Desired State/ Idempotent Behaviour:

1. Every Task check first, is the system is already in desired state
2. If Yes, Nothing happens
3. If no, it make changes

Control Node / Workstation (Linux/Unix Only) Python Required

Inventory

- Static File (.ini, .yaml)
- Dynamic (Script to connect with External Source) e.q. Active Directory, LDAP,Satellite, Vmware, HyperV Python (Generally) ,Shell, any other scripting Language

Push Task to Managed Node

1. Ad-hoc Command Dev/Test env
2. Playbook Prod Env/Automation

Ad-hoc comannd
yum install

Module Path:
/usr/lib/paython_ver/site_packages/ansible/modules/*/*.py

Playbook
vim abc.yaml/abc.yml

```
name:
hosts: hostnames
tasks:
-   name: Task1
    yum:
     name: package_name
     state: value
- name: Task2
   module_name:
     options:
```

Network Devices (No Python):

1. Control Node execute network python module on localhost on Device behalf.
2. Convert Python module to Network Commands
3. Push Command to Network Device

ansible_connection: ssh
ansible_port: 22
remote_user/ansible_user: devops
ansible_password: redhat //OR
ask_pass: true// SSH KEY NORM

Managed Hosts Linux (python)

yum install httpd -y

1. Copy Module.py to Manged Hosts temp fol
2. Execute python module using values
3. Remove module from Managed Host (rm -rf /PATH/module.py)

become: true
become_user: root
become_method: sudo/su
become_ask_pass: true/false

ansible_connection: winrm
ansible_port: 5986
remote_user/ansible_user: user1
ansible_password: redhat //OR
ask_pass: true// SSH KEY NORM

Managed Hosts Window Powershell/Python

become: true
become_user: administrator
become_method: runas
become_ask_pass: true/false

ansible_connection: network_cli / netconf
ansible_port: 22
remote_user/ansible_user: vyos
ansible_password: vyos //OR
ask_pass: true// SSH KEY NORM

Managed Hosts Network Device

Legacy Device Mo Python
New Device: May be Python there

become: true
become_user: root
become_method: enable
become_ask_pass: true/false

Managed Hosts Cloud