

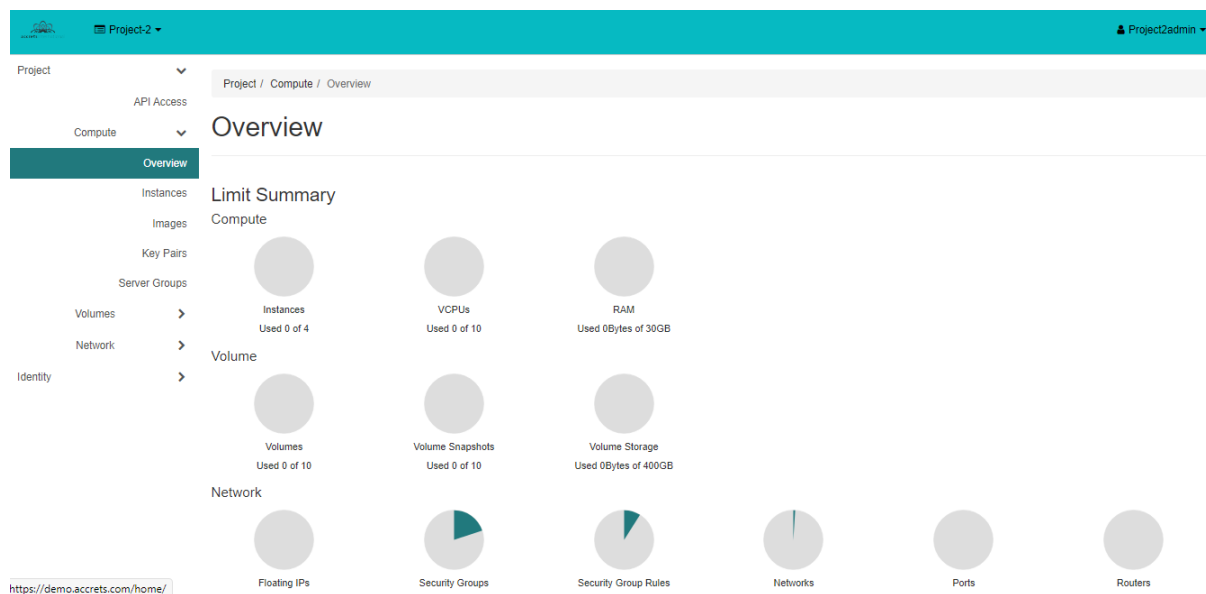
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General Introduction of Portal Interface

OpenStack dashboard - Project tab

Projects are organizational units in the cloud and are also known as tenants or accounts. Each user is a member of one or more projects. Within a project, a user creates and manages instances.



From the **Project** tab, you can view and manage the resources in a selected project, including instances and images. You can select the project from the drop-down menu at the top left. If the cloud supports multi-domain model, you can also select the domain from this menu.

From the **Project** tab, you can access the following categories:

- **API Access:** View API endpoints.

Compute tab

- **Overview:** View reports for the project.
- **Instances:** View, launch, create a snapshot from, stop, pause, or reboot instances, or connect to them through VNC.
- **Images:** View images and instance snapshots created by project users, plus any images that are publicly available. Create, edit, and delete images, and launch instances from images and snapshots.
- **Key Pairs:** View, create, edit, import, and delete key pairs.

