Ansible Introduction

- Inventories & variables

- Network modules

- Check mode & diffs

Why Ansible Here?

- Idempotent modules for common tasks

- Consistent inventory & vars

- Diffs and check mode for safety

Collections

- `community.network` , `cisco.ios` , `junipernetworks.junos`
- Install: `ansible-galaxy collection install -r ansible/requirements.yml`

Example Playbook

```yaml
- hosts: all
  gather_facts: no
  tasks:
    - cisco.ios.ios_vlans:
        config: [{ vlan_id: 123, name: TRAINING_VLAN }]
        state: merged
```

Validation

- `--syntax-check` then `--check`
- Second run shows `changed=0`

Hand-Off from Python

- Build host vars/inventory in Python

- Invoke Ansible for standardized config