HARVARD School of Engineering and Applied Sciences

CS205: Computing Foundations for Computational Science, Spring 2021

IACS INSTITUTE FOR APPLIED COMPUTATIONAL SCIENCE AT HARVARD UNIVERSITY

Guide: OpenNebula Sandbox on AWS

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v3.0 - 10 February 2021

Abstract

This is a guideline document to show how to deploy a hosted private cloud on AWS. The aim is to illustrate the internals of a cloud infrastructure and the view of the administrator.

Acknowledgments

The author is grateful for constructive comments and suggestions from David Sondak, Charles Liu, Matthew Holman, Keshavamurthy Indireshkumar, Kar Tong Tan, Zudi Lin, Nick Stern, Dylan Randle.

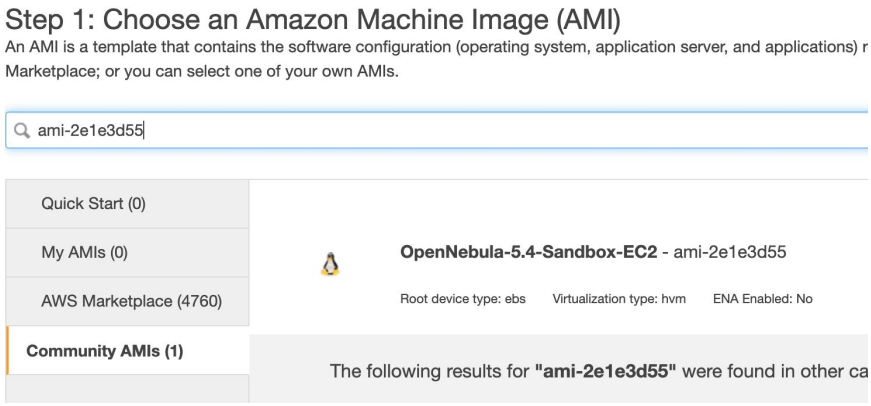
Requirements

- **First you should have followed the Guide "First Access to AWS"**. It is assumed you already have an AWS account and a key pair, and you are familiar with the AWS EC2 environment.

1. Spin up EC2 instance

- Ensure you are in the **US-East-1 (North Virginia)** region from the dropdown in the top right of the AWS console.

- From "Security Groups" on the left side of the EC2 Console, you should create a new security group (`opennebula`) to open inbound access to the following ports:
    - SSH: Port Range: 22, Source: Anywhere
    - Custom TCP Rule: Port Range: 9869, Source: Anywhere
    - Custom TCP Rule: Port Range: 29876, Source: Anywhere
- Create a new EC2 instance. The free tier `t2.micro` is sufficient.
- In the AMIs tab, change the view filter to the **community images** and search for AMI `ami-2e1e3d55`.



- Click "Review and Launch". On the following page, click "Edit security groups". Select "Select an existing security group" and select the security group you just created (`opennebula`) and launch the instance
- The sandbox is a Ubuntu 14.04 virtual machine image with a pre-configured OpenNebula 5.4.0 front-end, a virtualization host using QEMU ready to execute virtual machines, and prepared images to offer a complete and rich cloud experience. Users are able to log into an OpenNebula cloud, peer the managed resources, and launch instances of virtual machines without the hassle of configuring a physical infrastructure.