Volume tab

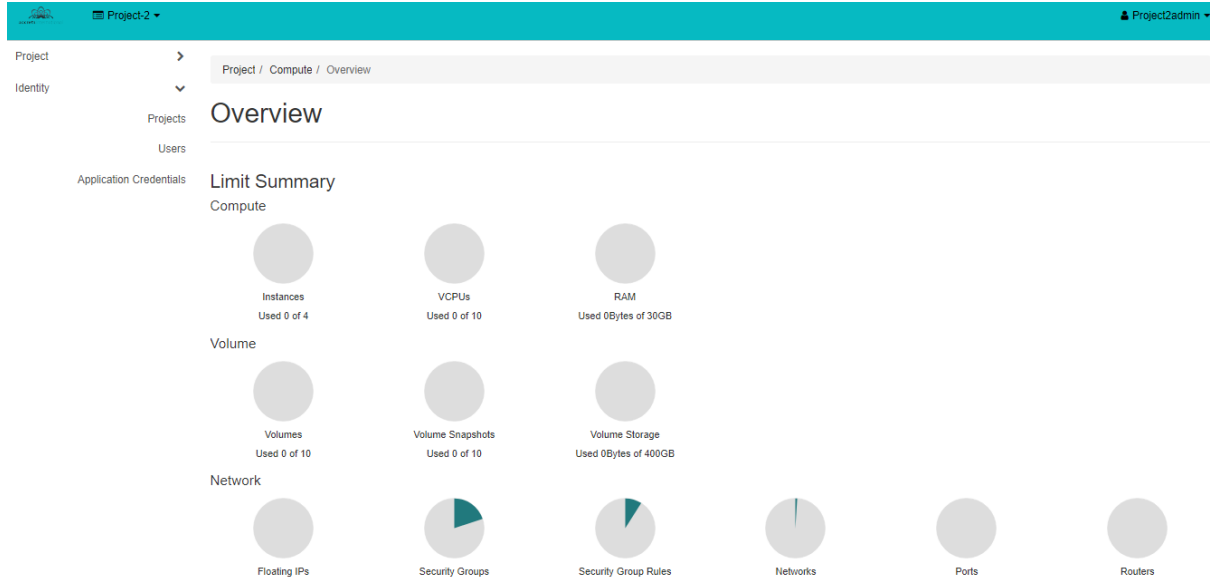
- **Volumes**: View, create, edit, and delete volumes.
- **Snapshots**: View, create, edit, and delete volume snapshots.
- **Groups**: View, create, edit, and delete groups.
- **Group Snapshots**: View, create, edit, and delete group snapshots.

Network tab

- **Network Topology**: View the network topology.
- **Networks**: Create and manage public and private networks.
- **Routers**: Create and manage routers.
- **Security Groups**: View, create, edit, and delete security groups and security group rules..
- **Floating IPs**: Allocate an IP address to or release it from a project.

OpenStack dashboard - Identity tab

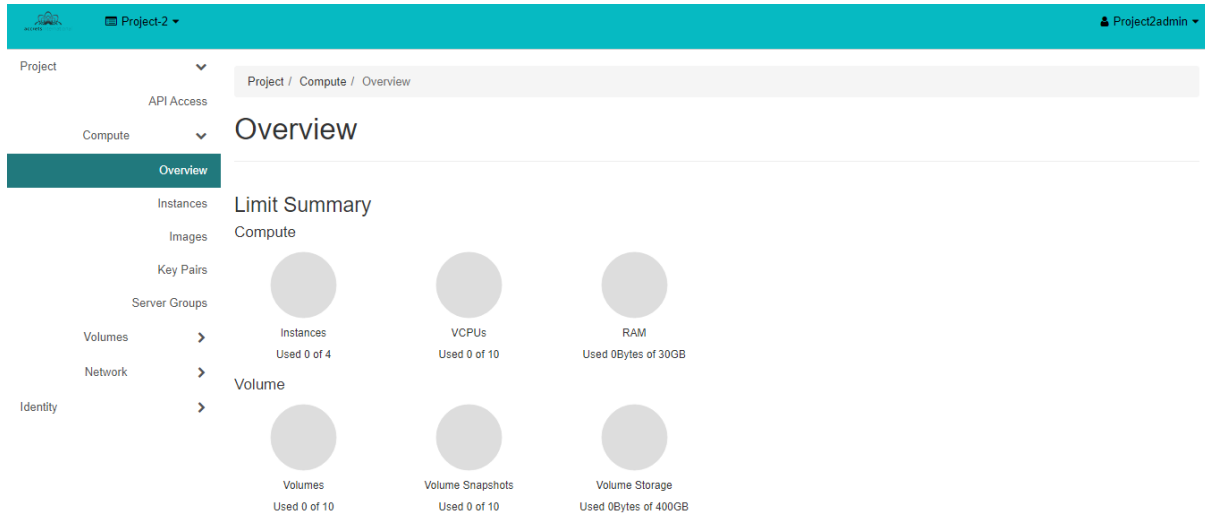
- **Projects:** View, create, assign users to, remove users from, and delete projects.
- **Users:** View, create, enable, disable, and delete users.



