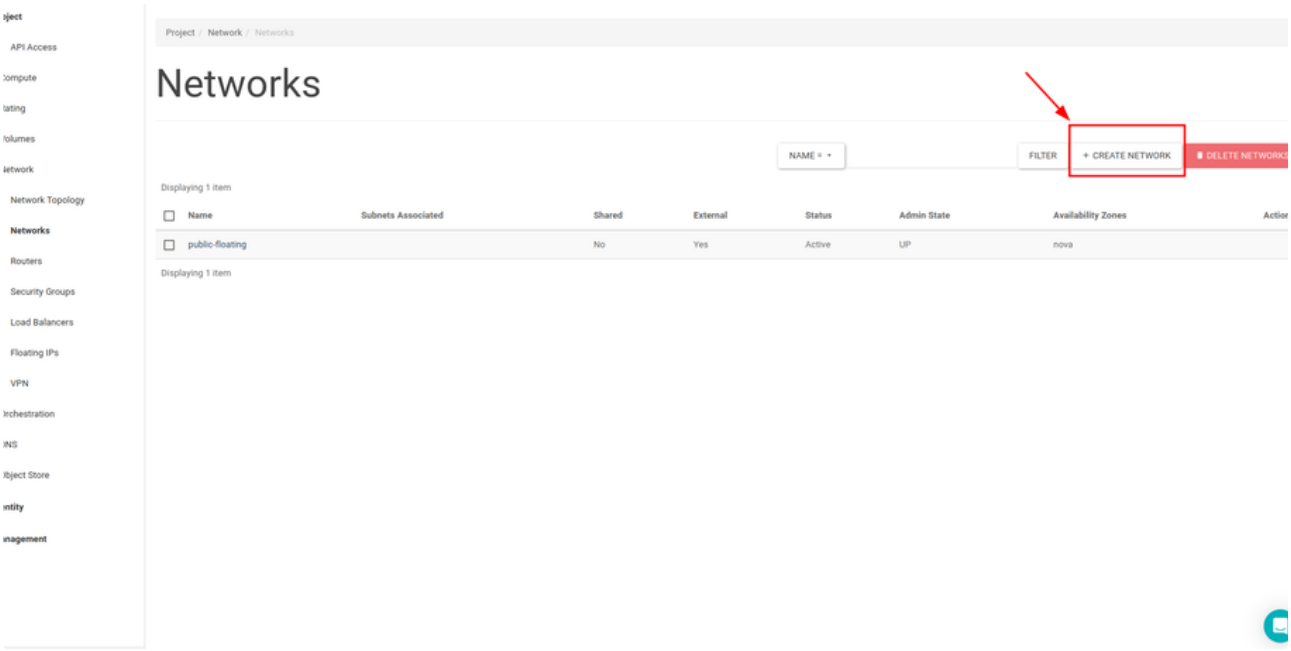
How Network Is Created?

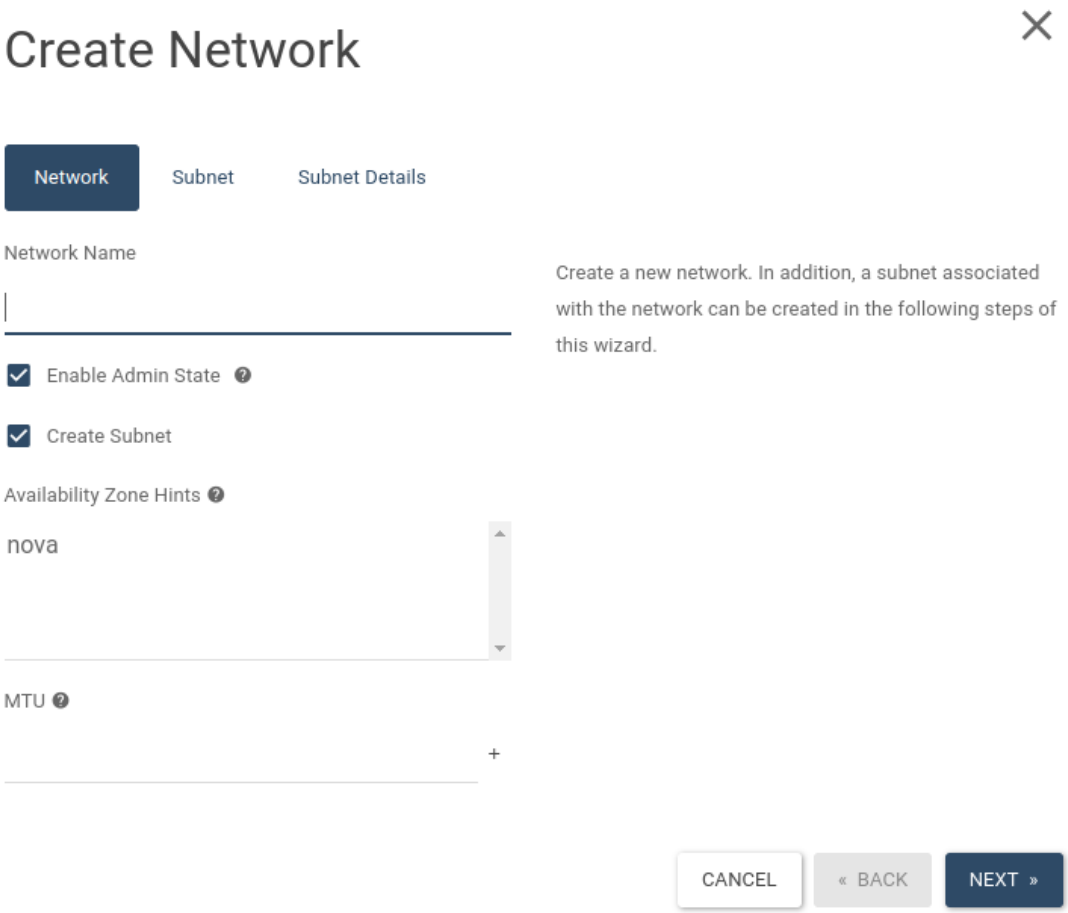
You can create not only server that is not accessible from the outside but also server that is accessible from the outside by using Skyatlas Horizon. For instance your web server can be worked in the isolated network which is accessible from the outside. At the same time your database server is not accessible from the outside.

Creating New Network

Page is opened via Network Menu located at under the Network heading at the left of the panel in the Horizon interface. If there is any network created before it is listed in here. In order to create network click the Create Network button at the top-right.

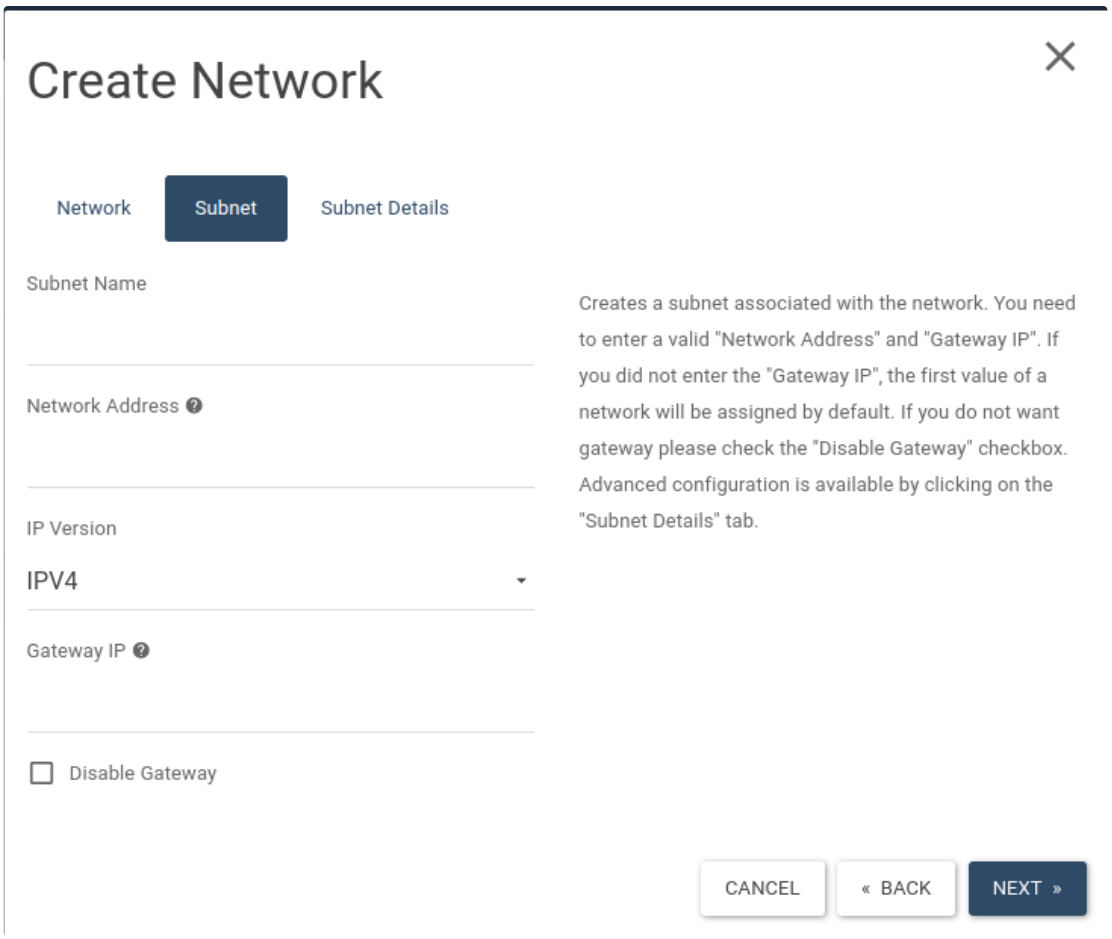


Features of the network is entered via opened pop-up. Appropriate name should be given at the first tab.



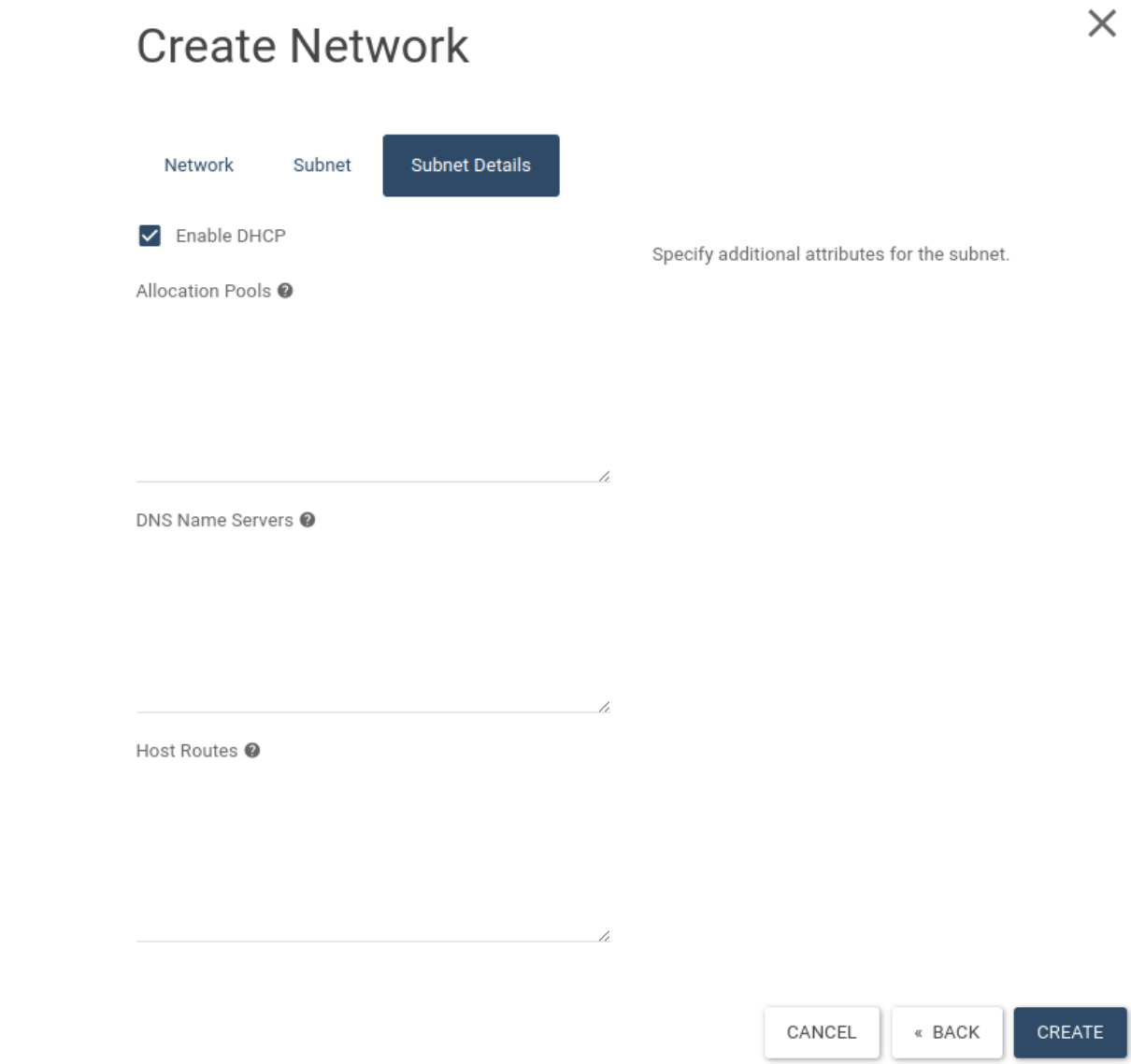
Creating Subnet

At the second tab, Subnet details should be entered as shown in screenshot.

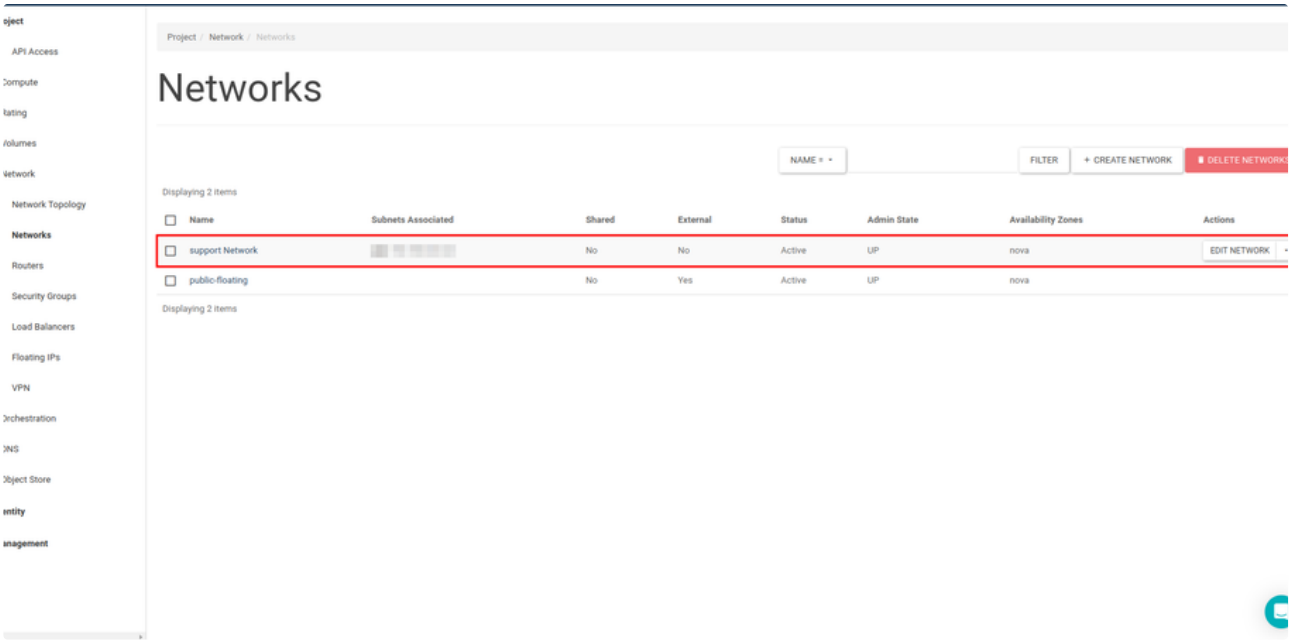


Adding DNS

At the final tab, DNS adresses should be entered same as shown in screenshot and then click Create button at the right down to complete process.

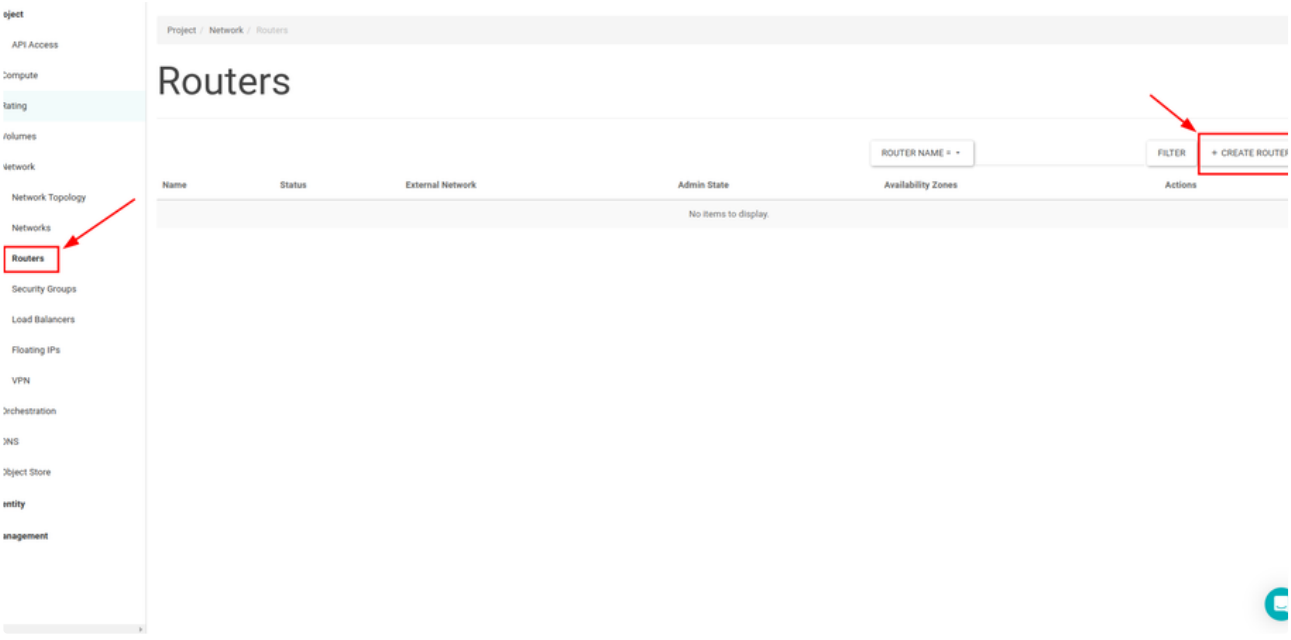


Created network is listed at the Network page.

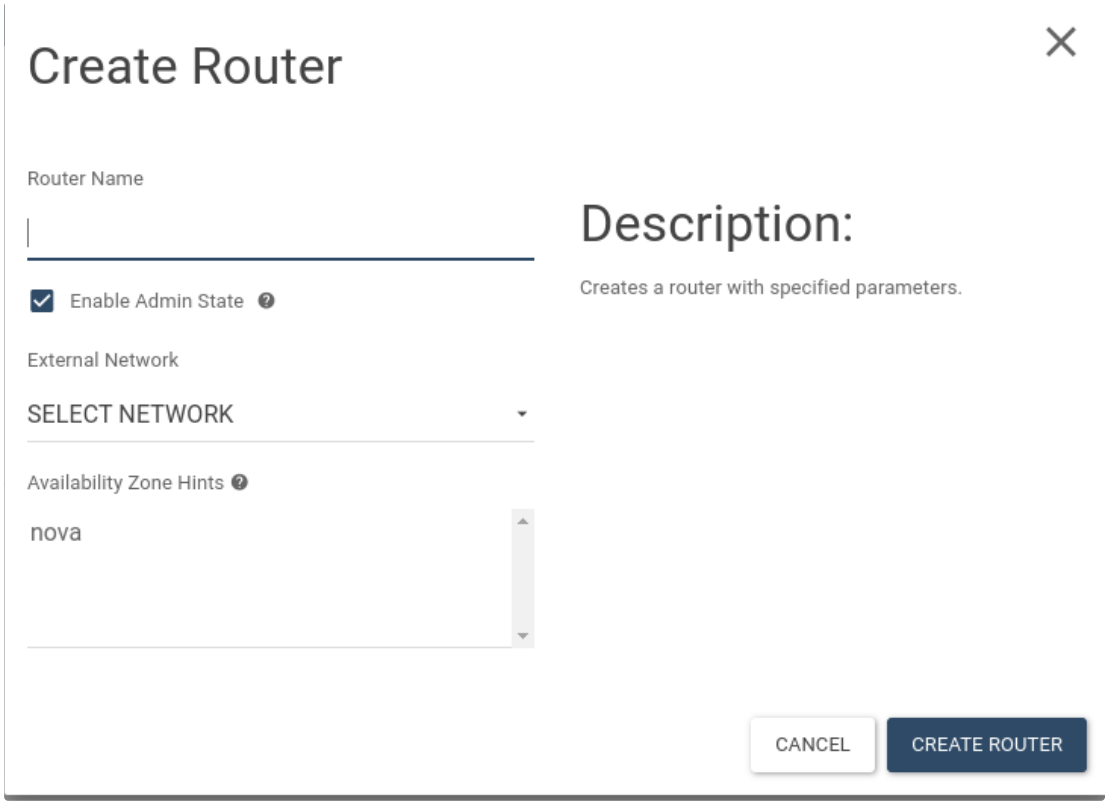


Creating New Router

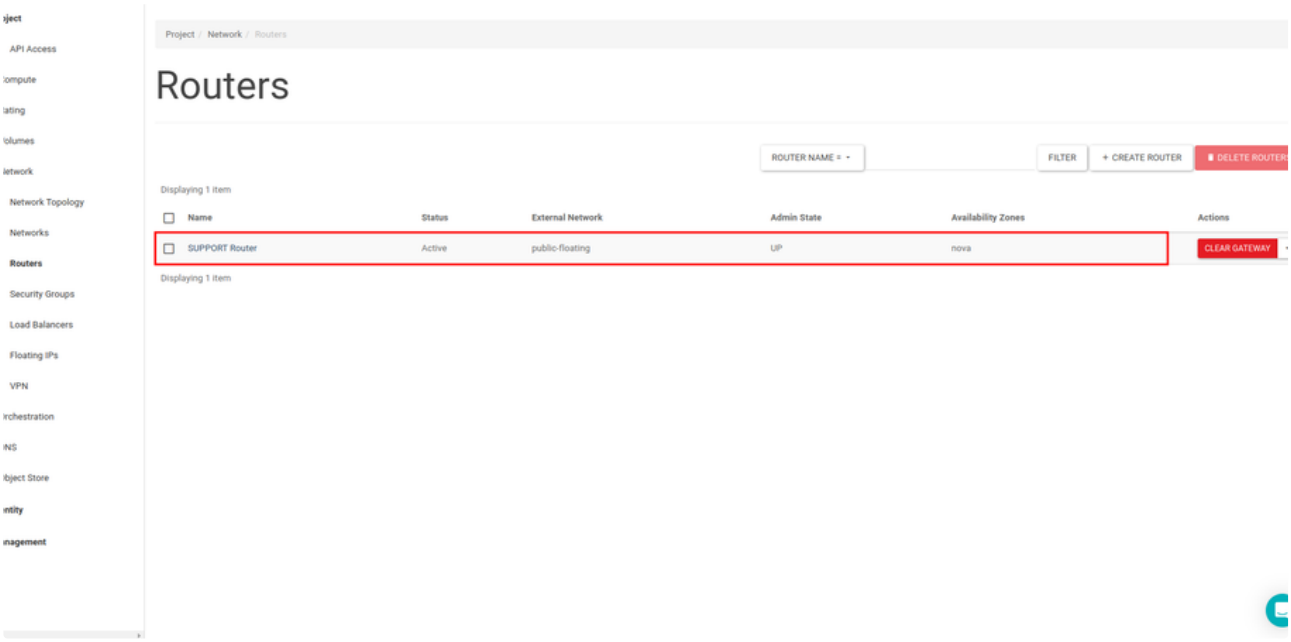
Page is opened via Routers menu located under the Network heading at the left of the panel. If there is any router created before it is listed here. In order to create new router, click the Create Router button at the top-right.



