

↘ Notaciones.

```
# → Indica que debe hacerse para → {master-00,nodo-01,nodo-02}
[root@master-00 ~]# → Solo para → master-00
[root@nodo-01 ~]# → Solo para → nodo-01
[root@nodo-02 ~]# → Solo para → nodo-02
```

↘ Configuración Inicial.

```
# getenforce
```

Enforcing

```
[root@master-00 ~]# yum install vim tree wget -y
```

```
[root@nodo-01 ~]# yum install vim wget -y
```

```
[root@nodo-02 ~]# yum install vim wget -y
```

```
# vim /etc/hosts
```

```
...
```

```
192.168.10.70 master-00.example.com master-00
```

```
192.168.10.71 nodo-01.example.com nodo-01
```

```
192.168.10.72 nodo-02.example.com nodo-02
```

```
...
```

```
# yum install epel-release.noarch -y && yum update -y
```

```
[root@master-00 ~]# yum install ansible setroubleshoot setroubleshoot-server expect -y
```

```
[root@master-00 ~]# ansible --version
```

```
ansible 2.8.5
```

```
config file = /etc/ansible/ansible.cfg
```

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

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

```
executable location = /bin/ansible
```

```
python version = 2.7.5 (default, Aug 7 2019, 00:51:29) [GCC 4.8.5 20150623 (Red Hat 4.8.5-39)]
```

```
[root@master-00 ~]# vim /etc/ansible/hosts
```

```
...
```

```
[all]
```

```
nodo-01.example.com ansible_ssh_host=192.168.10.71
```

```
nodo-02.example.com ansible_ssh_host=192.168.10.72
```

```
nodo-01 ansible_ssh_host=192.168.10.71
```

```
nodo-02 ansible_ssh_host=192.168.10.72
```

```
...
```

```
# rpm -qa python
```

```
python-2.7.5-77.el7_6.x86_64
```

```
[root@nodo-01 ~]# vim /etc/ssh/sshd_config
```

```
[root@nodo-02 ~]# vim /etc/ssh/sshd_config
```

```
...
```

```
PermitRootLogin yes
```

```
PasswordAuthentication yes
```

```
...
```

```
[root@nodo-01 ~]# systemctl restart sshd
```

```
[root@nodo-02 ~]# systemctl restart sshd
```

```
[root@master-00 ~]# ssh-keygen
```

```
[root@master-00 ~]# ssh-copy-id -i /root/.ssh/id_rsa.pub root@nodo-01
```

```
[root@master-00 ~]# ssh-copy-id -i /root/.ssh/id_rsa.pub root@nodo-02
```

↘ **Esquema de arbol** → 'ansible-galaxy'.

```
[root@master-00 ~]# ansible-galaxy init /ansible/  
- /ansible/ was created successfully
```

```
[root@master-00 ~]# tree /ansible/
```

```
/ansible/  
├── defaults  
│   └── main.yml  
├── files  
├── handlers  
│   └── main.yml  
├── meta  
│   └── main.yml  
├── README.md  
├── tasks  
│   └── main.yml  
├── templates  
├── tests  
│   ├── inventory  
│   └── test.yml  
└── vars  
    └── main.yml
```

↘ **ANSIBLE Pruebas de conexión.**

```
[root@master-00 ~]# ansible -m ping nodo-01.example.com:nodo-02.example.com  
nodo-01.example.com | SUCCESS => {  
  "ansible_facts": {
```

```

    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
nodo-02.example.com | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}

```

```

[root@master-00 ~]# ansible -m ping nodo-01:nodo-02
nodo-02 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
nodo-01 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}

```

```

[root@master-00 ~]# ansible -m shell -a 'free -m' nodo-01:nodo-02
nodo-01 | CHANGED | rc=0 >>
      total    used    free   shared  buff/cache   available
Mem:      3789    252    2086     8     1450     3276
Swap:     2047     0    2047
nodo-02 | CHANGED | rc=0 >>
      total    used    free   shared  buff/cache   available
Mem:      3789    188    2150     8     1450     3340
Swap:     2047     0    2047

```

```

[root@master-00 ~]# ansible -m shell -a 'hostname' nodo-01:nodo-02
nodo-01 | CHANGED | rc=0 >>
nodo-01.example.com

nodo-02 | CHANGED | rc=0 >>
nodo-02.example.com