How to setup a Linux Virtual Server

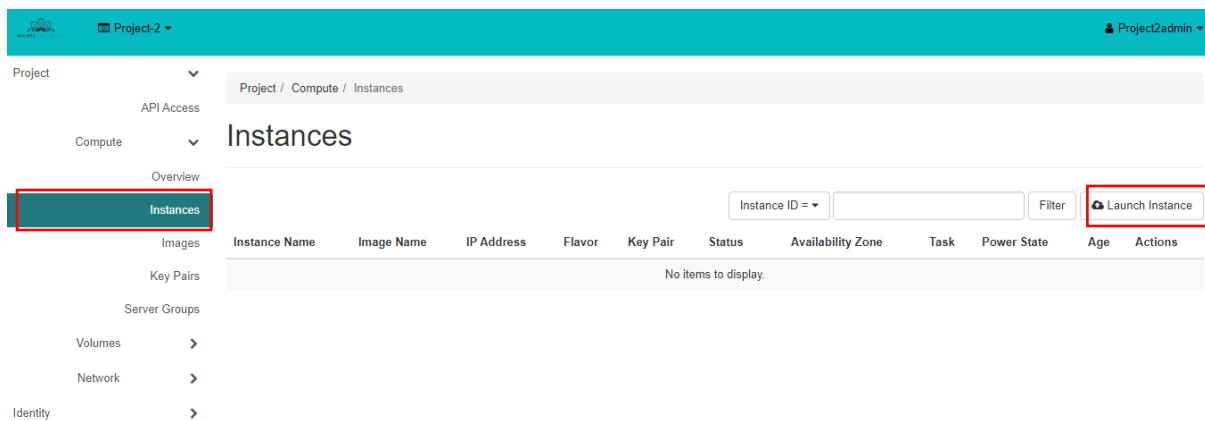
1. Once logged in OpenStack Dashboard, below screen capture appears

Click on Compute, then Overview: This screen will show you the quota limits set up so far, and how much of those quota limits are consumed by your project.



2. To create new VM, go to Project → Compute → Instances

Click "Launch Instance"



- Once "Launch instance" page appears, insert the name of the Instance (e.g. "vm01") and click Next button.

Launch Instance
✕

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

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.

Instance Name *

Description

Availability Zone

Count *

Total Instances (4 Max)

75%

- 2 Current Usage
- 1 Added
- 1 Remaining

✕ Cancel
< Back
Next >
Launch Instance

- Select Instance Boot Source (eg. "Image"), and choose desired image (e.g. "Ubuntu 16.04 LTS") by clicking on arrow

Launch Instance
✕

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

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

Volume Size (GB) *

Create New Volume

Delete Volume on Instance Delete

Allocated

Displaying 1 item

Name	Updated	Size	Type	Visibility
▶ cirros-0.4.0-x86_64	12/3/20 1:35 PM	44.00 MB	RAW	Public

Displaying 1 item

▼ Available 6

Displaying 6 items

5. Choose Flavor (e.g. Small)

Launch Instance
✕

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

Flavors manage the sizing for the compute, memory and storage capacity of the instance.

Allocated

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public	
> Small	1	1 GB	10 GB	10 GB	0 GB	Yes	↓

▼ Available 10 Select one

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public	
> Extra Small	1	256 MB	1 GB	1 GB	0 GB	Yes	↑
> Medium	2	2 GB	50 GB	50 GB	0 GB	Yes	↑
> Medium-2	2	4 GB	40 GB	40 GB	0 GB	Yes	↑
> Large	4	4 GB	500 GB	500 GB	0 GB	Yes	↑
> Extra Large	⚠ 8	8 GB	1.46 TB	1.46 TB	0 GB	Yes	↑

6. Click "Networks" and then choose desired networks.

Launch Instance
✕

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

Networks provide the communication channels for instances in the cloud.

▼ Allocated 1 Select networks from those listed below.

Network	Subnets Associated	Shared	Admin State	Status	
↕ 1 > Project-1-network	Project-1-subnet	No	Up	Active	↓

▼ Available 0 Select at least one network

Network	Subnets Associated	Shared	Admin State	Status
<i>No available items</i>				

✕ Cancel
< Back
Next >
Launch Instance

Launch Instance
✕

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

Ports provide extra communication channels to your instances. You can select ports instead of networks or a mix of both.

▼ Allocated Select ports from those listed below.

Name	IP	Admin State	Status
Select an item from Available items below			

▼ Available 0 Select one

Name	IP	Admin State	Status
No available items			

✕ Cancel
Next >
Launch Instance

7. Click "Security groups" and allow ports of your choice (e.g. allow_ping_rdp_ssh)

Launch Instance
✕

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

Select the security groups to launch the instance in.

▼ Allocated 2

Displaying 2 items

Name	Description
> default	Default security group
> allow_ping_ssh_rdp	

▼ Available 0 Select one or more

Displaying 0 items

Name	Description
No items to display.	

