Install OpenStack Ussuri on RHEL 8

Precondition

1. Minimum dual core processor that supports hardware virtualization
2. Minimum RAM 8GB
3. Minimum 40GB disk
4. Stable internet connection
5. At least one network adapter
6. RHEL 8 Operating System
7. Red Hat Developer Subscription

1. Set Hostname

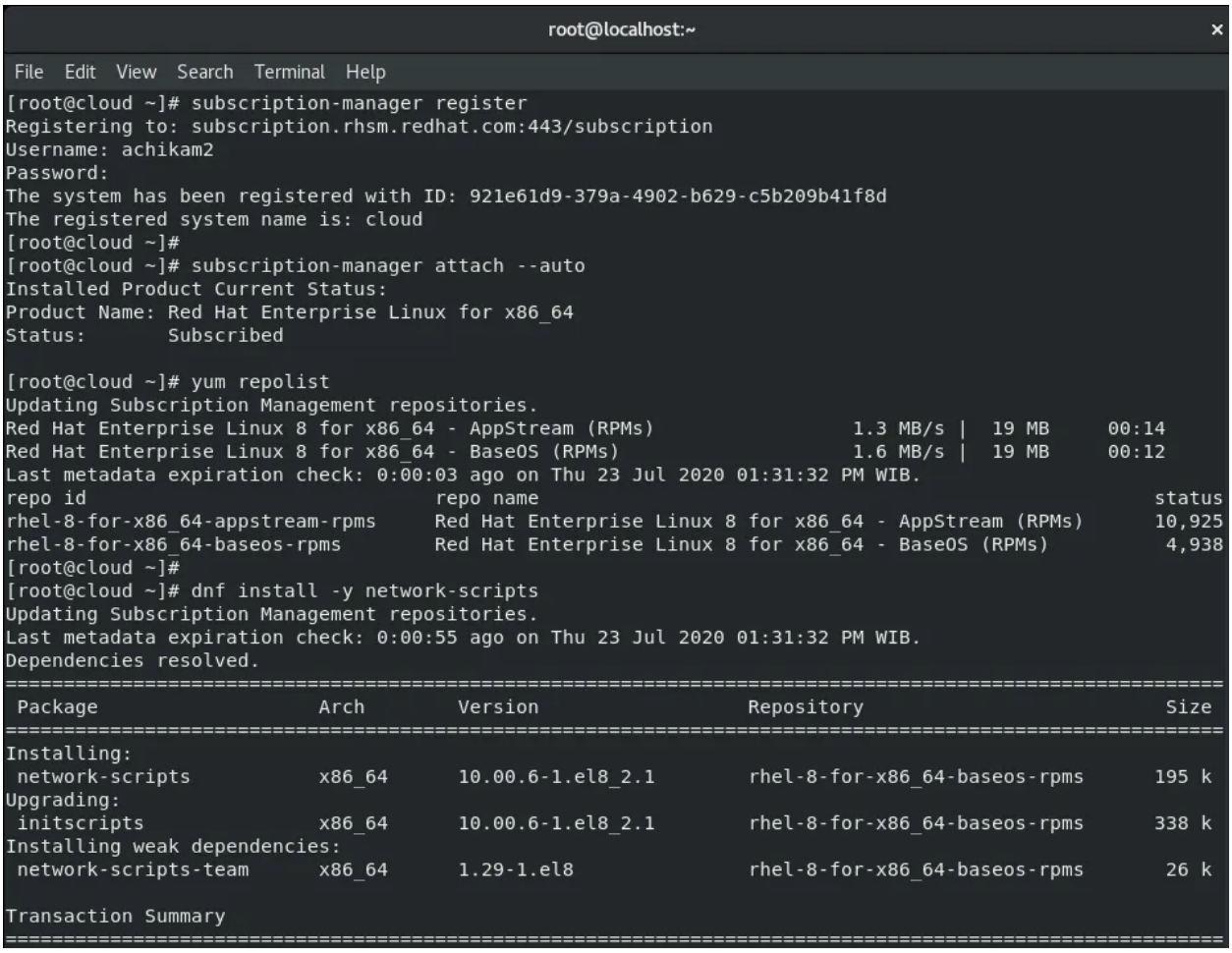
```
# hostnamectl set-hostname cloud.local
# exec bash
```