An appropriate name should be given to the router via opened pop-up.

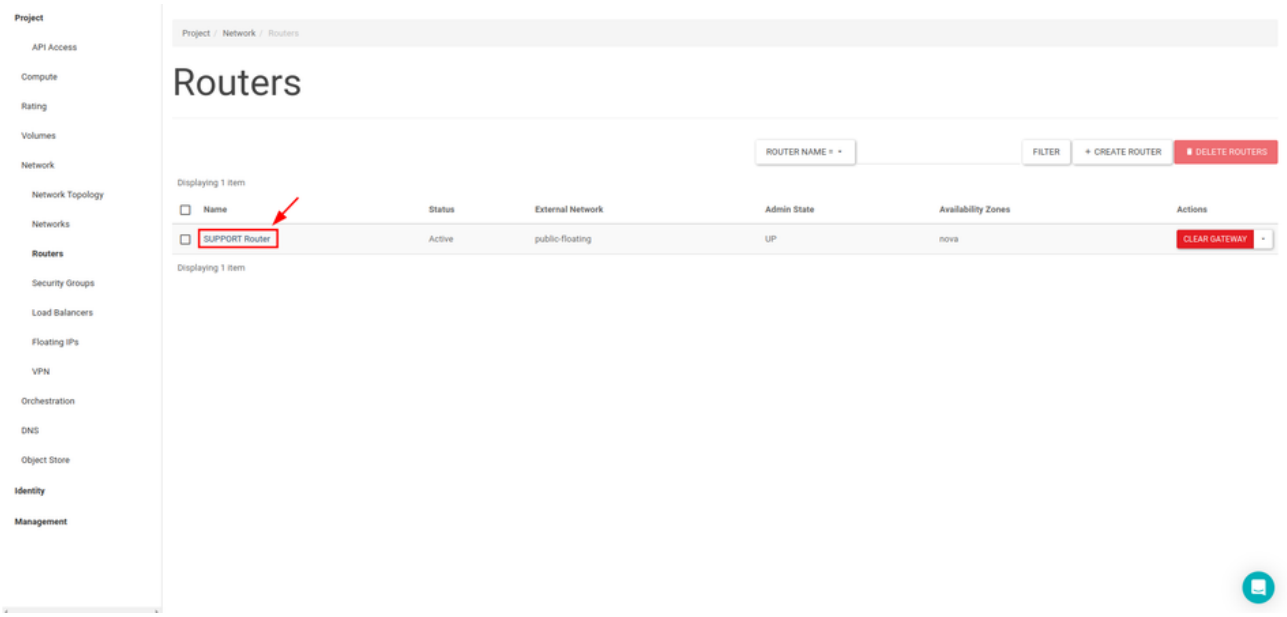


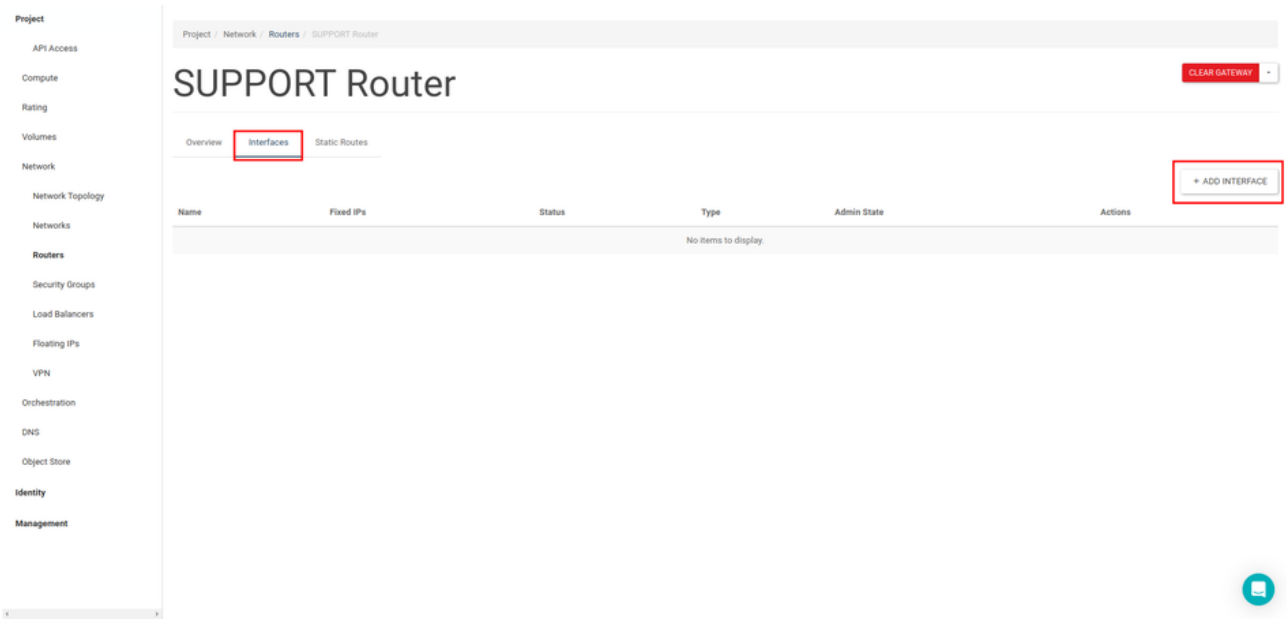
Created router is listed at the Routers page.



Adding Interface

Click the router name button at the Routers page to open the page including router's details. Click the Add Interface button at the right.

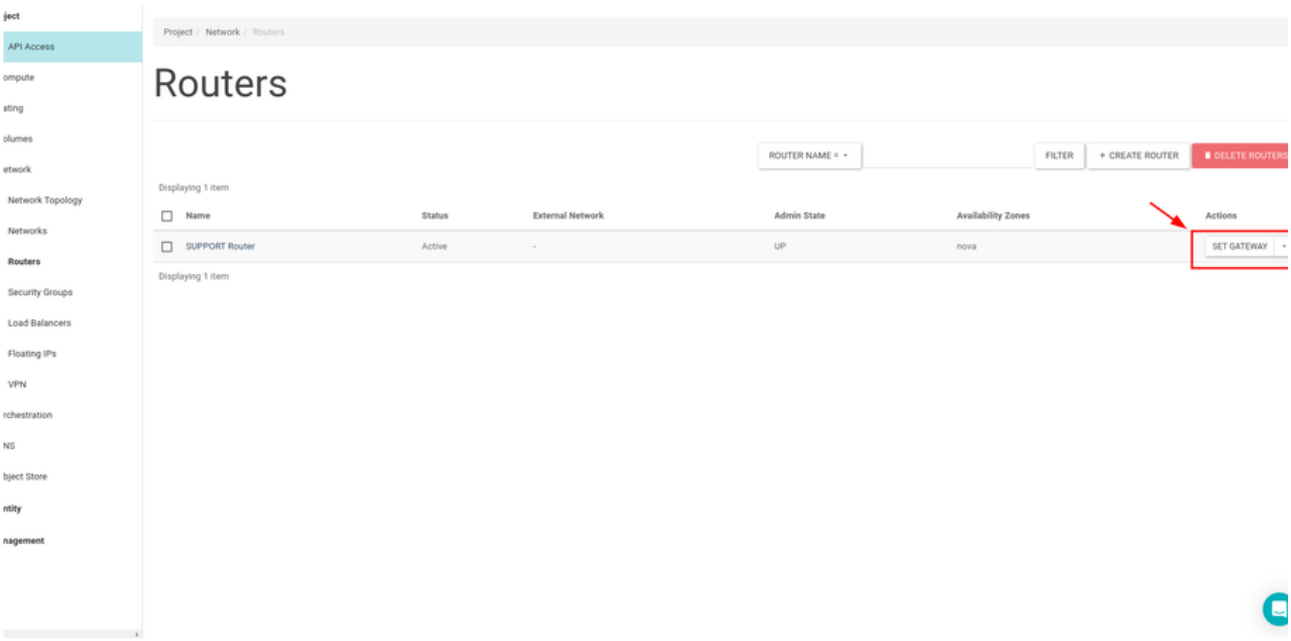




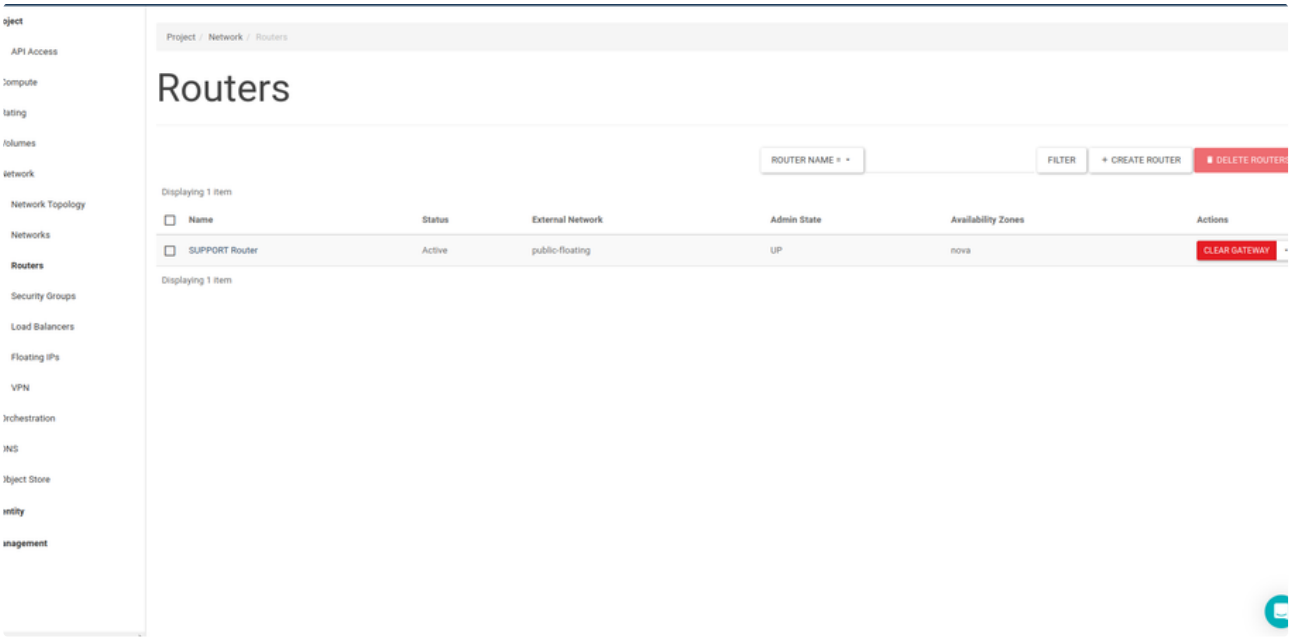
Added Interface is listed at the router details page.

Selecting Gateway

After the steps mentioned above router at the Router page should be chosen as a gateway.Click the Set Gateway button at the end of the router line to choose gateway.



After that gateway selection is completed.

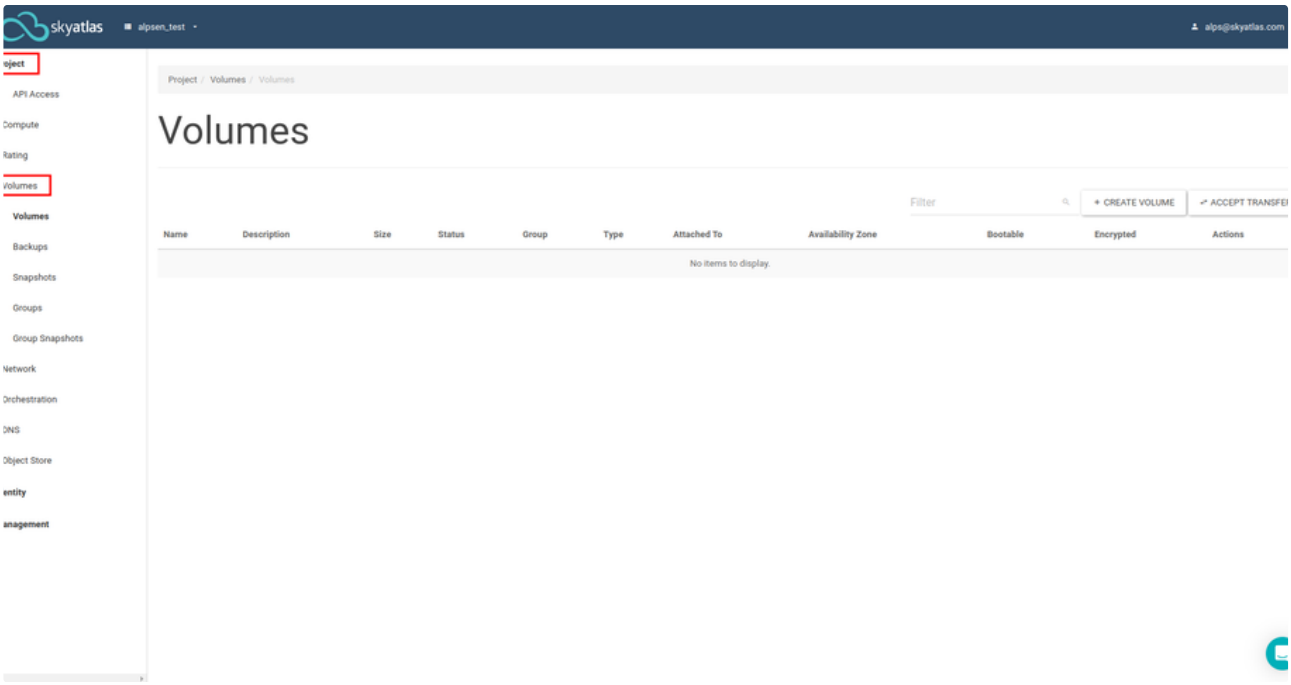


How to Create Volume?

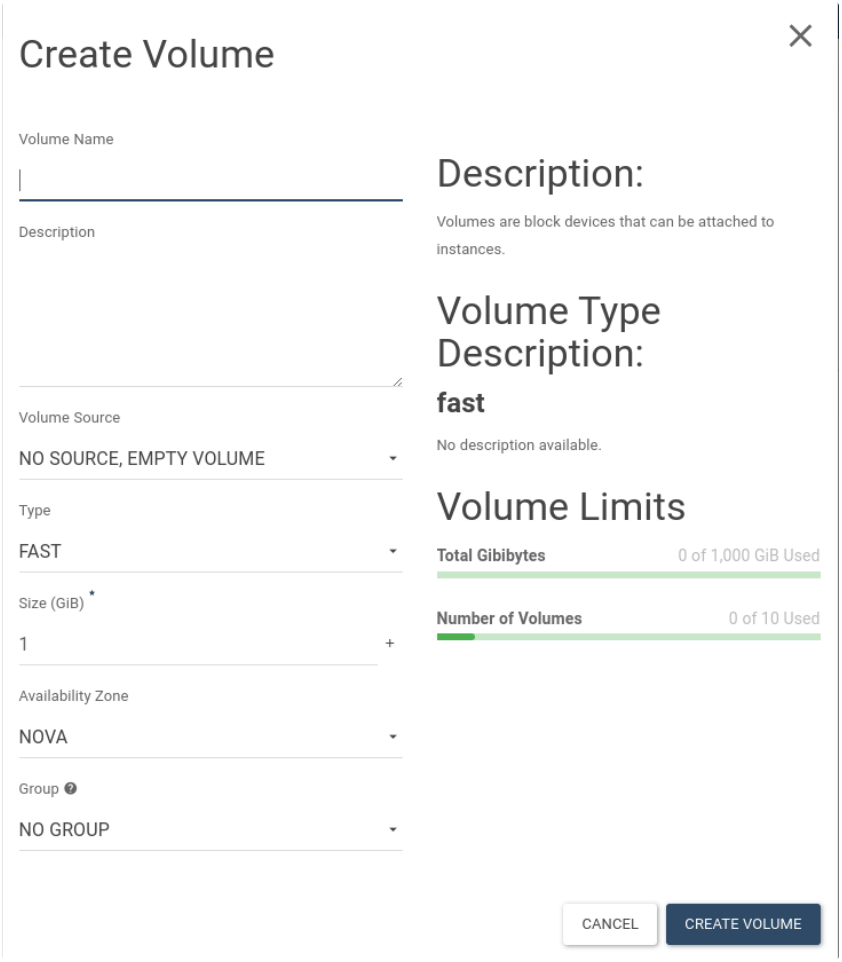
After logging panel.skyatlas.com, click on the Project tab on the left hand side to create a volume. You can follow steps:

```
1  Project → Volumes
```

After that, you should see **Volumes** page.

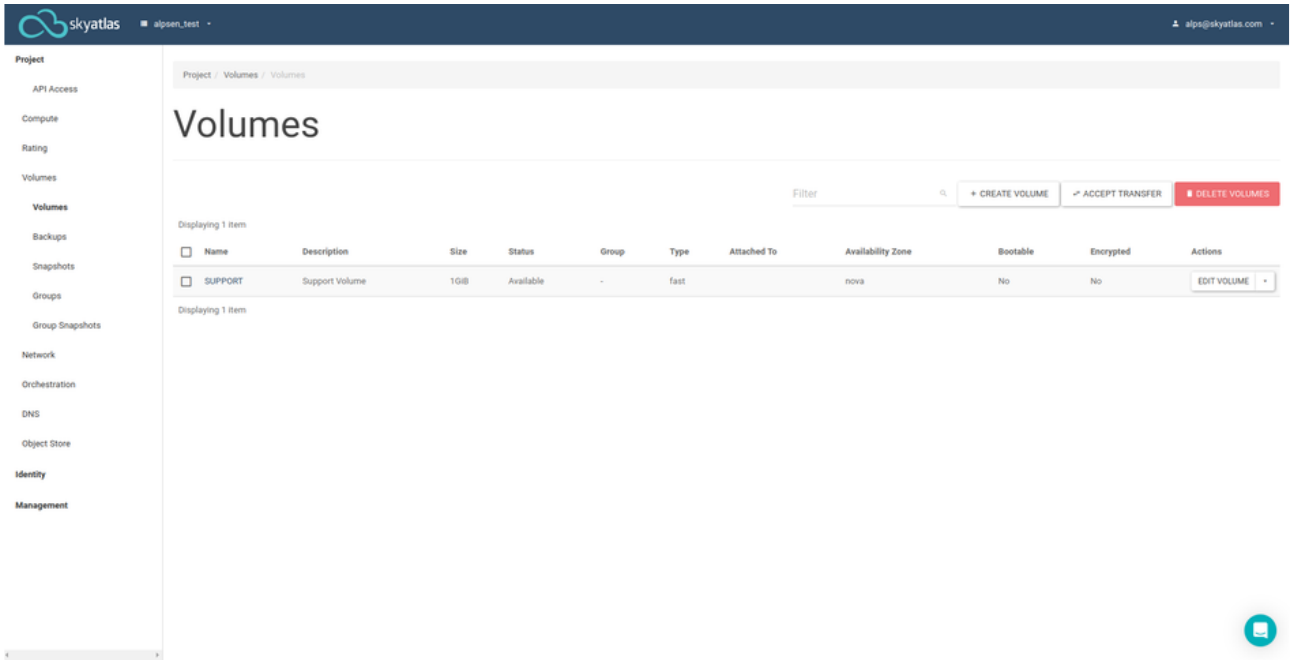


For creating a volume, you should click on the Create Volume button. Now, you should see Create Volume pop-up page.



In the Volume Name field, enter the name you want to give the new volume. You can write explanations about the new volume in the Description field. You need to select “No source, empty volume “ from Volume Source list. Also, you need to specify Size in gigabytes for the new volume.

After filling the corresponding fields, you can complete creating volume by clicking the **Create Volume** button. You can see information about the new volume in the **Volume** tab.

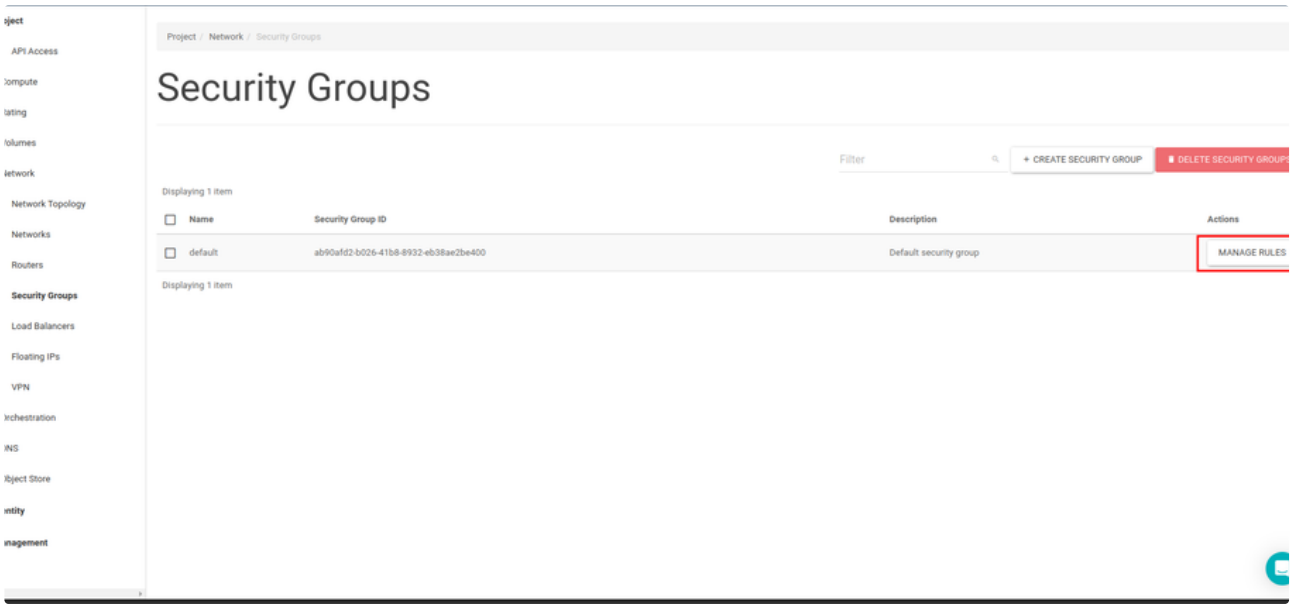

skyatlas
alpsen_test
alps@skyatlas.com
Project
API Access
Compute
Rating
Volumes
Volumes
Backups
Snapshots
Groups
Group Snapshots
Network
Orchestration
DNS
Object Store
Identity
Management
Project / Volumes / Volumes
Volumes
Filter
+ CREATE VOLUME
ACCEPT TRANSFER
DELETE VOLUMES
Displaying 1 item
Name
Description
Size
Status
Group
Type
Attached To
Availability Zone
Bootable
Encrypted
Actions
SUPPORT
Support Volume
1GiB
Available
-
fast
nova
No
No
EDIT VOLUME
Displaying 1 item

Access and Security Settings

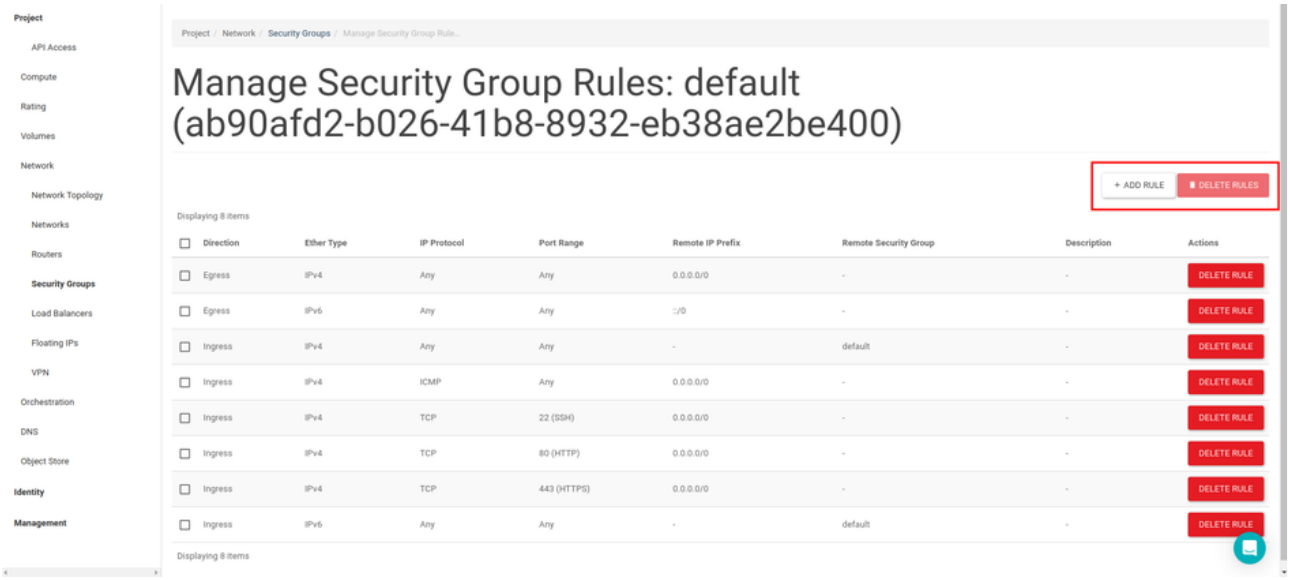
Certain procedures should be followed at the Horizon interface to remote access to your server before creating it.