Displaying 0 items

✕ Cancel
< Back
Next >
Launch Instance

8. Choose or generate SSH Key pairs for VM by clicking on "Key pairs" option

Launch Instance
✕

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

A key pair allows you to SSH into your newly created instance. You may select an existing key pair, import a key pair, or generate a new key pair.

+ Create Key Pair
📄 Import Key Pair

Allocated

Displaying 0 items

Name	Type
Select a key pair from the available key pairs below.	

Displaying 0 items

Available 0 Select one

🔍 Click here for filters or full text search. ✕

Displaying 0 items

Name	Type
No items to display.	

Displaying 0 items

✕ Cancel
< Back
Next >
🚀 Launch Instance

Next, launch instance

Launch Instance
✕

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

Select the server group to launch the instance in.

Allocated

Displaying 0 items

Name	Policy
Select a server group from the available groups below.	

Displaying 0 items

Available 0 Select one

🔍 Click here for filters or full text search. ✕

Displaying 0 items

Name	Policy
No items to display.	

Displaying 0 items

✕ Cancel
< Back
Next >
🚀 Launch Instance

Now, you will see "Instances" menu with your newly created VM

<input type="checkbox"/>	Instance Name	Image Name	IP Address	Flavor	Key Pair	Status	Availability Zone	Task	Power State	Age	Actions
<input type="checkbox"/>	prod-linux	cirros-0.4.0-x86_64	10.198.101.43	Small	-	Active	nova	None	Running	0 minutes	Create Snapshot

Open the drop-down menu and choose "Console"

- Associate Floating IP
- Attach Interface
- Detach Interface
- Edit Instance
- Attach Volume
- Detach Volume
- Update Metadata
- Edit Security Groups
- Edit Port Security Groups
- Console**
- View Log
- Rescue Instance
- Pause Instance
- Suspend Instance
- Shelve Instance
- Resize Instance
- Lock Instance
- Soft Reboot Instance
- Hard Reboot Instance
- Shut Off Instance
- Rebuild Instance
- Delete Instance

```
Connected (encrypted) to: QEMU (instance-0000033a)
1a00000)
[ 0.882529] Freeing unused kernel memory: 168K (ffff880001dd6000 - ffff880001
e00000)

further output written to /dev/ttyS0
[ 0.999644] random: blkid urandom read with 2 bits of entropy available

login as 'cirros' user. default password: 'gocubsgo'. use 'sudo' for root.
prod-linux login: cil 152.701888] random: nonblocking pool is initialized
rr
Password:

^C
login as 'cirros' user. default password: 'gocubsgo'. use 'sudo' for root.
prod-linux login: cirros
Password:
$ ls
$ cd /
$ ls
bin          home        lib64       mnt         root        tmp
boot        init        linuxrc    old-root   run         usr
dev         initrd.img  lost+found  opt        sbin       var
etc         lib         media       proc        sys        vmlinuz
$ _
```

How to log on to Virtual Server after creation

Once "Instance" is up and running, go to Project → Compute → Instances → Select "Your Instance"

Project / Compute / Instances / prod-linux

prod-linux

- Overview
- Interfaces
- Log
- Console
- Action Log

Name	prod-linux
ID	b9d8948e-afd9-4cb4-856e-9b5c8feb2121
Description	Production server
Project ID	fd586919000a4d8a90b78a50a85c8b0a
Status	Active
Locked	False
Availability Zone	nova
Created	Feb. 12, 2021, 10:11 p.m.
Age	0 minutes

Specs

Flavor Name	Small
Flavor ID	1bba61ad-70b6-4333-af8e-8d409ceed268
RAM	1GB
VCPUs	1 VCPU
Disk	10GB

IP Addresses

Project-1-network	10.198.101.43
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Overview Interfaces Log **Console** Action Log

Instance Console

If console is not responding to keyboard input: click the grey status bar below. [Click here to show only console](#)
To exit the fullscreen mode, click the browser's back button.

Connected (encrypted) to: QEMU (instance-000033a) Send CtrlAltDel

```
[ 0.787000] zswap: loaded using pool lzo/zbud
[ 0.788789] Key type trusted registered
[ 0.790685] Key type encrypted registered
[ 0.791605] AppArmor: AppArmor sha1 policy hashing enabled
[ 0.792729] ima: No TPM chip found, activating TPM-bypass!
[ 0.793909] evm: HMAC attrs: 0x1
[ 0.795125] Magic number: 9:975:181
[ 0.796112] rtc_cmos 00:00: setting system clock to 2021-02-12 14:11:36 UTC (
1613139096)
[ 0.797965] BIOS EDD facility v0.16 2004-Jun-25, 0 devices found
[ 0.799207] EDD information not available.
[ 0.869292] Freeing unused kernel memory: 1480K (ffff81f42000 - ffffffff8
20b4000)
[ 0.872938] Write protecting the kernel read-only data: 14336k
[ 0.878976] Freeing unused kernel memory: 1860K (ffff8000182f000 - ffff88000
1a00000)
```