2. Subscribe

```
# subscription-manager register
# subscription-manager attach --auto
# yum repolist
```

3. Install Network Scripts

```
dnf install -y network-scripts
```



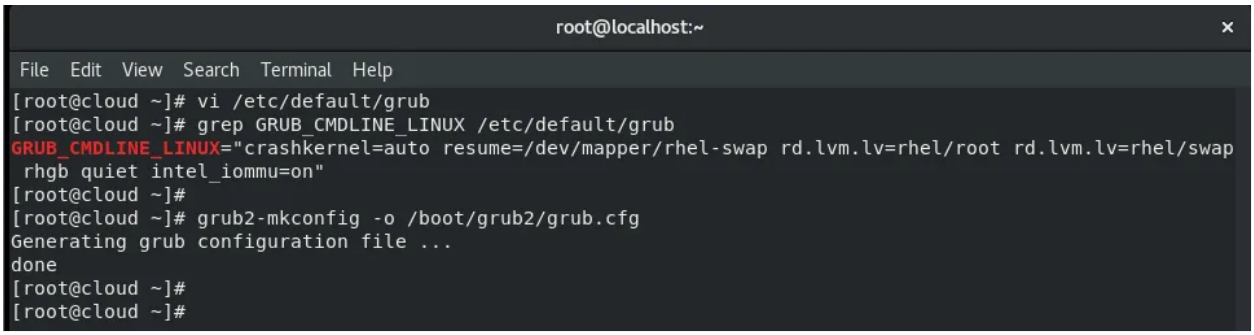

```
# systemctl disable firewalld NetworkManager
# systemctl stop firewalld NetworkManager
# systemctl enable network
# systemctl start network
```

 # dnf install -y dnf-utils

4. Update Grub

 # vi /etc/default/grub

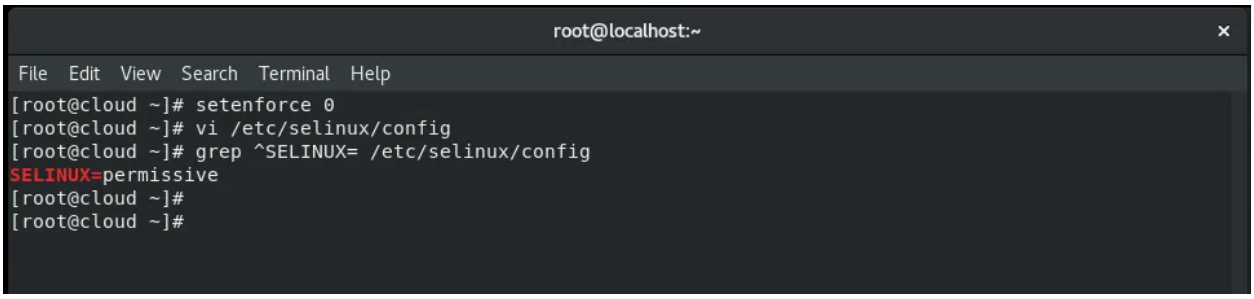
GRUB_CMDLINE_LINUX="crashkernel=auto resume=/dev/mapper/rhel-swap rd.lvm.lv=rhel/root rd.lvm.lv=rhel/swap rhgb quiet intel_iommu=on"



 # grub2-mkconfig -o /boot/grub2/grub.cfg

5. Set selinux permissive

 # setenforce 0
 # vi /etc/selinux/config
....
SELINUX=permissive



6. Install RDO Repositiory by OpenStack Project

 # systemc

 # subscription-manager repos --enable codeready-builder-for-rhel-8-x86_64-rpms

 # dnf update -y

---

7. Installing Packstack Installer

dnf install -y openstack-packstack

8. Run Packstack to deploy OpenStack

1. There are two ways to deploy OpenStack on RHEL 8 using packstack:

Deploy using the default configuration. The command:

