How to Install and Configure ‘Ansible’ Automation Tool for IT Management

#### Step :1 Set EPEL repository

Ansible package is not available in the default yum repositories, so we will enable epel repository for CentOS 7 using below commands

[root@ansible ~]# rpm -iUvh http://dl.fedoraproject.org/pub/epel/7/x86\_64/e/epel-release-7-8.noarch.rpm

#### Step:2 Install Anisble using yum command

[root@ansible ~]# ansible --version

#ansible --version

#### Step:3 Setup keys based SSH authentication with Nodes.

root@ansible ~]# ssh-keygen

Use ssh-copy-id command to copy public key of Ansible server to its nodes.

#### Step:4 Define the nodes or inventory of servers for Ansible.

File ‘**/etc/ansible/hosts**‘ maintains the inventory of servers for Ansible.

[root@ansible ~]# vi /etc/ansible/hosts

[test-servers]

192.168.1.9

192.168.1.10

Save and exit the file.

Sample output of hosts file.

#### Step:5 Now try to run the Commands from Ansible Server.

Check the connectivity of ‘test-servers’ or ansible nodes using ping

root@ansible ~]# ansible -m ping 'test-servers'

[root@client ~]# ansible -m ping 192.168.10.193

192.168.10.193 | UNREACHABLE! => {

"changed": false,

"msg": "Failed to connect to the host via ssh: Permission denied (publickey,gssapi-keyex,gssapi-with-mic,password).\r\n",

"unreachable": true

}

This error because we need to mention user name correctly otherwise we will get error like this

#ansible -u vinod -m ping 192.168.10.193

192.168.10.193 | SUCCESS => {

"changed": false,

"ping": "pong"

}

This successful test

**Example :1 Check the uptime of Ansible nodes**

[root@ansible ~]# ansible -m command -a "uptime" 'test-servers'

[root@client ~]# ansible -m command -a "uptime" -u vinod '192.168.10.193'

192.168.10.193 | SUCCESS | rc=0 >>

14:54:56 up 3 days, 21:28, 3 users, load average: 0.00, 0.01, 0.05

**Example:2 Check Kernel Version of nodes**

[root@ansible ~]# ansible -m command -a "uname -r" 'test-servers'

[root@client ~]# ansible -m command -a "uname -r" 'test-servers'

vinod@192.168.10.193 | SUCCESS | rc=0 >>

3.10.0-514.16.1.el7.x86\_64

**Example:3 Adding a user to the nodes**

root@ansible ~]# ansible -m command -a "useradd mark" 'test-servers'

[root@ansible ~]# ansible -m command -a "grep mark /etc/passwd" 'test-servers'

[root@client ~]# ansible -m command -a "grep vinod /etc/passwd" 'test-servers'

vinod@192.168.10.193 | SUCCESS | rc=0 >>

vinod:x:1000:1000::/home/vinod:/bin/bash

**Example:4 Redirecting the output of command to a file**

[root@ansible ~]# ansible -m command -a "df -Th" 'test-servers' > /tmp/command-output.txt

If we need the output to any file we can redirect as below.

# ansible -m command -a "df -h" web-servers > /tmp/df\_outpur.txt