

Group Exercise – IaaS on a Box

In this exercise you have to either

install either OpenStack (<http://www.openstack.org/>, easier) or Eucalyptus (<http://www.eucalyptus.com/>, rather complex and resource demanding) on a VM (typically requiring nested virtualization for the instances). Answer the following questions:

1. Management GUI available? Which views does it provide defined by which different features? Use it to create a new cloud user and build/deploy/startup a custom image!
2. Connect to your custom VM via ssh!

OR

Focusing on using the cloud – ECC or AWS free usage tier – by:

1. Try to use/migrate your custom image from/to AWS. Which tools exist to help you? Does it work at all? Any restrictions? Script-able?
2. Choose one of the following monitoring systems for your cloud – Ganglia, Nagios or Zenoss. What interface (GUI and/or API) exists for the monitoring information? What interfaces can be used to interact with your cloud toolkit (events, pull vs push,...)? How to integrate them at a non-private cloud?
3. Use the API of your cloud toolkit with your preferred & supported programming language to programmatically bring up an instance on-demand, ideally triggered by accessing the monitoring information (~ simulating AWS autoscale).

Write a documentation of the installation/usage process, describe occurring issues and your solutions to them and answer the questions (deadline: 9.1.2015)