Report of Industrial Year at HP

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Abstract

Working for Hewlett Packard (will now be refereed to as HP) For 14 months. During time spent worked with two main service teams. Cinder and bock. Cinder, the openstack and opensourced client that provides API for block storage solutions to be consumed by NOVA, the openstack, opensource compute host for cloud solutions, and Bock, the block storage solution implemented within the HP public cloud. Also worked on Helion, private cloud solutions within Cinder service team
Producing code for bug fixing, features, testing, automation for upstream (openstack(cinder)) downstream(bock)and upstream internal(Helion)while also doing peer code review for mentioned services. Working on 24/7 on call support for the public cloud to ensure that services do not experience outage and working closely with technical operations (will now be refereed to as tech ops), to ensure services experience no outage is something I worked towards and successfully integrated myself into.

Contents

0.1 Organisational Environment

0.2 Technical and Application Environments

The cinder service was consumed by multiple projects; Helion, HP public cloud and the openstack project, Cinder. Cinder was used as the API service in both Helion and HP public cloud, whereas openstack cinder is an open source project that provides the code base for cinder. Three areas will be discussed to collaborate the technical and the application of tools and services used. They will be;

- Hardware
- software
- work-flow

0.2.1 Hardware

Base development computer was a HP z640. This included duel Intel Xeon 3.50GHz processor, 128Gb (8 x 16gb) DDR4 2133MHz RAM,256 Solid state drive, 2TB hard drive, 1Gbit/s network interface. The operationg system was ubuntu 14.4 LTS. The machine was an upgrade from a z400 as there was not enough RAM within the z400 to support the creation of virtual machines needed to build the HLM development environment, 24Gb's minimum per deployable build. The z400 also did not support virtuialaztion to the extent of the z640's. The main function on the workstation was to create builds of the virtual environment that the product was built in

0.2.2 Software

0.2.3 Work-flow

0.3 What I did

0.4 Evaluation

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