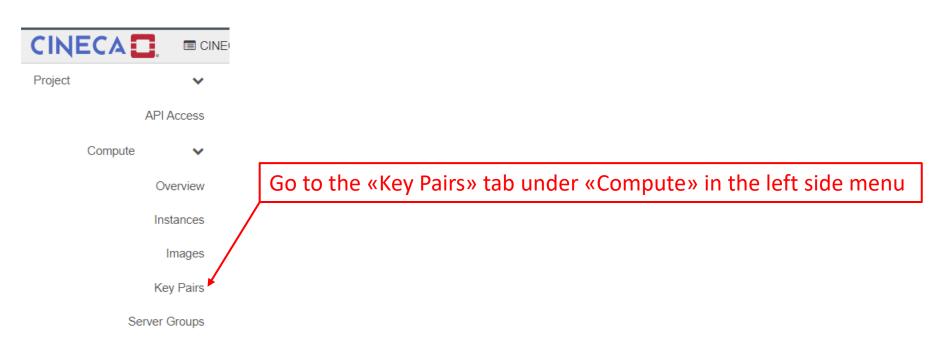
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#### 3.3 - Set-up keypairs





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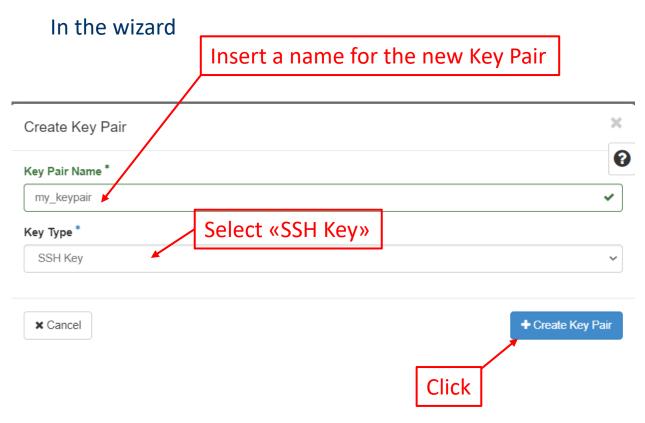
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#### 3.3 - Set-up keypairs



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- 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, modify the permission of the private key (downloaded file) to read-write for only the user (chmod 600 <file name>)

#### 3.4 – Set-up security rules



Floating IPs

- A **security rule** defines which traffic is allowed to instances assigned to the security group.
- A **security group** is a group of security rules that can be assigned to an instance.

Go to the «Security groups» tab under «Network» in the left side menu

Project / Network / Security Groups

Click

Filter 

Frequence Security Groups

Delete Security Groups

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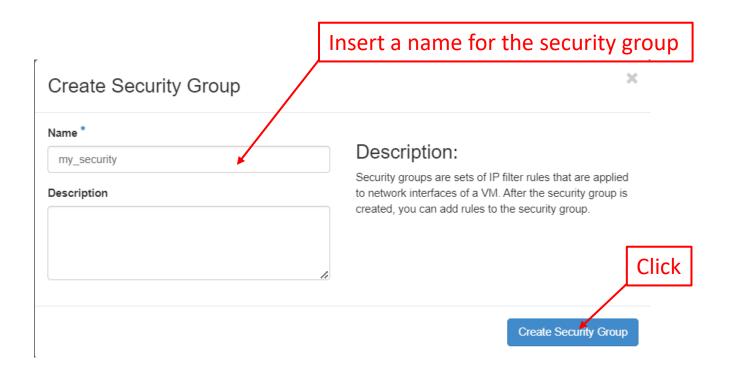
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#### 3.4 – Set-up security rules

In the wizard



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#### 3.4 – Set-up security rules



Manage Security Group Rules: my\_security (064c2420-cde9-4e1d-bd02-2eb025b1274d)