Go to console tab and enter VM login credentials

Connected (encrypted) to: QEMU (instance-000033a)

```
1a00000)
[ 0.882529] Freeing unused kernel memory: 168K (ffff880001dd6000 - ffff880001
e00000)

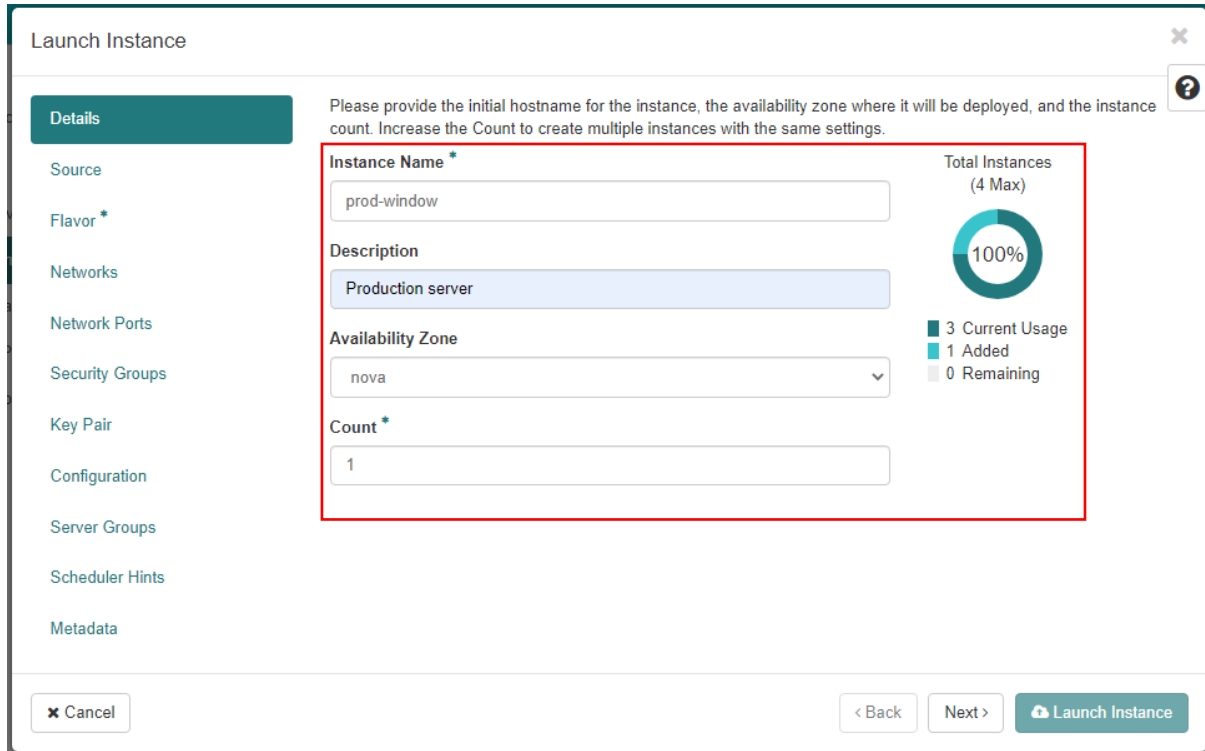
further output written to /dev/ttyS0
[ 0.999644] random: blkid urandom read with 2 bits of entropy available

login as 'cirros' user. default password: 'gocubsgo'. use 'sudo' for root.
prod-linux login: ci[ 152.701888] random: nonblocking pool is initialized
rr
Password:
^C
login as 'cirros' user. default password: 'gocubsgo'. use 'sudo' for root.
prod-linux login: cirros
Password:
$ ls
$ cd /
$ ls
bin          home        lib64       mnt          root         tmp
boot        init        linuxrc     old-root     run          usr
dev          initrd.img  lost+found  opt          sbin        var
etc          lib         media       proc         sys          vmlinuz
$ _
```

How to setup a Windows Virtual Server

1. Login to OpenStack Dashboard → Go to Project → Compute → Instances

Click "Launch Instance"



Launch Instance

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.