Security Rules

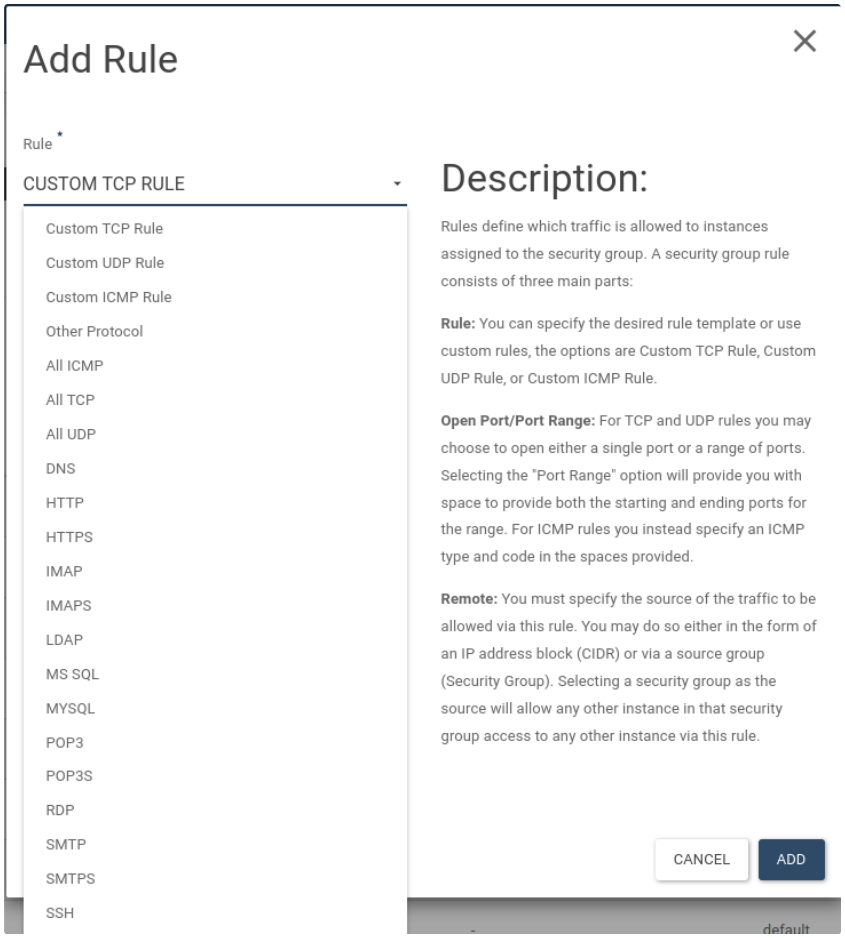
You can create and regulate security rules in order to access Instance.
In order to see these rules, open the Security Groups tab at “ Network → Security Groups “ page and click the Manage Rules button.



Rules can be deleted or new rules can be added from the page in which security rules are listed. To add new rule, click the Add Rule button at the page.



From the opened page, rules that provide accessibility of the instance can be added by choosing.



About SSH Connection

SSH rule should be added to access Linux instance by SSH via port 22.

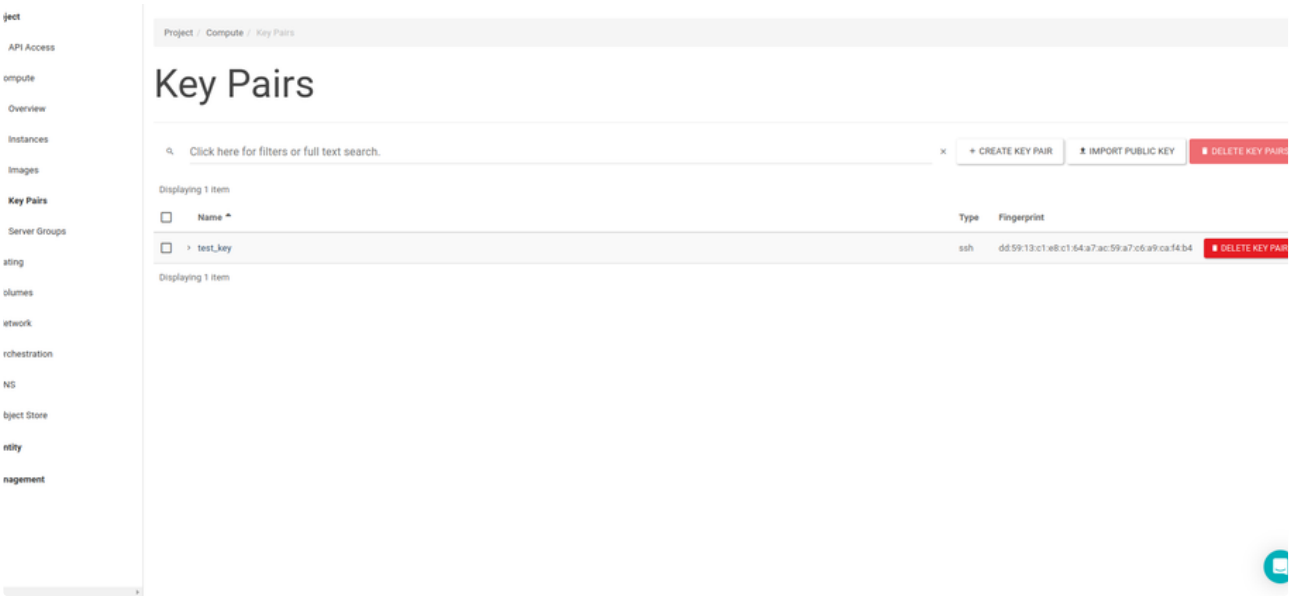
About RDP Connection

RDP rule should be added to access Windows instance by RDP via port 3389.

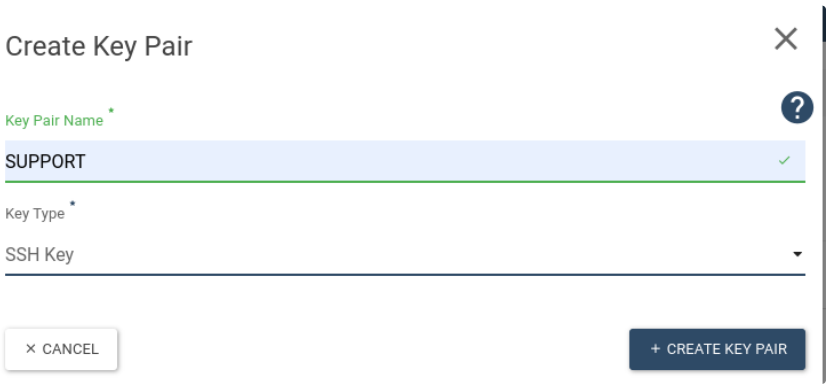
Creating Key Pair

In order to see these rules, open the Key Pairs tab at Compute →Key Pairs

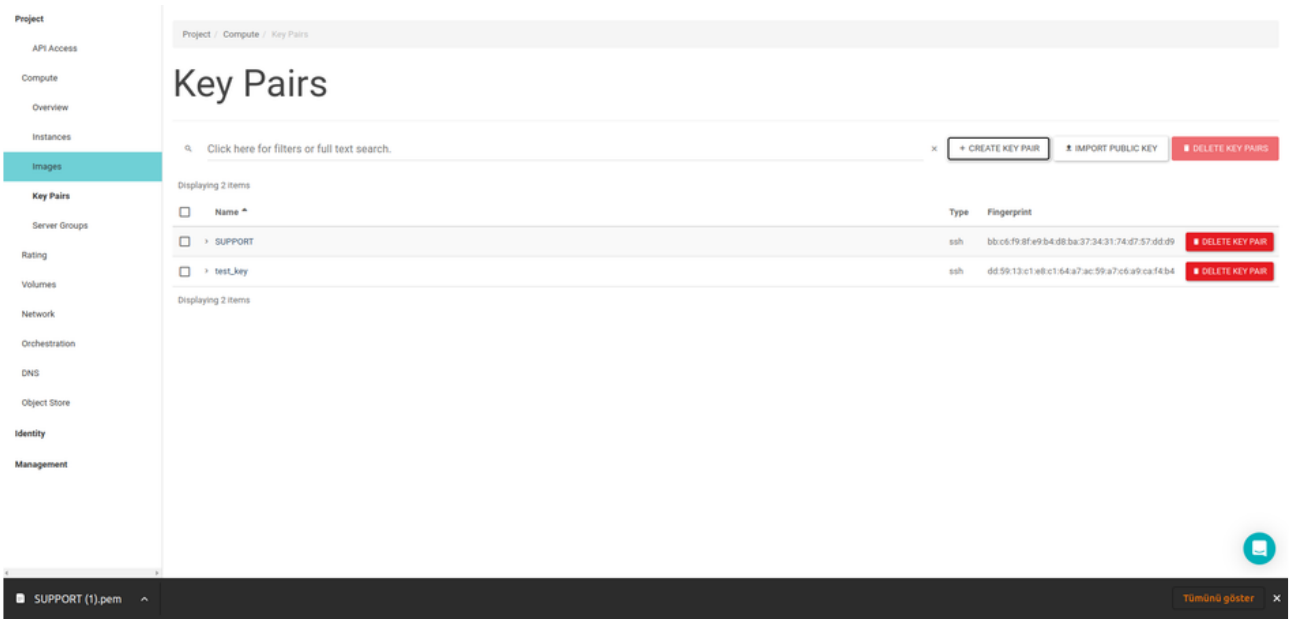
If there is any key created before it is listed here. Click the Create Key Pair button at the top-right to create new key.



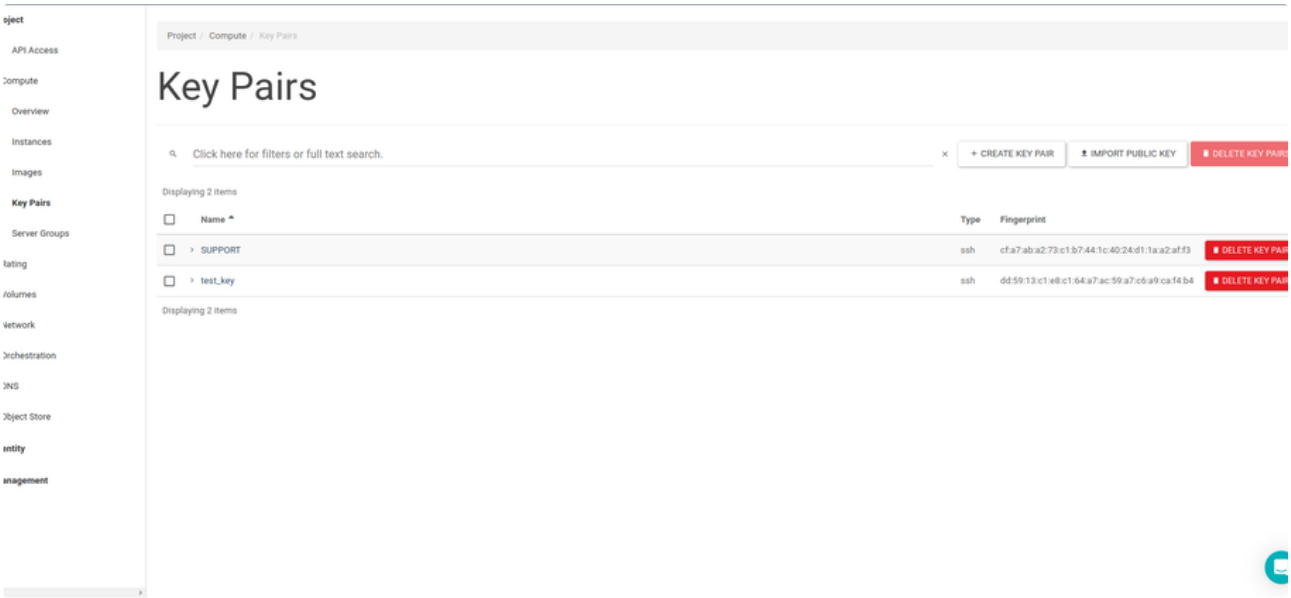
An appropriate name is given to the key that will be used for access to instances at the opened pop-up. Click the Create Key Pair button.



After that, download the file that has .pem extension and has a name given for the key. Then downloaded file will be used to connect to public IP given Instance via SSH.



Created Key is listed at the Key Pairs tab in the Key Pairs page.



Permission change should be done as mentioned below for .pem file to be capable of making connection to instance.
chmod 600 <path/to/file.pem>

Adding Key Pair

A new key can be created on the system in which Instance connection will be made.
In order to do this, firstly a new key is created via console on the local system by command line mentioned below.

ssh-keygen -t rsa -f cloud.key

After that created key is gotten to import to the panel.

cat ~/cloud.key.pub

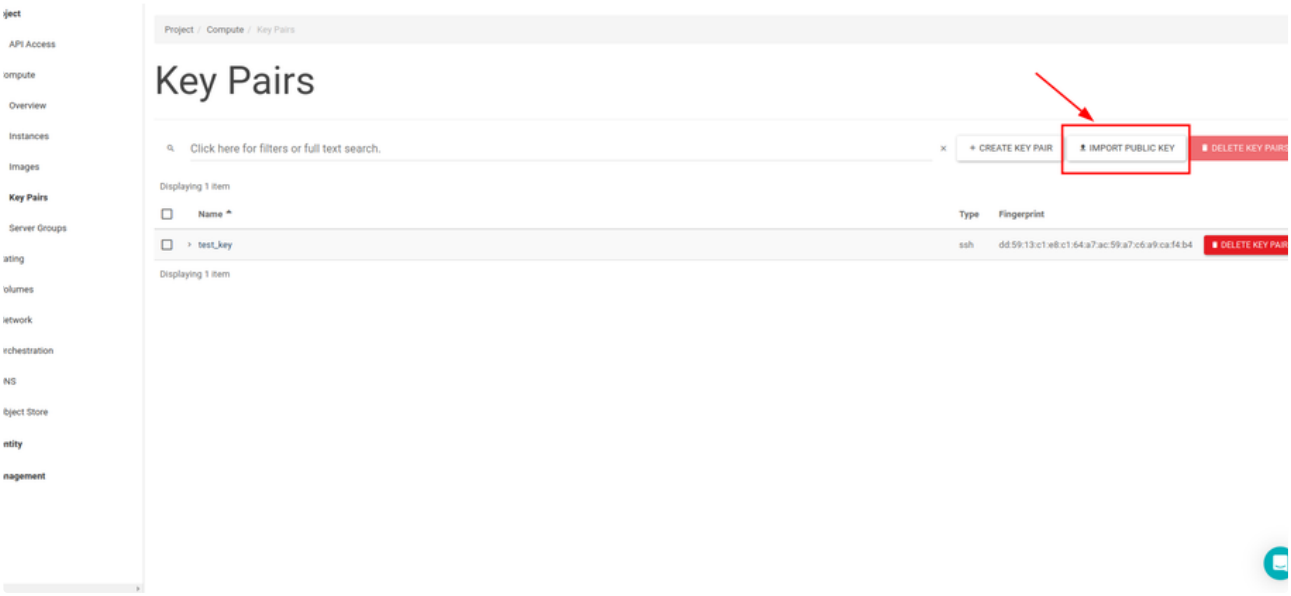
Key created as mentioned below is copied to import.

user@user:~$ cat ~/cloud.key.pub

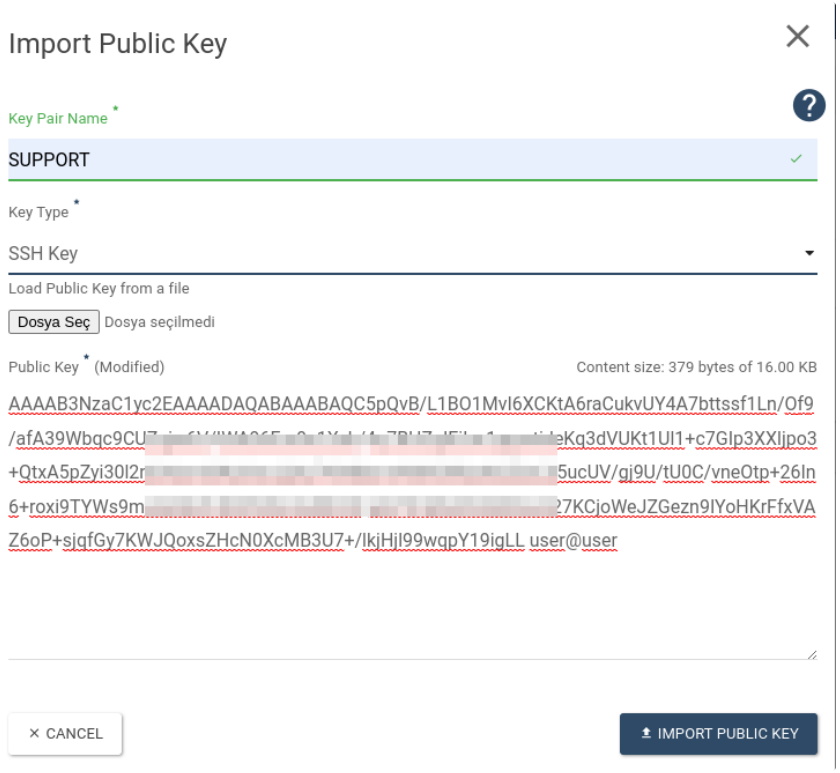
ssh-rsa

AAAAB3NzaC1yc2EAAAADAQABAAABAQC5pQvB/L1BO1MvI6XCKtA6raCukvUY4A7bttssf1Ln/Of9/afA39Wbqc9CUZqjw6V/IWA96Fm9e1Xzh/4q7BHZgIEiLw1grpstideKq3dVUKt1Ul1+c7GIp3XXljpo3+QtxA5pZyi30l2nDrkbm6Wqhiwu2jhz74iMbbrmAMXlK9baN2f2yC65ucUV/gj9U/tU0C/vneOtp+26In6+roxi9TYWs9msldAQd1iK00Tj9irsbd0h0X/pQ73CMxnBz9400ss027KCjoWeJZGezn9IYoHKrFfxVAZ6oP+sjqfGy7KWJQoxsZHcN0XcMB3U7+/lkjHjl99wqpY19igLL user@user

Text copied from ssh-rsa part to user@user(inclusive) is added by clicking Import Key Pair at the Key Pairs screen on the panel.



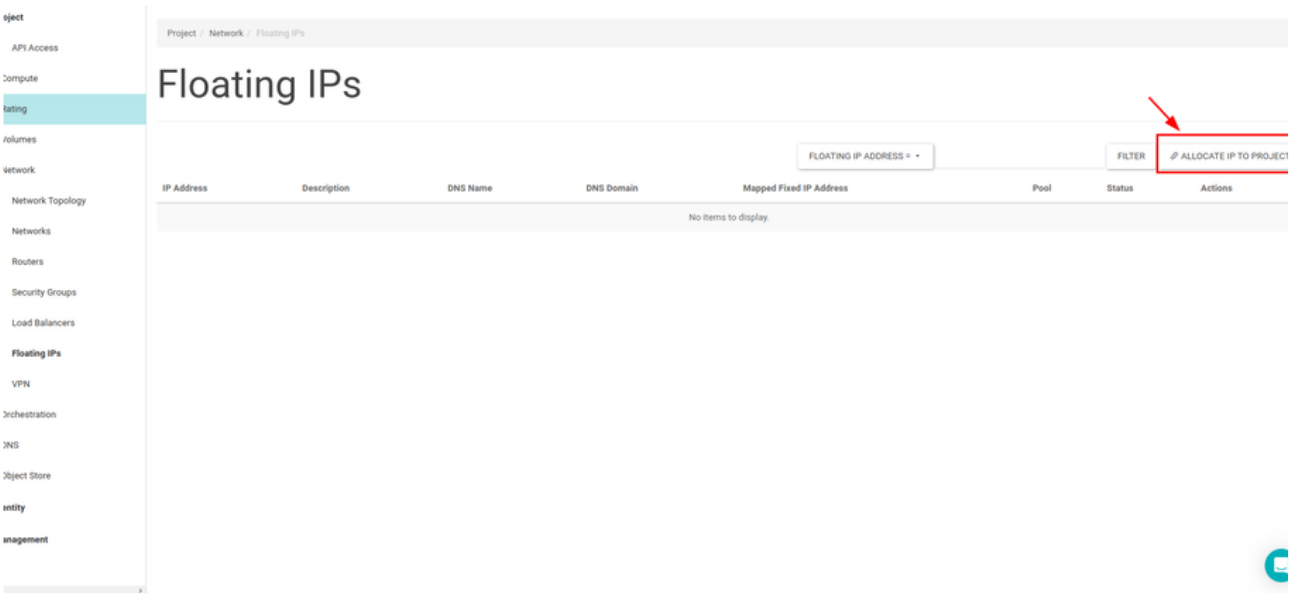
A key name is entered via Import Key Pair pop-up page and past the copied text here. Then click the Import Key Pair button.