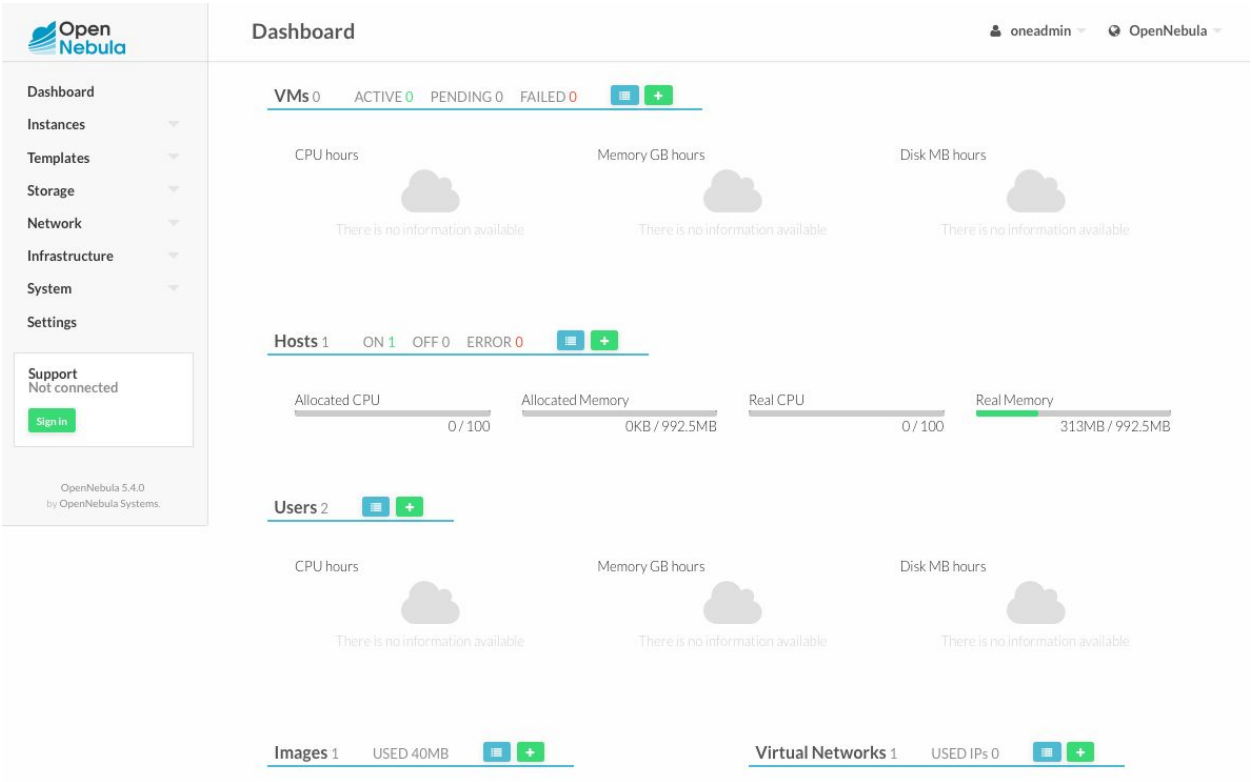
2. Try the Admin View in the Sunstone GUI

- The first thing we're going to do is to log in as oneadmin to take a look at the Admin View of Sunstone, which has more options than the other Sunstone views for a regular users.

- To login to Sunstone open your browser at http://<< ip >>:9869 where ip is the Public IPv4 of your new EC2 instance.

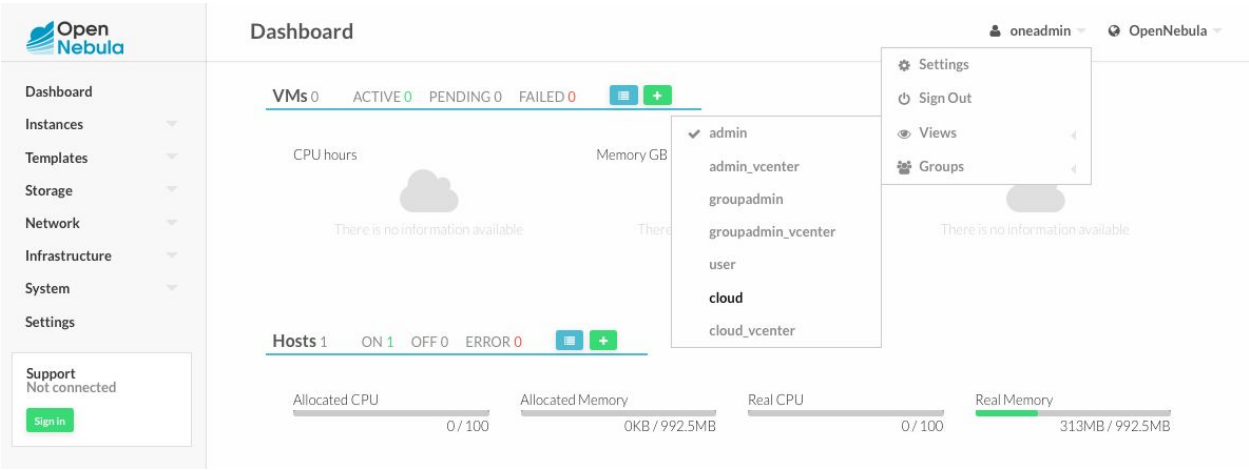
- The login information is:
  Login: oneadmin
  Password: opennebula