 # packstack --allinone

2. Deploy using a customized configuration, meaning that changes have been made to the configuration file. The configuration file that will be used to install OpenStack can be generated by:

```
# packstack --gen-answer-file /root/packstack-answers.txt
```

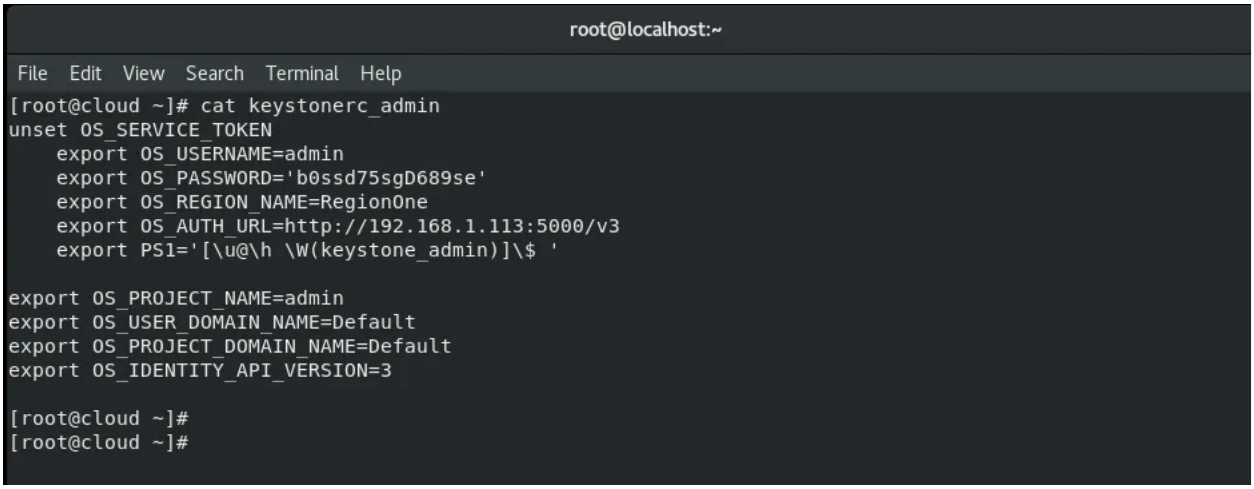
9. Review the resulting file to ensure that the values set are appropriate for use. This file has information such as services to be installed, storage configuration, networking, etc. Furthermore, after changing the contents of the configuration file according to usage requirements, do the installation by:

