Installing OpenStack Using PackStack

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Objectives

Lab Environment Single Node

Install OpenStack with PackStack

Lab Environment (Single Node)

Virtualization Host
CentOS 7.2
KVM

Virtual Machine /
Physical Host

packstack

Centos 7
172.16.0.9

Requirements

HOST	Physical / Virtual
RAM	>= 4 GB
DISK	>= 20 GB Free

Single Node - Packstack

Installing OpenStack is time consuming and laborious. It is also not a requirement for the exam. So for the COA series we will use Packstack to install OpenStack in a single-node environment. This is simple and reliable.

RDOProject

R	RPM
D	Distribution
O	OpenStack

```
# systemctl disable firewalld NetworkManager
# systemctl stop firewalld NetworkManager
# systemctl start network
# systemctl enable network
```

Start with a Minimal Install of Centos 7

We will start with a minimal install of CentOS 7 without any GUI. The VM or physical hardware requires 20GB Disk and 4GB RAM. Configured with a static IP Address. Then stop firewalld and NetworkManager and ensure the network service is running

```
# yum install -y centos-release-openstack-liberty
# yum install -y bash-completion vim epel-release
# yum upgrade -y
# reboot
# yum install -y openstack-packstack
```

Setup Repos

We use the Liberty release of OpenStack to match the current Spring 2017 exam.

```
# packstack --gen-answer-file=/root/answers.txt
# vim answers.txt or use sed
# packstack --answer-file=/root/answers.txt
```

Create Answer File and Start Install

We can set parameters for the install in the answer file. We can edit this with vim or use sed. A script is provided within the exercise files using sed to edit the answer file. Allow up to 1 hour for the install or more depending on hardware.

```
CONFIG_HEAT_INSTALL=y
```

Install HEAT

This install differs from the previous install as we now need to install Heat, the orchestration service.

```
# grep -Ec '(vmx|svm)' /proc/cpuinfo # 0 =qemu >=1 =kvm
# # If KVM is supported edit /etc/nova/nova.conf
# systemctl restart openstack-nova-compute-service
```

Check for KVM Support

Your hardware or virtual machine may or may not support KVM as a hypervisor. We have the choice of qemu or kvm. The default is qemu but if we support KVM we need to change the setting.

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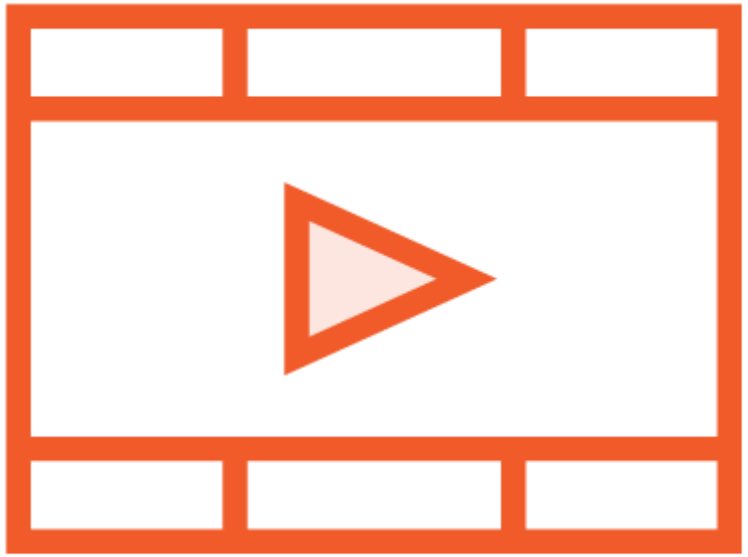

PackStack: Automated installer for Red Hat based systems. PackStack is the method we will use for COA courses

RDOProject: RPM Distribution OpenStack

KVM Support: virt_type=kvm /etc/nova/nova.conf

Next up: Managing Networking with Neutron