Displaying 2 items

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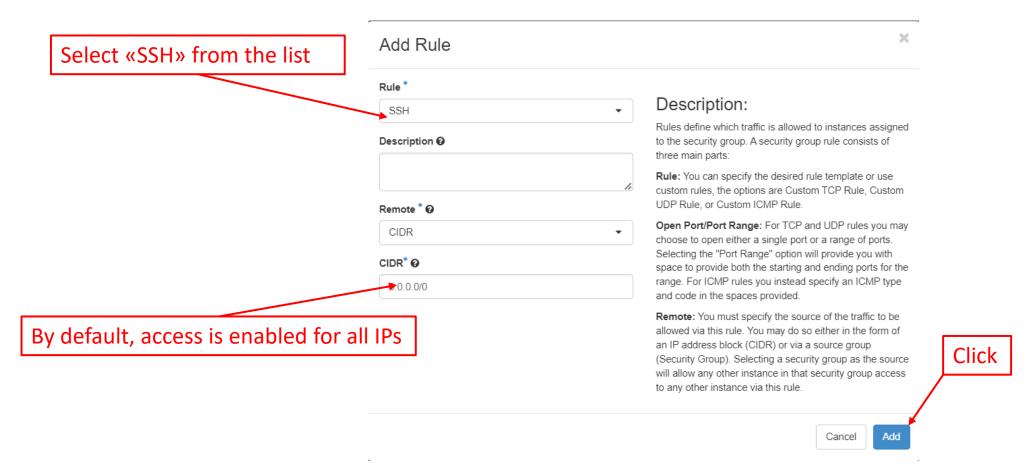
Create your VM

Connect to your VM

Security rules to access your VM needs to be added

#### 3.4 – Set-up security rules

In the wizard



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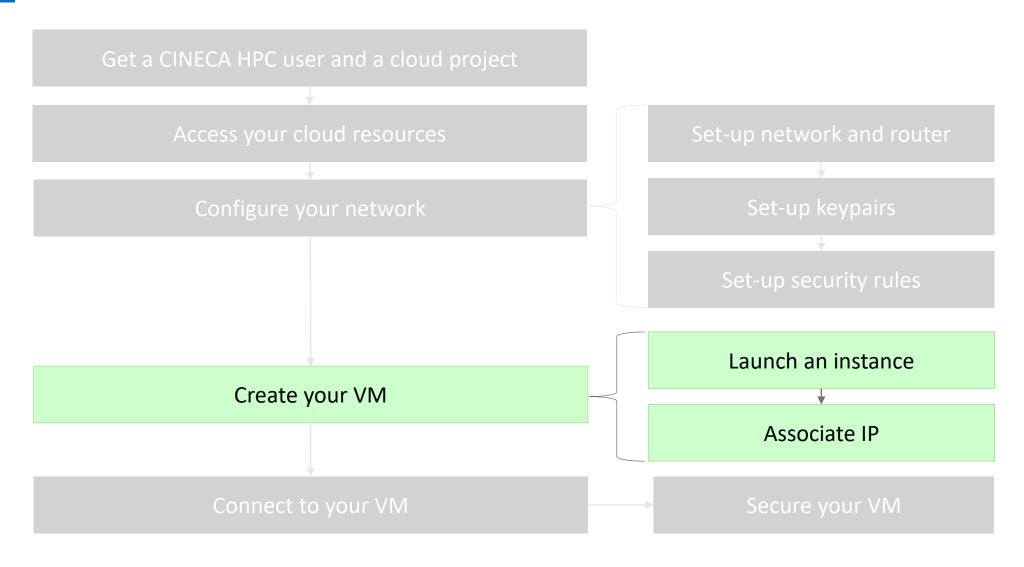
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Access your cloud resources