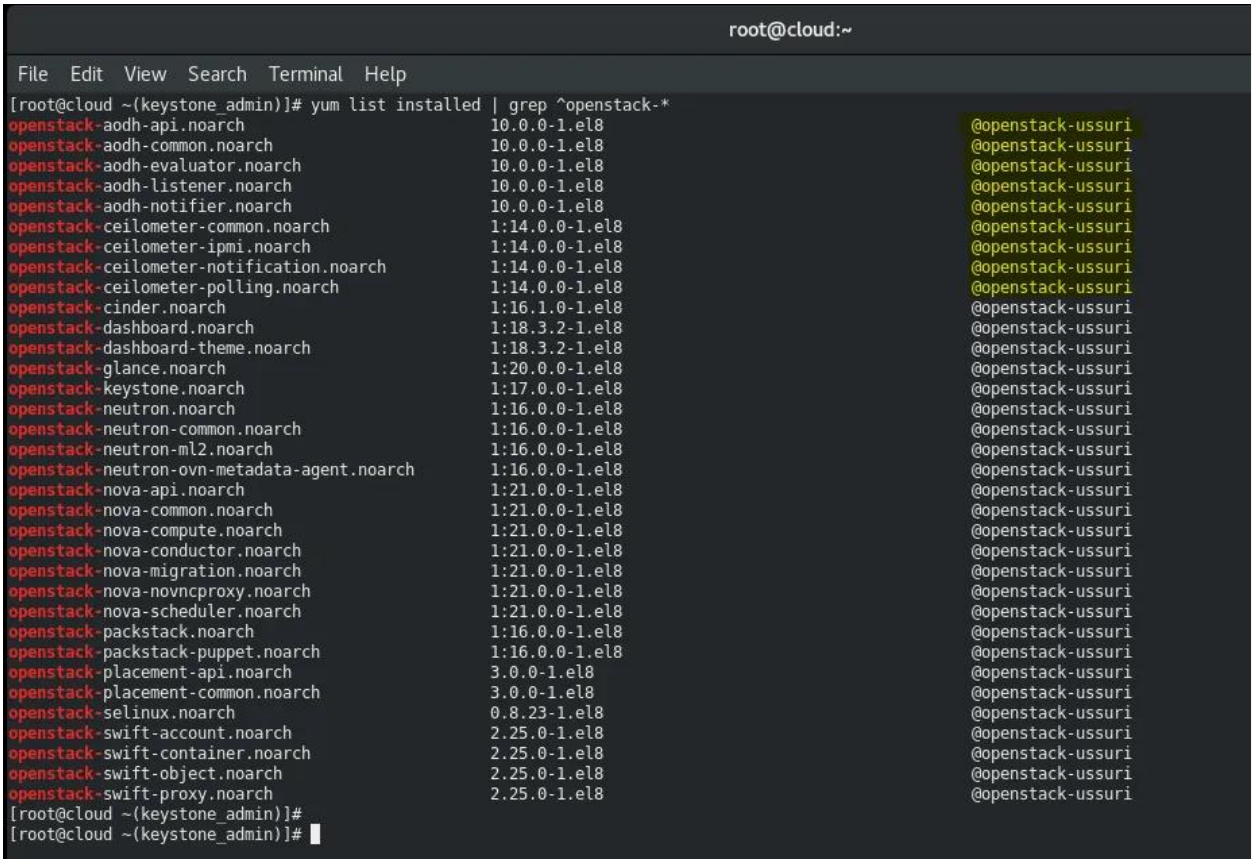
```
# packstack --answer-file /root/packstack-answers.txt
```