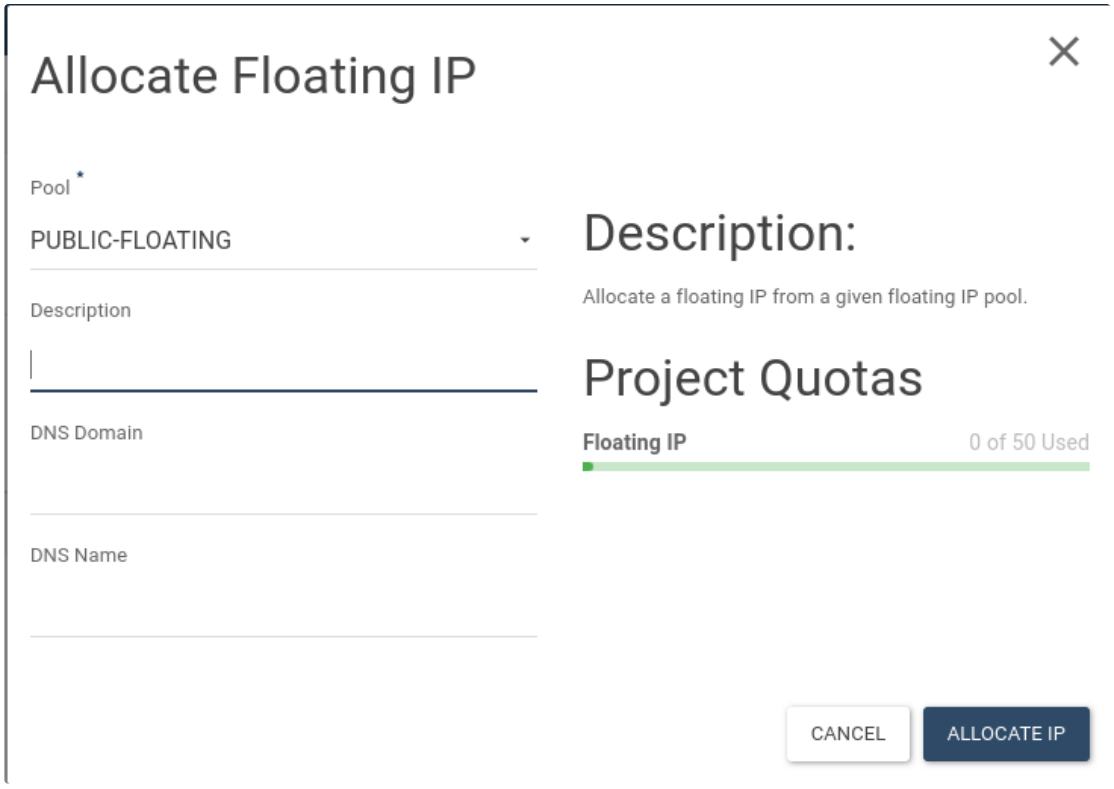
Created key is listed at the Key Pairs tab on the Key Pairs page.

Adding Public IP

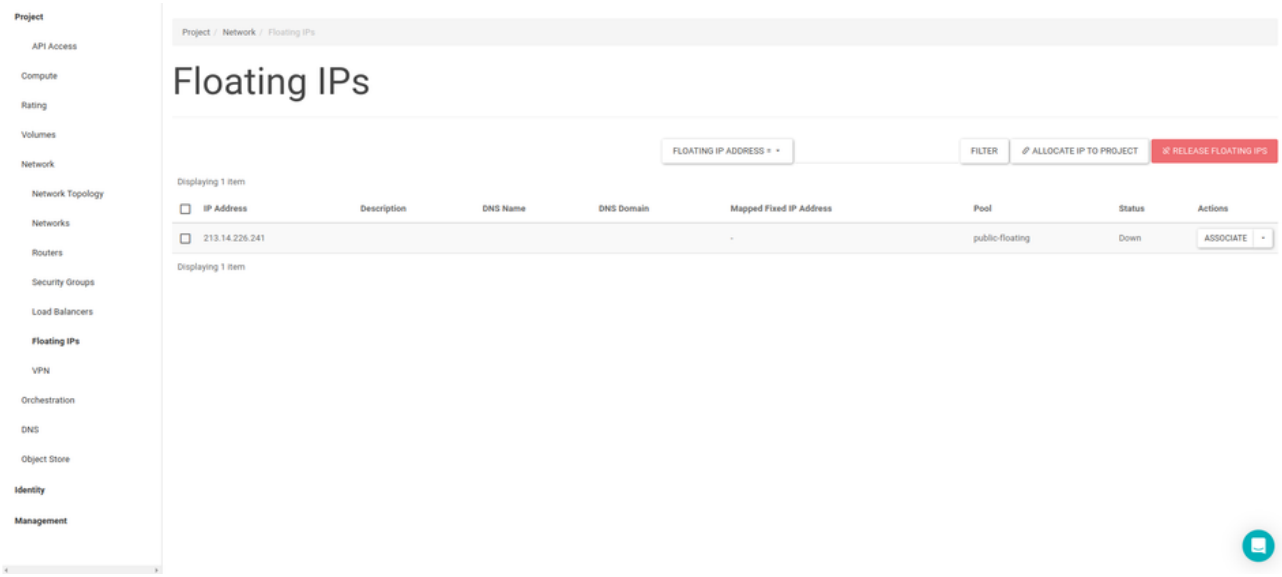
If you want to access created Instance via Internet, public IP should be assigned. For this open the Floating IP's tab on the Network page. Click the Allocate IP To Project button at the top-right.



Pool selection at the opened pop-up remains default and click the Allocate IP button at the right down. Therefore, a new public IP is assigned to project.



Assigned Public IPs is listed on the Floating IP's tab.



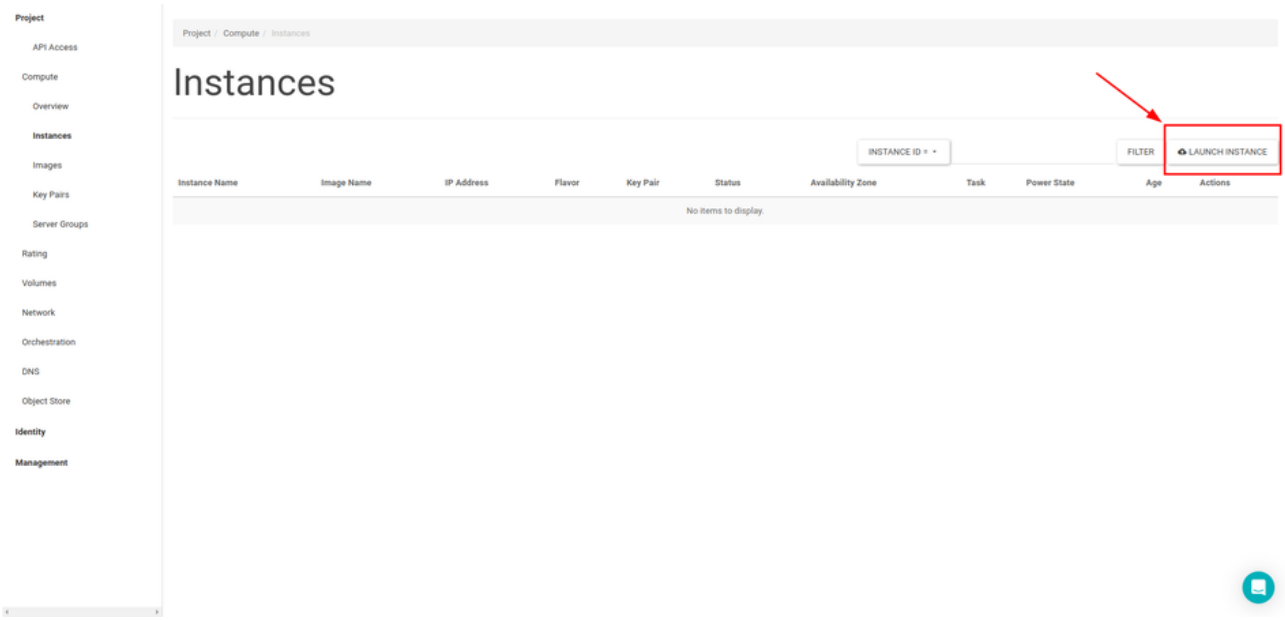
Launch Your First Server

You can create your own server in a few minutes by using Skyatlas Horizon interface. In order to do this, first of all you should create a network and then you should set the settings of access and security. After doing previous steps, you can create your first server by following steps that will be mentioned below.

Creating Server

Cloud servers are defined as Instance in the Horizon interface.

Page is opened via Instance menu which is placed under the Compute heading located in left of the panel. If there is any instance created before it would be listed here. To create new instance you should click the Launch Instance button located in the top-right.



Firstly requested name is entered to Instance Name area. After that "Select Boot Source" is selected for instance that will be created for very first time. Then, needed operating system is chosen from the image list. Then needed flavor is chosen from the Flavor selection and Launch button at the rightdown is clicked.

Launch Instance

- Details *
- Source
- Flavor *
- Networks
- Network Ports
- Security Groups
- Key Pair
- Configuration
- Server Groups
- Scheduler Hints
- Metadata
- Price

Please provide the initial hostname for the instance, the availability zone where it will be deployed, and the instance count. Increase the Count to create multiple instances with the same settings.

Project Name

Instance Name *

Description

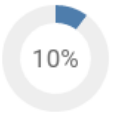
Availability Zone

Any Availability Zone

Count *

1

Total Instances
(10 Max)



0 Current Usage
1 Added
9 Remaining

× CANCEL

← BACK

NEXT →

LAUNCH INSTANCE

Launch Instance

- Details *
- Source
- Flavor *
- Networks
- Network Ports
- Security Groups
- Key Pair
- Configuration
- Server Groups
- Scheduler Hints
- Metadata
- Price

Instance source is the template used to create an instance. You can use an image, a snapshot of an instance (image snapshot), a volume or a volume snapshot (if enabled). You can also choose to use persistent storage by creating a new volume.

Select Boot Source

Image

Create New Volume

YES NO

Volume Size (GB) *

1

Delete Volume on Instance Delete

YES NO

Allocated

Displaying 0 items

Name	Updated	Size	Type	Visibility
Select an item from Available items below				

Displaying 0 items

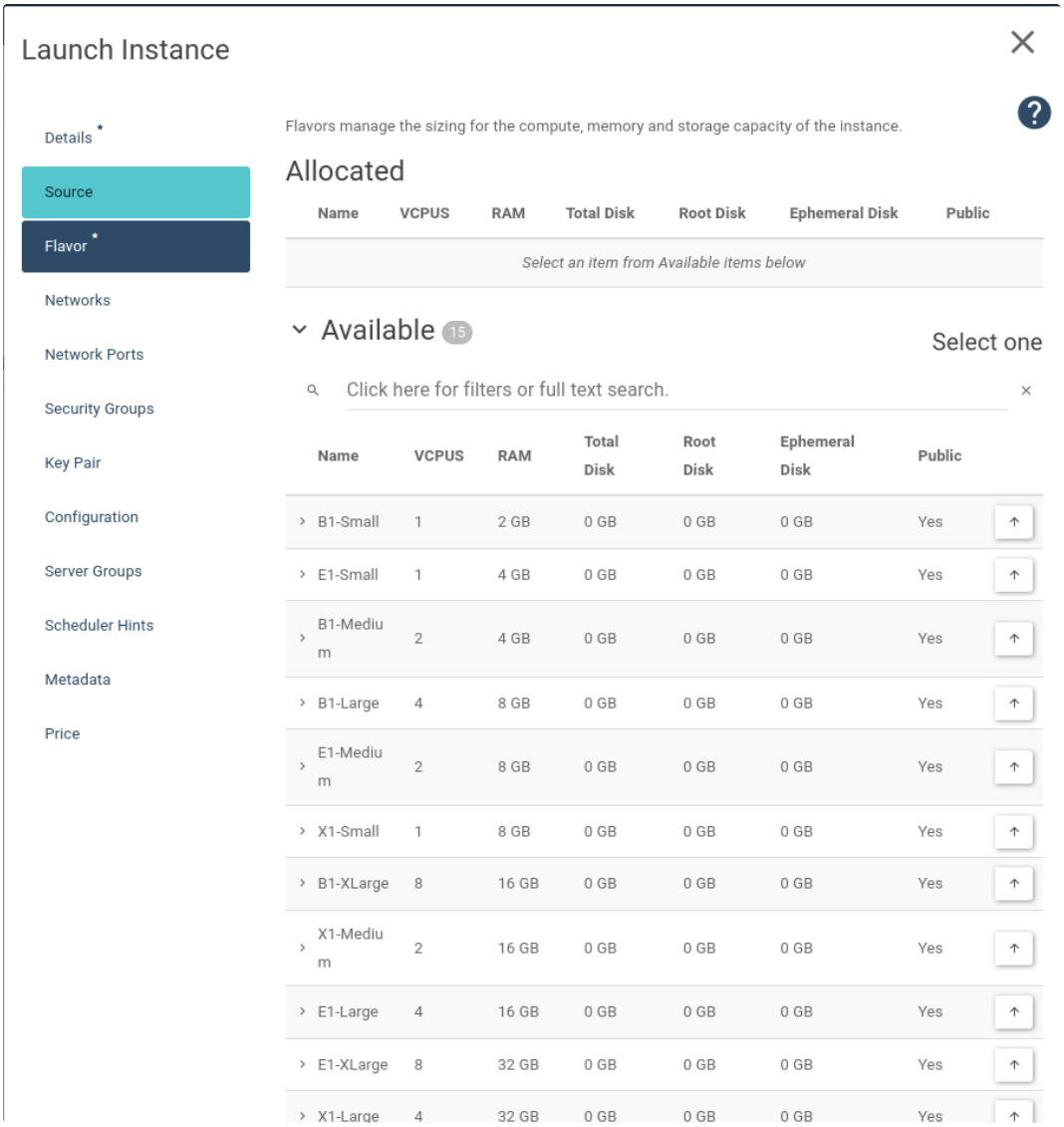
Available 45

Select one

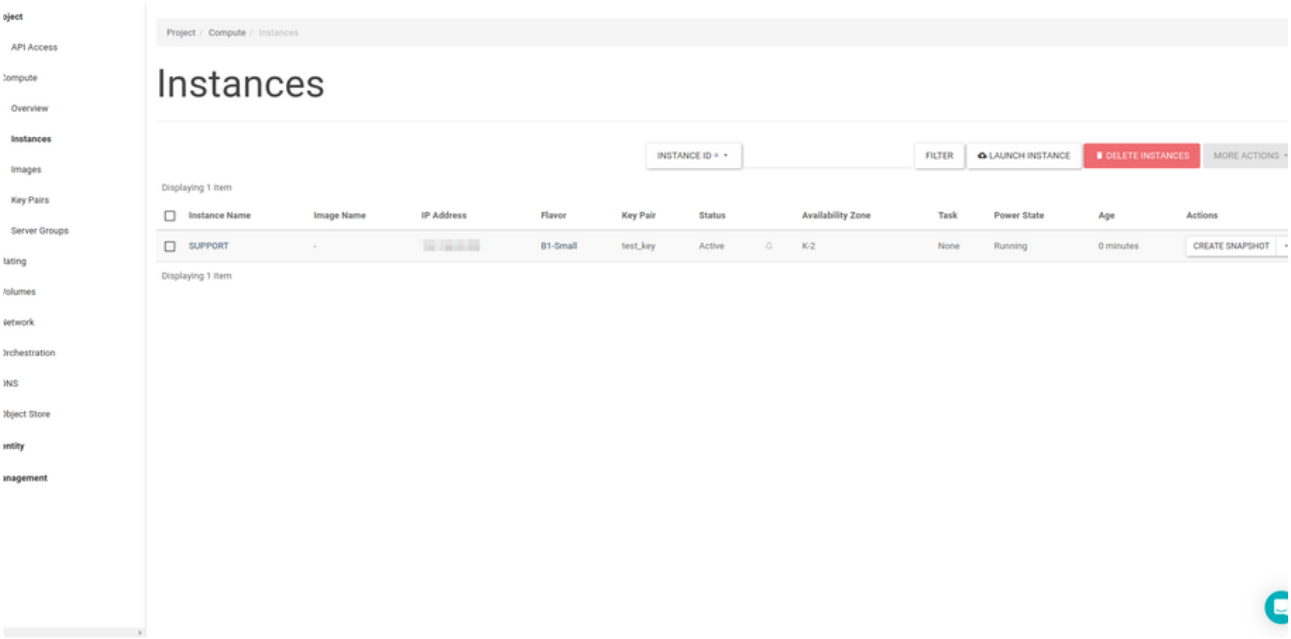
Click here for filters or full text search.

Displaying 20 items | Next »

Name	Updated	Size	Type	Visibility	
CentOS	5/9/22 2:36 PM	807.94 MB	QCOW2	Public	↑
CentOS 8	1/20/23 12:54 PM	1.22 GB	QCOW2	Public	↑
Debian 10 Buster	1/20/23 12:54 PM	556.65 MB	QCOW2	Public	↑
Debian 10 Buster + Bugzilla	1/20/23 12:49 PM	1.56 GB	QCOW2	Public	↑
Debian 10 Buster + CakePHP	1/20/23 12:53 PM	1.26 GB	QCOW2	Public	↑

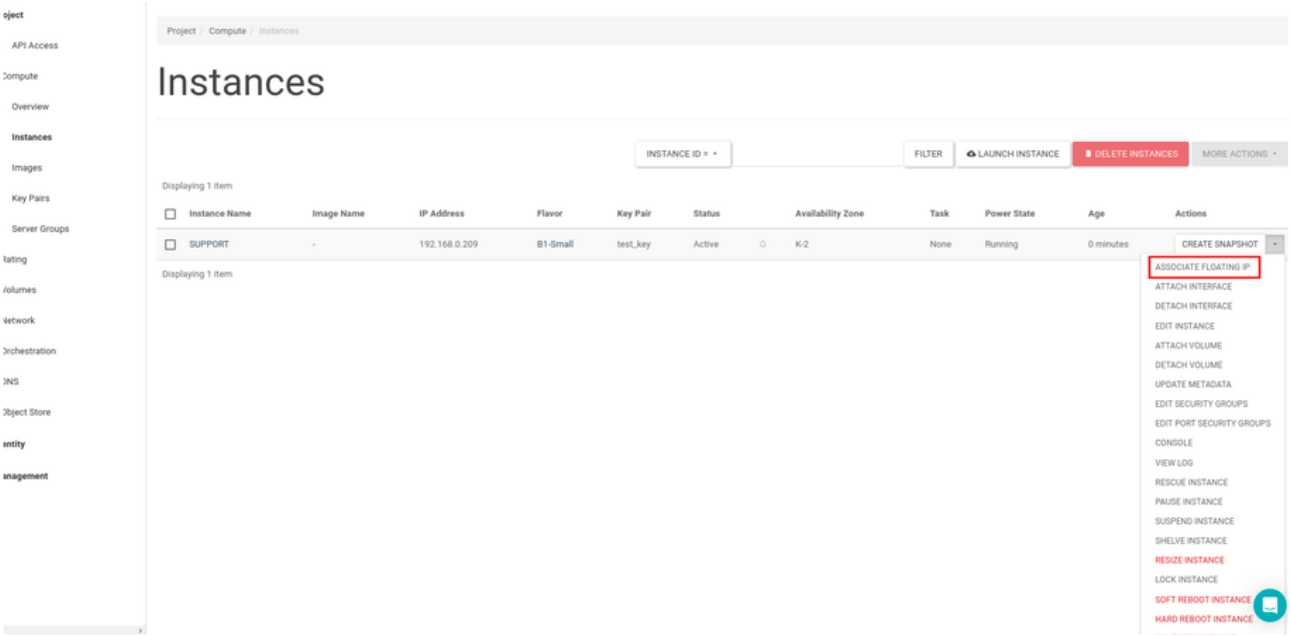


Observe that created instance's status is running.

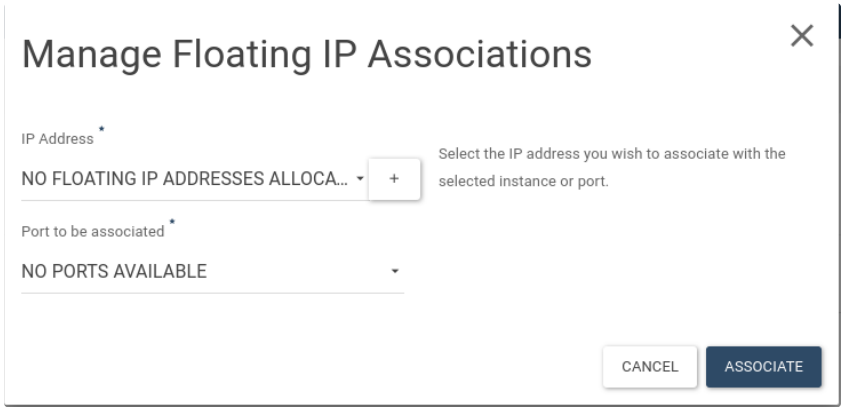


Adding Public IP

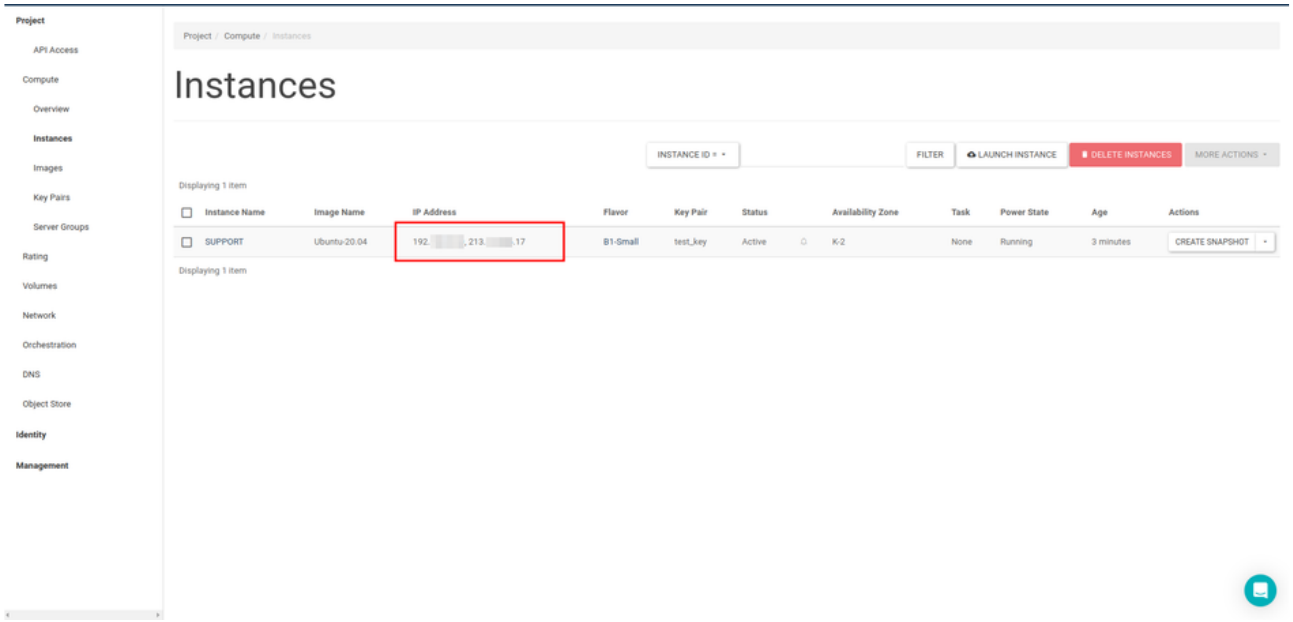
In order to access created instance via Internet, public IP should be given at first. So as to do this, "Assoclate Floating IP" option is selected from list at the end of the Instance line which public IP will be given.



IP gotten before is chosen from the opened pop-up and Associate button at the right down is clicked.



