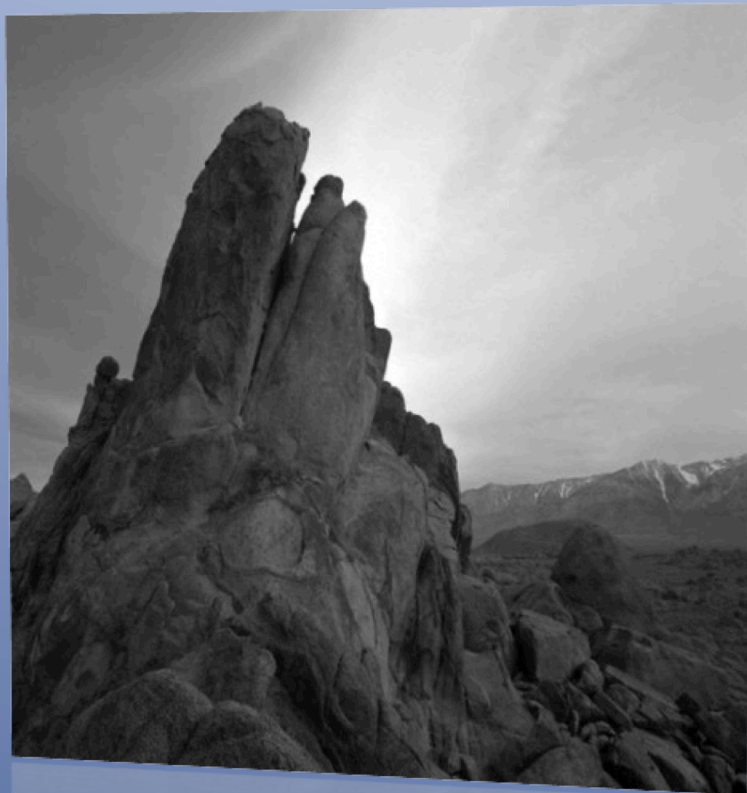




CentOS 7 & OpenStack™ / KVM

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Document Developed by the team at SDNNFV.NET

Introduction

This document was developed by the team at SDNNFV.NET as part of the Bedrock support subscription and is offered to the open source community. This document is for implementations of OpenStack with KVM in a CentOS 7.

The documentation assumes the user has installed CentOS 7. If not then run a clean installation and select Virtual-host software option now.

The document will be in steps – each step will have an narrative, common syntax and user notes. Actual keystrokes will be indicated in **[bold text]**.

Step 1: Edit /etc/selinux/config

When creating the file make sure the following is set:

SELINUX=permissive #can also be set to disabled

NOTE: any value but enforcing

Step 1a:

If a change was made to selinux (above)

shutdown -r now

Step 2: Create the file /etc/yum.repost.d/webmin.repo

The file created should contain;

[Webmin]

name=Webmin Distribution Neutral

#baseurl=<http://download.webmin.com/download/yum>

mirrorlist=<http://download.webmin.com/download/yum/mirrorlist>

enabled=1

Step 3: ENTER

wget <http://www.webmin.com/jcameron-key.asc>

Step 4: ENTER

rpm --import jcameron-key.asc

Step 5: ENTER

yum install webmin

Step 6: open firewall ports

firewall-cmd --permanent --zone=public --add-port=10000/tcp

Controller dashboard WEBmin should work and be accessible.

Step 7: Once WEBmin is running the user will log in as root -

ENTER

login to https://localhost.localdomain:10000/

The user can login as root with root password.

Step 8: Install Quagga virtual router

ENTER

yum -y install quagga

touch /etc/quagga/ospfd.conf

chown quagga.quagga /etc/quagga/ospfd.conf

systemctl start zebra

systemctl enable zebra

systemctl start ospfd

systemctl enable ospfd

Step 9: Turn on OSPF

The user will create file `/etc/firewalld/services/ospf.xml` for new service

The Contents of the file should contain;

```
<service>
    <short>OSPF</short>
    <description></description>
    <port protocol="ospf" port=""/>
    <destination ipv4="224.0.0.5"/>
</service>
```

```
firewall-cmd --permanent --zone=public --add-service=ospf
```

```
firewall-cmd --reload
```

The user should now configure routing data for the SDN controller via QUAGGA. Additional documentation on QUAGGA syntax and route configuration(s) can be found at: <http://www.nongnu.org/quagga/docs.html>

Step 10: The user will now install openstack JUNO via using the packstack utility.

ENTER

```
$ yum -y update
```

```
$ yum install
```

```
$ yum install -y openstack-packstack
```

```
$ packstack --allinone
```

```
firewall-cmd --permanent --zone=public --add-service=HTTP
```

```
firewall-cmd --permanent --zone=public --add-service=HTTPS
```

```
firewall-cmd --permanent --zone=public --add-port=6080/tcp
```

firewall-cmd –reload

At this point upon upon reloading the system the OpenStack instance is operational. Storage, compute and network requirements can now be configured in the OpenStack instance.

For further information or if you would like to receive a subscription service for updates to this documentation please register at SDNNFV.NET.