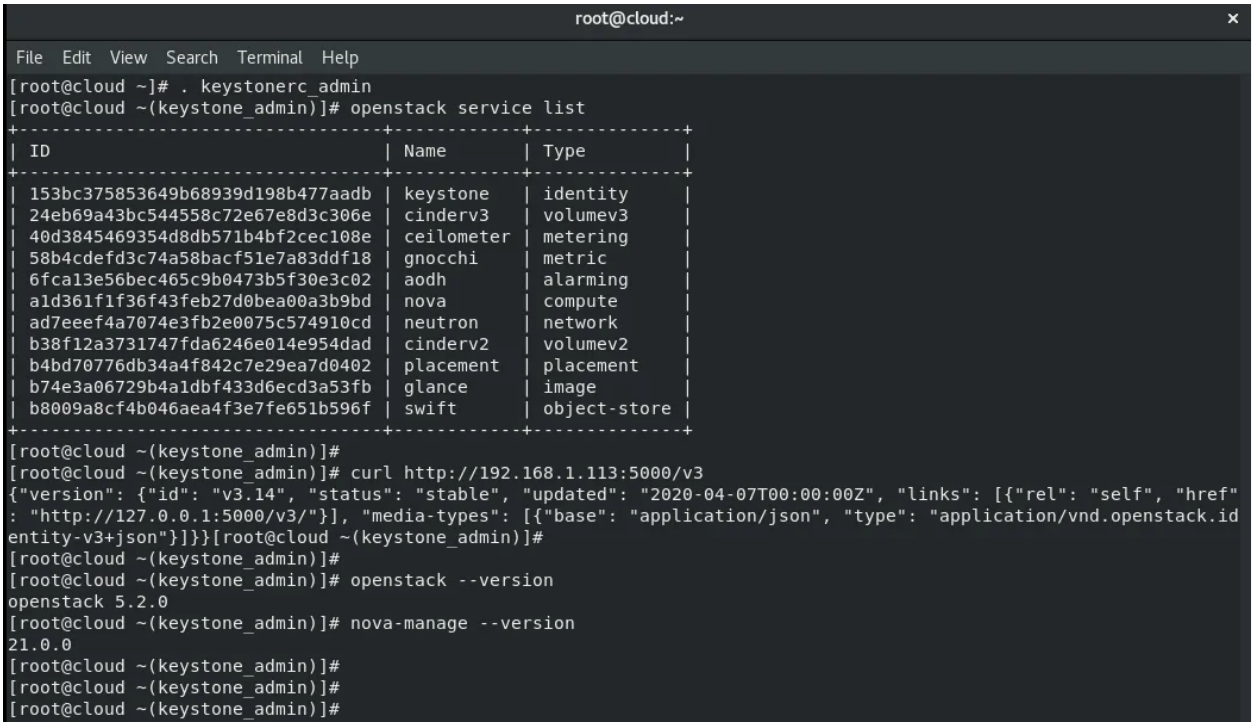
Check Openstack Packages and Services
Open the file /root/keystone_admin to get the information containing the openstack credentials then run the following command to see the installed packages and services from openstack:

```
# cat keystonerc_admin
```

```
# yum list installed | grep ^openstack-*
(keystone_admin)
# openstack service list
```

