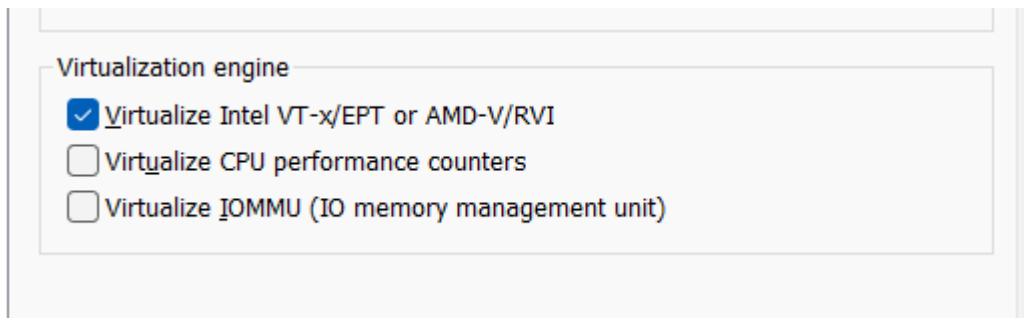


# OpenStack RDO Deployment

This project aims to deploy OpenStack using the RDO (Red Hat Distribution OpenStack) distribution. Below are the steps to deploy OpenStack on Rocky.

## Host Preparation

1. **Image:** [Download CentOS 8 Image](#)
2. **Enable Virtualization**



3. **Network Configuration:**
  - Ensure two network interface cards (NICs) are available and configured manually with static IPs. Disable IPv6.
  - Verify NICs have static IP configurations: `cat /etc/sysconfig/network-scripts`.
4. **Firewall and Network Manager:**
  - Stop and disable Firewall: `systemctl disable firewalld; systemctl stop firewalld`.
  - Stop and disable Network Manager: `systemctl disable NetworkManager; systemctl stop NetworkManager`.
5. **Install network-scripts:** `dnf install -y network-scripts`.
6. **Enable and Start Network Service:**
  - Enable: `systemctl enable network`.
  - Start: `systemctl start network`.
7. **Hostname Configuration:**
  - Set hostname: `hostnamectl set-hostname controller`.
8. **SELinux:**
  - Disable SELinux: `setenforce 0`.
  - Update SELinux configuration: `sed -i 's/SELINUX=.*SELINUX=disabled/' /etc/selinux/config`.

## OpenStack Installation

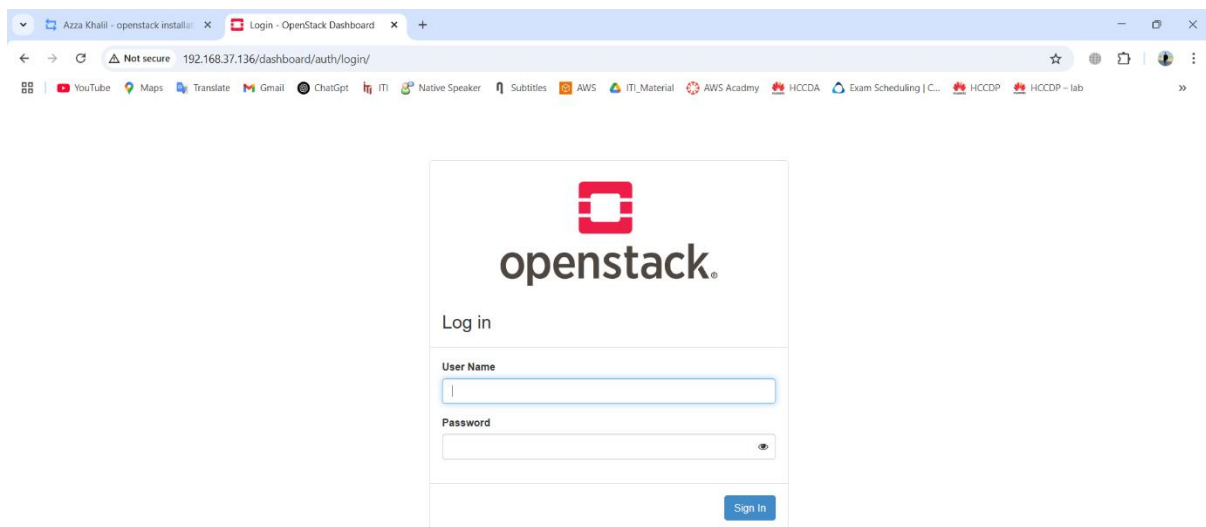
1. **Enable Powertools Repository:** `dnf config-manager --enable powertools.`
2. **Install OpenStack Release Package:** `dnf install -y centos-release-openstack-yoga.`
3. **System Update:** `dnf -y update.`
4. **Install Packstack Installer:** `dnf install -y openstack-packstack.`
5. **Run Packstack Installation:**
  - Generate answer file: `packstack --gen-answer-file=/root/answers.txt --os-neutron-l2-agent=openvswitch --os-neutron-ml2-mechanism-drivers=openvswitch --os-neutron-ml2-tenant-network-types=vxlan --os-neutron-ml2-type-drivers=vxlan,flat --provision-demo=n --os-neutron-ovs-bridge-mappings=extnet:br-ex --os-neutron-ovs-bridge-interfaces=br-ex:ens192 --keystone-admin-passwd=redhat --os-heat-install=n.`
  - Run Packstack: `packstack --answer-file=/root/answers.txt -t 3600.`
  - Ensure `br-ex` and `ens192` interfaces are configured correctly.

## Validation

### 1. Validation through Dashboard

Access the OpenStack dashboard (Horizon) via a web browser using the IP address of the br-ex interface. You can typically find this IP address in the network configuration.

URL format: `http://<br-ex_IP>/dashboard`



Log in with the provided credentials and verify that all OpenStack services are running and accessible.

