

Module 3: Openstack Test-Drive

Agenda

- * Openstack Architecture**
- * Installation Method**
- * Understanding Packstack**
- * Understanding Triple O**
- * Understanding Devstack**

Openstack Architecture

Single Node Installation

Multi Node Installation

Single Node Installation

Single node installation runs all openstack services in one node including the control, network, compute and storage services

The networking topology can be configured using the single nic card.

Follow

<https://www.rdoproject.org/install/packstack/>

Multi Node Openstack Deployment

| Control Node | Compute Node | Network Node |
|--|--|--|
| Keystone Glance Cinder Horizon Neutron • Neutron Server Nova • Nova novncproxy • Novnc • Nova api • nova scheduler • nova-conductor | Nova • Nova Compute Neutron • Neutron Openvswitch Agent | Neutron • Neutron Server • Neutron Dhcp agent • Neutron Openvswitch Agent • Neutron LB Agent |

Installation Methods

- * Packstack : Opensource project which provides a turnkey solution to deploy POC environments.**
- * Devstack : Opensource project that uses the Bash programming language as the installer**
- * Triple O : Community project that makes use of OpenStack as an underlying layer (undercloud) to manage the life cycle of OpenStack environments (overcloud).**

Packstack

The Packstack installer can be used to quickly deploy an all-in-one environment, that is, an environment composed of the main services required to operate an OpenStack cloud.

Although manual installation allows administrators to have full control of the installation, such methods increase the difficulty of maintaining or redeploying the environment

Packstack handles the complexity of the configuration for the various services.

Limitations of Packstack

Although Packstack can be used to quickly deploy an OpenStack cloud, there are some Limitations, which should be taken into account by administrators:

- The Packstack installer does not support bare-metal hardware. Administrators need to configure a base system before using Packstack.**
- Packstack does not support multiple controller nodes, thus high availability cannot be configured.**
- Packstack only supports three distinct roles: compute nodes, controller nodes, and network nodes. Advanced storage configuration is not supported.**
- Packstack does not include any user interface.**
- Packstack is an installation tool only. It does not provide a life cycle management tool that can be used after installation.**

Openstack using Packstack

- 1. Ensure that the NetworkManager service is stopped and disabled on the system.**
- 2. Attach to your server the required repositories:**
- 3. Install the openstack-packstack installer package and generate an answer file.**
- 4. The answer file contains all the directives that will be used during the installation. Review the entries in the answer file and update them according to your needs.**
- 5. Start the installation of the Red Hat OpenStack Platform by running the packstack command against the custom answer file that was generated.**