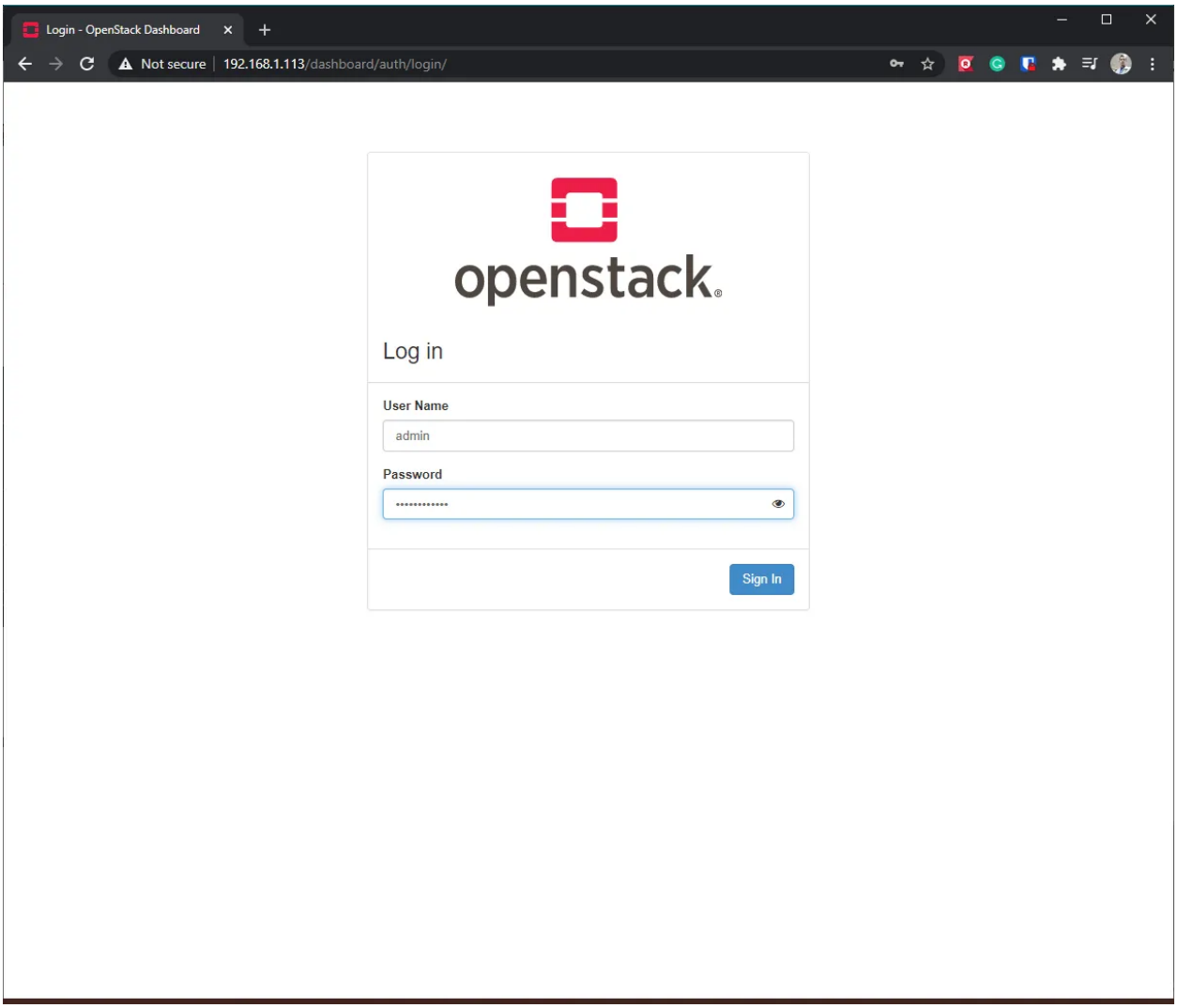


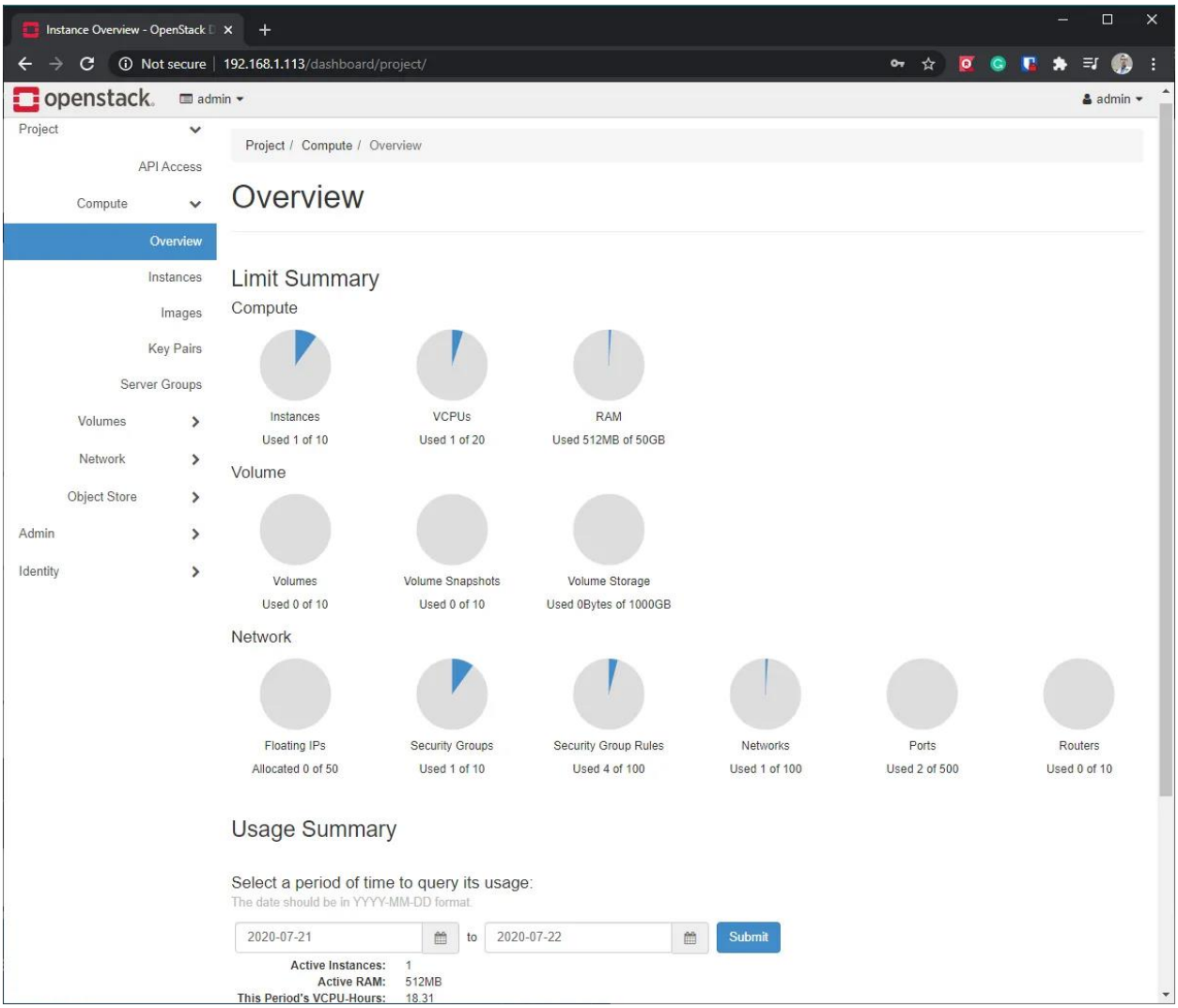

root@cloud:~
File Edit View Search Terminal Help
[root@cloud ~(keystone_admin)]# yum list installed | grep ^openstack-*
openstack-aodh-api.noarch 10.0.0-1.el8 @openstack-ussuri
openstack-aodh-common.noarch 10.0.0-1.el8 @openstack-ussuri
openstack-aodh-evaluator.noarch 10.0.0-1.el8 @openstack-ussuri
openstack-aodh-listener.noarch 10.0.0-1.el8 @openstack-ussuri
openstack-aodh-notifier.noarch 10.0.0-1.el8 @openstack-ussuri
openstack-ceilometer-common.noarch 1:14.0.0-1.el8 @openstack-ussuri
openstack-ceilometer-ipmi.noarch 1:14.0.0-1.el8 @openstack-ussuri
openstack-ceilometer-notification.noarch 1:14.0.0-1.el8 @openstack-ussuri
openstack-ceilometer-polling.noarch 1:14.0.0-1.el8 @openstack-ussuri
openstack-cinder.noarch 1:16.1.0-1.el8 @openstack-ussuri
openstack-dashboard.noarch 1:18.3.2-1.el8 @openstack-ussuri
openstack-dashboard-theme.noarch 1:18.3.2-1.el8 @openstack-ussuri
openstack-glance.noarch 1:20.0.0-1.el8 @openstack-ussuri
openstack-keystone.noarch 1:17.0.0-1.el8 @openstack-ussuri
openstack-neutron.noarch 1:16.0.0-1.el8 @openstack-ussuri
openstack-neutron-common.noarch 1:16.0.0-1.el8 @openstack-ussuri