```

↘ Creamos usuario 'ansible'.

```
[root@master-00 ansible]# useradd -m -s /bin/bash ansible
[root@master-00 ansible]# passwd ansible
[root@master-00 ansible]# echo "ansible ALL=(ALL) NOPASSWD:ALL" >>
/etc/sudoers.d/ansible
```

```
[root@master-00 ~]# mkpasswd -l 20 -s 4
il%hM.d9uf1vf*+Hgkbd
```

```
[root@master-00 ansible]# su - ansible
[ansible@master-00 ~]$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ansible/.ssh/id_rsa):
Created directory '/home/ansible/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ansible/.ssh/id_rsa.
Your public key has been saved in /home/ansible/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:B2NBVqkI8Nosfl+2a/kfM+dWi23H4RAWFJAH0x5FUeg ansible@master-
00.example.com
The key's randomart image is:
+---[RSA 2048]----+
| .. .+..=*o+=+|
| .. . ....=. |
| ..+. o.o |
| + ...o +E |
| o o S . . . |
| .. . . . |
| .. o. + *oo|
| .. oo. B.=o|
| ..oo....o .|
+----[SHA256]-----+
```

↘ playbook → '00-crearUsuarioAnsible.yaml'.

```
root@master-00 ~]# cd /ansible/
[root@master-00 ansible]# vim 00-crearUsuarioAnsible.yaml
```

```
---
- hosts: all
  vars:
  - ansible_password: 'il%hM.d9uf1vf*+Hgkbd'
  remote_user: root
```

```
become: true
tasks:
- name: Crear usuario 'ansible'
  user:
    name: ansible
    shell: /bin/bash
    #password: "{{ ansible_password }}"
    password: "*"

- name: incorporar usuario 'ansible' a 'sudoers'.
  copy:
    dest: "/etc/sudoers.d/ansible"
    content: "ansible ALL=(ALL) NOPASSWD: ALL"

- name: Aplicar SSH key.
  authorized_key:
    user: ansible
    key: "{{ lookup('file', '/home/ansible/.ssh/id_rsa.pub') }}"
    state: present

- name: Deshabilitar 'Password Authentication'.
  lineinfile:
    dest: "/etc/ssh/sshd_config"
    regexp: "^PasswordAuthentication"
    line: "PasswordAuthentication no"
    state: present
    backup: yes

- name: Deshabilitar 'Root Login'.
  lineinfile:
    dest: "/etc/ssh/sshd_config"
    regexp: "^PermitRootLogin"
    line: "PermitRootLogin no"
    state: present
    backup: yes

notify:
  - restart ssh

handlers:
  - name: restart sshd
    service: name=sshd state=restarted
...
```

```
[root@master-00 ansible]# tree /ansible/
/ansible/
├── 00-crearUsuarioAnsible.yaml
```

```
├── defaults
│   └── main.yml
├── files
├── handlers
│   └── main.yml
├── meta
│   └── main.yml
├── README.md
├── tasks
│   └── main.yml
├── templates
├── tests
│   ├── inventory
│   └── test.yml
└── vars
    └── main.yml
```

```
[root@nodo-01 ~]# grep -v '^#' /etc/ssh/sshd_config
```

```
[root@nodo-02 ~]# grep -v '^#' /etc/ssh/sshd_config
```

```
HostKey /etc/ssh/ssh_host_rsa_key
```

```
HostKey /etc/ssh/ssh_host_ecdsa_key
```

```
HostKey /etc/ssh/ssh_host_ed25519_key
```

```
SyslogFacility AUTHPRIV
```

```
PermitRootLogin no
```

```
AuthorizedKeysFile .ssh/authorized_keys
```

```
PasswordAuthentication no
```

```
ChallengeResponseAuthentication no
```

```
GSSAPIAuthentication yes
```

```
GSSAPICleanupCredentials no
```

```
UsePAM yes
```

```
X11Forwarding yes
```

```
UseDNS no
```

```
AcceptEnv LANG LC_CTYPE LC_NUMERIC LC_TIME LC_COLLATE LC_MONETARY
```

```
LC_MESSAGES
```

```
AcceptEnv LC_PAPER LC_NAME LC_ADDRESS LC_TELEPHONE LC_MEASUREMENT
```

```
AcceptEnv LC_IDENTIFICATION LC_ALL LANGUAGE
```

```
AcceptEnv XMODIFIERS
```

```
Subsystem sftp /usr/libexec/openssh/sftp-server
```

RECURSOS:

https://docs.ansible.com/ansible/latest/modules/user_module.html

<http://www.mclibre.org/consultar/webapps/lecciones/ansible-playbooks-2.html>

<https://github.com/whitecloud/ansible-styleguide>

<https://ualmtorres.github.io/CursoAnsible/tutorial/>

<http://blog.appliedinformaticsinc.com/how-to-manage-ssh-keys-using-ansible/>

<http://minimum-viable-automation.com/ansible/use-ansible-create-user-accounts-setup-ssh-keys/>

<https://www.happycoders.eu/ansible-tutorial-setup-users-ssh-firewall/>

https://docs.ansible.com/ansible/latest/modules/template_module.html

<https://medium.com/@khandelwal12nidhi/setup-ssh-key-and-initial-user-using-ansible-playbook-61eabbb0dba4>

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