Installing the Ansible engine and set up the environment is pretty straightforward. Ansible engine can be installed on the majority of Linux flavors which includes CentOS, RHEL, Ubuntu, and Debian but it doesn’t support Windows, Solaris, and AIX. But there are no restrictions to participate as ansible clients. Ansible uses the SSH  protocol to manage the Unix and Linux servers. Windows Servers can be managed by using “WinRM”. In this lab environment, we will be using CentOS 7  to install ansible engine.

**Environment:**

* CentOS 7.5 / RHEL 7.5
* Static IP
* Internet Connection
* Access to extra RPM’s
* IPtables flushed out / Firewall service Stopped.
* SELinux disabled.

**OS release:**

[sysadmin@ansible-server ~]$ cat /etc/redhat-release

CentOS Linux release 7.5.1804 (Core)

[sysadmin@ansible-server ~]$

#### ****Firewall:****

[root@ansible-server ~]# systemctl disable firewalld

Removed symlink /etc/systemd/system/multi-user.target.wants/firewalld.service.

Removed symlink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.

[root@ansible-server ~]# systemctl stop firewalld

[root@ansible-server ~]# systemctl status firewalld

● firewalld.service - firewalld - dynamic firewall daemon

Loaded: loaded (/usr/lib/systemd/system/firewalld.service; disabled; vendor preset: enabled)

Active: inactive (dead)

Docs: man:firewalld(1)

Jul 03 08:01:11 ansible-server systemd[1]: Starting firewalld - dynamic firewall daemon...

Jul 03 08:01:14 ansible-server systemd[1]: Started firewalld - dynamic firewall daemon.

Jul 03 08:03:19 ansible-server systemd[1]: Stopping firewalld - dynamic firewall daemon...

Jul 03 08:03:19 ansible-server systemd[1]: Stopped firewalld - dynamic firewall daemon.

[root@ansible-server ~]#

#### ****IPTables:****

[root@ansible-server ~]# iptables -L

Chain INPUT (policy ACCEPT)

target prot opt source destination

Chain FORWARD (policy ACCEPT)

target prot opt source destination

Chain OUTPUT (policy ACCEPT)

target prot opt source destination

[root@ansible-server ~]#

#### SELinux:

[root@ansible-server ~]# getenforce

Permissive

[root@ansible-server ~]#

[root@ansible-server ~]# cat /etc/selinux/config |grep "SELINUX="

SELINUX=disabled

[root@ansible-server ~]#

#### ****REPO:****

[root@ansible-server ~]# cd /etc/yum.repos.d/

[root@ansible-server yum.repos.d]# ls -lrt |grep -i base

-rw-r--r--. 1 root root 1664 May 17 06:53 CentOS-Base.repo

[root@ansible-server yum.repos.d]#

[root@ansible-server yum.repos.d]# cat CentOS-Base.repo

[base]

name=CentOS-$releasever - Base

mirrorlist=http://mirrorlist.centos.org/?release=$releasever&arch=$basearch&repo=os&infra=$infra

#baseurl=http://mirror.centos.org/centos/$releasever/os/$basearch/

gpgcheck=1

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

#released updates

[updates]

name=CentOS-$releasever - Updates

mirrorlist=http://mirrorlist.centos.org/?release=$releasever&arch=$basearch&repo=updates&infra=$infra

#baseurl=http://mirror.centos.org/centos/$releasever/updates/$basearch/

gpgcheck=1

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

#additional packages that may be useful

[extras]

name=CentOS-$releasever - Extras

mirrorlist=http://mirrorlist.centos.org/?release=$releasever&arch=$basearch&repo=extras&infra=$infra

#baseurl=http://mirror.centos.org/centos/$releasever/extras/$basearch/

gpgcheck=1

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

### ****Updating the OS & Installing Ansible: (Online Method)****

1. Update the CentOS / RHEL using yum command. This will install the available fixes from the repository.

[sysadmin@ansible-server ~]$ sudo yum update

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

\* base: mirrors.fibergrid.in

\* extras: mirrors.fibergrid.in

\* updates: mirrors.fibergrid.in

Resolving Dependencies

--> Running transaction check

---> Package NetworkManager.x86\_64 1:1.10.2-13.el7 will be updated

---> Package NetworkManager.x86\_64 1:1.10.2-14.el7\_5 will be an update

---> Package NetworkManager-libnm.x86\_64 1:1.10.2-13.el7 will be updated

---> Package NetworkManager-libnm.x86\_64 1:1.10.2-14.el7\_5 will be an update

---> Package NetworkManager-team.x86\_64 1:1.10.2-13.el7 will be updated

---> Package NetworkManager-team.x86\_64 1:1.10.2-14.el7\_5 will be an update

---> Package NetworkManager-tui.x86\_64 1:1.10.2-13.el7 will be updated

Once the update is done, just reboot the server to boot with the updated kernel.

