Ansible Installation

Ansible is an open-source automation platform. It is very, very simple to set up and yet powerful. Ansible can help you with configuration management, application deployment, task automation.

Pre-requisites

1. An AWS EC2 instance (on Control node)

Installation steps:

on Amazon EC2 instance

1. Install python and python-pip
2. yum install python
   yum install python-pip
3. Install ansible using pip check for version
4. pip install ansible
   ansible --version
5. Create a user called ansadmin (on Control node and Managed host)
6. useradd ansadmin
   passwd ansadmin
7. Below command grant sudo access to ansadmin user. But we strongly recommended using "visudo" command if you are aware vi or nano editor. (on Control node and Managed host)

   echo "ansadmin ALL=(ALL) NOPASSWD: ALL" >> /etc/sudoers
8. Log in as a ansadmin user on master and generate ssh key (on Control node)
9. sudo su - ansadmin
   ssh-keygen
10. Copy keys onto all ansible managed hosts (on Control node)

    ssh-copy-id ansadmin@<target-server>
11. Ansible server used to create images and store on docker registry. Hence install docker, start docker services and add ansadmin to the docker group.
12. yum install docker
13.
14. # start docker services
15. service docker start
16. service docker start
17.
18. # add user to docker group

19. usermod -aG docker ansadmin
20. Create a directory /etc/ansible and create an inventory file called "hosts" add control node and managed hosts IP addresses to it.

Validation test

1. Run ansible command as ansadmin user it should be successful (Master)

   ansible all -m ping

On RHEL 8.x server

1. Install Python latest version (on Control node and Managed host)

   yum install python3 -y

2. By default, python3 is the command to run python commands. to use just python, use "alternatives" command. (on Control node and Managed host)

   alternatives --set python /usr/bin/python3

3. Check for Python version

   python --version

4. Install python-pip package manager (on Control node)

   yum -y install python3-pip

5. Create a new user for ansible administration & grant admin access to the user (on Control node and Managed host)

6. useradd ansadmin
   passwd ansadmin

7. Below command adds ansadmin to sudoers file. But we strongly recommended using "visudo" command if you are aware vi or nano editor. (on Control node and Managed host)

   echo "ansadmin ALL=(ALL) NOPASSWD: ALL" >> /etc/sudoers

8. Using key-based authentication is advised. If you are still at the learning stage use password-based authentication (on Control node and Managed host)

9. # sed command replaces "PasswordAuthentication no to yes" without editing file
10. sed -ie 's/PasswordAuthentication no/PasswordAuthentication yes/' /etc/ssh/sshd_config
    sudo service sshd reload

Install Ansible as a ansadmin user (on Control node)

su - ansadmin

```
pip3 install ansible --user
```

Note: Ansible must be installed as a user (here ansadmin)

11. check for ansible version

    ```
    ansible --version
    ```

12. Log in as a ansadmin user on master and generate ssh key (on Control node)

    ```
    ssh-keygen
    ```

13. Copy keys onto all ansible managed hosts (on Control node)

    ```
    ssh-copy-id ansadmin@<target-server>
    ```

Validation test

1. Create a directory /etc/ansible and create an inventory file called "hosts" add control node IP address in it.
2. Run ansible command as ansadmin user it should be successful (Master)

   ```
   ansible all -m ping
   ```