- Take a look at all the already bootstrapped resources in the Sandbox



3. Try the Cloud View

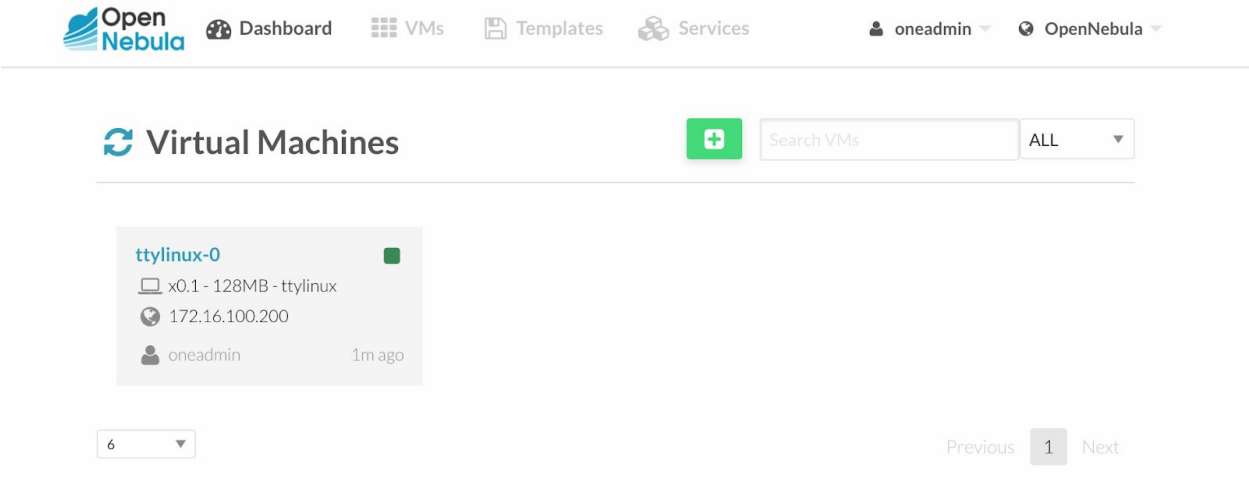
- With the Admin View you can do anything in OpenNebula. Switch to the Cloud View (oneadmin-->Views-->cloud) to see how a final user will see OpenNebula



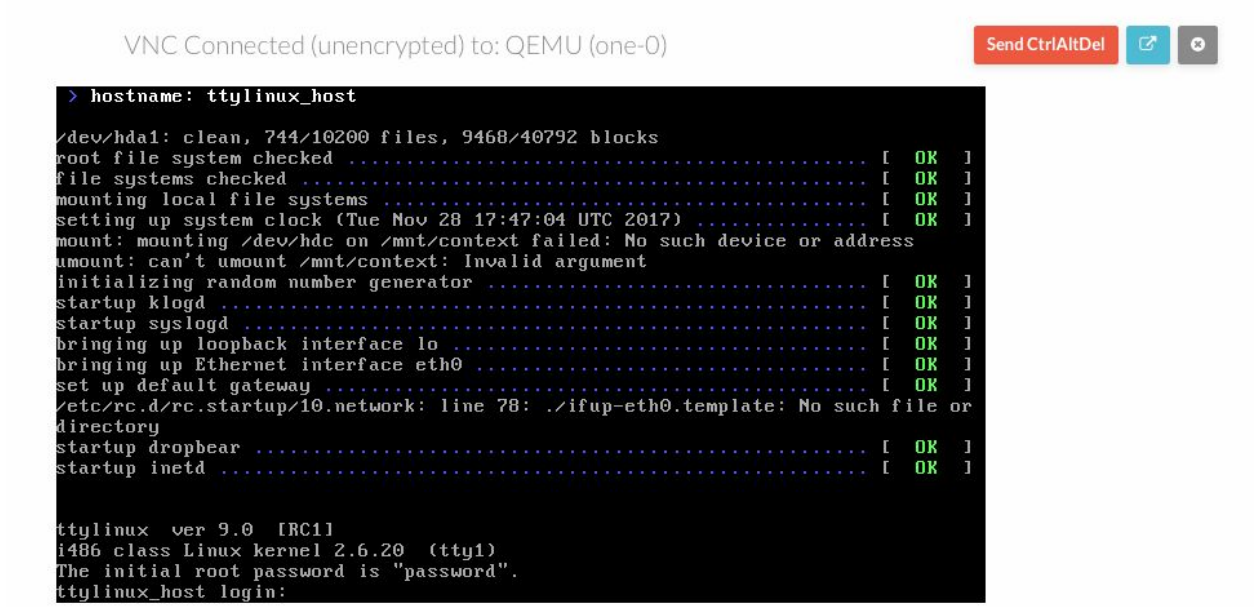
- The Cloud View interface is much simpler and targeted at end users

- Create a new Virtual Machine by clicking the '+' button. Select the only available template and click 'Create'

- After clicking create you will be taken to the dashboard where you can see your running VMs.



- You can click on your VM and manage it: access it through VNC, Save its state, Reboot it, etc:



- Clicking on the Console icon will let you login into the VM. The credentials are:
  Login: root
  Password: password

Stop your instances when are done for the day to avoid incurring charges
Terminate them when you are sure you are done with your instance