Instance Name *
prod-window

Description
Production server

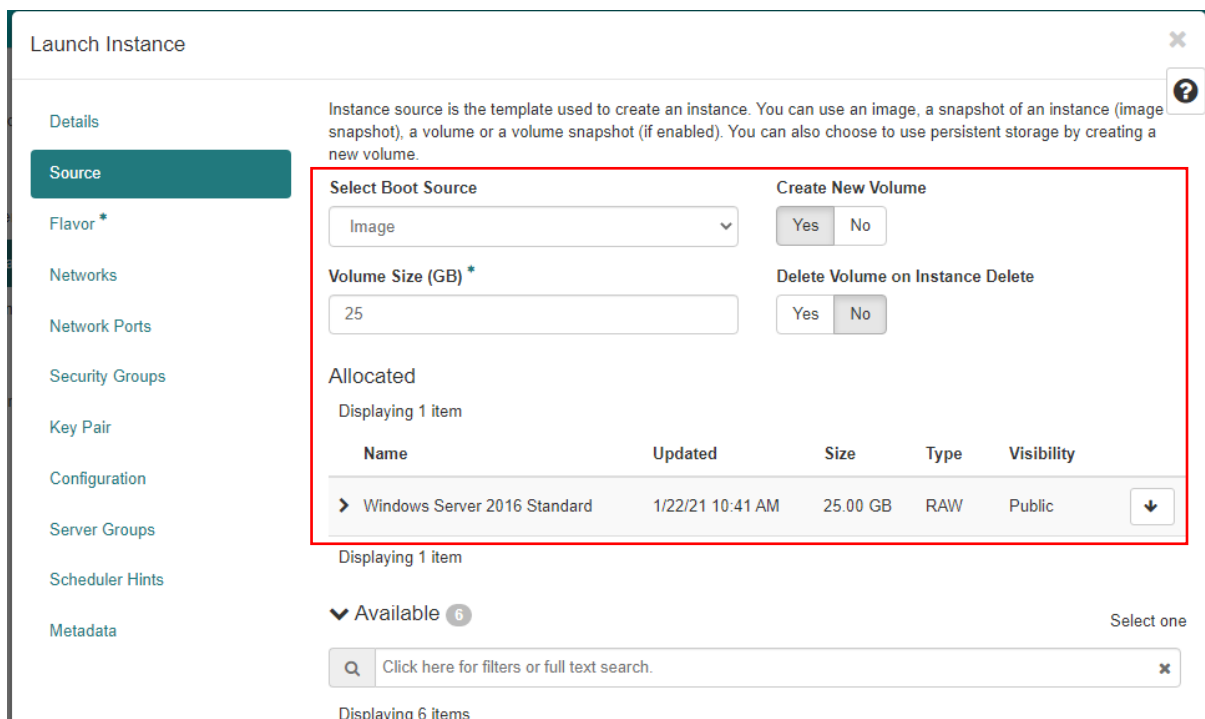
Availability Zone
nova

Count *
1

Total Instances (4 Max)
100%
3 Current Usage
1 Added
0 Remaining

Buttons:

2. Select Instance Boot Source (eg. "Image"), and choose desired image (e.g. "Ubuntu 16.04 LTS") by clicking on arrow



Launch Instance

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

Volume Size (GB) *
25

Create New Volume
Yes No

Delete Volume on Instance Delete
Yes No

Allocated
Displaying 1 item

Name	Updated	Size	Type	Visibility
Windows Server 2016 Standard	1/22/21 10:41 AM	25.00 GB	RAW	Public

Displaying 1 item

Available 6 Select one

Click here for filters or full text search.

Displaying 6 items

3. Choose Flavor (e.g. Medium)

Launch Instance
✕

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

Flavors manage the sizing for the compute, memory and storage capacity of the instance.

Allocated

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public	
> Medium	2	2 GB	50 GB	50 GB	0 GB	Yes	↓

▼ Available 10 Select one

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public	
> Extra Small	1	▲ 256 MB	1 GB	1 GB	0 GB	Yes	↑
> Small	1	▲ 1 GB	10 GB	10 GB	0 GB	Yes	↑
> Medium-2	2	4 GB	40 GB	40 GB	0 GB	Yes	↑
> Large	4	4 GB	500 GB	500 GB	0 GB	Yes	↑

4. Select Network

Launch Instance
✕

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

Networks provide the communication channels for instances in the cloud.

▼ Allocated 1 Select networks from those listed below.