openstack-neutron-ml2.noarch 1:16.0.0-1.el8 @openstack-ussuri
openstack-neutron-ovn-metadata-agent.noarch 1:16.0.0-1.el8 @openstack-ussuri
openstack-nova-api.noarch 1:21.0.0-1.el8 @openstack-ussuri
openstack-nova-common.noarch 1:21.0.0-1.el8 @openstack-ussuri
openstack-nova-compute.noarch 1:21.0.0-1.el8 @openstack-ussuri
openstack-nova-conductor.noarch 1:21.0.0-1.el8 @openstack-ussuri
openstack-nova-migration.noarch 1:21.0.0-1.el8 @openstack-ussuri
openstack-nova-novncproxy.noarch 1:21.0.0-1.el8 @openstack-ussuri
openstack-nova-scheduler.noarch 1:21.0.0-1.el8 @openstack-ussuri
openstack-packstack.noarch 1:16.0.0-1.el8 @openstack-ussuri
openstack-packstack-puppet.noarch 1:16.0.0-1.el8 @openstack-ussuri
openstack-placement-api.noarch 3.0.0-1.el8 @openstack-ussuri
openstack-placement-common.noarch 3.0.0-1.el8 @openstack-ussuri
openstack-selinux.noarch 0.8.23-1.el8 @openstack-ussuri
openstack-swift-account.noarch 2.25.0-1.el8 @openstack-ussuri
openstack-swift-container.noarch 2.25.0-1.el8 @openstack-ussuri
openstack-swift-object.noarch 2.25.0-1.el8 @openstack-ussuri
openstack-swift-proxy.noarch 2.25.0-1.el8 @openstack-ussuri
[root@cloud ~(keystone_admin)]#
[root@cloud ~(keystone_admin)]#


