
 **Red Hat**

INSTALLATION PROGRESS

RED HAT ENTERPRISE LINUX 8.3 INSTALLATION


 **us**

Help!

Complete!

Red Hat Enterprise Linux is now successfully installed and ready for you to use!  
Go ahead and reboot your system to start using it!


Reboot System

 Use of this product is subject to the license agreement found at </usr/share/redhat-release/EULA>

Subscription Manager

RED HAT ENTERPRISE LINUX 8.3 (OOTPA)

Done


 **us**

Help!

Please enter your Red Hat account information:

Login:

Password:

 Tip: Forgot your login or password? Look it up at [https://redhat.com/forgot\\_password](https://redhat.com/forgot_password)

Please enter the following for this system:

System Name:

☐ Manually attach subscriptions after registration

Back

Register

```
bill@localhost:/home/bill
File Edit View Search Terminal Help
bill@localhost ~]$ su root
Password:
su: Authentication failure
bill@localhost ~]$ su root
Password:
[root@localhost bill]#
```

Règles de redirection de ports

Nom	Protocole	IP hôte	Port hôte	IP invité	Port invité
R...	TCP	127.0.0.1	2222	10.0.2.15	22

OK Annuler

```

bill@localhost ~]$ insights-client --register
insights client must be run as root.
bill@localhost ~]$ su root
Password:
root@localhost bill[# insights-client --register
You successfully registered aa6f7454-31e4-4ac9-b871-1fb473268dc7 to account 7115872.
Successfully registered host localhost.localdomain
Automatic scheduling for Insights has been enabled.
Starting to collect Insights data for localhost.localdomain
Uploading Insights data.
Successfully uploaded report from localhost.localdomain to account 7115872.
View the Red Hat Insights console at https://cloud.redhat.com/insights/
root@localhost bill[#

```

```

root@localhost bill[# systemctl enable sshd
root@localhost bill[# systemctl start sshd
root@localhost bill[#

```

```

root@localhost bill[# ssh bill@127.0.0.1
The authenticity of host '127.0.0.1 (127.0.0.1)' can't be established.
ECDSA key fingerprint is SHA256:Z4qgm/LtU0NZ4BdF8BFrF0w7SaGVis1jIJK02yDcByU.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '127.0.0.1' (ECDSA) to the list of known hosts.
bill@127.0.0.1's password:
Activate the web console with: systemctl enable --now cockpit.socket

```

```

Last login: Fri Apr 30 12:51:50 2021 from 10.0.2.15

```

```

bill@localhost ~]$

```

```

root@localhost bill[# dnf -y install https://releases.hashicorp.com/vagrant/2.2.9/vagrant_2.2.9_x86_64.rpm
Updating Subscription Management repositories.
Last metadata expiration check: 0:43:07 ago on Fri 30 Apr 2021 12:45:15 PM EDT.
vagrant_2.2.9_x86_64.rpm                                7.3 MB/s | 42 MB     00:05
Dependencies resolved.

```

Package	Architecture	Version	Repository	Size
Installing:				
vagrant	x86_64	1:2.2.9-1	@commandline	42 M

```

Transaction Summary

```

```

Install 1 Package

```

```

Total size: 42 M

```

```

Installed size: 122 M

```

```

Downloading Packages:

```

```

Running transaction check

```

```

Transaction check succeeded.

```

```

Running transaction test

```

```

Transaction test succeeded.