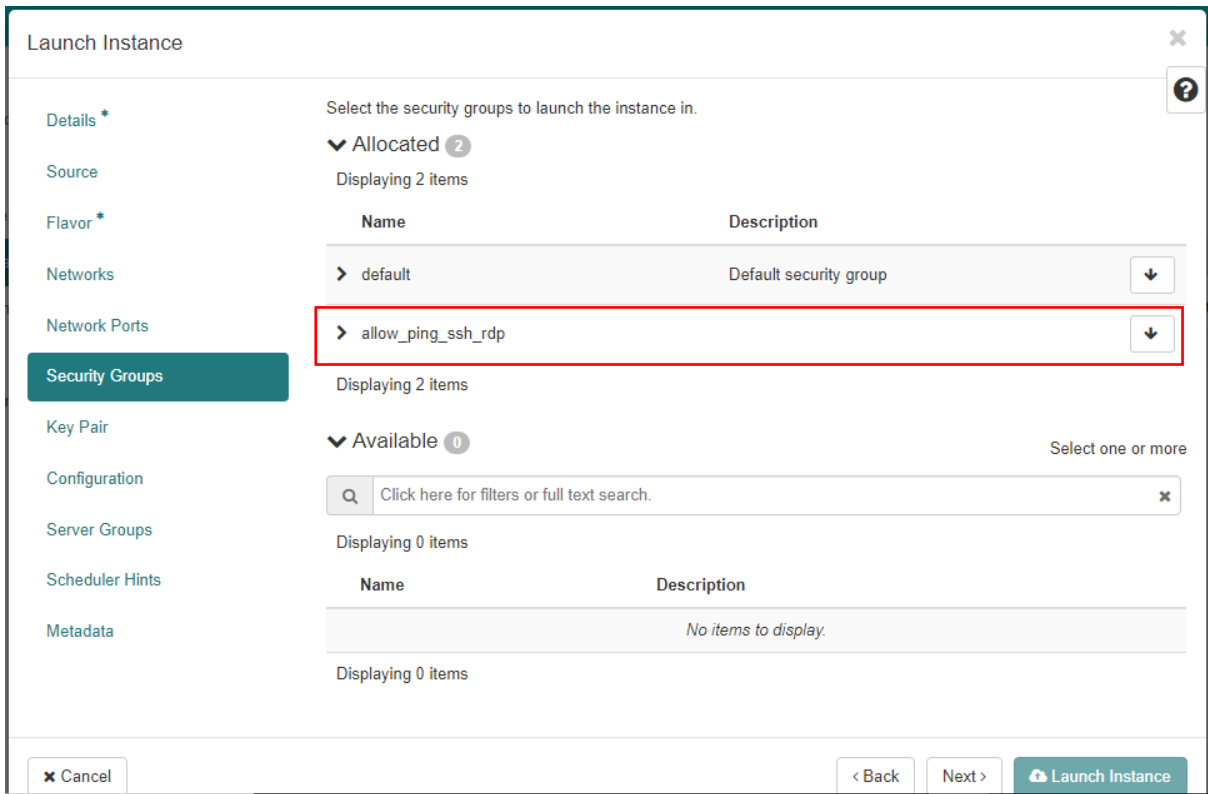
Network	Subnets Associated	Shared	Admin State	Status	
↕ 1 > Project-1-network	Project-1-subnet	No	Up	Active	↓