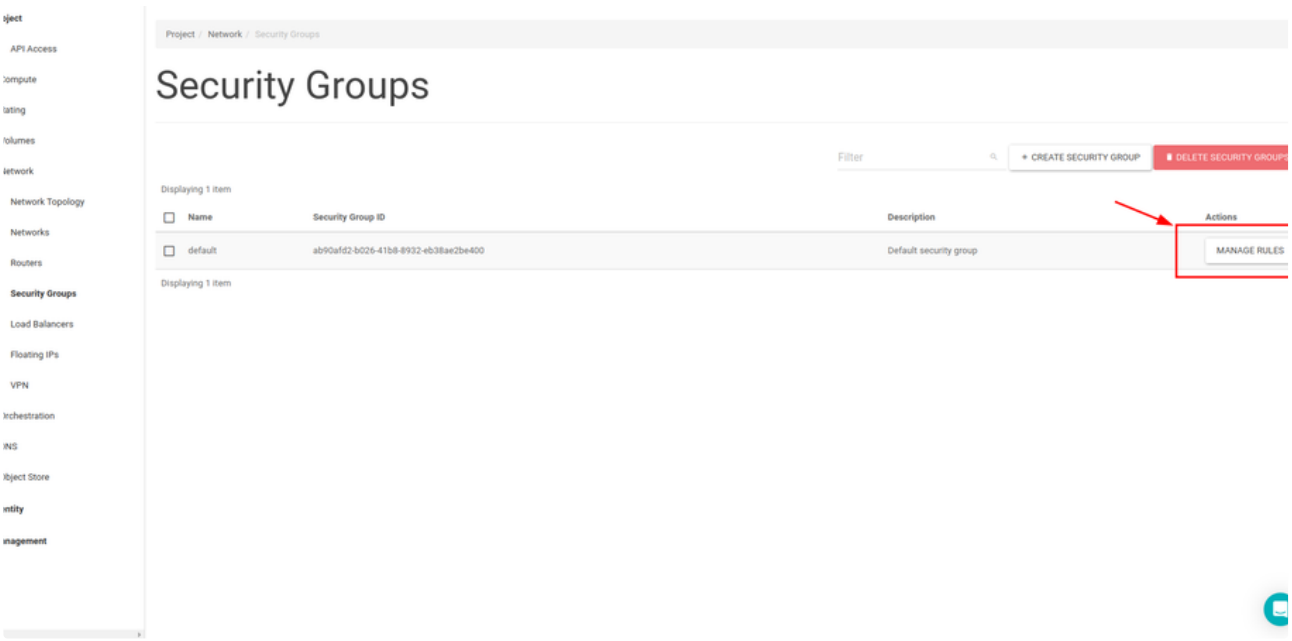
IP information is viewed at the IP Adress location. This location is belong to the instance that IP is assigned in the Instance page.


Project
API Access
Compute
Overview
Instances
Images
Key Pairs
Server Groups
Rating
Volumes
Network
Orchestration
DNS
Object Store
Identity
Management
Project / Compute / Instances
Instances
INSTANCE ID =
FILTER
LAUNCH INSTANCE
DELETE INSTANCES
MORE ACTIONS
Displaying 1 item
Instance Name
Image Name
IP Address
Flavor
Key Pair
Status
Availability Zone
Task
Power State
Age
Actions
SUPPORT
Ubuntu-20.04
192. .213. .17
B1-Small
test_key
Active
K-2
None
Running
3 minutes
CREATE SNAPSHOT
Displaying 1 item

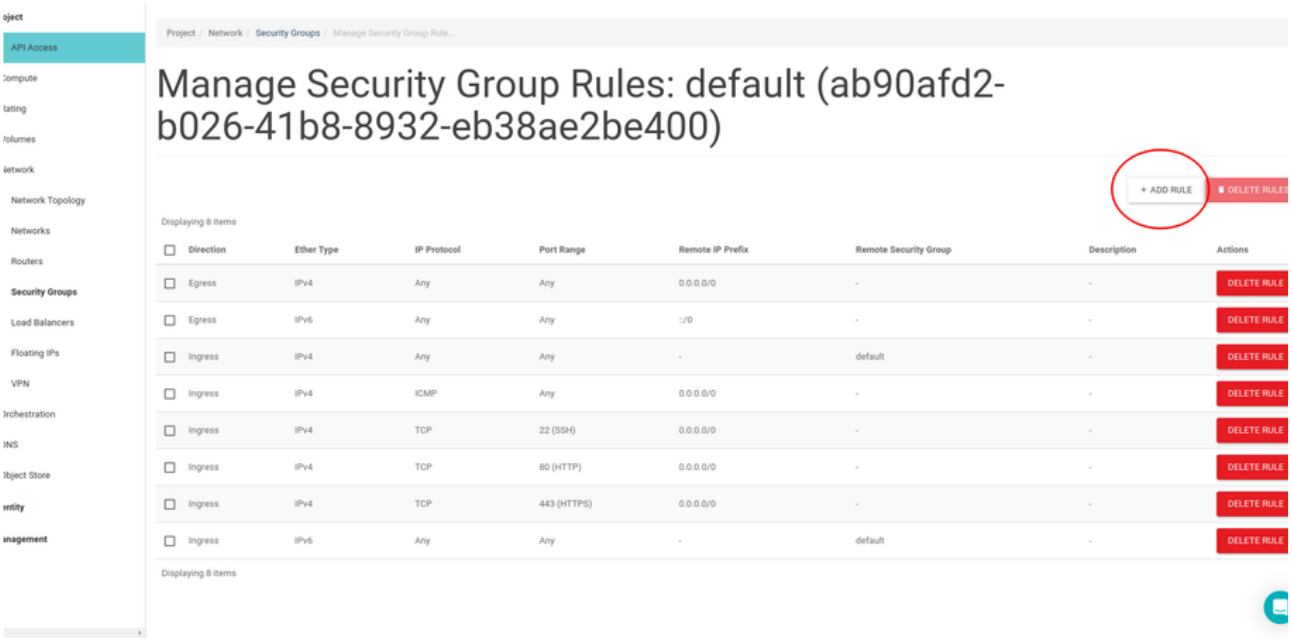
SSH Connection From Specific Public IP Address to Your Instance

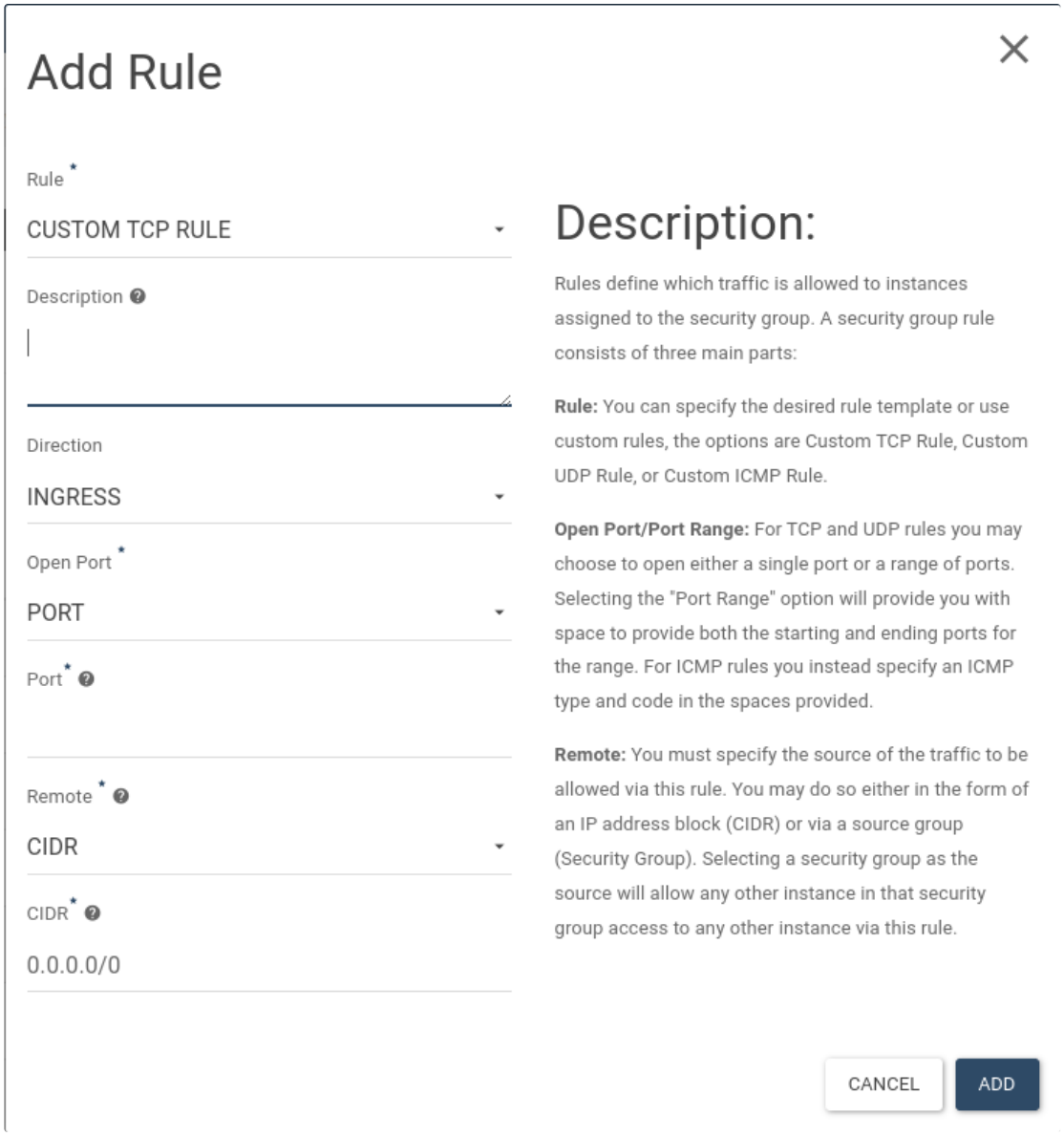
If you want access to your server from certeain IP address, you can do this in the Access & Security settings from Skyatlas panel. You can follow the sections:

```
Network -> Security Groups -> MANAGE RULES
```



After that, you should see the **Add Rule** pop-up page.



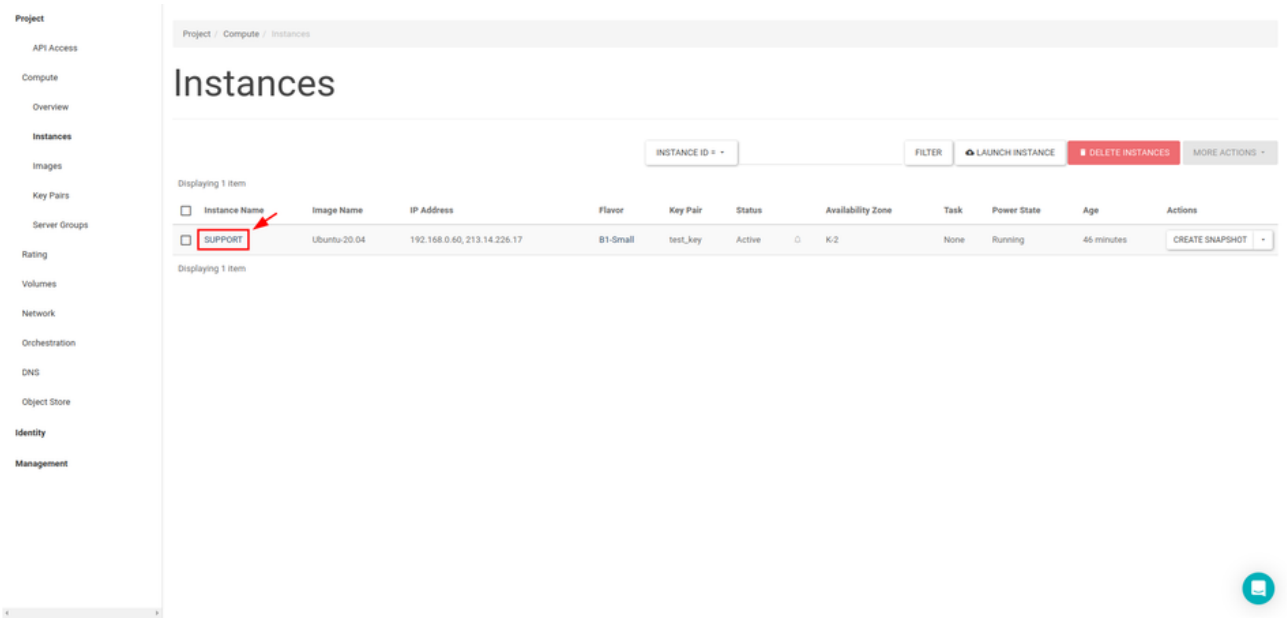


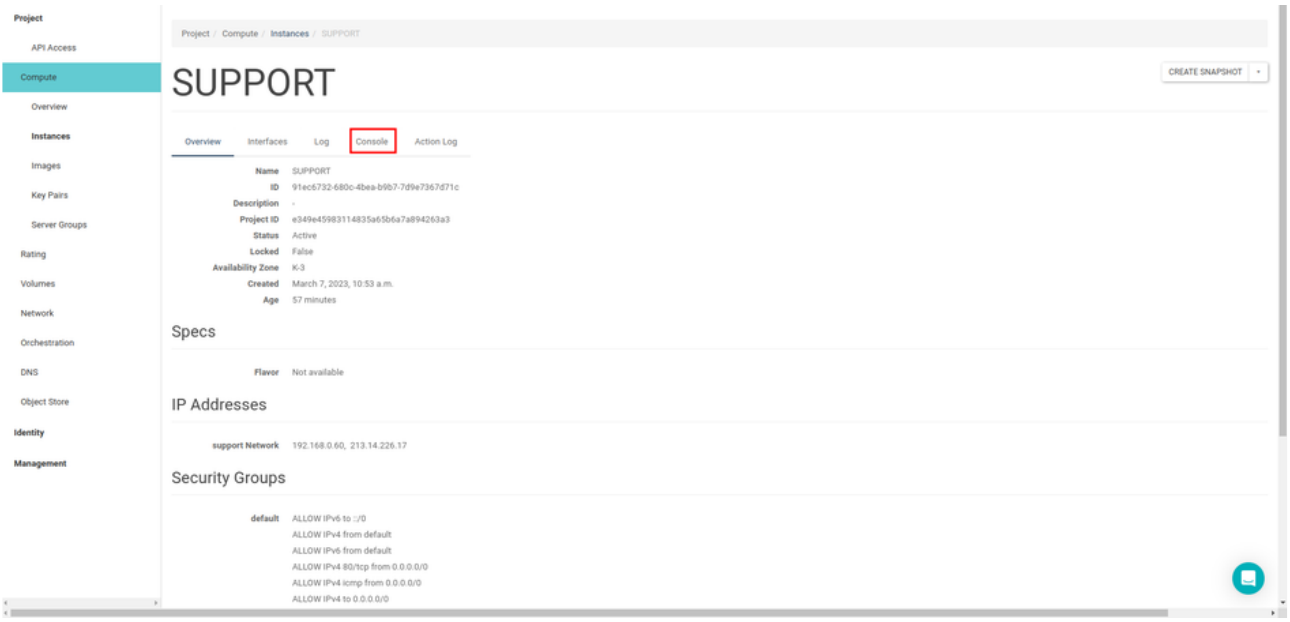
Fill in the blanks as follows. Replace **CIDR** text box to your **Public IP Address** and click **Add** button.

After this process, your instance will only be accessible from your public IP address. Feel free to add more IP address.

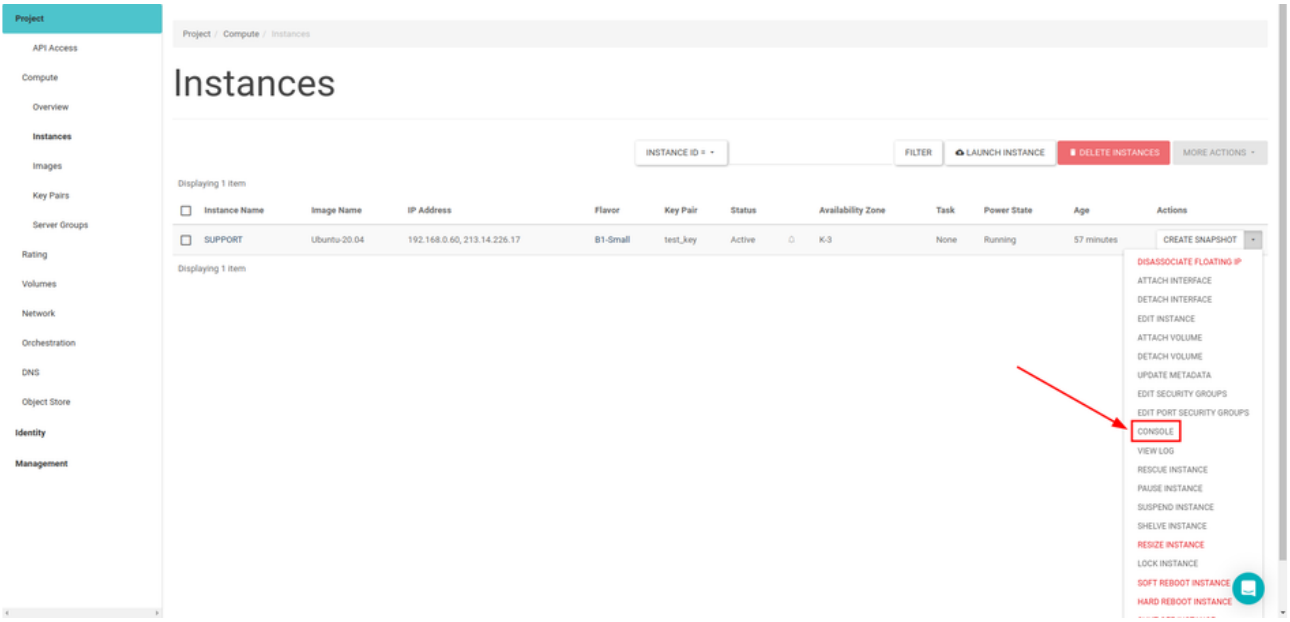
Accessing Console And Code 1006 Error

1- First, list your current servers by going to the **Compute> Instances** tab on the panel on the left. Then click on the server whose console you want to access. By selecting the console from the tabs above, you can access the console to which the server is connected. You can also easily view general information and logs about your server from this screen.

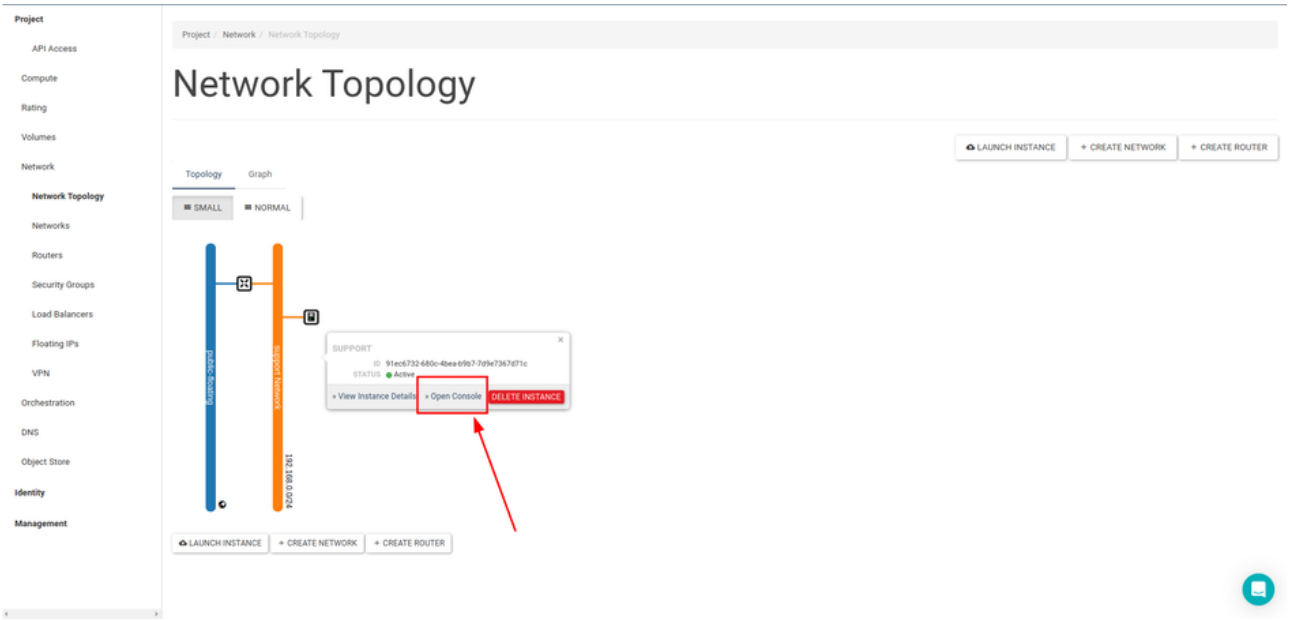




2- In order to reach it more practically, you can go to **Compute > Instances** tab on the left panel and instead of clicking on the server you want to access the console, you can directly access the console by selecting the console from the "drop box" menu on the far right.



3- If you wish, you can access the console by clicking on the server you want from the Network Topology screen and clicking the "Open Console" text on the bubble that opens.



Code 1006 Error

It is possible to get a Code 1006 error when accessing the console. You can access the console by solving this error quite easily.

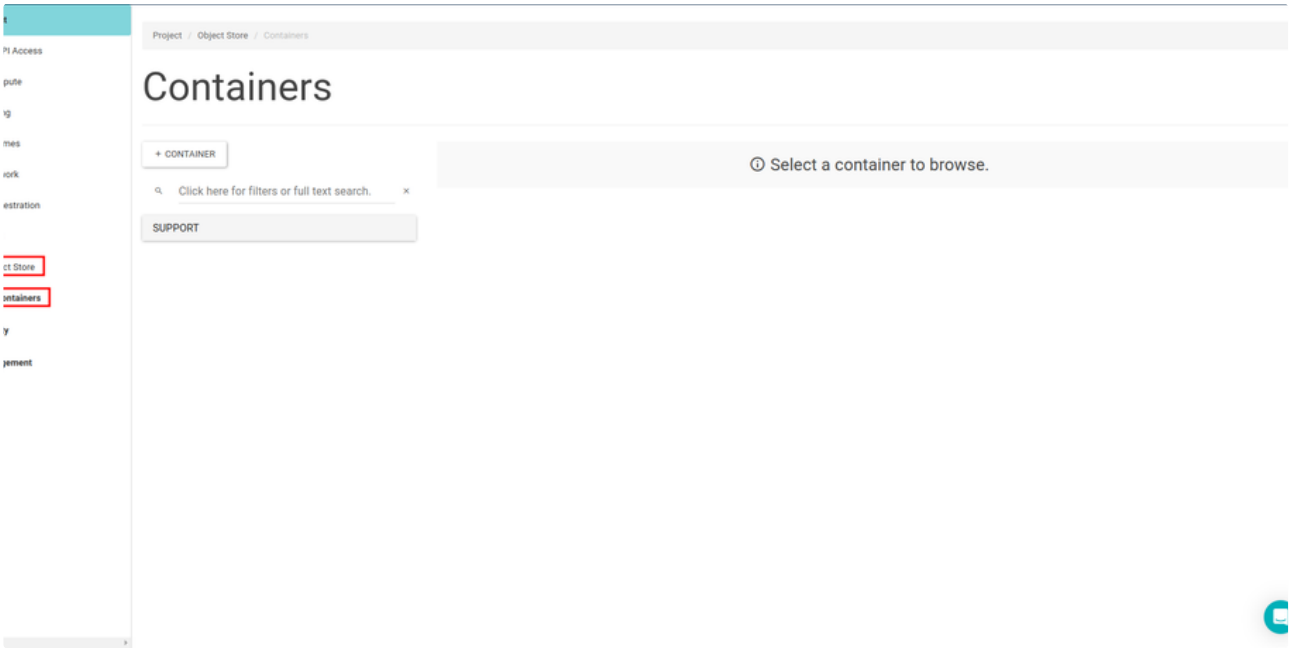
Click on the "**Click here to show console**" text on the console.

When you refresh the opened page by clicking the **refresh button** on your browser or by pressing the "**F5**" key, you will see the console screen come up.