```

```
[root@localhost bill]# vagrant init
==> vagrant: A new version of Vagrant is available: 2.2.16 (installed version: 2.2.9)!
==> vagrant: To upgrade visit: https://www.vagrantup.com/downloads.html

A `Vagrantfile` has been placed in this directory. You are now
ready to `vagrant up` your first virtual environment! Please read
the comments in the Vagrantfile as well as documentation on
`vagrantup.com` for more information on using Vagrant.
[root@localhost bill]#
```

```
sudo] password for bill:
● sshd.service - OpenSSH server daemon
   Loaded: loaded (/usr/lib/systemd/system/sshd.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2021-04-30 13:10:43 EDT; 1h 7min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
  Main PID: 21414 (sshd)
    Tasks: 1 (limit: 11248)
   Memory: 1.1M
   CGroup: /system.slice/sshd.service
           └─21414 /usr/sbin/sshd -D -oCiphers=aes256-gcm@openssh.com,chacha20-poly1305@openssh.com

apr 30 13:10:43 localhost.localdomain systemd[1]: Starting OpenSSH server daemon: sshd.
apr 30 13:10:43 localhost.localdomain sshd[21414]: Server listening on 0.0.0.0 port 22.
apr 30 13:10:43 localhost.localdomain sshd[21414]: Server listening on :: port 22.
apr 30 13:10:43 localhost.localdomain systemd[1]: Started OpenSSH server daemon: sshd.
lines 1-15/15 (END)
```

```
ansible 2.8.18
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/home/bill/.ansible/plugins/modules', '/usr/
share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3.6/site-packages/ansible
  executable location = /usr/bin/ansible
  python version = 3.6.8 (default, Aug 18 2020, 08:33:21) [GCC 8.3.1 20191121 (R
ed Hat 8.3.1-5)]
```

```
[bill@localhost ~]$ ansible --version
```

```
ansible 2.8.18
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/home/bill/.ansible/plugins/modules', '/usr/
share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3.6/site-packages/ansible
  executable location = /usr/bin/ansible
  python version = 3.6.8 (default, Aug 18 2020, 08:33:21) [GCC 8.3.1 20191121 (R
ed Hat 8.3.1-5)]
```

```
[bill@localhost ~]$
```

```
[bill@localhost ch1_ansible]$ mkdir group_vars host_vars
mkdir: cannot create directory 'group_vars': Permission denied
mkdir: cannot create directory 'host_vars': Permission denied
[bill@localhost ch1_ansible]$ sudo mkdir group_vars host_vars
[sudo] password for bill:
[bill@localhost ch1_ansible]$ touch group_vars/cisco.yml group_vars/juniper.yml
touch: cannot touch 'group_vars/cisco.yml': Permission denied
touch: cannot touch 'group_vars/juniper.yml': Permission denied
[bill@localhost ch1_ansible]$ sudo touch group_vars/cisco.yml group_vars/juniper
.yml
[bill@localhost ch1_ansible]$ touch host_vars/csr1.yml host_vars/mx1.yml
touch: cannot touch 'host_vars/csr1.yml': Permission denied
touch: cannot touch 'host_vars/mx1.yml': Permission denied
[bill@localhost ch1_ansible]$ sudo touch host_vars/csr1.yml host_vars/mx1.yml
[bill@localhost ch1_ansible]$ sudo echo 'hostname: core-mx1' >> host_vars/mx1.y
l
-bash: host_vars/mx1.yml: Permission denied
[bill@localhost ch1_ansible]$ su root
Password:
[root@localhost ch1_ansible]# echo 'hostname: core-mx1' >> host_vars/mx1.yml
[root@localhost ch1_ansible]# echo 'hostname: core-mx2' >> host_vars/mx2.yml
[root@localhost ch1_ansible]# echo 'hostname: edge-csr1' >> host_vars/csr1.yml
[root@localhost ch1_ansible]# echo 'hostname: edge-csr2' >> host_vars/csr2.yml
[root@localhost ch1_ansible]# echo 'os: ios' >> group_vars/cisco.yml
[root@localhost ch1_ansible]# echo 'os: junos' >> group_vars/juniper.yml
[root@localhost ch1_ansible]#
```

```
playbook.yml
~/ch1_ansible

---
name: Initial Playbook
hosts: all
gather_facts: no

tasks:
  - name: Display Hostname

    debug:
      msg: "Router name is {{ hostname }}"

  - name: Display OS

    debug:
      msg: "{{ hostname }} is running {{ os }}"
```

```
bill@localhost:~/ch1_ansible

TASK [Display OS] *****
ok: [csr1] => {
  "msg": "edge-csr1 is running ios"
}
ok: [csr2] => {
  "msg": "edge-csr2 is running ios"
}
ok: [mx1] => {
  "msg": "core-mx1 is running junos"
}
ok: [mx2] => {
  "msg": "core-mx2 is running junos"
}

PLAY RECAP *****
csr1      : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0    ignored=0
csr2      : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0    ignored=0
mx1       : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0    ignored=0
mx2       : ok=2    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0    ignored=0

[bill@localhost ch1_ansible]$
```

```
ansible_cond.yml
~/ch1_ansible
Save
x

---
- name: Using conditionals
  hosts: all
  gather_facts: no

  tasks:
    - name: Run for Edge nodes Only

      debug:
        msg: "Router name is {{ hostname }}"

    - name: Run for Only MX1 node

      debug:
        msg: "{{ hostname }} is running {{ os }}"

      when:
        - inventory_hostname == 'mx1'
```