▼ Available 0 Select at least one network

Network	Subnets Associated	Shared	Admin State	Status
No available items				

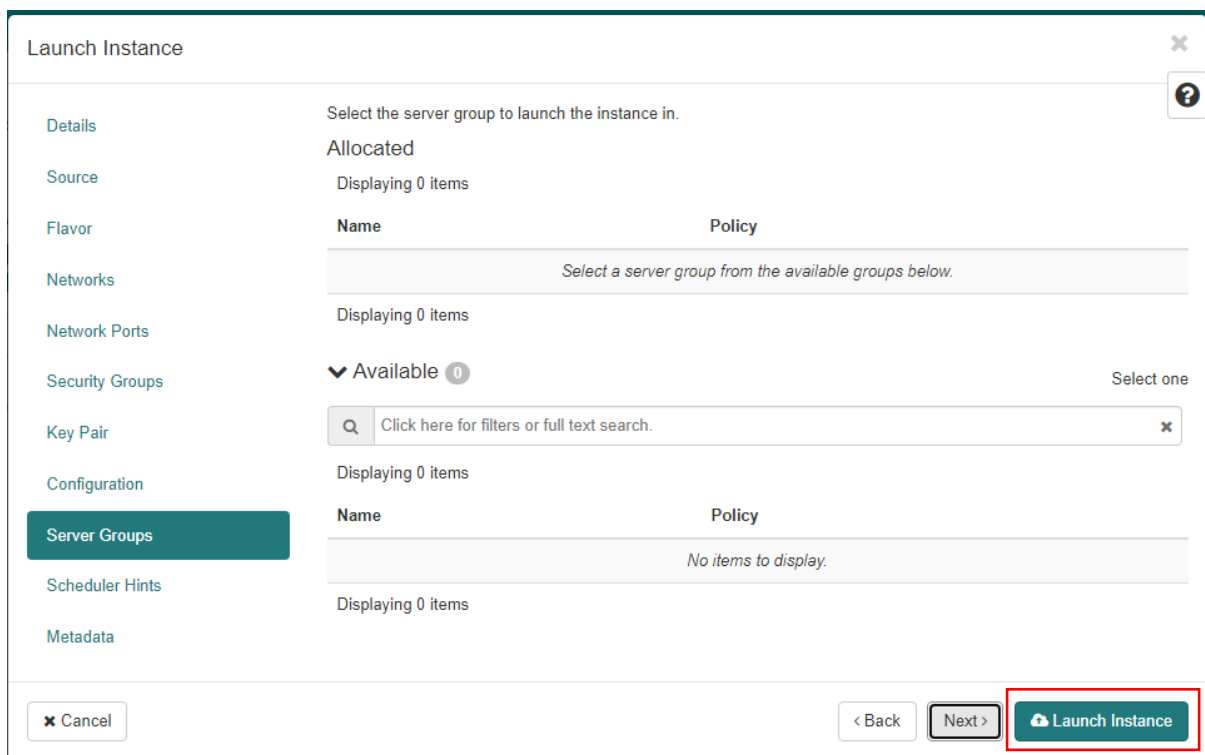
✕ Cancel
< Back
Next >
Launch Instance

5. Click "Security groups" and allow ports of your choice (e.g. allow_ping_rdp_ssh)



The screenshot shows the 'Launch Instance' dialog box with the 'Security Groups' section selected in the left sidebar. The main content area displays a list of security groups under the heading 'Allocated 2'. The list has two columns: 'Name' and 'Description'. The first row is 'default' with the description 'Default security group'. The second row is 'allow_ping_ssh_rdp' with the description 'Default security group', and this row is highlighted with a red border. Below this list, there is a search bar and a section for 'Available 0' security groups, which is currently empty. At the bottom of the dialog, there are buttons for 'Cancel', '< Back', 'Next >', and 'Launch Instance'.

Next, launch instance



The screenshot shows the 'Launch Instance' dialog box with the 'Server Groups' section selected in the left sidebar. The main content area displays a list of server groups under the heading 'Allocated'. The list has two columns: 'Name' and 'Policy'. The first row is empty with the text 'Select a server group from the available groups below.' Below this list, there is a search bar and a section for 'Available 0' server groups, which is currently empty. At the bottom of the dialog, there are buttons for 'Cancel', '< Back', 'Next >', and 'Launch Instance', with the 'Launch Instance' button highlighted by a red box.

Now, you will see "Instances" menu with your newly created VM

<input type="checkbox"/>	Instance Name	Image Name	IP Address	Flavor	Key Pair	Status	Availability Zone	Task	Power State	Age	Actions
<input type="checkbox"/>	prod-window	Windows Server 2016 Standard	10.198.101.249	Medium	-	Active	nova	None	Running	4 minutes	Create Snapshot

prod-window

- Overview
- Interfaces
- Log
- Console
- Action Log

Name	prod-window
ID	15c31c2f-6a36-476f-9225-4696599bea50
Description	Production server
Project ID	fd586919000a4d8a90b78a50a85c8b0a
Status	Active
Locked	False
Availability Zone	nova
Created	Feb. 12, 2021, 10:29 p.m.
Age	5 minutes

Specs

Flavor Name	Medium
Flavor ID	22fac9e1-edc1-4ffd-b3d3-ce7019265715
RAM	2GB
VCPUs	2 VCPU
Disk	50GB

IP Addresses

Project-1-network	10.198.101.249
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Go to console tab and enter VM login credentials

Overview Interfaces Log **Console** Action Log

Instance Console

If console is not responding to keyboard input: click the grey status bar below. [Click here to show only console](#)
To exit the fullscreen mode, click the browser's back button.

Connected (encrypted) to: QEMU (instance-0000033f) Send CtrlAltDel



Connected (encrypted) to: QEMU (instance-0000033f)

