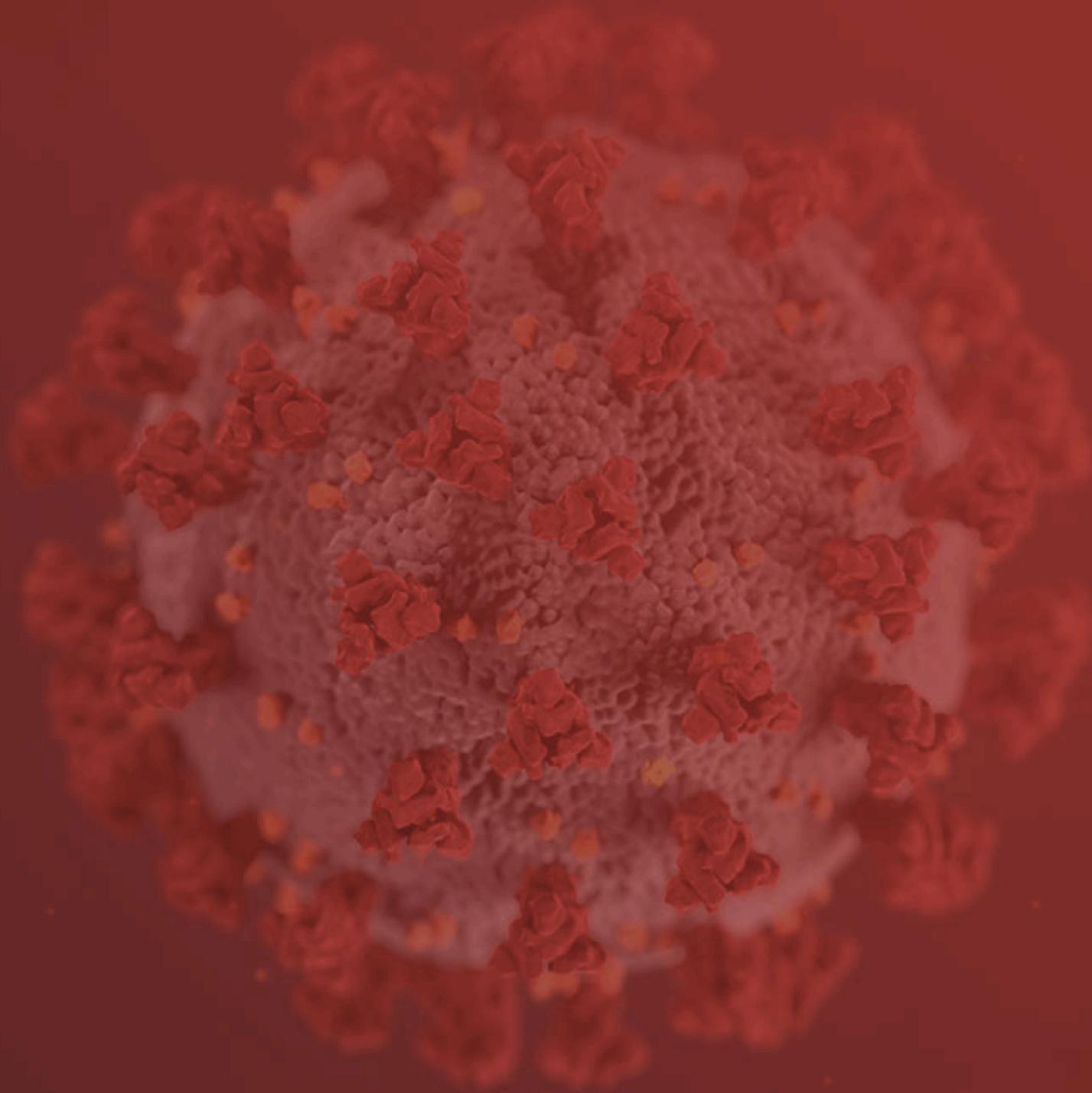




WELCOME TO LUG
WE WILL GET STARTED
IN A MOMENT



Welcome to spring break



Or not...



ALERT
CONDITION: RED



**KEEP
CALM
AND
LINUX
ON**

NORMALLY...

- We meet the third Wednesday of every month
- Usually at DMACC Ankeny (or some other location)
- It is announced on our website (<http://cialug.org>)
- Email list
- And IRC/Slack



LINUX NEWS

ABOUT ME



- By day I am a recent internet hermit working from my cyber cave as a software developer
- By night I like linux
- Twitter: @adenner
- Slides were emailed earlier
- Also posed to <http://denner.co>

Sorry 😊

The background features a dynamic, abstract pattern of swirling colors. The primary colors are vibrant red and orange, with streaks of teal and dark blue. The overall effect is a sense of motion and depth, with the colors appearing to flow and swirl together.