How to Create Container For Object Storage on SkyAtlas Panel

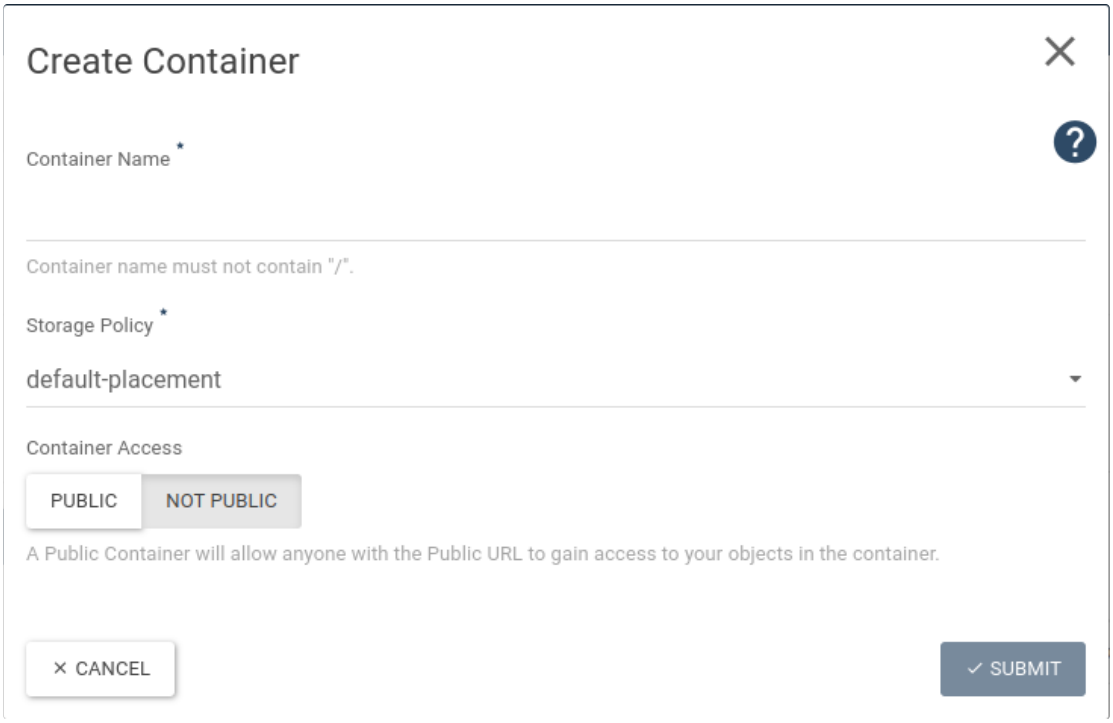
For the object storage operations, you can follow sections :

```
Project -> Object Store -> Containers
```

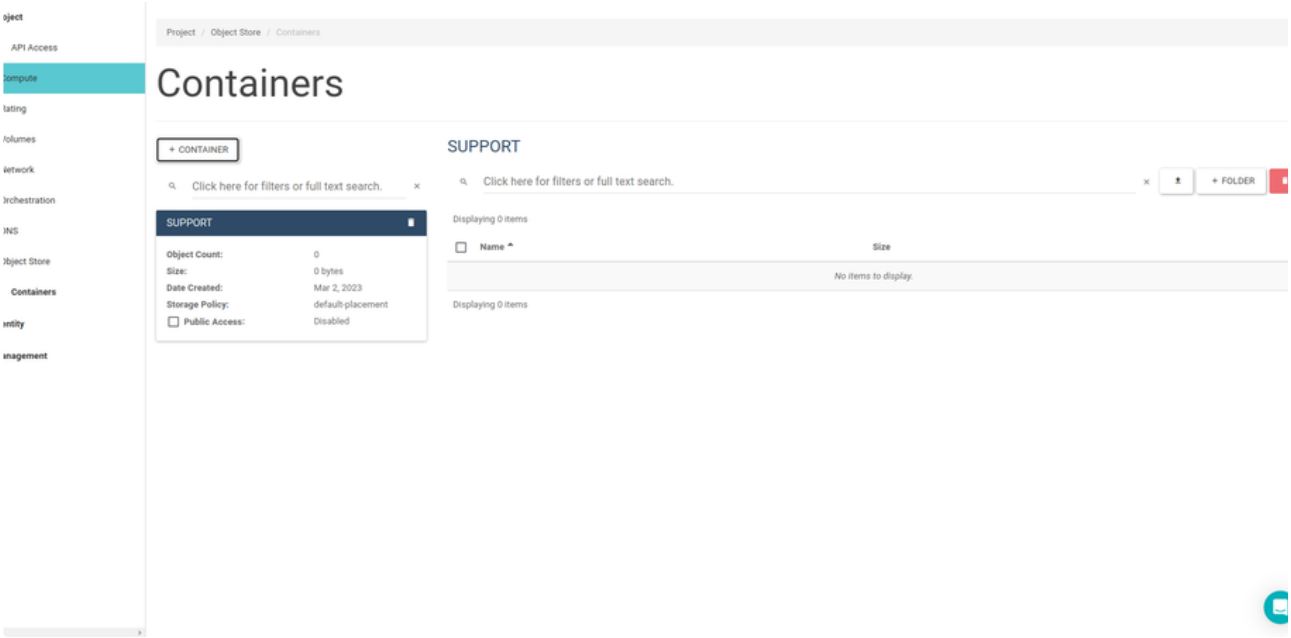


To create a new container, you should click on the **Container** button. On the **Create Container** pop-up page, you must specify the container name from **Container Name** text field.

Note: If you choose the Public option, you allow anyone with the public URL to gain access to your objects in the container.



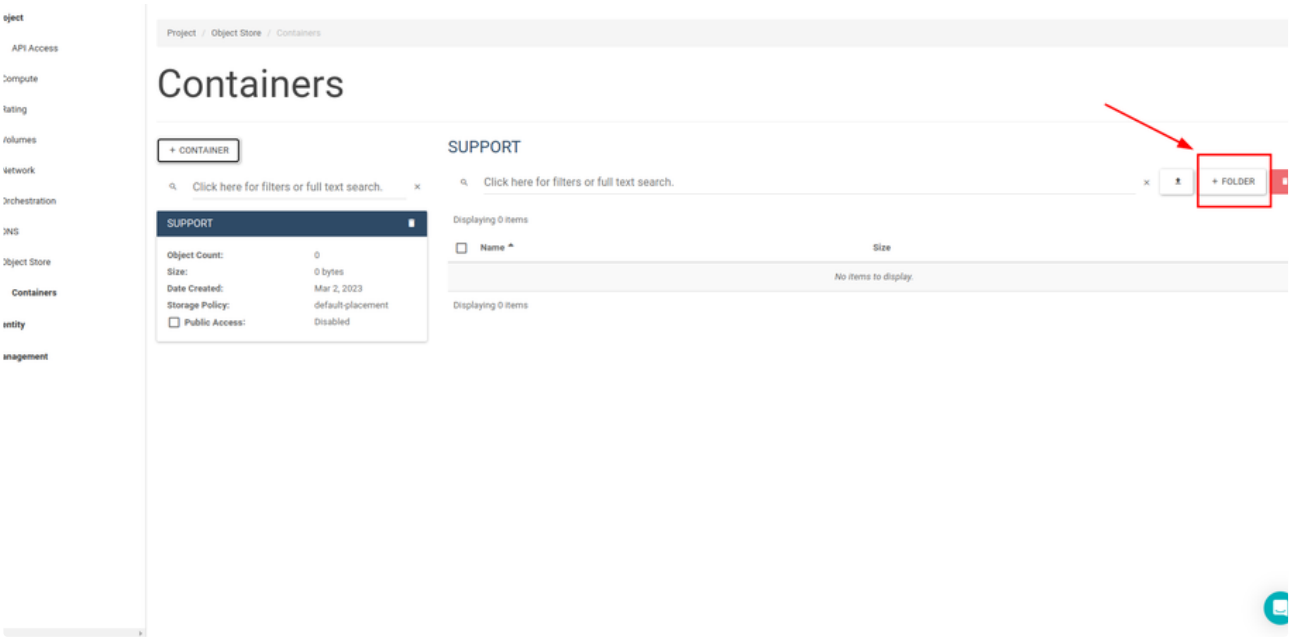
After creating container, you can see the new container on the **Containers** screen.



If you click on the container , you will see information about the container.

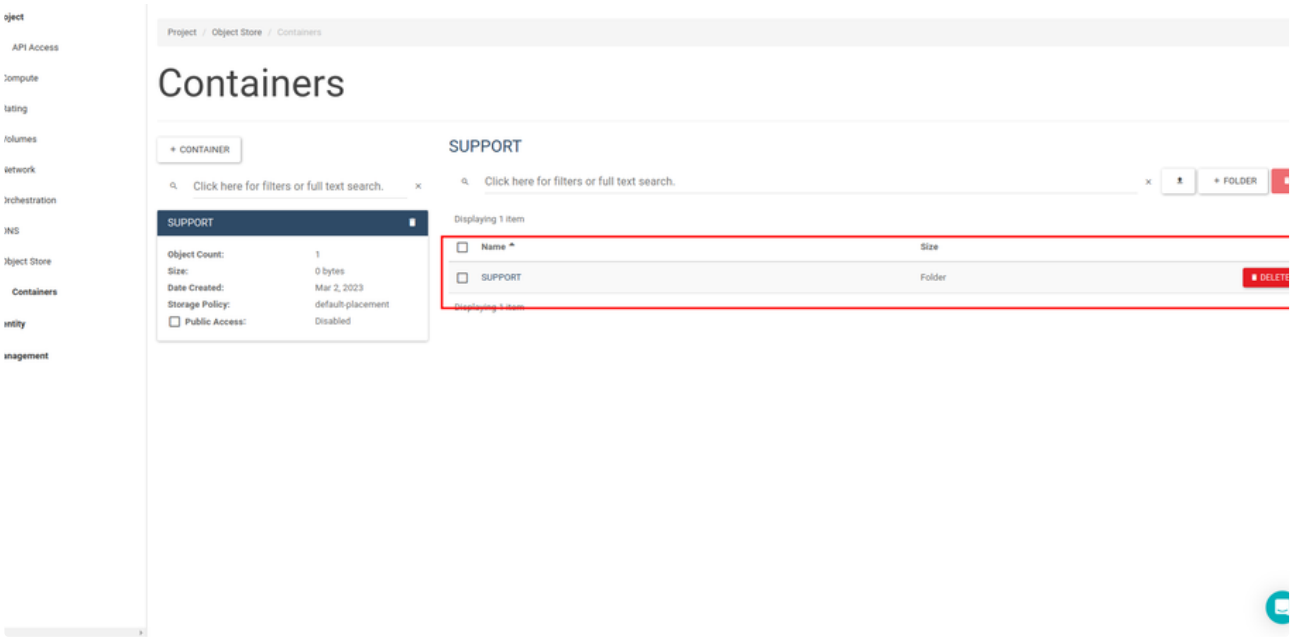
How to Upload My File into Container?

Click **Upload File** button to upload any file in the container.



From the **Upload File** pop-up page, you can choose files to upload into container.

After uploading file, you will see information about the your objects on the screen.


API Access
Containers
Project / Object Store / Containers
Containers
+ CONTAINER
Click here for filters or full text search.
SUPPORT
Object Count: 1
Size: 0 bytes
Date Created: Mar 2, 2023
Storage Policy: default-placement
Public Access: Disabled
SUPPORT
Click here for filters or full text search.
+ FOLDER
Displaying 1 item
Name
Size
SUPPORT
Folder
DELETE
Displaying 1 item

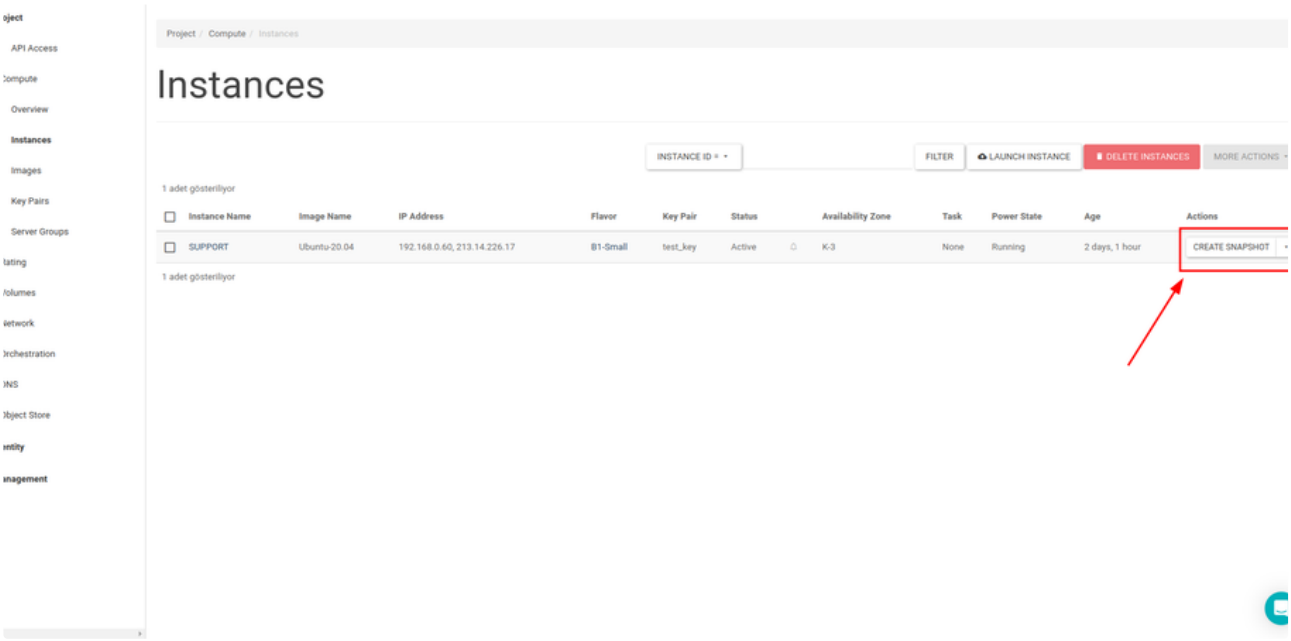
How to Create Snapshot on SkyAtlas Panel

A snapshot represents a frozen image of a volume. The source of a snapshot is called an "original." When a snapshot is created, it looks exactly like the original at that point in time. As changes are made to the original, the snapshot remains the same and looks exactly like the original at the time the snapshot was created. Also you create an instance from this snapshot that identicaly same to your original instance.

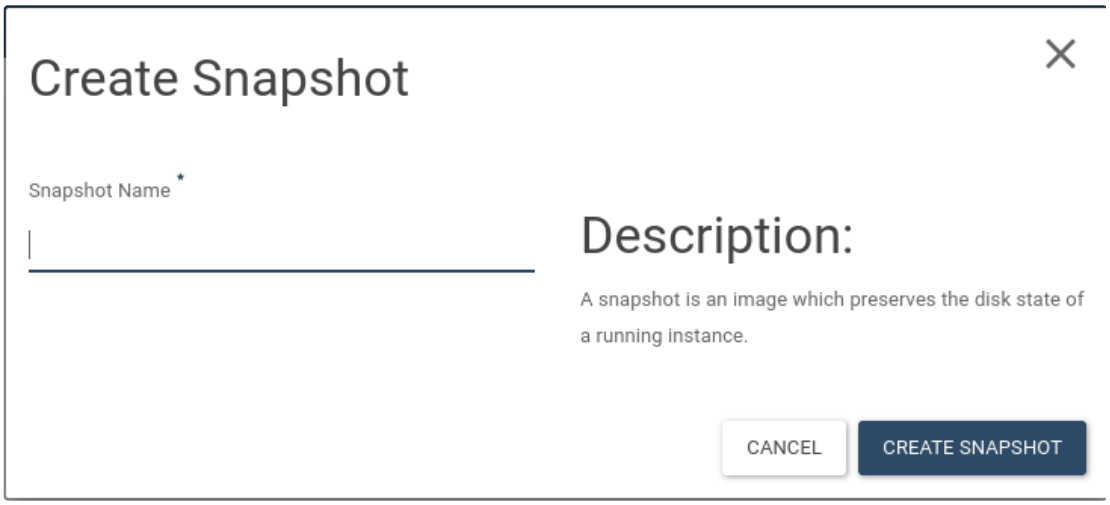
If you want to create snaphot, you must have a instance that runs on SkyAtlas Panel.

Launch Your First Server

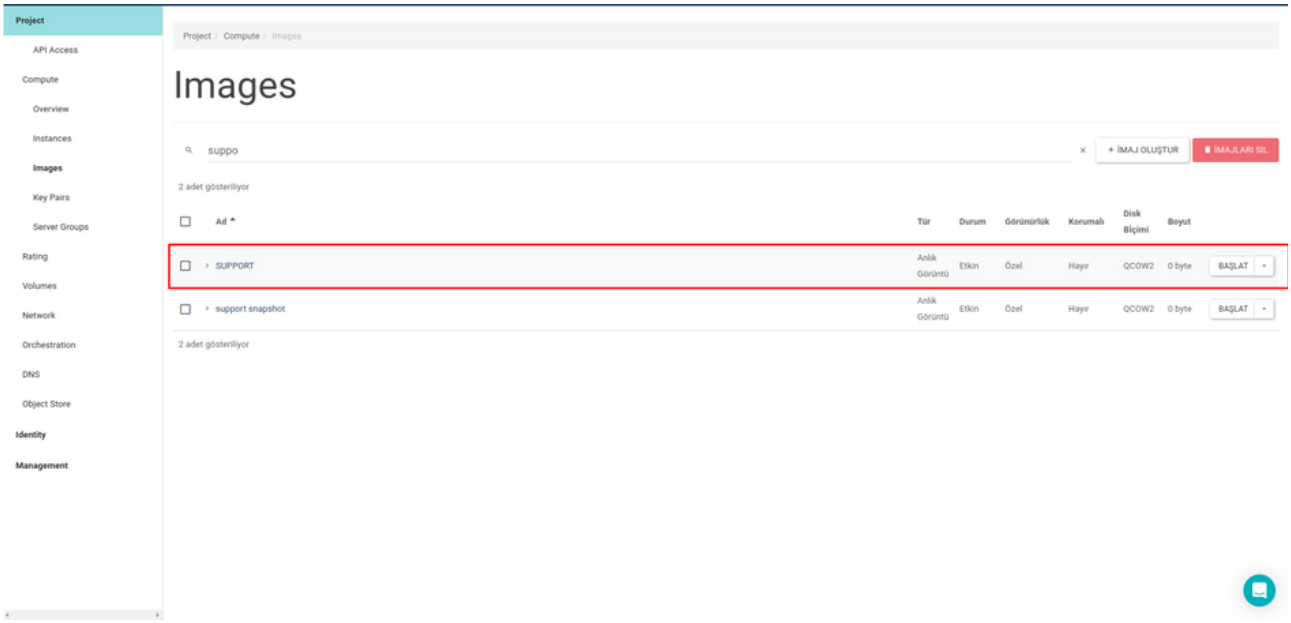
To perform the snapshot operation, you must click the **Create Snapshot** button on the **Actions** tab of your server.



You will create a snapshot on the **Create Snapshot** pop-up page. Fill the **Snapshot Name** text field and click the **Create Snapshot** button.

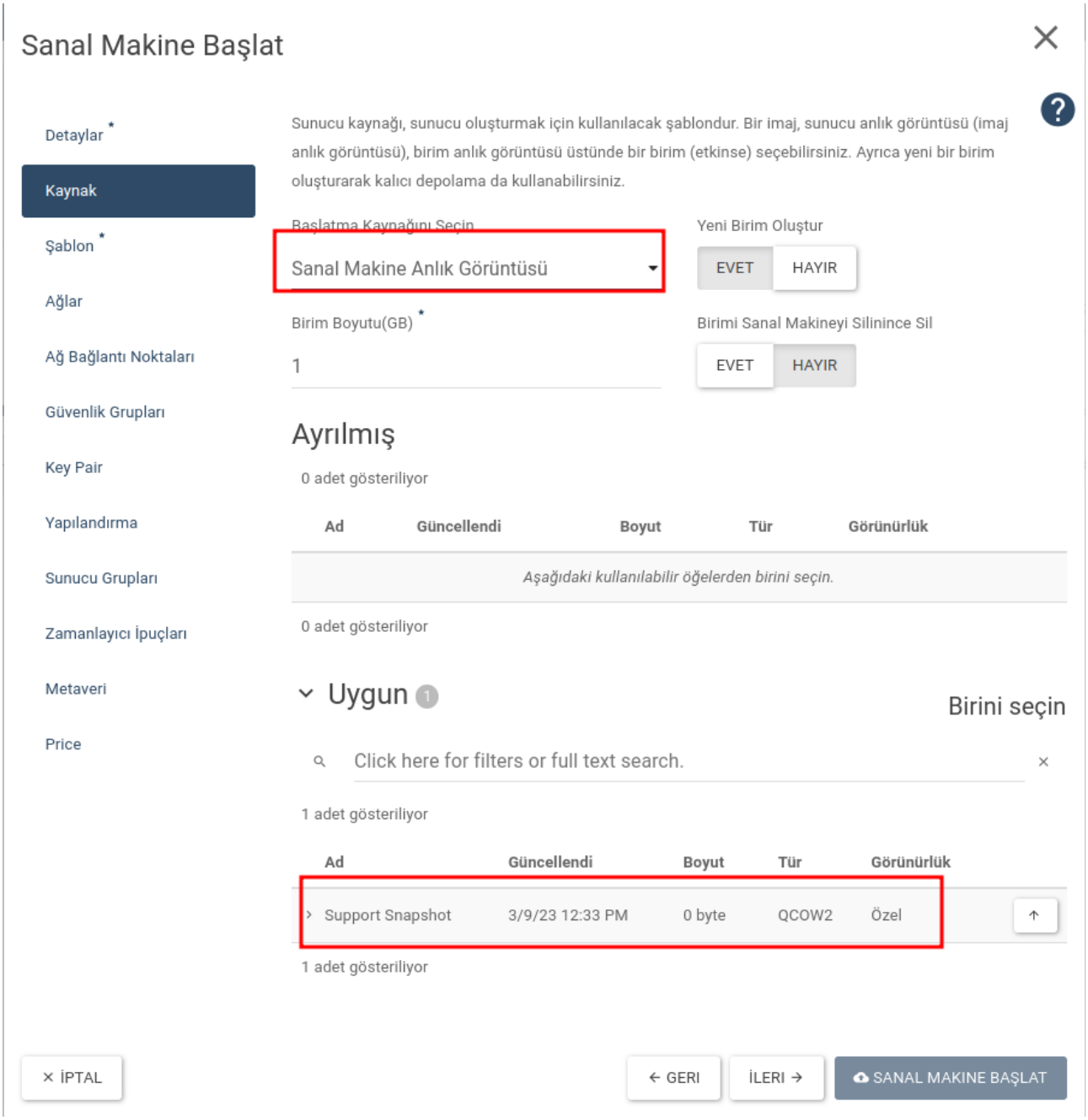


After these operations, you will see your snapshot, that created by you , in the **Images** section.

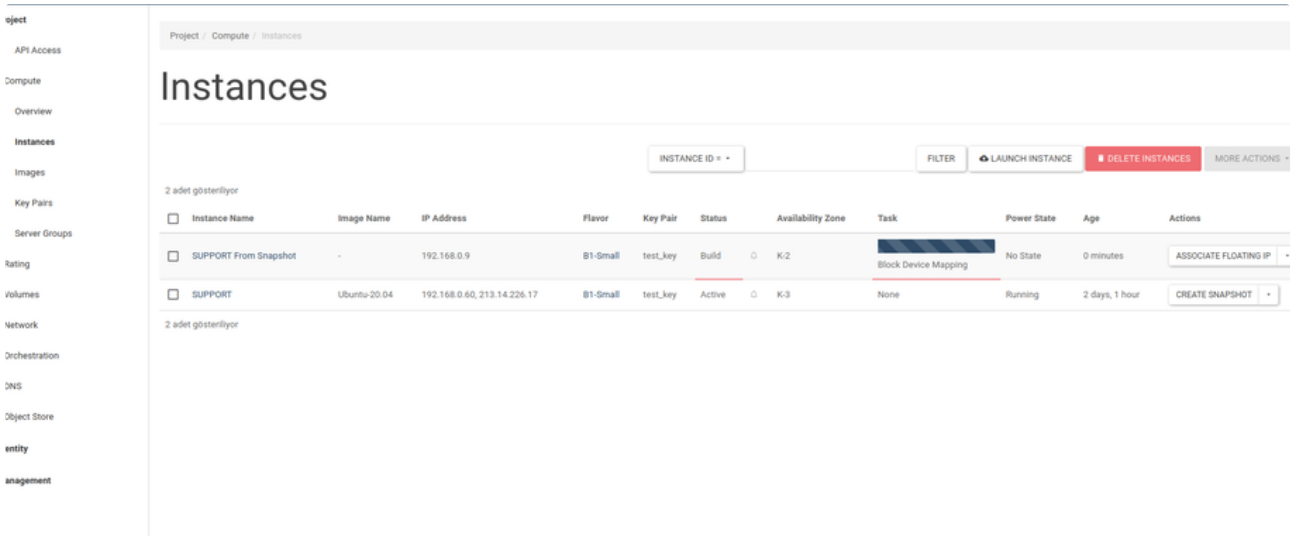


Creating a New Server from Snapshot

If you want to create an instance from the snapshot, click the **Launch** button that located at **Actions** tab. You must fill sections that **Details**, **Flavor** and **Key Pairs**. After that, in the **Source** section, please select **Instance Snapshot** from **Select Boot Source** list. At the bottom you will see your snapshot, that created by you. Please choose image name from this list and click the **Launch Instance** button.