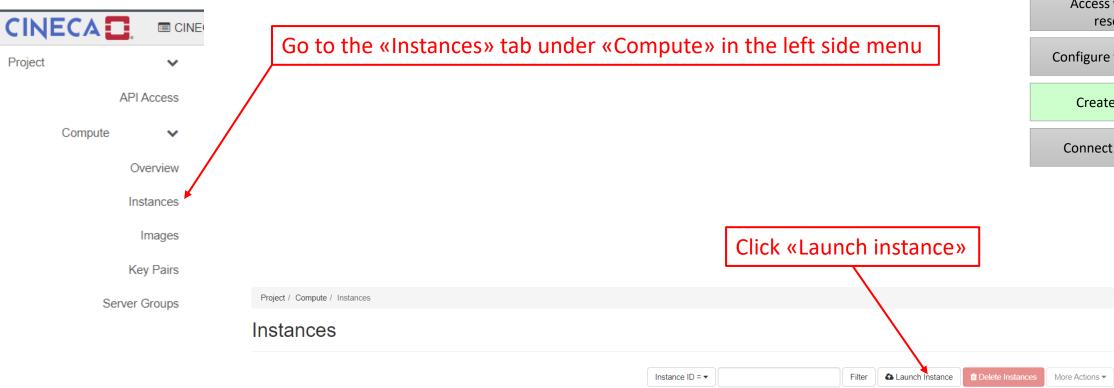
Configure your network

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#### 4.1 - Launch an instance



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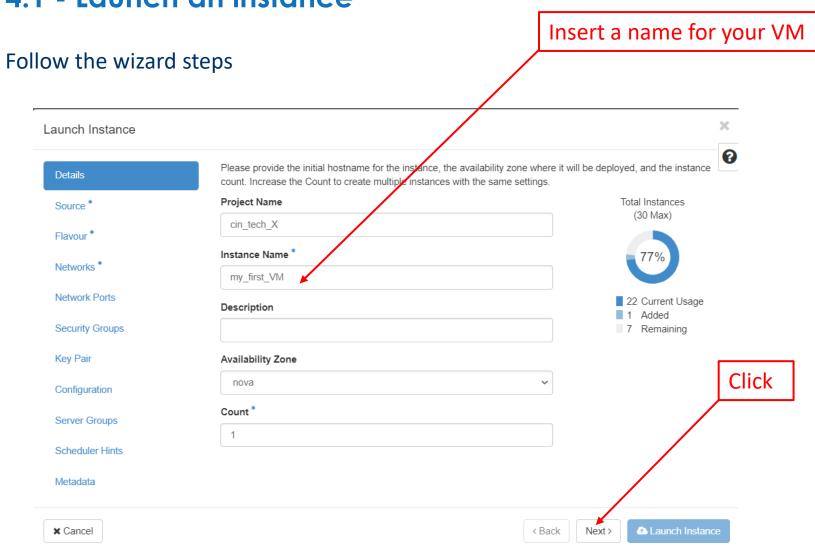
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#### 4.1 - Launch an instance



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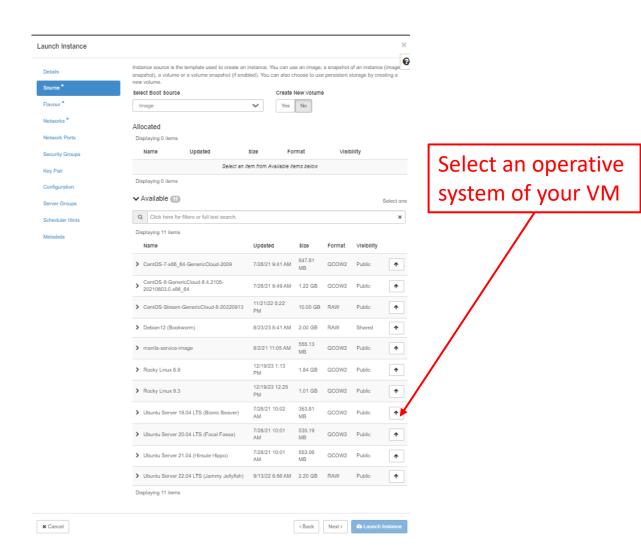
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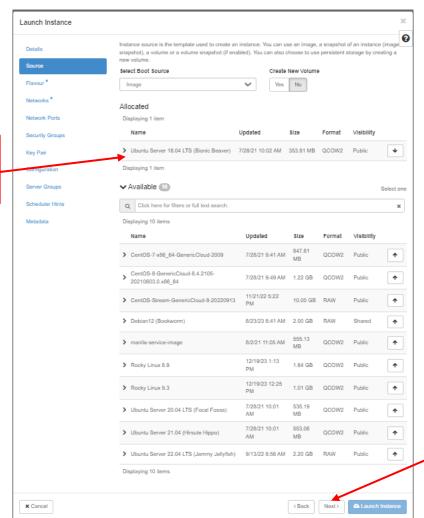
Access your cloud resources

