

# Installing Ansible

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**Andrew Mallett**

Linux Author and Trainer

@theurbanpenguin [www.theurbanpenguin.com](http://www.theurbanpenguin.com)



# Overview



## We Need Ansible Installed

- Even though we only need Ansible installed on a single controller, we'll learn the installation on all three systems
- RHEL 8: The system we use for this course
- CentOS Stream: A RHEL alternative
- Ubuntu 20.04: Using an Ubuntu PPA
- Verify the installed version of Ansible





# Software Repositories

We now look at enabling the latest Ansible repositories on each system, remembering that we only need Ansible installed on the single controller node.



```
[vagrant@rhel8 ~]$ sudo subscription-manager repos --list | grep ansible  
  
$ sudo subscription-manager repos --enable ansible-2.9-for-rhel-8-x86_64-rpms  
  
$ sudo yum repolist  
  
$ sudo yum install -y dnf-plugins-core  
  
$ sudo yum config-manager --disable epel epel-modular  
  
$ sudo yum repolist  
  
$ sudo yum install -y ansible
```

## Enabling Ansible on RHEL 8

**Vagrant's RHEL systems ships with the EPEL repo. This does have Ansible but with a subscription, we should use the official release. We can easily disable repositories once we have installed the dnf-plugins-core package**

```
host-os $ cd ~/vagrant/ansible
```

```
host-os $ vagrant ssh stream
```

```
[vagrant@stream ~]$ sudo yum install -y epel-release
```

```
[vagrant@stream ~]$ sudo yum install -y ansible
```

## Enabling Ansible on CentOS Stream

**The EPEL repository is not installed on CentOS Stream by default. Once added, we can install Ansible. Remember we only need Ansible software installed on a single system. We want you to be able to choose and learn to install Ansible on more than a single Linux system.**

```
host-os $ cd ~/vagrant/ansible
```

```
host-os $ vagrant ssh ubuntu
```

```
vagrant@ubuntu:~$ sudo apt-add-repository --yes --update ppa:ansible/ansible
```

```
vagrant@ubuntu:~$ sudo apt install ansible
```

## Enabling Ansible on Ubuntu 20.04

**Although Ansible is part of the standard repositories, it is an early version, to install a later version of Ansible we can add in the Ansible repository to Ubuntu 20.04**

# Demo



## Enabling and Installing Ansible

- First, on RHEL 8, (we use RHEL as the Controller for this course)
- Next, on CentOS Stream
- Finally, on Ubuntu 20.04



# What is Ansible

**The word "Ansible" was first used by Ursula Le Guin in the 1966 novel, Rocannon's World. Ansible being a contraction of the word "answerable" and referencing a device to message over interstellar distances. For us, Ansible is a Python script used to manage remote nodes.**





```
[vagrant@rhel18 ~]$ file $(which ansible)
/usr/bin/ansible: Python script, ASCII text executable
```

```
[vagrant@rhel18 ~]$ file $(which ansible-playbook)
/usr/bin/ansible-playbook: symbolic link to ansible
```

## Ansible

**The command executed by Ansible is a script written in Python. The command to execute a Playbook, (Ansible Scripts), is a link back to the Ansible Python script and executes the supplied Playbook file. You do not need to know Python to use Ansible, but it will help as your knowledge of Ansible progresses.**

```
[vagrant@rhel8 ~]$ ansible --version
ansible 2.9.22
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/home/vagrant/.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 (Red Hat
8.3.1-5)]
```

## Ansible Version

**As of May 2021, the steps taken will install Ansible 2.9.xx no matter which distribution was chosen as the controller node.**

# Demo



## Investigating Ansible

- Checking the executable file
- Checking the version of Ansible



# Summary



## To install Ansible:

- On RHEL 8 enable the Ansible subscription
- On CentOS, add the EPEL repo
- On Ubuntu, we can use the Ansible PPA
- The latest version of Ansible is likely to have the most features, for example 2.9 can use collections; whereas 2.8 does not
- Checking the version of Ansible also displays the configuration file path in use





A close-up, high-angle photograph of numerous electronic components scattered on a dark, reflective surface. The components include various integrated circuits (ICs) in different packages (DIP, SMD), capacitors, and resistors. Some components have visible markings such as "5801K3M", "MBR20100CTK", "MC1458CP1", and "3552N2". The lighting is dramatic, highlighting the metallic pins and the dark plastic of the components.

## Understanding Ansible Components