You will see your instance that created from a snapshot in the **Instances** section.


oject
API Access
Compute
Overview
Instances
Images
Key Pairs
Server Groups
Rating
Volumes
Network
Orchestration
DNS
Object Store
entity
anagement
Project / Compute / Instances
Instances
INSTANCE ID =
FILTER
LAUNCH INSTANCE
DELETE INSTANCES
MORE ACTIONS
2 adet gösterilliyor
Instance Name
Image Name
IP Address
Flavor
Key Pair
Status
Availability Zone
Task
Power State
Age
Actions
SUPPORT From Snapshot
-
192.168.0.9
B1-Small
test_key
Build
K-2
Block Device Mapping
No State
0 minutes
ASSOCIATE FLOATING IP
SUPPORT
Ubuntu-20.04
192.168.0.60, 213.14.226.17
B1-Small
test_key
Active
K-3
None
Running
2 days, 1 hour
CREATE SNAPSHOT
2 adet gösterilliyor

How to Create Stack on SktAtlas Panel

Stack allows you deploying multipli instance at the same time.

In this article, we will create a simple stack.

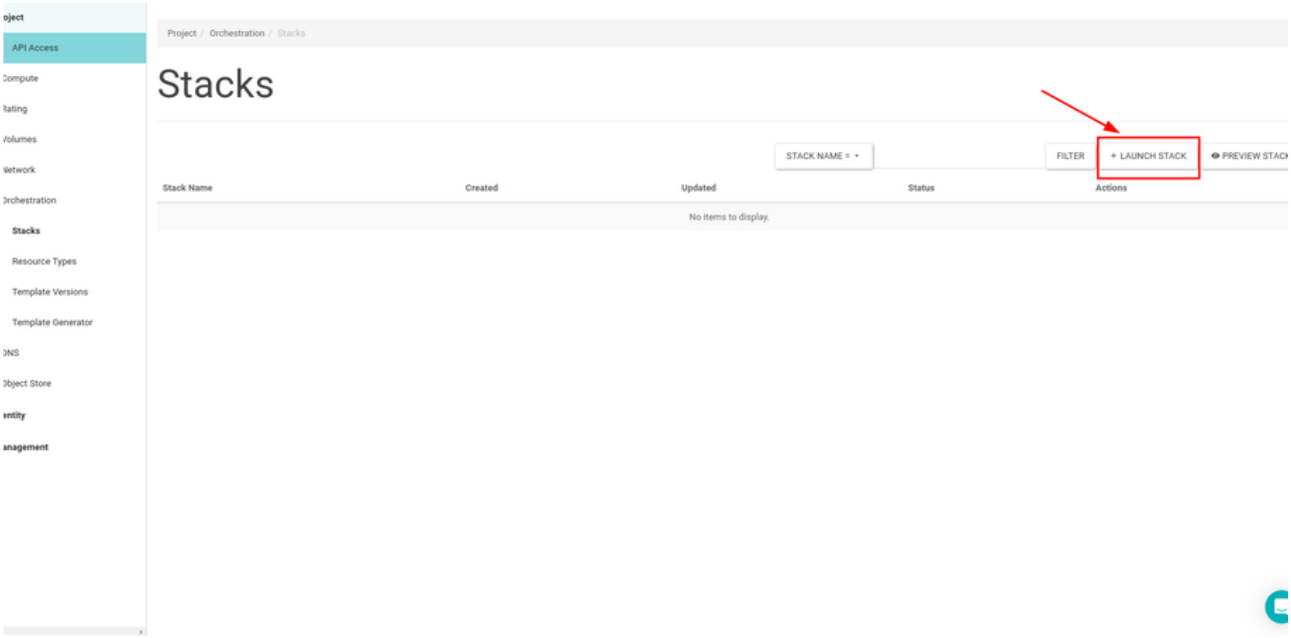
Firstly, you need to create a template file with **.yaml** extension and add the following lines into it.

```
# vim stack.yaml

heat_template_version: 2016-04-08

description: Simple template to deploy a single compute instance

parameters:
  key_name:
    type: string
    label: Key Name
#    default: cloudkey
    description: Name of key-pair to be used for compute instance

  image_id:
    type: string
    label: Image ID
#    default: Ubuntu 16.04 Xenial
    constraints:
          - allowed_values: [CentOS Linux release 6.6 (Final) ,
          CentOS Linux release 7.0.1406 (Core),
          Debian Jessie 8.2,
          Debian Wheezy 7.8 ,
          Ubuntu 16.04 Xenial ,
          Ubuntu Trusty ]
    description: Image to be used for compute instance

  instance_type:
    type: string
    label: Instance Type
    constraints:
          - allowed_values: [ General S ,
          Compute S ,
          General M ,
          Compute M ,
          General L ,
          Extreme S ,
          Compute L ,
          Extreme M ,
          General XL,
          Compute XL,
          Extreme L,
          General XXL,
          Extreme XL,
          Compute XXL,
          Extreme XXL   ]
    description: Type of instance (flavor) to be used

resources:
```

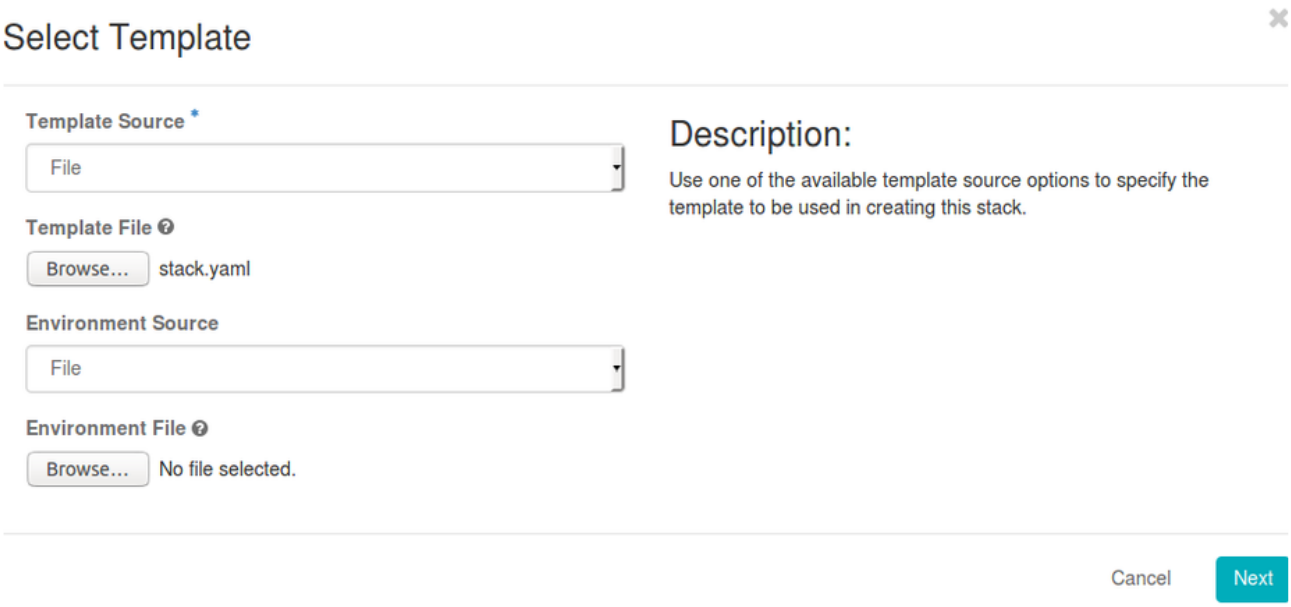
```
  Test_Instance1:
    type: OS::Nova::Server
    properties:
      key_name: { get_param: key_name }
      image: { get_param: image_id }
      flavor: { get_param: instance_type}
  Test_Instance2:
    type: OS::Nova::Server
    properties:
      key_name: { get_param: key_name }
      image: { get_param: image_id }
      flavor: { get_param: instance_type}
```

You will follow these steps for create a stack:

```
Orchestration → Stack → Launch Stack
```



Choose the File option from the Template Source for uploading stack.yaml file and click the Next button.



On the **Launch Stack** pop-up page :

Stack Name: please enter stack name

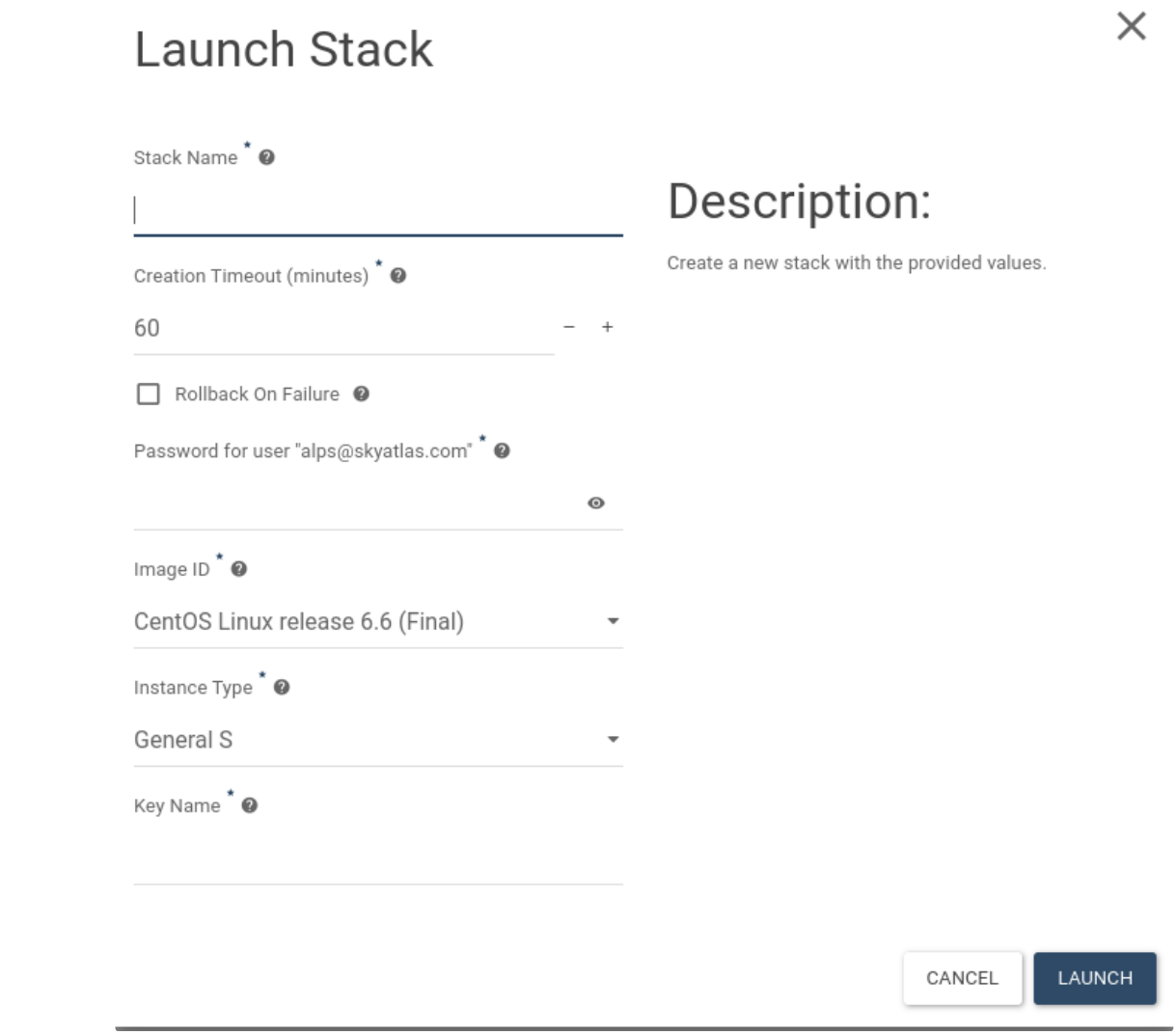
password for user : please enter your account name

Image ID: please choose image for your instances

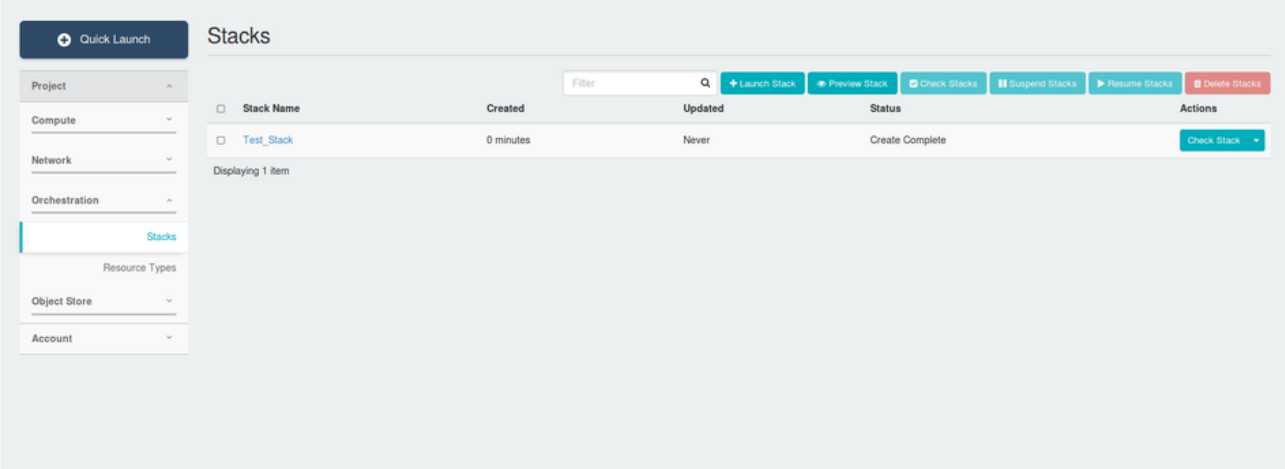
Instance Type : please choose flavor type for your instances

Key Name : please enter your private key

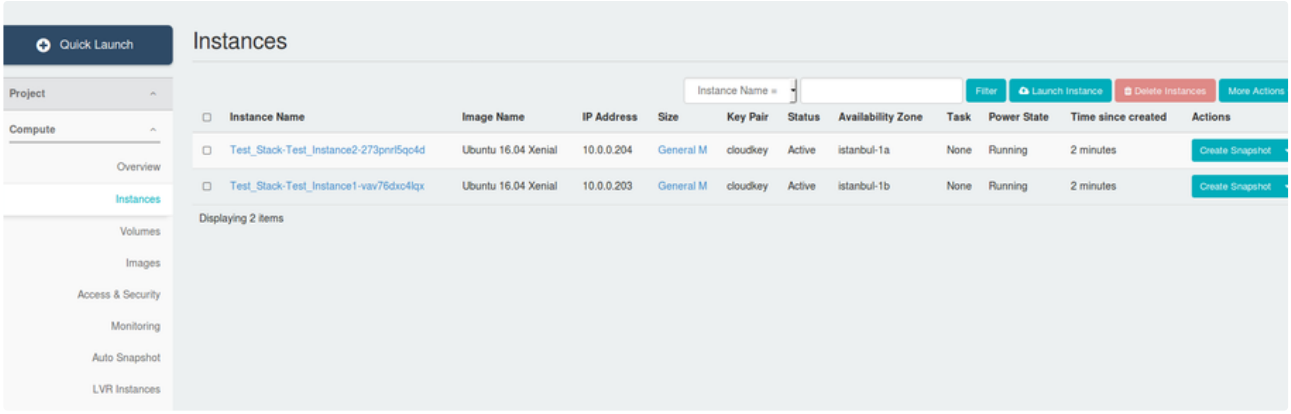
after these operations, click the Launch button.



After creating stack, you will see your **Test_Stack** on the **Stacks** section.



Also, you will see your instances that creating by stacks in the **Instances** tab.



For further reading about Heat Stack :

Heat Orchestration Template (HOT) Guide

Heat Orchestration Template (HOT) specification

Remote Access to Your Instance

You can access to created instance with different username informations according to selected image. When you connect to Instance you should enter username information that is belong to image to the <username> part.

These are:

- CentOS Linux release 6.6 (Final) → username: **cloud-user**

  CentOS Linux release 7.0.1406 (Core) → username: **centos**

  Debian Wheezy 7.8 → username: **debian**
- Fedora 21 → username:
- SUSE Linux Enterprise Server 11 SP3 → username: **root**

  Turnkey Magento 13.0 → username: **root**

  Ubuntu Trusty → username: **ubuntu**

  Linux CoreOS 1855.40 → username: **core**

In case of Instances opened with Windows image, you should access Instance after Instance starts via console at the panel and you should generate a password from the Windows Login screen.
Afterwards you can connect the public IP assigned instance via RDP (Remote Desktop Protocol).

- Windows Server 2008 R2 Standard SP1
- Windows Server 2012 R2 Standard (2)

Connection via Created Key

Command line mentioned below should be written to consol screen in order to connect Instance according to method used in Creating Key Pair.
ssh -i <path/to/file.pem> <username>@<instance_public_ip>

Connection via Added Key

Command line mentioned below should be written to consol screen in order to connect Instance according to method used in Adding Key Pair.
ssh -i cloud.key <username>@<instance_public_ip>

Instance Connection via Windows

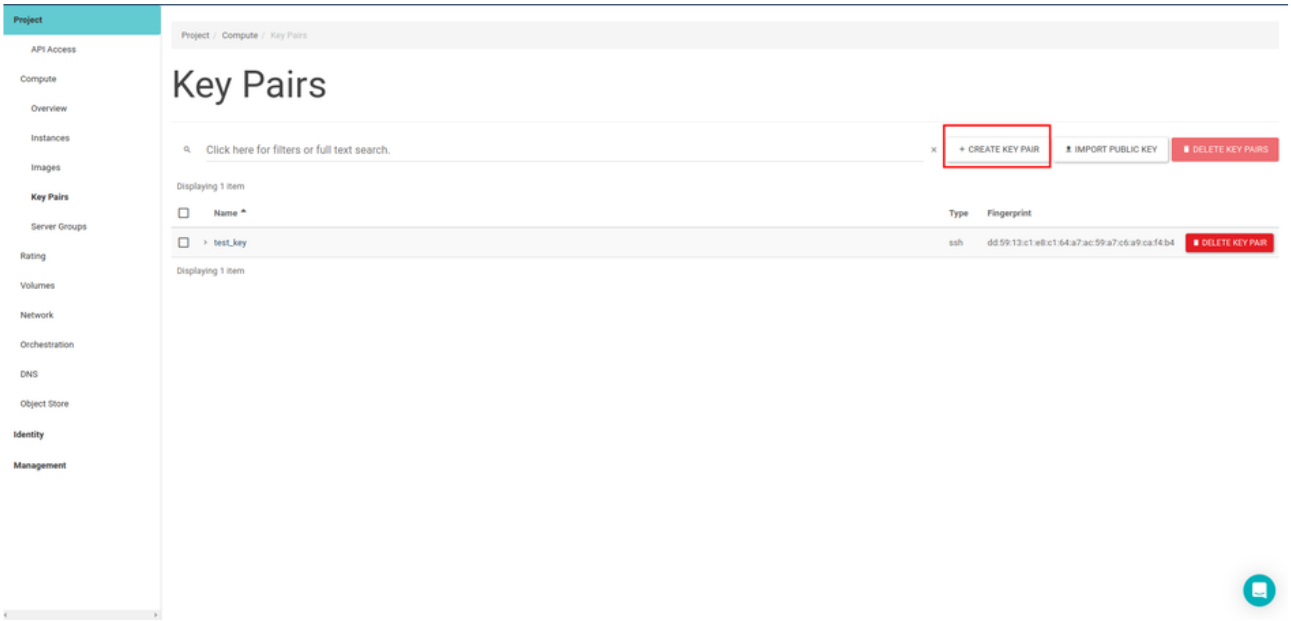
3rd party applications should be used in order to connect and manage Linux Instance via Windows. **PuTTY** is one of the applications. Steps that explain how to connect Linux instance created via **PuTTY** are mentioned below.

PuTTY

First of all, PuTTY application should be downloaded to Windows. You can download application from the link:
{+}http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html+
Click to download PuTTY

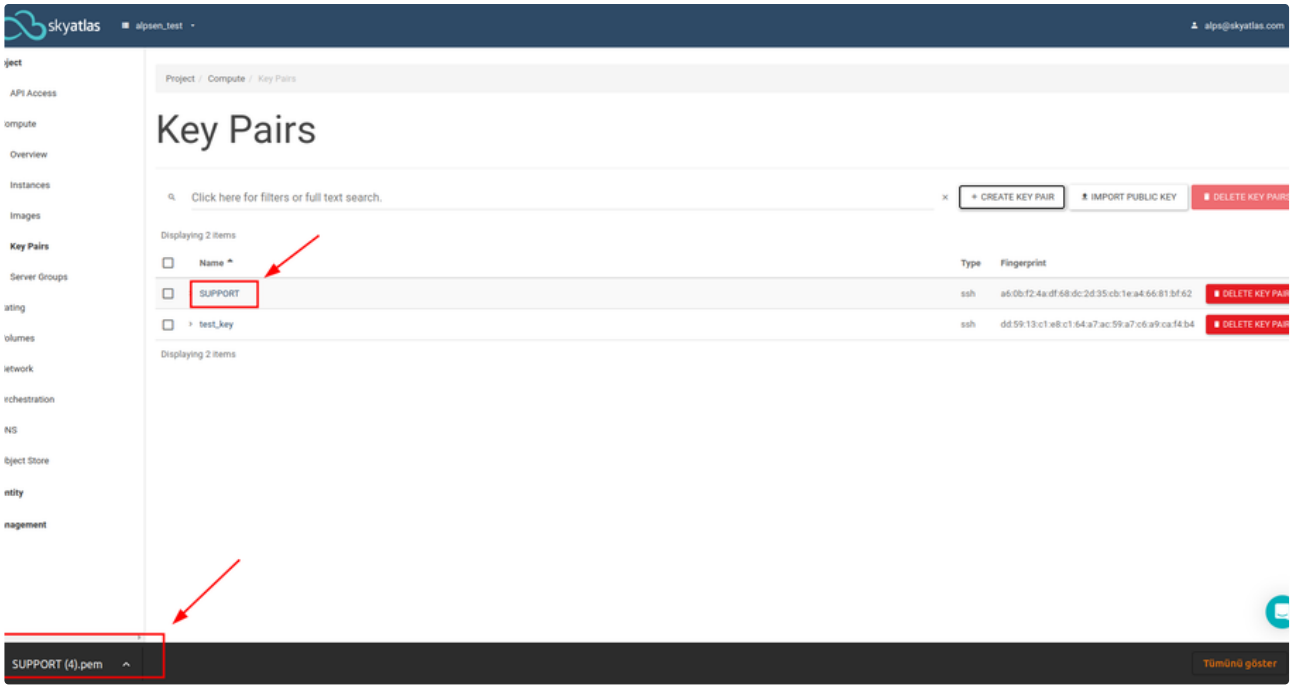
Creating Key Pair

Open the page via Key Pairs menu located under the Compute heading at left of the panel. If there is any key created before it is listed here. In order to create new Key, click the Create Key Pair button.

