Linux Academy

Live! Lab

Creating a Volume Snapshot and Backup

Contents

Lab Connection Information

- Labs may take up to five minutes to build
- Access to the Horizon Dashboard is provided on the Live! Lab page, along with your login credentials
- SSH information is provided on the Live! Lab page
- Labs will automatically end once the alloted amount of time finishes

Related Courses

OpenStack Foundation Certified OpenStack Administrator

Related Videos

Snapshot Volumes

Manage Volume Backups

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Introduction

In this lab, we review how to create a snapshot of a volume and how to make a backup of that volume from which we can restore.

Using the SSH details on the **Live! Lab** page, log in to your server, then log in to the Horizon Dashboard using the *demo* user and *demo* tenant to download the **OpenStack RC File**, located under the **API Access** tab, under **Security & Access**. Copy the file to your server, giving it the name of *demo.sh*.

Source the file, inputting *demo's* password when prompted:

```
root@openstack:~# source demo.sh
```

Creating a Volume Snapshot

Create a new volume:

```
root@openstack:~# cinder create --display-name volume1 1
+---------------------------------------+--------------------------------------+
|                Property               |                Value                 |
+---------------------------------------+--------------------------------------+
|              attachments              |                  []                  |
|           availability_zone           |                 nova                 |
|                bootable               |                false                 |
|          consistencygroup_id          |                 None                 |
|               created_at              |      2016-04-11T20:24:33.000000      |
|              description              |                 None                 |
|               encrypted               |                False                 |
|                   id                  | ea91a07e-c3b5-4854-8aea-d890869c65fe |
|               metadata                |                  {}                  |
|             multiattach               |                False                 |
|                   name                |               volume1                |
|      os-vol-tenant-attr:tenant_id     |   42863e58503340c4bdee5012627a4aca   |
|   os-volume-replication:driver_data   |                 None                 |
| os-volume-replication:extended_status |                 None                 |
|           replication_status          |               disabled               |
|                  size                 |                  1                   |
|              snapshot_id              |                 None                 |
|              source_volid             |                 None                 |
|                 status                |               creating               |
|                user_id                |   75f1e80172cc49bab8ebbe03931cc08f   |
|              volume_type              |             lvmdriver-1              |
+---------------------------------------+--------------------------------------+
```

This creates a `1` GB volume called `volume1`.

List your available volumes to retrieve the **ID** of *volume1*:

```
root@openstack:~# cinder list
+----------+-----------+---------+------+-------------+----------+-------------+---------+
|    ID    |   Status  |   Name  | Size | Volume Type | Bootable | Multiattach | Attached|
+----------+-----------+---------+------+-------------+----------+-------------+---------+
| ea91a07e | available | volume1 |  1   | lvmdriver-1 |  false   |    False    |         |
+----------+-----------+---------+------+-------------+----------+-------------+---------+
```

Create a snapshot:

```
root@openstack:~# cinder snapshot-create --force True --display-name snap1 ea91a07e-c3b5-
4854-8aea-d890869c65fe
+-------------+--------------------------------------+
|   Property  |                Value                 |
+-------------+--------------------------------------+
|  created_at |      2016-04-11T20:25:33.944797      |
| description |                 None                 |
|      id     | f172151d-d4ec-4d8e-9a1e-4d5491c2b71d |
|   metadata  |                  {}                  |
|     name    |                snap1                 |
|     size    |                  1                   |
|    status   |               creating               |
|  volume_id  | ea91a07e-c3b5-4854-8aea-d890869c65fe |
+-------------+--------------------------------------+
```

`--force True` forces the snapshot to take as soon as the command is run. We gave it the name of `snap1`, and `ea91a07e-c3b5-4854-8aea-d890869c65fe` should be replaced with your own volume's ID.

You can run `cinder snapshot-list` to view all snapshots.

Creating a Volume Backup

More than taking snapshots, we also need to know how to take *backups* of our volumes. Once more run `cinder list` to retrieve the **ID** of your *volume1* volume.

To create a backup, run the following, replacing `ea91a07e-c3b5-4854-8aea-d890869c65fe` with your volume's ID.

```
root@openstack:~# cinder backup-create ea91a07e-c3b5-4854-8aea-d890869c65fe
+-----------+--------------------------------------+
|  Property |                Value                 |
+-----------+--------------------------------------+
|     id    | e9805fd7-253b-45d7-b8ea-2334ca1a8caf |
|    name   |                 None                 |
| volume_id | ea91a07e-c3b5-4854-8aea-d890869c65fe |
+-----------+--------------------------------------+
```

To confirm, run `cinder backup-list`, checking back until the status has changed from `creating` to `available`.

We can now restore from this backup. To do this, run:

```
root@openstack:~# cinder backup-restore e9805fd7-253b-45d7-b8ea-2334ca1a8caf
+-------------+---------------------------------------------------+
|   Property  |                       Value                       |
+-------------+---------------------------------------------------+
|  backup_id  |         e9805fd7-253b-45d7-b8ea-2334ca1a8caf        |
|  volume_id  |         818f0ef8-7ef1-42da-be1e-39f9d3134294        |
| volume_name | restore_backup_e9805fd7-253b-45d7-b8ea-2334ca1a8caf |
+-------------+---------------------------------------------------+
```

Where `e9805fd7-253b-45d7-b8ea-2334ca1a8caf` is your *backup's* ID. Run `cinder list` again to confirm that your new backup has been generated.