

AWS+ANSIBLE

Configuration Management Using Ansible:

Terminologies to know.

- 1.Playbook
- 2.Roles
- 3.Facts
- 4.Master-Slave architecture and how does a connectivity between two or more nodes can be linked

Usage of Ansible

1. Provisioning
2. Configuration Management
3. Application Deployment
4. Continuous Delivery
5. Security Automation
6. Orchestration

How Ansible works ?

Ansible is written in Python, so Python is mandatory on the slaves(servers) for Ansible to work

Ansible uses Playbook it has the codes, its written in YAML language

Michael wants to configure his remote systems for example lets say he wants to deploy NGINX in 100 servers in AWS. He will choose one of the existing nodes as Master he will install Ansible in it and he writes Playbook to install NGINX and executes the Playbook in Master so that all 100 servers present in the Inventory of Master host will get NGINX installed this is just an example we can do lots more with Ansible Playbook and available predefined modules that can be used in Cloud Infrastructure.

Ansible can be integrated with Jenkins and we can schedule jobs to run the codes in the Master node

There are total 500 + core modules that can be used in Ansible Playbooks for Cloud Infrastructure

Ansible Master has Inventories and Modules, Inventories has the slaves ip addresses.

Top Organizations use Ansible:

NASA use Ansible and there whole infrastructure was on premise they wanted to move to a Cloud based environment they had 65 plus applications to get moved to Cloud, NASA used Ansible and deployed its 65 apps to Cloud without any interruption. The patching that takes 1 or 2 months got done in 45 mints for its whole infrastructure.

Install Ansible on AWS

Create a instance and name it as Master, install ansible in Master, we have to set up Ansible hosts in Master and in the existing instances install Python.

Master

yum install update

yum install software-properties-common

yum add-repository ppa:ansible/ansible

yum update

yum install ansible

consider slave ip = 18.225.34.11

ssh Michael@18.225.34.11

permission denied

so cd .ssh

.ssh :~/ \$ ssh-keygen

Ls

authorized_keys id_rsa id_rsa.pub known_hosts

cat id_rsa.pub

it shows XYZ details

after the key is copied to slave if you give

ssh Michael@18.225.34.11

connection gets established to Slave server

you can write a playbook now and push it to Slave Servers

cat > Michael'splaybook

write a playbook to install NGINX or to patch the slaves

to execute playbook in Master use the below command

ansible-playbook Michael'splaybook.YAML

Slaves(Servers)

yum update

yum install Python

cat authorized_Keys

paste the key of Master in all Server's authorized_Keys

https://docs.ansible.com/ansible/latest/modules/list_of_cloud_modules.html - Please refer this doc to know the list of Cloud modules AWS that can be used inside a Ansible