Configure your network

Create your VM

#### 4.1 - Launch an instance





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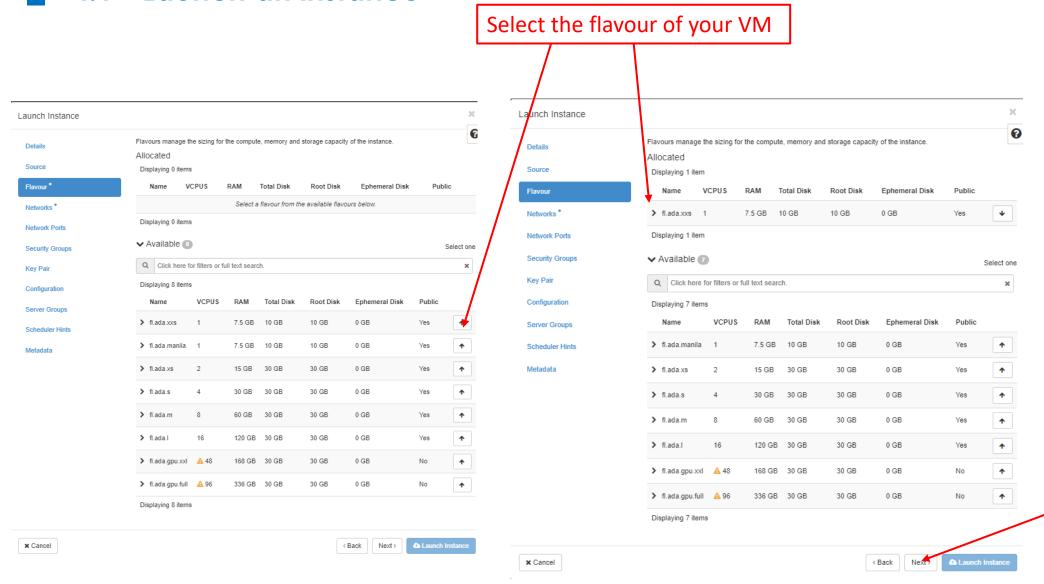
Configure your network

Create your VM

Connect to your VM

Click

4.1 - Launch an instance



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Configure your network

Create your VM

Connect to your VM

Click

#### 4.1 - Launch an instance

Select the network created in the previous «configure your network» step and click «Next»