root@cloud:~
File Edit View Search Terminal Help
[root@cloud ~]# . keystonerc_admin
[root@cloud ~(keystone_admin)]# openstack service list
+----------------------------------+------------+-------------+
| ID | Name | Type |
+----------------------------------+------------+-------------+
153bc375853649b68939d198b477aadb	keystone	identity
24eb69a43bc544558c72e67e8d3c306e	cinderv3	volumev3
40d3845469354d8db571b4bf2cec108e	ceilometer	metering
58b4cdefd3c74a58bacf51e7a83ddf18	gnocchi	metric
6fca13e56bec465c9b0473b5f30e3c02	aodh	alarming
a1d361f1f36f43feb27d0bea00a3b9bd	nova	compute
ad7eeef4a7074e3fb2e0075c574910cd	neutron	network
b38f12a3731747fda6246e014e954dad	cinderv2	volumev2
b4bd70776db34a4f842c7e29ea7d0402	placement	placement
b74e3a06729b4a1dbf433d6ecd3a53fb	glance	image
b8009a8cf4b046aea4f3e7fe651b596f	swift	object-store
+----------------------------------+------------+-------------+
[root@cloud ~(keystone_admin)]#
[root@cloud ~(keystone_admin)]# curl http://192.168.1.113:5000/v3
{"version": {"id": "v3.14", "status": "stable", "updated": "2020-04-07T00:00:00Z", "links": [{"rel": "self", "href"
: "http://127.0.0.1:5000/v3/"}], "media-types": [{"base": "application/json", "type": "application/vnd.openstack.id
entity-v3+json"}]}}[root@cloud ~(keystone_admin)]#
[root@cloud ~(keystone_admin)]#
[root@cloud ~(keystone_admin)]# openstack --version
openstack 5.2.0
[root@cloud ~(keystone_admin)]# nova-manage --version
21.0.0
[root@cloud ~(keystone_admin)]#
[root@cloud ~(keystone_admin)]#
[root@cloud ~(keystone_admin)]#

Access Horizon Dashboard

Access the openstack dashboard by opening the URL link http://192.168.1.113/ . Fill in the username and password using the credentials in the /root/keystone_admin file.





That's all the Ussuri openstack installation guide on RHEL 8 using packstack. Good luck. Good Luck! :)

References :

- https://www.rdoproject.org/install/packstack/
- https://www.linuxtechi.com/install-openstack-centos-8-with-packstack/

- https://computingforgeeks.com/install-and-configure-openstack-on-centos/
- https://keithtenzer.com/2020/02/27/openstack-16-train-lab-installation-and-configuration-guide-for-hetzner-root-servers/

https://achchusnulchikam.medium.com/how-to-install-openstack-ussuri-on-rhel-8-cara-instalasi-openstack-ussuri-pada-rhel-8-9b4dda28610d