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```
bill@localhost:~/ch1_ansible
File Edit View Search Terminal Help

k: [mx1] => {
  "msg": "Router name is core-mx1"

k: [mx2] => {
  "msg": "Router name is core-mx2"

ASK [Run for Only MX1 node] *****
kipping: [csr1]
kipping: [csr2]
k: [mx1] => {
  "msg": "core-mx1 is running junos"

kipping: [mx2]

LAY RECAP *****
sr1      : ok=1   changed=0 unreachable=0 failed=0 s
ipped=1  rescued=0 ignored=0
sr2      : ok=1   changed=0 unreachable=0 failed=0 s
ipped=1  rescued=0 ignored=0
x1       : ok=2   changed=0 unreachable=0 failed=0 s
ipped=0  rescued=0 ignored=0
x2       : ok=1   changed=0 unreachable=0 failed=0 s
ipped=1  rescued=0 ignored=0

bill@localhost ch1_ansible]$
```



```
[bill@localhost ch1_ansible]$ sudo touch ansible_loops.yml
[sudo] password for bill:
[bill@localhost ch1_ansible]$ sudo chown bill ansible_loops.yml
[bill@localhost ch1_ansible]$ sudo chmo +wx ansible_loops.yml
sudo: chmo: command not found
[bill@localhost ch1_ansible]$ sudo chmod +wx ansible_loops.yml
[bill@localhost ch1_ansible]$
```

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INS

Open ▾  juniper.yml  
~/ch1\_ansible/group\_vars Save  x

```
os: junos
users:
  admin: admin123
  oper: oper123
```

I

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INS

```
bill@localhost:~/ch1_ansible
File Edit View Search Terminal Help
[bill@localhost ch1_ansible]$ ansible-playbook ansible_loops.yml -i hosts
PLAY [Ansible Loop over a List] *****
TASK [Loop over SNMP Servers] *****
ok: [csr1] => (item=10.1.1.1) => {
  "msg": "Router is edge-csr1 with snmp server 10.1.1.1"
}
ok: [csr1] => (item=10.2.1.1) => {
  "msg": "Router is edge-csr1 with snmp server 10.2.1.1"
}
ok: [csr2] => (item=10.1.1.1) => {
  "msg": "Router is edge-csr2 with snmp server 10.1.1.1"
}
ok: [csr2] => (item=10.2.1.1) => {
  "msg": "Router is edge-csr2 with snmp server 10.2.1.1"
}
PLAY [Ansible Loop over a Dictionary] *****
TASK [Loop over Username and Passwords] *****
ok: [mx1] => (item={'key': 'admin', 'value': 'admin123'}) => {
  "msg": "Router core-mx1 with user admin password admin123"
}
ok: [mx1] => (item={'key': 'oper', 'value': 'oper123'}) => {
  "msg": "Router core-mx1 with user oper password oper123"
}
YAML Tab Width: 8 Ln 4, Col 13 INS
```

```
bill@localhost:~/ch1_ansible
File Edit View Search Terminal Help

TASK [Loop over Username and Passwords] *****
ok: [mx1] => (item={'key': 'admin', 'value': 'admin123'}) => {
  "msg": "Router core-mx1 with user admin password admin123"
}
ok: [mx1] => (item={'key': 'oper', 'value': 'oper123'}) => {
  "msg": "Router core-mx1 with user oper password oper123"
}
ok: [mx2] => (item={'key': 'admin', 'value': 'admin123'}) => {
  "msg": "Router core-mx2 with user admin password admin123"
}
ok: [mx2] => (item={'key': 'oper', 'value': 'oper123'}) => {
  "msg": "Router core-mx2 with user oper password oper123"
}

PLAY RECAP *****
csr1      : ok=1    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0  ignored=0
csr2      : ok=1    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0  ignored=0
mx1       : ok=1    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0  ignored=0
mx2       : ok=1    changed=0    unreachable=0    failed=0    s
kipped=0  rescued=0  ignored=0

[bill@localhost ch1_ansible]$
```

YAML Tab Width: 8 Ln 4, Col 13 INS