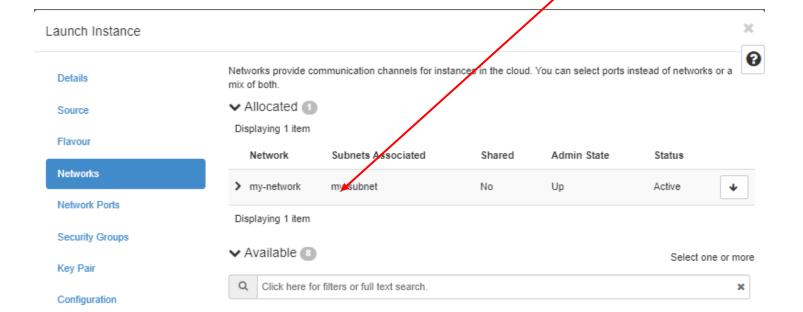


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Access your cloud resources

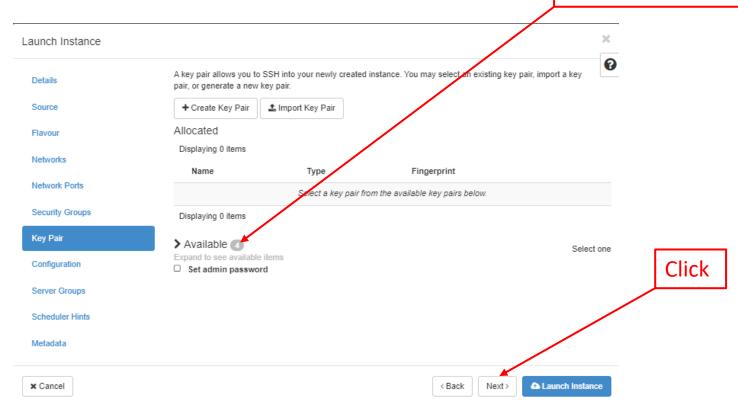
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#### 4.1 - Launch an instance

Select the Key Pair created in the previous «configure your network» step



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#### 4.1 - Launch an instance

Launch Instance 0 Select the security groups to launch the instance in. Details ✓ Allocated ② Source Displaying 2 items Name Description Flavour > default fault security group • Networks Network Ports > my-secgroup • my-secgroup Security Groups Displaying 2 items Key Pair ✓ Available 33 Select one or more Configuration Q Click here for filters or full text search. Server Groups Displaying 13 items | « Prev Scheduler Hints Name Description Metadata http

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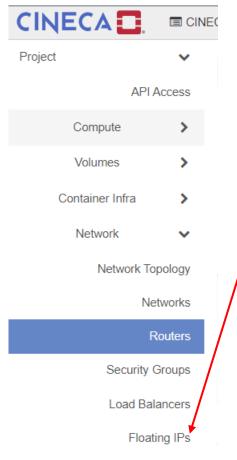
Select the Security Group created in the previous «configure your network» step and click «Launch Instance» Get an HPC CINECA user and a project

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#### 4.2 - Associate a floating IP to your VM



Go to the «Floating IPs» tab under «Network» in the left side menu

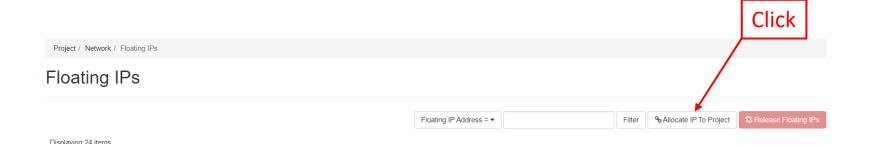
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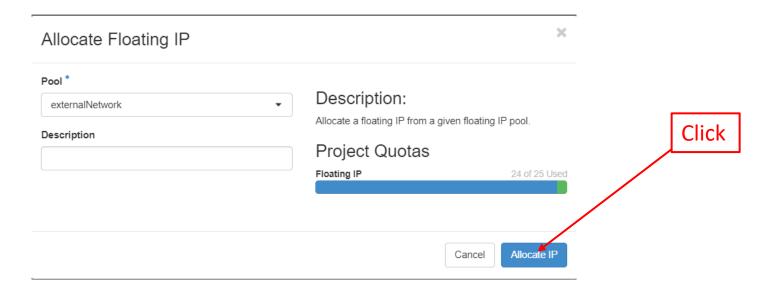
Configure your network

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### 4.2 - Associate a floating IP to your VM