2. Install the Ansible engine from the CentOS repository.

[sysadmin@ansible-server ~]$ sudo yum install ansible

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

\* base: mirrors.fibergrid.in

\* extras: mirrors.fibergrid.in

\* updates: mirrors.fibergrid.in

Resolving Dependencies

--> Running transaction check

---> Package ansible.noarch 0:2.4.2.0-2.el7 will be installed

--> Processing Dependency: sshpass for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python2-jmespath for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python-six for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python-setuptools for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python-passlib for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python-paramiko for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python-jinja2 for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python-httplib2 for package: ansible-2.4.2.0-2.el7.noarch

--> Processing Dependency: python-cryptography for package: ansible-2.4.2.0-2.el7.noarch

Installed:

ansible.noarch 0:2.4.2.0-2.el7

Dependency Installed:

PyYAML.x86\_64 0:3.10-11.el7 libyaml.x86\_64 0:0.1.4-11.el7\_0 python-babel.noarch 0:0.9.6-8.el7

python-backports.x86\_64 0:1.0-8.el7 python-backports-ssl\_match\_hostname.noarch 0:3.5.0.1-1.el7 python-cffi.x86\_64 0:1.6.0-5.el7

python-enum34.noarch 0:1.0.4-1.el7 python-httplib2.noarch 0:0.9.2-1.el7 python-idna.noarch 0:2.4-1.el7

python-ipaddress.noarch 0:1.0.16-2.el7 python-jinja2.noarch 0:2.7.2-2.el7 python-markupsafe.x86\_64 0:0.11-10.el7

python-paramiko.noarch 0:2.1.1-4.el7 python-passlib.noarch 0:1.6.5-2.el7 python-ply.noarch 0:3.4-11.el7

python-pycparser.noarch 0:2.14-1.el7 python-setuptools.noarch 0:0.9.8-7.el7 python-six.noarch 0:1.9.0-2.el7

python2-cryptography.x86\_64 0:1.7.2-2.el7 python2-jmespath.noarch 0:0.9.0-3.el7 python2-pyasn1.noarch 0:0.1.9-7.el7

sshpass.x86\_64 0:1.06-2.el7

Complete!

3. Check the Ansible version.

[sysadmin@ansible-server ~]$ ansible --version

ansible 2.4.2.0

config file = /etc/ansible/ansible.cfg

configured module search path = [u'/home/sysadmin/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modules']

ansible python module location = /usr/lib/python2.7/site-packages/ansible

executable location = /usr/bin/ansible

python version = 2.7.5 (default, Apr 11 2018, 07:36:10) [GCC 4.8.5 20150623 (Red Hat 4.8.5-28)]

[sysadmin@ansible-server ~]$

4. Validating the localhost by passing ping.

[sysadmin@ansible-server ~]$ ansible localhost -m ping

[WARNING]: Could not match supplied host pattern, ignoring: all

[WARNING]: provided hosts list is empty, only localhost is available

localhost | SUCCESS => {

"changed": false,

"ping": "pong"

}

[sysadmin@ansible-server ~]$

It works. Here, we have got the response “pong” from localhost.

### Offline Method:  (RHEL 7 / CentOS 7)

1. Configure the RHEL 7 / CentOS DVD local repo .

2. Download the following packages from Redhat portal.

-rwxr--r-- 1 root root 10471452 Aug 1 12:37 ansible-2.6.2-1.el7ae.noarch.rpm

-rwxr--r-- 1 root root 117768 Aug 1 12:37 python-httplib2-0.9.1-2.1.el7.noarch.rpm

-rwxr--r-- 1 root root 274600 Aug 1 12:37 python-paramiko-2.1.1-4.el7.noarch.rpm

-rwxr--r-- 1 root root 500080 Aug 1 12:37 python-passlib-1.6.5-1.1.el7.noarch.rpm

-rwxr--r-- 1 root root 39640 Aug 1 12:37 python2-jmespath-0.9.0-4.el7ae.noarch.rpm

-rwxr--r-- 1 root root 21900 Aug 1 12:37 sshpass-1.06-1.el7.x86\_64.rpm

3. Execute the following command to install “Ansible engine” and dependencies

# yum install ansible-2.6.2-1.el7ae.noarch.rpm python-httplib2-0.9.1-2.1.el7.noarch.rpm python-paramiko-2.1.1-4.el7.noarch.rpm python-passlib-1.6.5-1.1.el7.noarch.rpm python2-jmespath-0.9.0-4.el7ae.noarch.rpm sshpass-1.06-1.el7.x86\_64.rpm