**OUR FEATURE
PRESENTATION**



A BRIEF INTRODUCTION TO ANSIBLE

Andrew Denner

CIALUG March 2020

WHAT IS ANSIBLE

- Ansible is an automation tool for server provisioning, configuration, and management. It allows you to organize your servers into groups, describe how those groups should be configured, and what actions should be taken on them, all from a central location.



Why not
dockerize
all the
things?

TERMS



Control node



Managed Node



Inventory file
(usually
/etc/ansible/hosts)



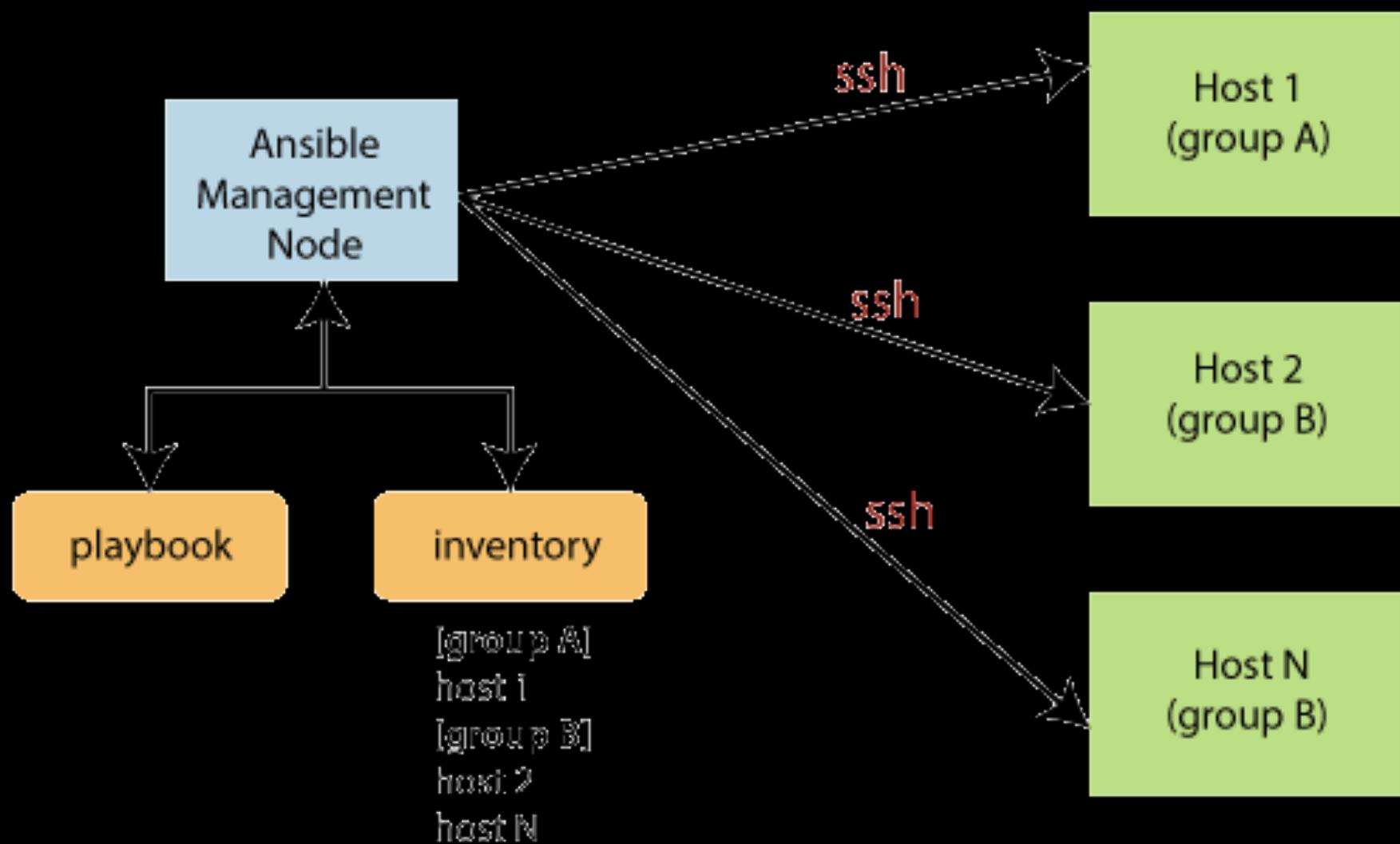
Modules



Tasks



Playbooks



🏠 Ansible

2.9

latest ▾

🔍 Search docs

INSTALLATION, UPGRADE & CONFIGURATION

Installation Guide

Ansible Porting Guides

USING ANSIBLE

☰ User Guide

Ansible Quickstart Guide

Ansible concepts

Getting Started

How to build your inventory

Working with dynamic inventory

Patterns: targeting hosts and groups

Introduction to ad-hoc commands

Connection methods and details

[Docs](#) » [User Guide](#) » [Working With Modules](#) » [Module Index](#) » All modules

