

Ansible

Instalação (Linux)

Debian/Ubuntu:

```
sudo apt update
sudo apt install ansible -y
```

Verificar:

```
ansible --version
```

Conceitos Básicos

Inventário: Lista de hosts **Playbook:** Arquivo YAML com tarefas **Tasks:** Ações a executar

Modules: Comandos pré-prontos (apt, copy, shell) **Handlers:** Tarefas executadas sob demanda

Arquitetura: Agentless (usa SSH, sem agente nos hosts)

Inventário

Arquivo `hosts`:

```
[rancher-cluster]
rancher-node1
rancher-node2
rancher-node3

[prod-cluster]
prod-node1
prod-node2
prod-node3
prod-node4
prod-node5
```

Referência: `/hosts`

Playbook Básico

```
- name: Configurar servidor
  hosts: rancher-cluster
  become: yes  # Executar como root

  tasks:
    - name: Instalar pacote
      apt:
        name: nginx
        state: present
```

Estrutura:

- `name`: Descrição
- `hosts`: Grupo do inventário
- `become`: Usar sudo
- `tasks`: Lista de tarefas

Modules Principais

apt: Instalar pacotes (Debian/Ubuntu)

```
- name: Instalar Docker
  apt:
    name: docker-ce
    state: present
```

copy: Copiar arquivos

```
- name: Copiar configuração
  copy:
    src: nginx.conf
    dest: /etc/nginx/nginx.conf
```

shell: Executar comandos

```
- name: Executar script
  shell: /opt/meu-script.sh
```

sysctl: Configurar kernel

```
- name: Habilitar IP forwarding
  sysctl:
    name: net.ipv4.ip_forward
    value: '1'
    state: present
```

Variables

Via linha de comando:

```
ansible-playbook --extra-vars 'ansible_user=estevao' playbook.yml
```

No playbook:

```
- name: Mostrar usuário
  debug:
    msg: "Usuário SSH: {{ ansible_user }}"
```

Privilege Escalation (Become)

```
- name: Tarefa que requer root
  hosts: all
  become: yes # sudo

  tasks:
    - name: Instalar pacote (requer root)
      apt:
        name: docker-ce
```

Executar:

```
ansible-playbook --ask-become-pass playbook.yml
# Solicita senha do sudo
```

Handlers

Executados apenas se uma task mudar algo:

```
tasks:
  - name: Copiar regras iptables
    copy:
      src: rules.v4
      dest: /etc/iptables/rules.v4
    notify: Reload iptables # Chama handler

handlers:
  - name: Reload iptables
    shell: iptables-restore < /etc/iptables/rules.v4
```

Referência: `fw-dicom/fw-dicom.yml`

Conditional Execution

```
tasks:
  - name: Formatar disco (apenas workers)
    filesystem:
      fstype: ext4
      dev: /dev/sdb
    when: inventory_hostname in groups['workers']
```

Referência: `prod-cluster/prod-cluster.yml`

Exemplo Completo

Arquivo `playbook.yml`:

```
- name: Instalar Docker
  hosts: rancher-cluster
  become: yes

  tasks:
    - name: Adicionar chave GPG do Docker
      apt_key:
```

```
url: https://download.docker.com/linux/debian/gpg
```

```
state: present
```

```
- name: Adicionar repositório Docker
```

```
apt_repository:
```

```
repo: deb https://download.docker.com/linux/debian bookworm stable
```

```
state: present
```

```
- name: Instalar Docker
```

```
apt:
```

```
name: docker-ce
```

```
state: present
```

```
update_cache: yes
```

```
- name: Adicionar usuário ao grupo docker
```

```
user:
```

```
name: "{{ ansible_user }}"
```

```
groups: docker
```

```
append: yes
```

Executar:

```
ansible-playbook --ask-become-pass --extra-vars 'ansible_user=estevao' -i hosts playbook.yml
```

Referência: `rancher-cluster/rancher-cluster.yml`

Revision #1

Created 2026-02-06 04:29:34 UTC by Estevao Samuel Procopio Amaral

Updated 2026-02-06 04:31:14 UTC by Estevao Samuel Procopio Amaral