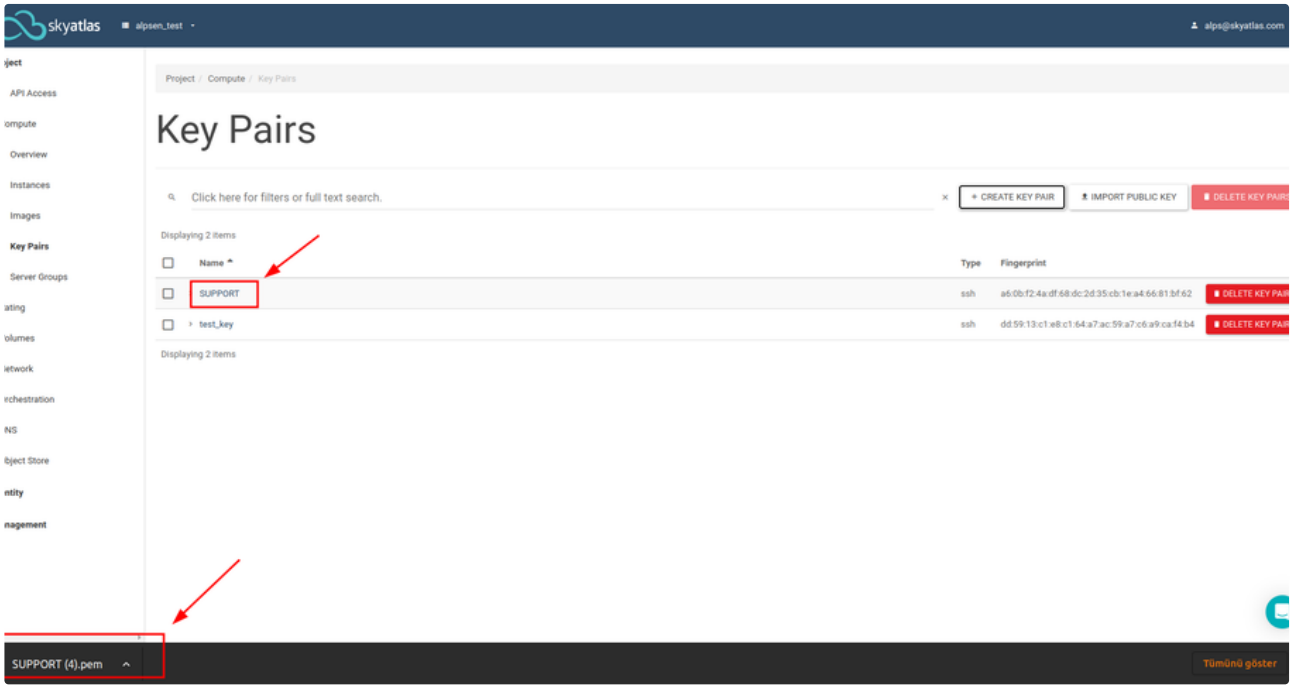


An appropriate name is given to the key that will be used for access to instances at the opened pop-up. Click the Create Key Pair button.

After that,dowload the file that has .pem extension and has a name given for the key. Then downloaded file will be used to connect to instance via SSH.



Created Key is listed at the Key Pairs tab in the Key Pairs page

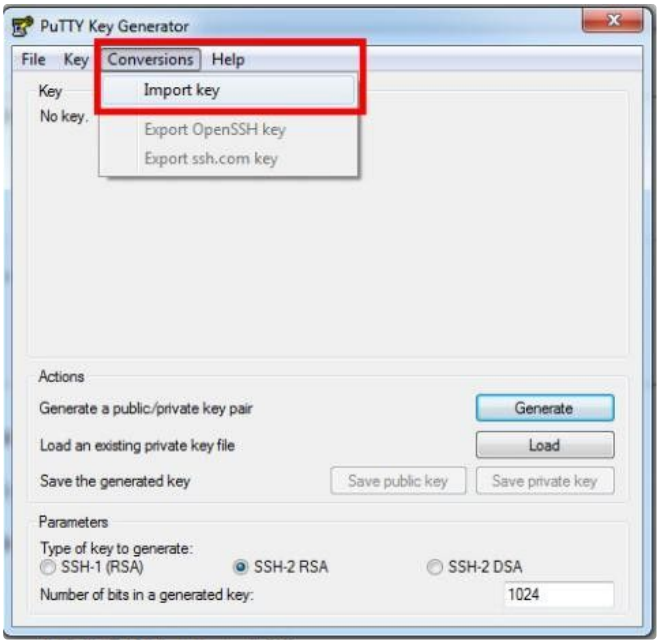


PuTTYgen

In order to add .pem extension file which is generated and downloaded via PuTTYgen panel to the PuTTY, it should be converted to .ppk extension file via PuTTYgen.

Click **to download PuTTYgen.**

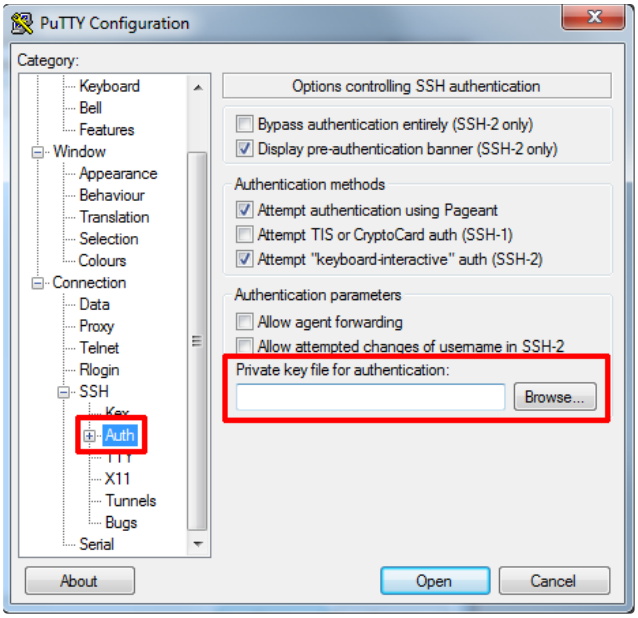
.pem extension file downloaded from panel is imported to PuTTYgen as shown in screenshot.



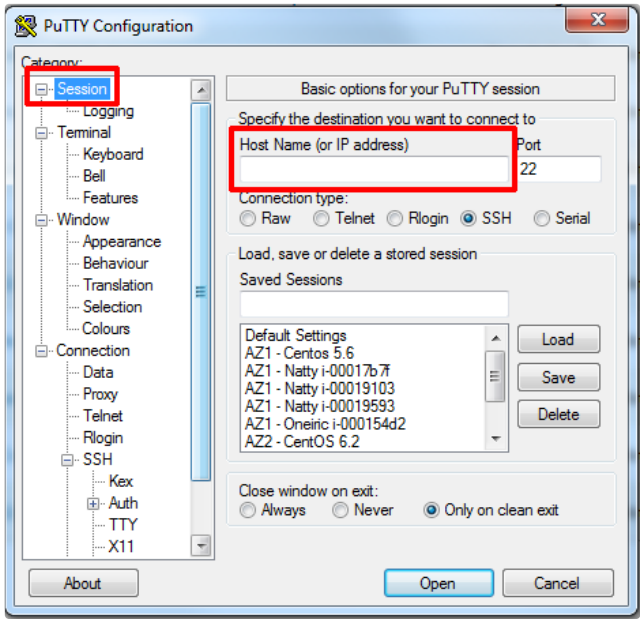
Afterwards a password that will be used to connect to Instance is entered to the **Key passphrase** and **Confirm passphrase** area as shown in screenshot.

After password is entered click the **Save private key** button and save the .ppk extension file by giving name to it.

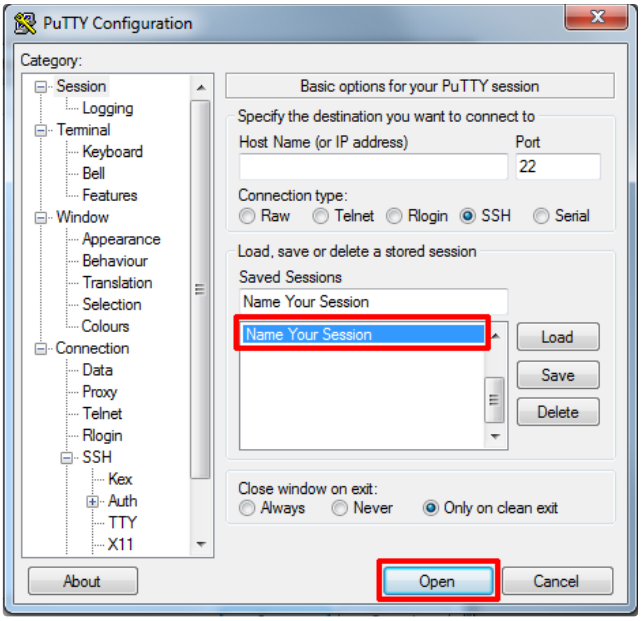
.ppk extension file is added by starting dowloaded application PuTTY as shown in screenshot. After this step you can connect to Instance which has public IP defined via Windows.



In order to connect to Instance, public IP of the Instance is written to Host Name (or IP address) area as shown in screenshot and this registration is saved to be used in the future.

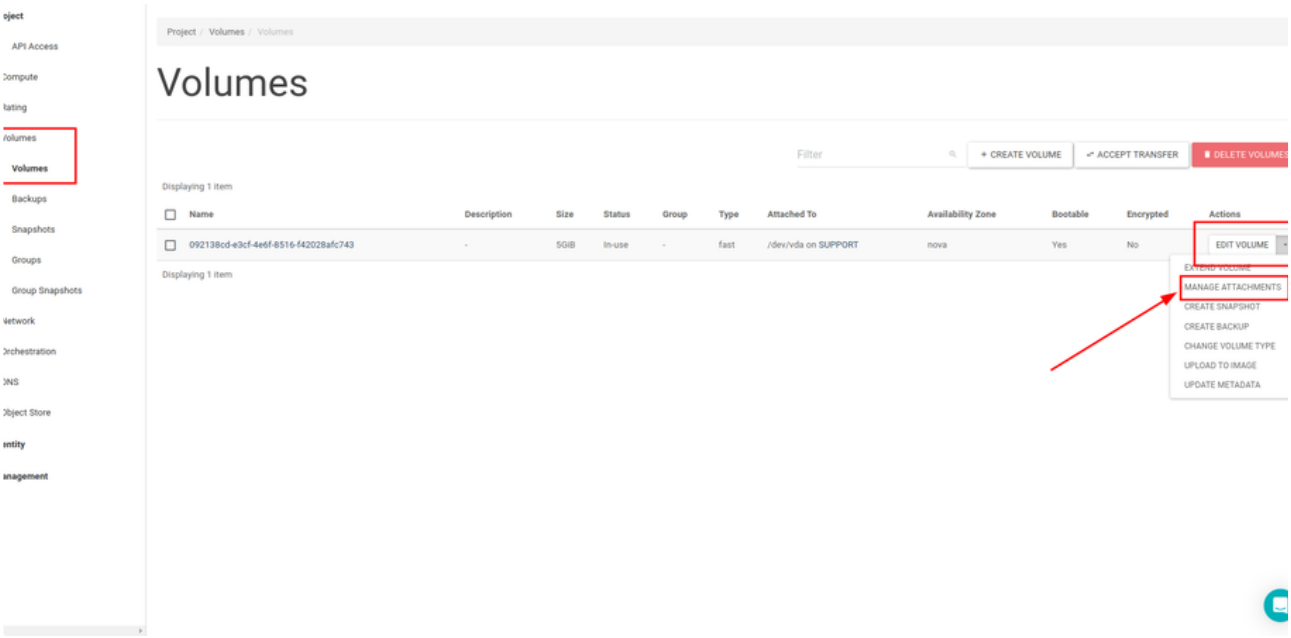


Open a console screen by clicking Open after selecting this registered session. Username information is entered according to image that Instance has via this console **(See:Instance ion (SSH))** and after that register with passphrase that is given via PuTTYgen. After connection success, Instance is ready to use and access.


PuTTY Configuration
Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
Telnet
Rlogin
SSH
Kex
Auth
TTY
X11
Basic options for your PuTTY session
Specify the destination you want to connect to
Host Name (or IP address)
Port
22
Connection type:
Raw
Telnet
Rlogin
SSH
Serial
Load, save or delete a stored session
Saved Sessions
Name Your Session
Name Your Session
Load
Save
Delete
Close window on exit:
Always
Never
Only on clean exit
About
Open
Cancel

How to Attach Volume to Instance?

Before attaching volume to your instance, you should follow the instructions on pages Launch Your First Instance and How to Create Volume? .

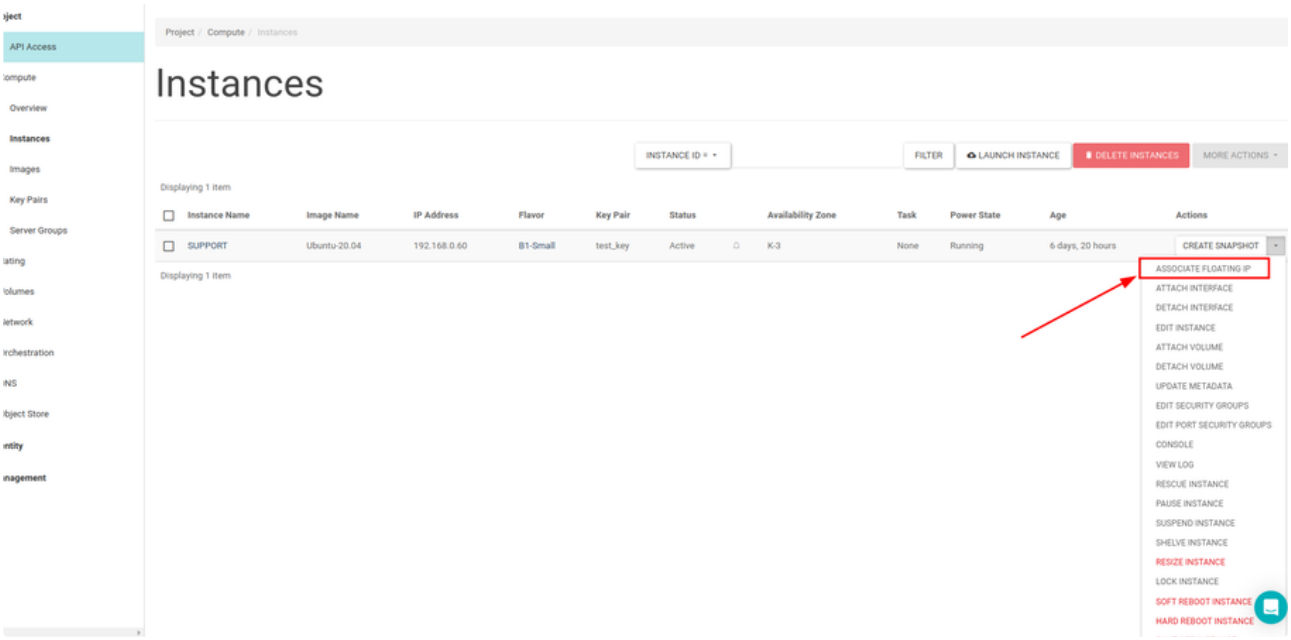


Then click on the Manage Attachments button on the Edit Volume button for the volume you created from the Volume tab.From the Manage Volume Attachments pop-up page that opens, you must select the server on which you want to add the volume and click the Attach Volume button.

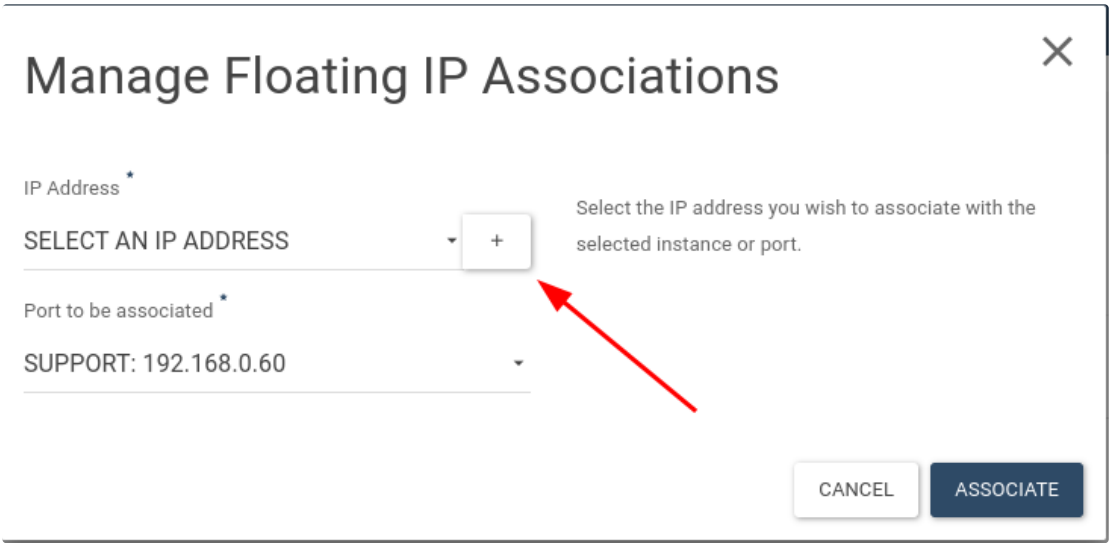
Adding IP Address to Server

To access an instance on the Internet we must be given first. a public IP adress.

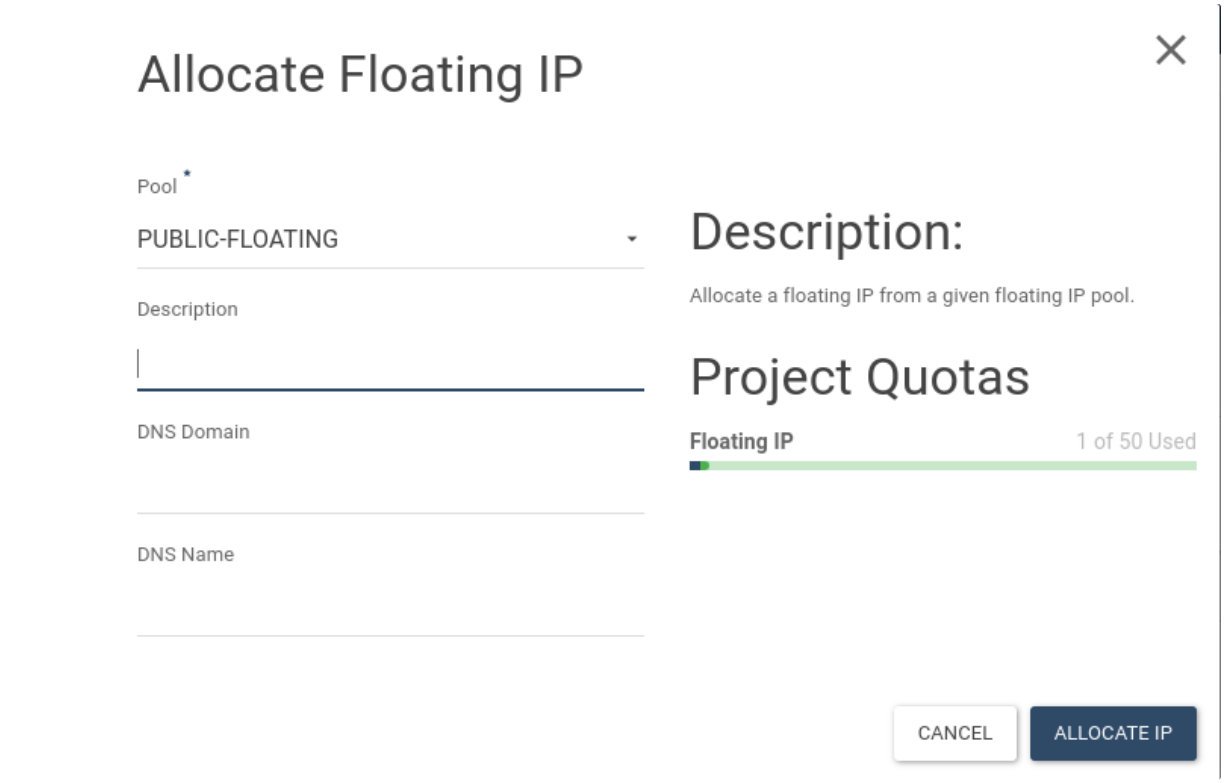
First the "Associate Floating IP" option is selected from the list at the end of the line belonging to the instance that will be public IP on the Instances page.



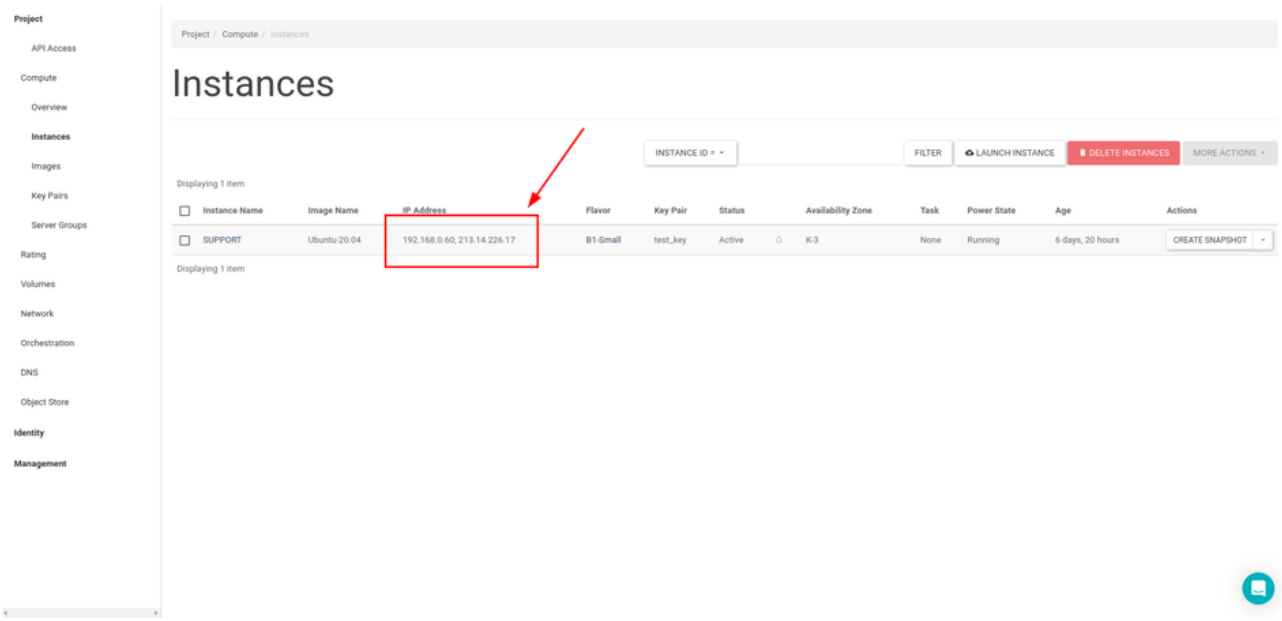
If there is no floating IP defined on your project when you click on Associate floating IP button, you can assign new floating IPs to your project by click the + button.



You see the floating_net pool is selected in the menu. You can add new IP by click the Allocate IP button.



You see the Instances IP information on the Instances page in the IP Address field.



Unused IP addresses must be released from your project to avoid charging by the system.

By clicking on the Floating IPs tab under Network, you can list all the floating IPs your project has and delete the floating IP addresses that you don't use.