All modules

- [a10_server](#) – Manage A10 Networks AX/SoftAX/Thunder/vThunder devices' server object
- [a10_server_axapi3](#) – Manage A10 Networks AX/SoftAX/Thunder/vThunder devices
- [a10_service_group](#) – Manage A10 Networks AX/SoftAX/Thunder/vThunder devices' service groups
- [a10_virtual_server](#) – Manage A10 Networks AX/SoftAX/Thunder/vThunder devices' virtual servers
- [aci_aaa_user](#) – Manage AAA users (aaa:User)
- [aci_aaa_user_certificate](#) – Manage AAA user certificates (aaa:UserCert)
- [aci_access_port_block_to_access_port](#) – Manage port blocks of Fabric interface policy leaf profile interface selectors (infra:HPortS, infra:PortBlk)
- [aci_access_port_to_interface_policy_leaf_profile](#) – Manage Fabric interface policy leaf profile interface selectors (infra:HPortS, infra:RsAccBaseGrp, infra:PortBlk)
- [aci_access_sub_port_block_to_access_port](#) – Manage sub port blocks of Fabric interface policy leaf profile interface selectors (infra:HPortS, infra:SubPortBlk)
- [aci_aep](#) – Manage attachable Access Entity Profile (AEP) objects (infra:AttEntityP, infra:ProvAcc)
- [aci_aep_to_domain](#) – Bind AEPs to Physical or Virtual Domains (infra:RsDomP)
- [aci_ap](#) – Manage top level Application Profile (AP) objects (fv:Ap)
- [aci_bd](#) – Manage Bridge Domains (BD) objects (fv:BD)
- [aci_bd_subnet](#) – Manage Subnets (fv:Subnet)

🔍 Search this page

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

PLAYBOOKS

- https://docs.ansible.com/ansible/latest/user_guide/playbooks.html
- This is where the rubber meets the road. Playbooks are like a todo list for ansible with a set of tasks.
- Uses modules to achieve tasks
- Yaml

```
1
2 - hosts: webservers
3   sudo: yes
4
5 vars:
6   app_name: PleaseDeployMe
7   repo_url: https://github.com/username/repo_name.git
8   repo_remote: origin
9   repo_version: master
10  webapps_dir: /deployed
11  virtualenv_root: /deployed/PleaseDeployMe/mac
12 tasks:
13
14 - name: git pull project
15   git: repo={{repo_url}} dest={{webapps_dir}}/{{app_name}} version=master
16
17   notify:
18     - restart app
19
20 - name: install things
21   pip: name=virtualenv
22
23 - name: create virtualenv
24   command: virtualenv /deployed/PleaseDeployMe/venv
25
26 - name: activate virtualenv
27   command: /bin/bash /deployed/PleaseDeployMe/venv/bin/activate
28
29 - pip: requirements=/deployed/{{app_name}}/requirements.txt virtualenv=/deployed/{{app_name}}/mac
30
31 - name: run supervisord
32   command: "supervisord -c /deployed/PleaseDeployMe/supervisord.conf"
33
34 - name: begin flask app
35   supervisorctl: name=flask_app state=started
36
37
38 handlers:
39 - name: restart app
40   supervisorctl: name={{app_name}} state=restarted
41
42
```

A person in a white shirt and tie is sitting at a desk. They are holding a silver pen in their right hand and pointing at a laptop screen with their left hand. The laptop screen displays a floor plan. A tablet on the desk also shows a floor plan. There are several papers on the desk, including a spiral-bound notebook with handwritten notes and a yellow highlighter. A pair of glasses is in a red case on the left. The word "DEMO" is overlaid in white text on the left side of the image.

DEMO



Control_node

Running ubuntu:latest



Managed_node_1

Shared mount /labfiles



Managed_node_2

Docker Compose host

REFERENCES

- <https://github.com/ansible/ansible-examples>
- <https://www.digitalocean.com/community/tutorials/how-to-use-ansible-to-install-and-set-up-lamp-on-ubuntu-18-04>
- <https://www.linode.com/docs/applications/configuration-management/running-ansible-playbooks/>
- <https://www.linode.com/docs/applications/configuration-management/getting-started-with-ansible/>