Assignment 2: OpenStack
IN720 Virtualisation

Introduction

In this assignment you will create an OpenStack project (or *tenant*) and then create and launch a virtual machine instance in it.

This assignment is worth 25% of your mark in this paper.

1   Tasks

1. Create an OpenStack tenant and a user who is a member of the tenant.

2. Load an Ubuntu 14.04 image for the tenant from the Canonical image collection at `http://cloud-images.ubuntu.com/`.

3. Create a 1GB data volume for the tenant in our OpenStack block storage service.

4. Launch a virtual machine image in the tenant. Mount and format the volume from block storage in the virtual machine and save a file on it. Then detach the image from the VM instance and shut down the VM.

5. Launch a second VM instance in the tenant and mount the storage volume in it. Verify that your saved file is present.

6. Set up a floating IP address for the tenant and associate it with the second VM instance.

7. Set the security group settings for the second virtual machine to allow ssh access from any client.

8. Document your work step-by-step and submit a clear, easy-to-follow HOWTO document, in PDF format, to the lecturer. Your target audience for the HOWTO is a typical student who has completed the first year of the BIT.

9. Collaborating with the rest of the class, troubleshoot our OpenStack platform as necessary.

2   Submission

This assignment is due on Friday, 11 November. Your submission will include a) the artefacts on our OpenStack cloud as described above and b) the HOWTO document. 70% of the assignment mark is based on the OpenStack tasks and 30% is based on the supporting documentation.