#### In the wizard



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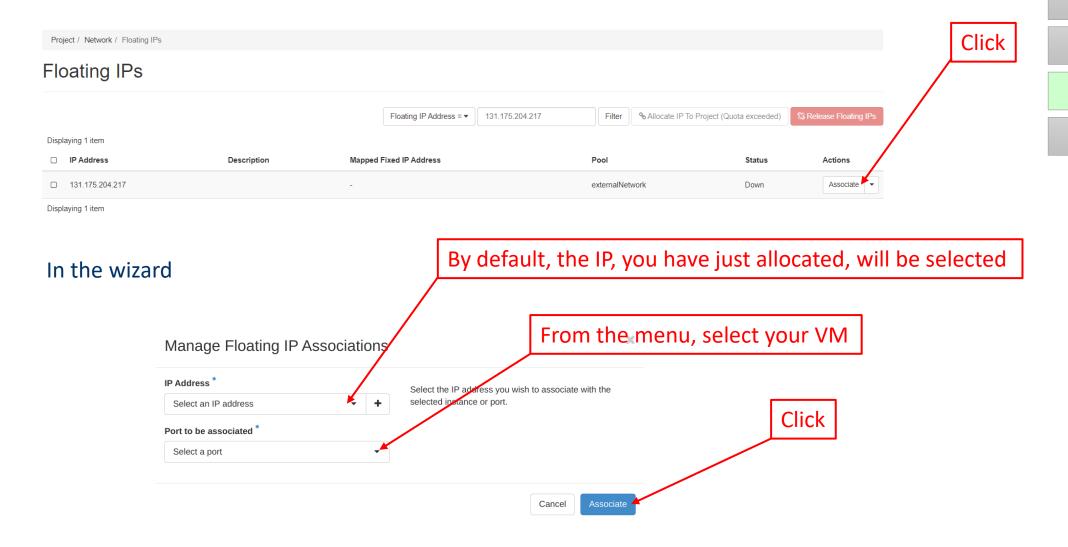
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#### 4.2 - Associate a floating IP to your VM



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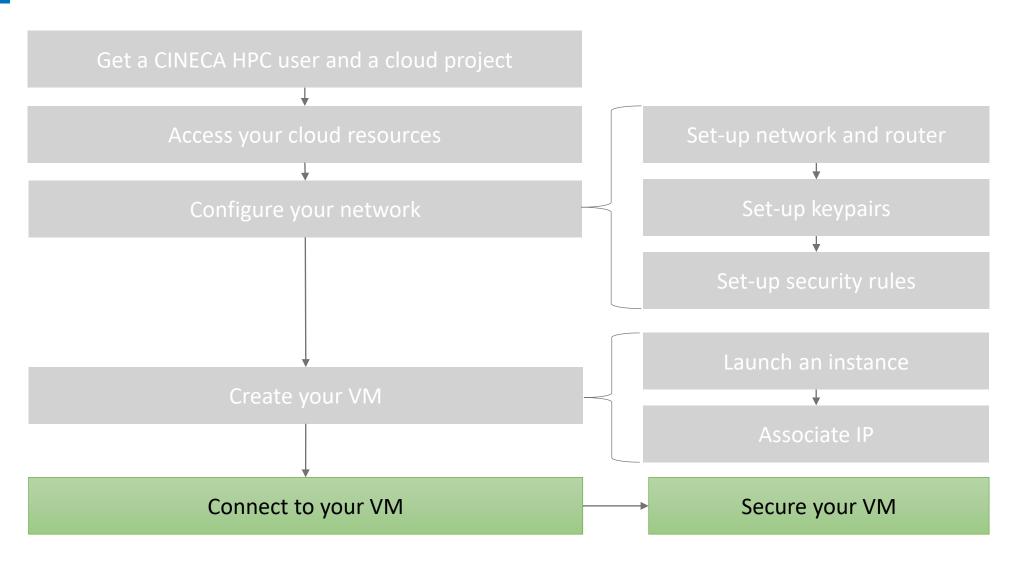
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### 5 - Connect to your VM

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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### 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

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More information at: Security guidelines

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