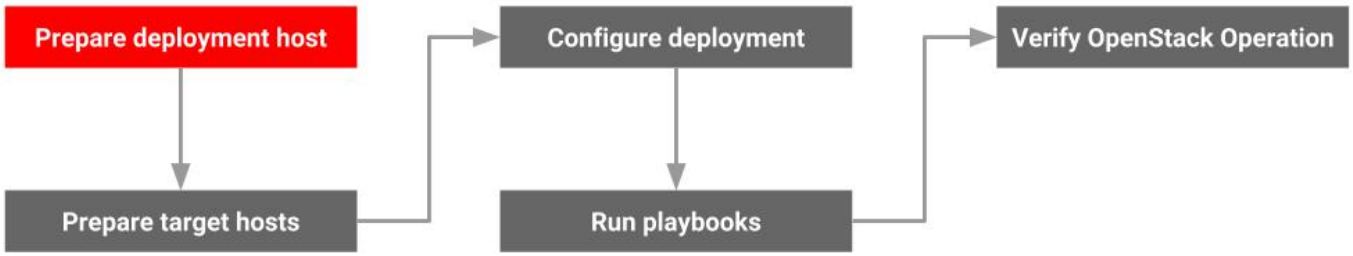
Prepare Deployment Host



In this section we are going to discuss how we are going to prepare OpenStack-Ansible host. This is the host that will hold the OpenStack-Ansible playbook Repository and deployment configurations.

Since this guide has been prepared using **Ubuntu Linux 18.04 LTS** operating systems you will not find the instructions on configuring other supported operating systems for OpenStack-Ansible. Please refer to the respective configurations manuals of those operating systems and adjust a particular configuration that suits your needs.

> **Note**
>
> When you install OpenStack in a production environment, we recommend using a separate deployment host that contains Ansible and orchestrates the OpenStack-Ansible (OSA) installation on the target hosts.
>
> In a test environment, we recommend using one of the infrastructure target hosts as the deployment host.

To use a target host as a deployment host, follow the steps in Prepare the target hosts on the deployment host.

Configuring the Operating System

This section covers how to install and configure **Ubuntu 18.04 LTS Serer** in our OpenStack-Ansible host.

Install the Operating System

If your have downloaded your Ubuntu server image download the installation ISO from alternate download section.

Alternative Ubuntu Server installer

Since we require advanced networking and storage features such as; LVM, RAID, multipath, vlans, bonds, or re-using existing partitions, you will want to continue to use the alternate installer.

Download the alternate installer

> **Note**
>
> We do not cover on how to install the Ubuntu server here. We assume that you already know howto do it.

Configure The Network Interfaces.

We assume that your OpenStack Ansible host has two network interface cards. We are planning our network like below

1. Configure one network card for accessing the Internet

```
Network: 192.168.10.0/24
```

2. Configure the other network card for accessing our OpenStack deployment management network.

```
Network: 172.29.236.0/24
```

CHANGING `NETPLAN` TO `IFUPDOWN`

The classic `ifupdown` network configuration used in Debian/Ubuntu has been replaced by `netplan` on Ubuntu 18.04 server system.

You can view the current `netplan` configuration using the command below. You may have a different name for your `YML` as per your installation environment.

```
cat /etc/netplan/01-netcfg.yaml
```

You will get an output like below.

```
# This file describes the network interfaces available on your system
# For more information, see netplan(5).
network:
  version: 2
  renderer: networkd
  ethernets:
    enp0s3:
      dhcp4: yes
```

To re-enable `ifupdown` on this system, run:

```
sudo apt install ifupdown
```

CONSISTENT NAMING FOR NETWORK INTERFACES

New versions of Linux Kernel, including the one in our Ubuntu server name the network interfaces using a new convention based on the network interface type (PCI, PCIe, Onboard, Wireless, etc.,) and the relative position of the motherboard which we have slotted the specific card. For example, you may get interface names like `enp0s3, eno1, p2p1` etc. While this is an advantageous in many cases as it provides consist ant name of each interface during our OpenStack-Ansible deployment we are going to rename them back to our traditional naming convention `eth0, eth1` , and so on.

To get back to `ethX` again will do the following configurations

```
sudo nano /etc/default/grub
```

Look for `GRUB_CMDLINE_LINUX` and add the following `net.ifnames=0 biosdevname=0` .

From:

```
GRUB_CMDLINE_LINUX=""
```

To:

```
GRUB_CMDLINE_LINUX="net.ifnames=0 biosdevname=0"
```

Generate a new grub file using the following command.

```
sudo grub-mkconfig -o /boot/grub/grub.cfg
```

Now reboot your systems

```
sudo systemctl reboot
```

Now check your interface name:

```
ip link show
```

You should get an output like below:

```
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFAULT
group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP mode
DEFAULT group default qlen 1000
    link/ether 08:00:27:cb:31:f1 brd ff:ff:ff:ff:ff:ff
3: eth1: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP mode
DEFAULT group default qlen 1000
    link/ether 08:00:27:b4:05:38 brd ff:ff:ff:ff:ff:ff
```

ASSIGNING IP ADDRESSES

Use the following sample configuration your network.

```
sudo nano /etc/network/interfaces

Add the following configurations
```